

D.3 Visual Resources – Contents

D.3.1	Regional Setting and Approach to Baseline Analysis.....	D.3-1
D.3.2	Environmental Setting for the Proposed Project.....	D.3-11
D.3.3	Applicable Regulations, Plans, and Standards.....	D.3-37
D.3.4	Significance Criteria and Approach to Impact Assessment.....	D.3-39
	<i>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR THE PROPOSED PROJECT.....</i>	<i>D.3-47</i>
D.3.5	Imperial Valley Link Impacts and Mitigation Measures.....	D.3-47
D.3.6	Anza-Borrego Link Impacts and Mitigation Measures.....	D.3-70
D.3.7	Central Link Impacts and Mitigation Measures.....	D.3-103
D.3.8	Inland Valley Link Impacts and Mitigation Measures.....	D.3-133
D.3.9	Coastal Link Impacts and Mitigation Measures.....	D.3-143
D.3.10	Other System Upgrades – Impacts and Mitigation Measures.....	D.3-167
D.3.11	Future Transmission System Expansion.....	D.3-172
D.3.12	Connected Actions and Indirect Effects.....	D.3-183
D.3.13	Overall Visual Impacts of Proposed Project.....	D.3-203
	<i>ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES FOR ALTERNATIVES ALONG PROPOSED PROJECT ROUTE.....</i>	<i>D.3-209</i>
D.3.14	Imperial Valley Link Alternatives Impacts and Mitigation Measures.....	D.3-211
D.3.15	Anza-Borrego Link Alternatives Impacts and Mitigation Measures.....	D.3-229
D.3.16	Central Link Alternatives Impacts and Mitigation Measures.....	D.3-251
D.3.17	Inland Valley Link Alternatives Impacts and Mitigation Measures.....	D.3-273
D.3.18	Coastal Link Alternatives Impacts and Mitigation Measures.....	D.3-290
D.3.19	Top of the World Substation Alternative Impacts and Mitigation Measures.....	D.3-303
D.3.20	Mitigation Monitoring, Compliance, and Reporting Table.....	D.3-317
D.3.21	References.....	D.3-326

D.3 Visual Resources

This section presents the environmental setting and impact analysis for the proposed Sunrise Powerlink Project and for the route alternatives along the Proposed Project corridor. Section E includes the impact analysis for all other alternatives.

Appendix 2 (Policy Screening Report) lists all plans and policies applicable to the Proposed Project, and presents a preliminary screening evaluation of these policies. The consistency of the Proposed Project with applicable plans and policies is addressed in Section D.16, where there is specific discussion of each item that was determined in the Appendix 2 screening process to warrant further evaluation.

D.3.1 Regional Setting and Approach to Baseline Analysis

D.3.1.1 Regional Setting

The Proposed Project crosses a diversity of landscapes ranging from arid, expansive deserts in the east to the highly urbanized Southern California coastal area in the west. The eastern portion of the Proposed Project (generally including the Imperial Valley and Anza-Borrego Links) is located within the Salton Trough of the Basin and Range physiographic province. This area is characterized by rough, rocky mountains formed by northerly trending fault blocks. Typical of this province are desert basins and jagged ranges along with desert alluvial slopes (bajadas) and wide valleys that are interconnected across low divides (Hunt, 1974). Views from travel routes within the eastern portion of the study area tend to encompass broad, sweeping desert expanses bordered by rugged mountain ranges. The western portion of the project area (generally including the Central, Inland Valley, and Coastal Links) extends into the Lower California or Peninsular Range Province. Here, the project passes through semi-arid landscapes that are transected by northwest-trending mountains and include the more urbanized and rapidly developing residential, commercial, and industrial environs of San Diego County. Within this regional setting, the study area for the visual resources analysis is defined by the numerous viewpoints from which the Proposed Project would be seen. The viewshed is extensive given the relative openness of much of the landscape, the height of the proposed structures, and the availability of viewing opportunities from travel routes, recreational use areas, and nearby residential and commercial areas. In order to facilitate the discussion of project area setting, the project area has been subdivided into the following five segments: Imperial Valley Link, Anza-Borrego Link, Central Link, Inland Valley Link, Coastal Link, and connected actions.

D.3.1.2 Approach to Baseline Analysis

General Approach

Adding to the diversity of landscapes through which the Proposed Project would pass, are numerous jurisdictions to which the project would be subject. In general, the Visual Resources technical approach was differentiated according to: (1) federal lands administered by the United States Department of Interior Bureau of Land Management (BLM), (2) federal lands administered by the United States Department of Agriculture Forest Service (USFS), and (3) other federal (non-BLM/non-USFS), non-federal public, and private lands (see Table D.3-1). The technical approach for that portion of the project where lands are subject to administration by the BLM was based on the BLM's Visual Resource Management (VRM) system. This is a system that BLM requires for use on BLM-administered lands (located primarily

along the eastern portion of the Proposed Project) but cannot be applied to non-BLM lands because the BLM has no visual resource management authority over non-BLM lands. The technical approach for that portion of the project where lands are subject to administration by the USFS was based on the Forest Service’s Scenery Management System (SMS). This method is required for all lands under the Forest Service’s jurisdiction (Forest lands) but cannot be applied to non-Forest lands because the Forest Service has no authority over non-USFS lands. The non-BLM/non-USFS portions of the Proposed Project and Alternatives were analyzed using the Visual Sensitivity–Visual Change system. The results for all three methodologies are summarized and presented as a series of foldout tables at the end of the Visual Resources section in Appendix VR-1.

Table D.3-1. Visual Resources Approach

Land Category	BLM Visual Resource Management (VRM) Methodology	USFS Scenery Management System (SMS) Methodology	Visual Sensitivity – Visual Change (VS-VC) Methodology
Federal Lands Administered by BLM	×		
Federal Lands Administered by USFS		×	
Federal Lands not Administered by BLM or USFS			×
Native American Lands			×
State and Local Public Lands (e.g., Anza-Borrego SP)			×
Private Lands			×

Key Viewpoints (KVPs)

In consultation with the CPUC, BLM, Forest Service, or Anza-Borrego Desert State Park staff (as appropriate), a number of representative Key Viewpoints (KVPs — also commonly referred to as Key Observation Points [KOPs]) were established to assess the various factors that are considered in the evaluation of a landscape’s existing visual resources. Key Viewpoints or KVPs were generally selected to be representative of the most critical locations from which the project would be seen. KVPs were located based on their usefulness in evaluating existing landscapes and potential impacts on visual resources with various levels of sensitivity, in different landscape types and terrain, and from various vantage points. Typical KVP locations for the Proposed Project and Alternatives include (1) along major or significant travel corridors or points of visual access; (2) at key vista points; (3) at significant recreation areas; (4) in residential areas; and (5) at locations that provide good examples of the existing landscape context and viewing conditions. At each KVP, the existing landscape was characterized per the applicable methodology and photographed.

Photographs were presented as 11” x 17” color images at “life-size scale” when viewed at a standard reading/viewing distance of 18 inches (i.e., when the report image is held at a distance of 18 inches from the eye, all landscape features in the images would appear to be the same scale and size as they would appear in the field at the viewpoint location. Existing conditions images and visual simulations were subsequently cropped (still at life-size scale) and presented two-up (two images per page) on 11” x 17” report pages. Photographs were taken during a range of seasons as dictated by the EIR/EIS schedule and as a result reflect a range of atmospheric, weather, and visibility conditions.

Although all three methodologies share similarities (each compares anticipated changes, which would occur as a result of the project to existing sensitivity) there are differences in both approach and terminology. The following sections describe the three methods.

BLM Visual Resource Management (VRM) Approach

Public lands crossed by the Proposed Project and administered by the BLM have a variety of visual values. These lands are subject to visual resource management objectives as developed using the BLM Visual Resource Management (VRM) System (BLM, 1984, 1986a, 1986b) and presented in the Resource Management Plan for a given unit. The BLM system identifies four VRM Classes (I through IV) with specific management prescriptions for each class. The system is based on an assessment of scenic quality, viewer sensitivity and viewing distance zones.

Scenic Quality

Scenic Quality is a measure of the overall impression or appeal of an area created by the physical features of the landscape, such as natural features (landforms, vegetation, water, color, adjacent scenery and scarcity), and built features (roads, buildings, railroads, agricultural patterns, and utility lines). These features create the distinguishable form, line, color, and texture of the landscape composition that can be judged for scenic quality using criteria such as distinctiveness, contrast, variety, harmony, and balance. Table D.3-2 presents the VRM scenic quality rating components that are evaluated to arrive at one of three scenic quality ratings (A, B, or C) for a given landscape. Each landscape component is scored and a score of 19 or more results in a Class A scenic quality rating. A score of 12 to 18 results in a Class B scenic quality rating, while a score of 11 or less results in a Class C scenic quality rating. The three scenic quality classes can be described as follows:

- **Scenic Quality Class A** – Landscapes that combine the most outstanding characteristics of the region.
- **Scenic Quality Class B** – Landscapes that exhibit a combination of outstanding and common features.
- **Scenic Quality Class C** – Landscapes that have features that are common to the region.

Scenic Quality Field Inventories for each Scenic Quality Rating Unit are presented in Appendix VR-2 (at the end of this section).

Viewer Sensitivity

Viewer Sensitivity is a factor used to represent the value of the visual landscape to the viewing public, including the extent to which the landscape is viewed. For example, a landscape may have high scenic qualities but be remotely located and, therefore, seldom viewed. Sensitivity considers such factors as visual access (including duration and frequency of view), type and amount of use (See Table D.3-3), public interest, adjacent land uses, and whether the landscape is part of a special area (e.g., California Desert Conservation Area or Area of Critical Environmental Concern). The three levels of viewer sensitivity can generally be defined as follows:

- **High Sensitivity.** Areas that are either designated for scenic resources protection, or receive a high degree of use (includes areas visible from roads and highways receiving more than 45,000 visits [vehicles] per year). Typically within the foreground/midground viewing distance (see Table D.3-4).
- **Medium Sensitivity.** Areas lacking specific, or designated, scenic resources protection, but are located in sufficiently close proximity to be within the viewshed of the protected area. Includes areas that are visible from roads and highways receiving 5,000 to 45,000 visits (vehicles) per year. Typically within the background viewing distance.

Table D.3-2. Visual Resource Management (VRM) Scenic Quality Rating

Component	Scenic Quality Rating		
Landform	High vertical relief (prominent cliffs, spires, or massive rock outcrops); severe surface variation, highly eroded formations (major badlands or dune systems); detail features dominant and exceptionally striking/intriguing. 5	Steep canyons, mesas, buttes, cinder cones, and drumlins; or interesting erosional patterns or variety in size and shape of landforms; or detail features, which are interesting though not dominant or exceptional. 3	Low rolling hills, foothills, or flat valley bottoms; or few or no interesting landscape features. 1
Vegetation	A variety of vegetative types as expressed in interesting forms, textures, and patterns. 5	Some variety of vegetation, but only one or two major types. 3	Little or no variety or contrast in vegetation. 1
Water	Clear and clean appearing, still, or cascading white water, any of which are a dominant factor in the landscape. 5	Flowing, or still, but not dominant in the landscape. 3	Absent or present, but not noticeable. 0
Color	Rich color combinations, variety or vivid color; or pleasing contrasts in the soil, rock, vegetation, water or snow fields. 5	Some intensity or variety in colors and contrast of the soil, rock, and vegetation, but not a dominant scenic element. 3	Subtle color variations, contrast, or interest; generally muted tones. 1
Influence of Adjacent Scenery	Adjacent scenery greatly enhances visual quality. 5	Some intensity or variety in colors and contrast of the soil, rock, and vegetation, but not a dominant scenic element. 3	Adjacent scenery has little or no influence on overall visual quality. 0
Scarcity	One of a kind; or unusually memorable, or very rare within region. Consistent chance for exceptional wildlife or wildflower viewing, etc. 5+*	Distinctive, though somewhat similar to others within the region. 3	Interesting within its setting, but fairly common within the region. 1
Cultural Modifications	Modifications add favorably to visual variety while promoting visual harmony. 2	Modifications add little or no visual variety to the area, and introduce no discordant elements. 0	Modifications add variety but are very discordant and promote strong disharmony. - 4
Scenic Quality Rating: A = 19 or more B = 12 to 18 C = 11 or less			

* A rating of greater than 5 can be given but must be supported by written justification

Table D.3-3. Amount of Use Classifications

Type Area	High	Moderate	Low
Roads & Highways	More than 45,000 visits/yr	5,000 to 45,000 visits/yr	Less than 5,000 visits/yr
Rivers & Trails	More than 20,000 visits/yr	2,000-20,000 visits/yr	Less than 2,000 visits/yr
Recreation Sites	More than 10,000 visitor-days/yr	2,000-10,000 visitor-days/yr	Less than 2,000 visitor-days/yr

- **Low Sensitivity.** Areas that are remote from populated areas, major roadways, and protected areas or are severely degraded visually. Includes areas that are visible from roads and highways receiving less than 5,000 visits (vehicles) per year.

Table D.3-4. Distance Zones

f/m (foreground/middleground).....	0 to 3-5 miles
b (background)	5-15 miles
s/s	seldom seen areas

All of the BLM lands in the vicinity of the Proposed Project and Alternatives in the Imperial Valley and Anza-Borrego Links are located within the California Desert Conservation Area (CDCA). Because of the public importance imparted by this designation, all BLM lands within the CDCA that were inventoried for this project have been assigned a High rating for Viewer Sensitivity.

Viewing Distance Zones

Landscapes are generally subdivided into three distance zones based on relative visibility from travel routes or observation points. The foreground/middleground (f/m) zone includes areas that are less than three to five miles from the viewing location. The foreground/middleground zone defines the area in which landscape details transition from readily perceived, to outlines and patterns. The background (b) zone is generally greater than 5, but less than 15, miles from the viewing location. The background zone includes areas where landforms are the most dominant element in the landscape, and color and texture become subordinate. In order to be included within this distance zone, vegetation should be visible at least as patterns of light and dark. The seldom-seen zone (s/s) includes areas that are usually hidden from view as a result of topographic or vegetative screening or atmospheric conditions. In some cases, atmospheric and lighting conditions can reduce visibility and shorten the distances normally covered by each zone (BLM, 1986b).

Visual Resource Management Classes

The VRM Class for a given area is typically arrived at through the use of a classification matrix similar to that presented in Table D.3-5. By comparing the scenic quality, visual sensitivity, and distance zone, the specific VRM class can be determined. The exception to this process is the Class I designation, which is placed on special areas where management activities are restricted (e.g., wilderness areas).

VRM Classes have been established in existing Resource Management Plans for the BLM lands in San Diego County. However, VRM classifications have not been established in Resource Management Plans for BLM lands in the vicinity of the Proposed Project in Imperial County. For those lands, Interim VRM Classes were developed using the methodology set forth below. These Interim VRM Classes will become final once adopted in an amendment to the Land Management Plan.

Table D.3-5. Visual Resource Management (VRM) Classification Matrix

Visual Sensitivity Levels		High			Medium			Low
Special Areas		I	I	I	I	I	I	I
Scenic Quality	A	II	II	II	II	II	II	II
	B	II	III	III*	III	IV	IV	IV
				IV*				
C	III	IV	IV	IV	IV	IV	IV	
Distance Zones		f/m	b	s/s	f/m	b	s/s	s/s

* If adjacent areas are Class III or lower, assign Class III; if higher, assign Class IV.

The objectives of each VRM classification as stated in the BLM VRM *Visual Resource Inventory Manual* are as follows:

- **VRM Class I.** The objective is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
- **VRM Class II.** The objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- **VRM Class III.** The objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate or lower. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
- **VRM Class IV.** The objective is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

As previously stated, all lands within the California Desert Conservation Area are assigned a High Visual Sensitivity Level. All of the lands inventoried for the Proposed Project and Alternatives are also within the foreground/midground (f/m) viewing distance zone of one or more public viewing points or access roads. As a result, the Interim VRM Classes are tied directly to the Scenic Quality Classes. Areas with Class B Scenic Quality result in an Interim VRM Class II. Areas with Class C Scenic Quality result in an Interim VRM Class III. The VRM Class matrices for each Scenic Quality Rating Unit are presented in Appendix VR-3.

USFS Scenery Management System (SMS) Approach

The Scenery Management System (SMS) was used to evaluate those portions of the Proposed Project or its Alternatives that would cross Cleveland National Forest. The 2005 Cleveland National Forest Land Management Plan (Forest Plan) describes the Scenery Management System as a "...tool for integrating the benefits, values, desires, and preferences regarding aesthetics and scenery for all levels of land management planning." Two concepts of the SMS are of key importance to the present analysis and include: (1) Place-based program emphasis, and (2) Scenic Integrity Objective (SIO). Each of these key concepts is discussed in the following paragraphs.

Place-Based Program Emphasis

The Forest Plan delineates all lands within the Forest as a series of geographic units described as "Places." There are eleven "Places" identified for the Cleveland National Forest. Each "Place" has its own landscape character as well as a theme, setting, desired condition, and program emphasis. These terms are defined as follows in the Forest Plan:

- **Landscape Character** – An overall visual and cultural impression of landscape attributes, the physical appearance and cultural context of a landscape that gives it an identity and "sense of Place."
- **Theme** – The images of the landscape that can be defined with a brief set of physical, visual, or cultural attributes that characterize the sense of place.

- **Desired Condition** – Essentially a picture of what the Place could be as the Forest Service implements activities in order to move toward the overall forest-wide desired conditions. The desired condition expresses the highest quality goal for a given landscape.
- **Program Emphasis** – The prioritized activities that the Forest Service intends to emphasize over the next three to five years.

Scenic Integrity Objective

As defined in USDA Agriculture Handbook Number 701, *Landscape Aesthetics A Handbook for Scenery Management*, (USFS, 1995):

Scenic integrity is a measure of the degree to which a landscape is visually perceived to be “complete.” The highest scenic integrity ratings are given to those landscapes which have little or no deviation from the character valued by constituents for its aesthetic appeal. Scenic Integrity is used to describe an existing situation, standard for management, or desired future conditions.

The Handbook also describes Scenic Integrity as the:

State of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation from the existing landscape character in a national forest.

Essentially, the Scenic Integrity Objective (SIO) represents the minimum level of visual quality to which any landscape is to be managed from an aesthetics standpoint, where scenic quality is defined as “[t]he essential attributes of the landscape that when viewed by people, elicit psychological and physiological benefits to individuals and therefore to society in general.” At the project level, all national forest activities, including activities associated with the Proposed Project or any of the Alternatives, are subject to review of the SIOs. The 2005 Forest Plan allows for a temporary (up to 3 years), one-level underachievement of the SIO, provided a commensurate amount of landscape restoration is undertaken in priority areas to compensate for this short-term underachievement. However, because the life of the Proposed Project is greater than three years, the temporary SIO underachievement clause would not be applicable. Scenic integrity objectives were established and mapped in the 2005 Forest Plan. Table D.3-6 presents the definitions of the five Scenic Integrity Objectives.

Table D.3-6. Scenic Integrity Objectives and Definitions for National Forest Lands

Scenic Integrity Objective (SIO)	Definition of Scenic Integrity Levels
Very High	Landscapes where the valued landscape character “ is ” intact with only minute if any visual deviations. The existing landscape character and sense of place is expressed at the highest possible level.
High	Landscapes where the valued landscape character “ appears ” intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such a scale that they are not evident.
Moderate	Landscapes where the valued landscape character “ appears slightly altered. ” Noticeable deviations must remain visually subordinate to the landscape character being viewed.
Low	Landscapes where the valued landscape character “ appears moderately altered. ” Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character outside the landscape being viewed but compatible or complimentary to the character within.

Table D.3-6. Scenic Integrity Objectives and Definitions for National Forest Lands

Scenic Integrity Objective (SIO)	Definition of Scenic Integrity Levels
Very Low	Landscapes where the valued landscape character “appears heavily altered.” Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles within or outside the landscape being viewed. However, deviations must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.
Unacceptably Low	Landscapes where the valued landscape character being viewed appears extremely altered. Deviations are extremely dominant and borrow little if any form, line, color, texture, pattern or scale from the landscape character. Landscapes at this level of integrity need rehabilitation. This level should be used only to inventory existing integrity. It must not be used as a management objective.

All lands within Cleveland National Forest are assigned Very High, High, or Moderate Scenic Integrity Objectives. The visual analysis pertaining to National Forest lands presented in subsequent sections of this document will assess the Proposed Project’s (and Alternatives) consistency with the National Forest’s Place-Based Program Emphasis and applicable Scenic Integrity Objectives.

Visual Sensitivity–Visual Change Methodology

Those portions of the proposed and alternative routes, which would not traverse BLM or USFS land, were analyzed using the Visual Sensitivity–Visual Change Methodology. Under this methodology, the proposed and alternative routes were viewed from various public roads and vantage points to develop an overall assessment of the existing landscape character, visual quality, and viewing conditions by segment. Then, at each KVP, the existing landscape was characterized (for visual quality, viewer concern, and viewer exposure) and photographed. Each of the factors considered in the evaluation of the existing landscape under the Visual Sensitivity–Visual Change Methodology is generally expressed as low, moderate, or high as discussed in the following paragraphs. Table D.3-7 presents a graphical explanation of all of the contributing factors to the Visual Sensitivity–Visual Change method including how the information and conclusions are derived. This table is presented in the format of the summary tables that comprise Visual Resources Appendix VR-1.

Visual Quality is a measure of the overall impression or appeal of an area as determined by the particular landscape characteristics such as landforms, rockforms, water features, and vegetation patterns, as well as associated public values. The attributes of variety, vividness, coherence, uniqueness, harmony, and pattern contribute to visual quality classifications of indistinctive (low), common (moderate), and distinctive (high). Visual quality is studied as a point of reference to assess whether a given project would appear compatible with the established features of the setting or would contrast noticeably and unfavorably with them. The visual quality ratings (low to high) are substantially based on the BLM’s Scenic Quality Rating scale shown in Table D.3-2 above. Additional guidance for determining the scenic quality rating is also presented in Table D.3-8.

Viewer Concern addresses the level of interest or concern of viewers regarding an area’s visual resources and is closely associated with viewers’ expectations for the area. Viewer concern reflects the importance placed on a given landscape based on the human perceptions of the intrinsic beauty of the existing landforms, rockforms, water features, vegetation patterns, and even cultural features.

Viewer Exposure describes the degree to which viewers are exposed to views of the landscape. Viewer exposure considers landscape visibility (the ability to see the landscape), distance zones (proximity of

Table D.3-7. Explanation of Visual Sensitivity (VS) – Visual Change (VC) Summary Table
11 x 17 color

Second allowed page for color table

viewers to the subject landscape), number of viewers, and the duration of view. Landscape visibility can be a function of several interconnected considerations including proximity to viewing point, degree of discernible detail, seasonal variations (snow, fog, and haze can obscure landscapes), time of day, and/or absence of screening features such as landforms, vegetation, and/or built structures. Even though a landscape may have highly scenic qualities, it may be remote, receiving relatively few visitors and, thus, have a lower degree of viewer exposure. Conversely, a subject landscape or project may be situated in relatively close proximity to a major road or highway utilized by a substantial number of motorists and yet still result in relatively low viewer exposure if the rate of travel speed on the roadway is high and viewing times are brief, or if the landscape is partially screened by vegetation or other features. Frequently, it is the subject area's proximity to viewers or *distance zone* that is of particular importance in determining viewer exposure. Landscapes are generally subdivided into three or four distance zones based on relative visibility from travel routes or observation points. Distance zones typically include foreground, middleground, and background. The actual number of zones and distance assigned to each zone is dependent on the existing terrain characteristics and public policy and is often determined on a project by project basis.

Table D.3-8. Visual Quality Rating Guidance

Visual Quality Rating	Visual Quality Guidance
High	<ul style="list-style-type: none"> • Landscape elements (landforms, vegetative patterns, water characteristics and cultural features) have high visual appeal • Landscape has high degrees of variety, vividness, intactness, harmony, and uniqueness (attributes) • Distinctive landscape that attracts people to view
Moderate-to-High	<ul style="list-style-type: none"> • Landscape elements have moderate-to-high visual appeal • Landscape attributes have a mix of moderate and high values • Landscape may contain built features that neither complement nor detract from overall visual quality
Moderate	<ul style="list-style-type: none"> • Landscape elements are moderately appealing • Landscape attributes have common or ordinary values • Landscape may contain discordant built features but they are subordinate
Low-to-Moderate	<ul style="list-style-type: none"> • Landscape elements have low-to-moderate appeal • Landscape has weak or missing attributes • Landscape may have prominent though not dominant discordant built features
Low	<ul style="list-style-type: none"> • Landscape elements have low-to-no appeal • Landscape is missing some attributes • Landscape is dominated by discordant built features

Overall Visual Sensitivity is a concluding assessment as to an existing landscape's susceptibility to an adverse visual outcome. A landscape with a high degree of visual sensitivity is able to accommodate only a lower degree of adverse visual change without resulting in a significant visual impact. A landscape with a low degree of visual sensitivity is able to accommodate a higher degree of adverse visual change before exhibiting a significant visual impact. Overall visual sensitivity is derived from a comparison of existing visual quality, viewer concern, and viewer exposure.

D.3.2 Environmental Setting for the Proposed Project

Appendix 2 (Policy Screening Report) lists all plans and policies applicable to the Proposed Project, and presents a preliminary screening evaluation of these policies. The consistency of the Proposed Project with applicable plans and policies is addressed in Section D.16, where there is specific discussion of each item that was determined in the Appendix 2 screening process to warrant further evaluation.

The description below provides a brief overview of the general visual characteristics of the Proposed Project links. The sections that follow (D.3.2.1 through D.3.2.5) provide descriptions of each of the links comprising the project study area. Within each link, one or more KVPs have been established from which detailed setting characterizations have been developed to represent the typical visual resources along that sub-segment. The location of each KVP is shown on Figures D.3-1A through D.3-1E.

Except for the irrigated agricultural lands immediately west of El Centro and Imperial (which appear as highly modified and somewhat uniform tracts of field crops), the eastern portion of the Proposed Project from Imperial Valley Substation to the western boundary of Anza-Borrego Desert State Park (the **Imperial Valley and Anza-Borrego Links**) is predominantly characterized by rough, rocky mountains with jagged ridgelines bordering broad, desert basins and alluvial slopes. Vegetation in this region ranges from sparse, low-growing grasses and shrubs such as creosote in the wide, flat desert basins to completely absent in areas of high four-wheel drive (4WD) recreational use. Project viewing opportunities within the eastern portion of the study are numerous and include Interstate 8 (I-8), State Routes (SR) 78, 86, and 98), local roads, the many 4WD access roads on public lands, and recreational and visitor areas.

The central portion of the Proposed Project (**Central and Inland Valley Links**) transitions from rugged mountains to rolling hills with dispersed rural residences giving way to more densely developed residential suburbs in the Ramona area. Project viewing opportunities include SR67, SR78, and SR79, local roads, open space areas, residences, and recreational and visitor areas.

The western-most portion of the project area (**Coastal Link**), is the highly urbanized coastal corridor of western San Diego County with extensive residential subdivisions, commercial development, and recreational facilities. Project viewing opportunities include Interstate 15 (I-15), SR56, local roads, residential and commercial areas, and recreational and visitor areas.

D.3.2.1 Imperial Valley Link Environmental Setting

The Imperial Valley Link is shown in Figure D.3-1A. This portion of the Proposed Project route extends from Milepost (MP) 0 at the existing Imperial Valley Substation to MP 60.9 at the eastern boundary of Anza-Borrego Desert State Park. Heading northwest and then north from Imperial Valley Substation, the route passes through public lands in the Yuha Desert basin. This relatively flat, desert landscape supports a low diversity of vegetation, composed primarily of short grass and shrubs. Passing to the north of I-8, the route crosses a mix of public lands administered by the BLM and private agricultural lands as the route curves to the east around the agricultural lands west and north of El Centro and Imperial before again turning to the northwest near MP 20. From here to the vicinity of San Felipe Substation, just east of Anza-Borrego Desert State Park, the Proposed Project would parallel existing transmission lines across the open expanses of the West Mesa desert area, staying west of SR86 and south of SR78.

Views of the Proposed Project in this link would be available from SR98, I-8, Dunaway Road, Evan Hewes Highway, Huff Road, local access roads west of Imperial, Wheeler Road, Imler Road, SR78, SR86, and numerous BLM and 4WD access roads on public lands. The landscape of the Yuha Desert and West Mesa is very flat with the occasional low, isolated desert hill and localized areas of considerable erosion and steeply cut drainages and washes that add some topographic variety and visual interest to an otherwise, relatively non-descript desert landscape. The desert flats are bordered on the west by rugged mountain ranges including the Jacumba, Coyote, and Fish Creek Mountains. To the east are the agricultural areas of Imperial Valley and to the northeast is the Salton Sea. The area is

Figure D.3-1A. Visual Resources: Imperial Valley Link
[CLICK HERE TO VIEW](#)

Figure D.3-1B. Visual Resources: Anza-Borrego Link
[CLICK HERE TO VIEW](#)

Figure D.3-1C. Visual Resources: Central Link
[CLICK HERE TO VIEW](#)

Figure D.3-1D. Visual Resources: Inland Valley Link
[CLICK HERE TO VIEW](#)

Figure D.3-1E. Visual Resources: Coastal Link
[CLICK HERE TO VIEW](#)

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relatively undeveloped and the linear forms of I-8, SR78, and SR86 are the prominent built features in the landscape. The other notable built features are the lattice towers that support the existing Southwest Powerlink and wood H-frame and wood pole transmission lines with prominent vertical structural forms and lines, portions of which the Proposed Project would parallel.

Four general areas of potential visual sensitivity were selected for detailed analysis: (1) views from I-8 on approach to the I-8 span, west of El Centro, (2) the route's circumnavigation of the agricultural areas west of El Centro and Imperial as viewed from local roads (Westmorland Road), (3) the view from SR78/86 as the route converges on and then parallels the highway, and (4) views from the off-highway use areas north of the Superstition Hills. Four KVPs were selected to represent the visual setting from each of the four general areas selected for detailed analysis along this route segment. The location of each of these KVPs is shown on Figure D.3-1A. The results of the visual analysis are summarized in table format in Appendix VR-1 (at the end of this section). A discussion of the existing visual setting for each KVP is presented in the following paragraphs.

Note: After each viewpoint heading, one of the following notations is made: (VRM), (SMS), or (VS-VC). This designation indicates the methodology to which that particular viewpoint is subject — either the BLM's Visual Resource Management (VRM) methodology, the Forest Service's Scenery Management System (SMS), or the Visual Sensitivity-Visual Change (VS-VC) methodology for non-BLM/non-USFS lands.

Key Viewpoint 1 (KVP 1) – Interstate 8 Crossing of Yuha Desert (VS-VC)

KVP 1 was established on westbound I-8, just west of the Westside Canal and approximately 0.3 miles east of the proposed span of I-8 (see Figure D.3-2A¹). Viewing to the southwest toward proposed tower location AG7 and the span of I-8, this location was selected to generally characterize the existing landscape in the vicinity of the I-8 crossing in the Yuha Basin.

Visual Quality. Low-to-moderate. The foreground to background views from I-8 encompass a broad, open and predominantly undeveloped landscape consisting of a relatively non-descript, flat, grass-and shrub-covered desert basin, punctuated by the noticeable vertical forms of utility towers with industrial character, and bisected by the prominent linear feature of I-8. The existing utility structures (Southwest Powerlink) are more noticeable from this location on clear days. The distant Jacumba Mountains, partially obscured by haze, are visible as a horizontal background feature relatively low on the horizon.

Viewer Concern. Moderate. Travelers on I-8 are provided panoramic views across a broad, flat desert basin with few distinctive features to distant mountain ranges. Although many travelers anticipate the energy infrastructure associated with the existing transmission line as it converges on and then crosses the highway, any addition of industrial character to the predominantly natural appearing landscape or blockage of views to more valued landscape features (distant mountains) would be seen as an adverse visual change. The expectations established by the presence of the existing SWPL result in a somewhat lower rating for viewer concern than would otherwise be assigned.

Viewer Exposure. High. Lacking foreground, screening features or background blending opportunities, the proposed route would be highly visible in the foreground, of views from KVP 1 as the project converges on and then crosses I-8. The number of viewers would be high and the duration of view

¹ Figures identified in the existing setting are presented in Section D.3.5, along with simulations of the Proposed Project components.

would be extended given that the convergence on (and divergence from) I-8 would be visible within the primary cone of vision (45 degrees either side of the primary direction of view) for a considerable distance on approach to the crossing from either west- or eastbound I-8. Combining these four equally weighted factors gives an overall high viewer exposure.

Overall Visual Sensitivity. Moderate. For travelers on I-8 in the vicinity of the crossing, combining the equally weighted low-to-moderate visual quality, moderate viewer concern, and high viewer exposure lead to a moderate overall visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 2 (KVP 2) – El Centro Agricultural Area (VS-VC)

KVP 2 was established on Westmorland Road, just north of Evan Hewes Highway (see Figure D.3-3A). Viewing to the west toward the proposed route, this location is representative of the existing landscape views from the agricultural areas west of El Centro and Imperial.

Visual Quality. Low-to-moderate. The foreground to background flat, horizontal landform of the highly modified valley floor is comprised of irrigated agricultural fields, punctuated by the simple, vertical forms of an existing wood-pole utility line. The angular to low horizontal forms of the distant Jacumba and Coyote Mountains provide some additional visual interest though they are partially obscured by haze.

Viewer Concern. Low-to-moderate. Travelers on Westmorland Road and other local public and agricultural access roads anticipate a highly modified agricultural landscape that is characteristic of this portion of the western Imperial Valley. Viewers also anticipate the presence of existing utility infrastructure. However, an increase in industrial character or blockage of higher value landscape features (sky and mountains) would be seen as an adverse visual change in the landscape.

Viewer Exposure. Moderate. The proposed route would be visible in the foreground, of views from Westmorland Road in general and KVP 2 specifically as the route passes west of agricultural fields west of El Centro. However, the route would be visible only at right angles to the direction of travel and not within the primary cone of vision of either north- or southbound views. The number of viewers would be low-to-moderate and the duration of view would be moderate. Combining these four equally weighted factors results in an overall low-to-moderate viewer exposure.

Overall Visual Sensitivity. Low-to-moderate. For travelers on Westmorland Road, combining the equally weighted low-to-moderate visual quality and viewer concern, and moderate viewer exposure would result in an overall low-to-moderate visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 3 (KVP 3) – BLM Road 326 North of the Superstition Hills (VRM)

KVP 3 was established on BLM Road 326, approximately 1.8 miles south of SR78/86 (see Figure D.3-4A). Viewing to the southeast down Road 326 and the proposed route, the closest proposed tower location would be D60. This location is representative of the existing landscape of West Mesa along the proposed route. The flat mesa landform exhibits a strong horizontal line while areas of localized erosion create variation in the land that adds visual variety. Landform color is predominantly light tan. Vegetation is sparse and limited to short grasses and shrubs with irregular to patchy distributions. Vegetative lines are irregular to distinct where defined by the line of the mesa. Vegetation colors range from tan for grasses and tannish-gray to muted green for shrubs. Overall, the natural landscape is relatively nondescript and is notably influenced by the dominant presence of the existing wood-pole transmission line. Structural features appear dark brown in color and smooth to matte in texture. The Interim Scenic Quality

classification is Class C and Viewer Sensitivity is high because of its status within the Desert Conservation Area. Combined with the foreground to middleground viewing opportunities, the resulting VRM Class Rating is III (see Appendix VR-3). The VRM Class III Management Objective is as follows:

***VRM Class III.** To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be [no greater than] moderate. Management Activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.*

Key Viewpoint 4 (KVP 4) – SR78/86 North of Superstition Hills (VRM)

KVP 4 was established on northbound SR78/86, just southeast of the Old Kane Springs Road intersection with SR78/86 (see Figure D.3-5A). Viewing to the west toward proposed structure locations D50 and D49, this location is representative of the existing landscape of West Mesa as viewed from SR78/86. The flat desert landscape is predominantly natural appearing with minimal built features and exhibits a prominent horizontal line. Areas of localized erosion create modifications in the land that add visual variety. More distant, angular mountain ranges (Jacumba Mountains) do provide limited backdrops of visual interest though they appear low on the horizon and can be partially obscured by haze. Landform colors are light tan with pale lavender and bluish hues for the more distant mountains. Vegetation is limited to short grasses and shrubs with irregular to patchy distributions. Vegetative lines are irregular to distinct where defined by the line of the mesa. Vegetation colors range from tan for grasses and tannish-gray to muted green for shrubs. The Interim Scenic Quality classification is Class C and Viewer Sensitivity is high because of its status within the Desert Conservation Area. Combined with the foreground to middleground viewing opportunities, the resulting VRM Class Rating is III (see Appendix VR-3).

D.3.2.2 Anza-Borrego Link Environmental Setting

This portion of the Proposed Project passes through Anza-Borrego Desert State Park (ABDSP). Heading west along Old Kane Springs Road, a popular route to access local recreation areas and points of interest including Harper Canyon, the route passes through the flat desert landscape of Lower Borrego Valley before intersecting SR78 (a State-designated Scenic Highway in ABDSP) near MP 68. From here, the route parallels SR78, passing through The Narrows (the gap between Yaqui Ridge to the north and Vallecito Mountain to the south) before crossing Mescal Bajada to pass just south and adjacent to Tamarisk Grove Campground. From here, the route continues to parallel the SR78 corridor across Yaqui Flat before diverging from the highway to head northwest up the rugged, narrow Grapevine Canyon, passing out of the State Park just before MP 84. The landscape through which this link crosses is varied with a diversity of landforms, vegetation characteristics, and viewing opportunities.

Views of the Proposed Project would be available from Old Kane Springs Road, SR78, Pinyon Wash Road, Mine Wash Road, Chuckwalla Wash Road, Yaqui Pass Road (S3), Kenyon Overlook, Lizard Canyon Road Plum Canyon Road, and Grapevine Canyon Road. The landscape of Anza-Borrego is diverse, encompassing rugged desert washes and flats with numerous bordering ridges and mountains including the Jacumba, Vallecito, Pinyon, Borrego and Santa Rosa Mountains. Elevations range from below sea level to 8,000 feet above sea level. Although the area is relatively undeveloped, there are notable built features including the linear forms of the paved and unpaved roads and existing electric transmission infrastructure including San Felipe and Narrows Substations and several wood-pole utility lines.

Eight areas of potential visual sensitivity were selected for detailed analysis: (1) views from Old Kane Springs Road, (2) the view of the route's passage through The Narrows, (3) the view from Mine Wash Road, (4) the vista view from Kenyon Overlook, (5) recreational views from the vicinity of Tamarisk Grove Campground (in this case the Cactus Loop Trail), (6) the view from Yaqui Well Primitive Camping Area, (7) the view from SR78 across Yaqui Flat, and (8) the view from within Grapevine Canyon. Therefore, eight KVPs (KVP 5 through KVP 12) were selected to represent the visual setting along this link. The location of each of these KVPs is shown on Figure D.3-1B. The results of the visual analysis are summarized in table format in Appendix VR-1 (at the end of this section). A discussion of the existing visual setting for each KVP is presented in the following paragraphs.

Key Viewpoint 5 (KVP 5) – ABDSP: Old Kane Springs Road (VS-VC)

KVP 5 was established on Old Kane Springs Road, approximately 0.8 miles east of the junction with SR78 (see Figure D.3-6A). Viewing to the east toward proposed structure location SP133, this viewpoint is representative of the existing landscape views from Old Kane Springs Road, a popular access road to nearby recreation areas and points of interest including Harper Canyon in the Vallecito Mountains. The flat, horizontal form of West Mesa is the dominant landform feature from this KVP. A northeast spur ridge of the Vallecito Mountains is also visible.

Visual Quality. Moderate. The view from KVP 5 encompasses a foreground to background flat, grass- and shrub-covered valley floor and desert mesa, punctuated by the simple, vertical forms of a wood-pole utility line that become minimally noticeable at a distant foreground to middleground viewing distance. Rugged, angular mountain ranges border the desert mesa on the south and west. The graded route of Old Kane Springs Road is a prominent linear feature bisecting the landscape. Even with the presence of the utility poles, the landscape is primarily natural appearing with a northeast spur ridge of the Vallecito Mountains adding some topographic variety and visual interest.

Viewer Concern. High. Travelers on Old Kane Springs Road within ABDSP are provided panoramic views across a broad, flat landscape to distant mountain ranges. Since the typical traveler on Old Kane Springs Road will be there for the recreational and nature experience, any addition of industrial character to the predominantly natural appearing landscape or blockage of views to more valued landscape features (distant mountains) would be seen as an adverse visual change.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground of views from KVP 5 as it parallels Old Kane Springs Road (to the south). The route's location would result in "in-line" views down the corridor, placing numerous structures within the primary cone of vision of both eastbound and westbound travelers on Old Kane Springs Road. The number of viewers would be low-to-moderate and the duration of view would be extended given the opportunity for in-line views. Combining these four equally weighted factors leads to an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on Old Kane Springs Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 6 (KVP 6) – ABDSP: Westbound SR78 at The Narrows (VS-VC)

KVP 6 was established on westbound SR78, approximately 0.1 miles east of Narrows Substation (see Figure D.3-7A). Viewing to the southwest toward The Narrows (the gap between Yaqui Ridge to the

north and Vallecito Mountain to the south), and proposed structure locations SP115 to SP117 (closest), this location is representative of the existing landscape views from SR78 (a State-designated scenic highway) in the vicinity of The Narrows.

Visual Quality. Moderate. The view from KVP 6 encompasses a foreground desert landscape dominated by the rugged, angular ridges bisected by SR78 as it cuts through The Narrows. The angular landforms and variable topography add visual interest. However, the presence of a wood-pole transmission line and the small Narrows Substation with its contrasting industrial character, compromise the otherwise natural appearing landscape, reducing landscape coherence and overall visual quality to a moderate level.

Viewer Concern. High. Travelers on SR78 within ABDSP are typically either pursuing recreational opportunities within ABDSP, or have expectations of viewing the predominantly natural desert setting offered by the Park. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (rugged ridge slopes and The Narrows) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. High. The proposed route would be highly visible in the foreground of views from KVP 6 as the project parallels SR78 (to the north), converging on The Narrows. The route's topographically constrained location would result in "in-line" views down the corridor, placing several structures within the primary cone of vision of both westbound and eastbound travelers on SR78. The number of viewers would be moderate and the duration of view would be extended given the opportunity for in-line views. Combining these four equally weighted factors leads to an overall high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR78, combining the equally weighted moderate visual quality and high viewer concern and exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 7 (KVP 7) – ABDSP: Mine Wash Road (VS-VC)

KVP 7 was established on Mine Wash Road (a 4WD road), approximately 0.3 miles south of the junction with SR78 (see Figure D.3-8A). Viewing to the north toward proposed structure location SP104 and Yaqui Ridge beyond, this location is representative of the existing landscape views available from the Mine Wash Road area, a popular 4WD recreation area.

Visual Quality. Moderate. The view from KVP 7 encompasses a foreground rugged desert wash and bajada landscape backdropped by the angular form of Yaqui Ridge, which adds visual variety. The landscape is primarily natural appearing and visually coherent though there is a simple wood-pole utility line partially visible beyond the foreground vegetation.

Viewer Concern. High. Travelers on Mine Wash Road within ABDSP are provided views of a rugged desert wash and bajada landscape surrounded by rocky ridges and mountain slopes. Since the typical traveler on Mine Wash Road is there for the recreational and nature experience, any addition of industrial character to the predominantly natural appearing landscape or blockage of views to more valued landscape features (Yaqui Ridge) would be seen as an adverse visual change.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground of views from KVP 7 as the route parallels SR78 (to the north), passing in front of Yaqui Ridge. The structures would be within the primary cone of vision of northbound travelers on Mine Wash Road.

The number of viewers would be low though the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on Mine Wash Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 8 (KVP 8) – ABDSP: Kenyon Overlook (VS-VC)

KVP 8 was established at Kenyon Overlook, which is accessed by a pedestrian trail off of Yaqui Pass Road at the Pass (see Figure D.3-9A). Viewing to the south-southeast toward the Proposed Project as it crosses Mescal Bajada, this location is representative of the existing panoramic vista views from Kenyon Overlook.

Visual Quality. Moderate-to-high. KVP 8 provides a rare, panoramic vista view of the surrounding desert landscape comprised of Mescal Bajada in the foreground and the northern extent of the Vallecito Mountains beyond. Prominently featured in the landscape, Mescal Bajada is a flat to sloping apron of alluvial sediments emanating from the Vallecito Mountains to the south. The angular forms of the Vallecito Mountains contrast with the horizontal form of the bajada and enhance visual variety. State Scenic Highway SR78 is visible as an east-west horizontal line across the bajada. An adjacent wood-pole transmission line is barely visible because of the blending that occurs with the background desert floor and thus, has minimal effect on landscape coherence and overall visual quality.

Viewer Concern. High. Kenyon Overlook has been specifically established to provide viewers with dramatic, panoramic views of the surrounding desert. Therefore, the introduction of any noticeable industrial character or view blockage of the background desert terrain would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible as a foreground feature in the center of views from KVP 8 as the route parallels SR78 across Mescal Bajada. Though the number of viewers would be low, the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For visitors to Kenyon Overlook, combining the equally weighted moderate-to-high visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 9 (KVP 9) – ABDSP: Tamarisk Grove Campground (VS-VC)

KVP 9 was established at Station 6 on the Cactus Loop Trail out of Tamarisk Grove Campground (see Figure D.3-10A). Viewing to the south toward Tamarisk Grove Campground and proposed structure location SP92, this location is representative of the existing landscape views available in the immediate vicinity of Tamarisk Grove Campground.

Visual Quality. Moderate. The view from KVP 9 encompasses a foreground desert landscape dominated by the imposing rounded landform of a north spur ridge of the North Pinyon Mountains and the tamarisk trees shading Tamarisk Grove Campground. Also visible as a horizontal feature cut into the base of the ridge is SR78 (a State Designated Scenic Highway within ABDSP). Also present though barely noticeable is a wood-pole transmission line located between the trees and SR78 beyond.

Viewer Concern. High. Visitors to Tamarisk Grove Campground and the Cactus Loop Trail are typically pursuing recreational opportunities within ABDSP, which offers a predominantly natural desert setting. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (rugged ridge slopes) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground of views from the Cactus Loop Trail out of Tamarisk Grove Campground as the route passes adjacent to the campground. Although the number of viewers would be low, the duration of view would be extended. Combining these four equally weighted factors leads to an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For hikers on the Cactus Loop Trail (and visitors to Tamarisk Grove Campground), combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 10 (KVP 10) – ABDSP: Yaqui Well Primitive Camping Area (VS-VC)

KVP 10 was established at the Yaqui Well Primitive Camping Area, just west of Yaqui Pass Road (see Figure D.3-11A). Viewing to the west-southwest across Yaqui Flat toward Grapevine Canyon and proposed structure locations SP84 and SP85, this location is representative of the existing landscape views available to visitors at the Yaqui Well Primitive Camping Area adjacent to SR78.

Visual Quality. Moderate. The view from KVP 10 encompasses a foreground to background rugged desert flat landscape with substantial vegetation and backdropped by the angular to rolling form of Grapevine Mountain. Interesting variations in landform and vegetative colors enhance visual variety and contribute to overall landscape harmony. However, a simple wood-pole transmission line is also prominently visible as it crosses Yaqui Flat, compromising the otherwise natural appearing landscape and reducing landscape coherence and overall visual quality to a moderate level.

Viewer Concern. High. Visitors to the Yaqui Well Primitive Camping Area are typically pursuing recreational and nature opportunities within ABDSP, which offers a predominantly natural desert setting. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (Grapevine Mountain) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground of views from the camping area as the route passes adjacent to the camping area and crosses Yaqui Flat. Although the number of viewers would be low-to-moderate, the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For visitors to the Yaqui Well Primitive Camping Area, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 11 (KVP 11) – ABDSP: SR78 / Yaqui Flat (VS-VC)

KVP11 was established on westbound SR78, approximately 0.7 miles west of Yaqui Pass Road (see Figure D.3-12A). Viewing to the northwest across Yaqui Flat toward Pinyon Ridge and proposed struc-

ture locations SP85 and SP86, this location is representative of the existing landscape views available to travelers on SR78 where the Proposed Project would parallel SR78 across the adjacent flats.

Visual Quality. Moderate. The view from KVP 11 encompasses a foreground desert bajada landscape backdropped by the angular to horizontal form of Pinyon Ridge, which adds visual variety to the view from SR78 (a State Designated Scenic Highway in ABDSP). Landscape colors are somewhat limited and a simple wood-pole transmission line is visible as it crosses Yaqui Flats, slightly compromising the otherwise natural appearing landscape and reducing landscape coherence and overall visual quality to a moderate level.

Viewer Concern. High. SR78 is a State Designated Scenic Highway and therefore warrants a high rating for viewer concern. Travelers on this stretch of scenic highway may also be pursuing recreational opportunities within ABDSP, which offers a predominantly natural desert setting. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (Pinyon Ridge) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. High. The proposed route would be highly visible in the foreground of views from SR78 as the route passes adjacent and to the north of SR78 across Yaqui Flat. The number of viewers would be moderate and the duration of view would be extended. Combining these four equally weighted factors results in an overall high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR78, combining the equally weighted moderate visual quality, high viewer concern, and high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 12 (KVP 12) – ABDSP: Grapevine Canyon (VS-VC)

KVP12 was established on Grapevine Canyon Road, approximately midway through the canyon (see Figure D.3-13A). Viewing to the east toward proposed structure location SP48, this location is representative of the existing landscape views within Grapevine Canyon, a popular 4WD destination.

Visual Quality. Moderate. The view from KVP 12 encompasses a foreground to middleground rugged, shallow desert canyon landscape with variations in topography and color, which enhance overall visual quality. Sightlines are somewhat restricted by the relatively narrow canyon. A wood-pole transmission line (SDG&E's 69 kV Narrows to Warners transmission line) is prominently visible down the center of the canyon, compromising the otherwise natural appearing landscape and reducing landscape coherence and overall visual quality to a moderate level.

Viewer Concern. High. Visitors within Grapevine Canyon are typically seeking recreational and nature opportunities within ABDSP, which offers a predominantly natural desert setting. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground of views from KVP 12 as it passes through the canyon bottom. The route's location would result in "in-line" views down the corridor from Grapevine Road, placing several structures within the primary cone of vision of both northbound and southbound travelers. The number of viewers would be low but the duration of view would be extended given the opportunity for in-line views and slow rate of travel. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For visitors to Grapevine Canyon, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

D.3.2.3 Central Link Environmental Setting

Extending from the western boundary of ABDSP to just southwest of Santa Ysabel (MP 110.8), the Central Link of the Proposed Project passes through a rural portion San Diego County consisting of mountains, wooded canyons, open meadows and grassy rolling hills that are frequently separated by deeply incised gulches. The Central Link also contains large areas of open space in the mostly undeveloped valleys and surrounding mountains. The area also hosts small rural residential communities and dispersed residences. From the north end of Grapevine Canyon, the Proposed Project continues west, crossing north of the San Felipe Hills Wilderness Study Area and the Pacific Crest National Scenic Trail before spanning San Felipe Road (S2) and turning south to the Proposed Central East Substation site. From here, the route would head north and west across the north end of the Volcan Mountains and Matagual Valley before turning south to parallel and then cross SR79, near the junction with SR76. Continuing south, the Central Link would cross Mesa Grande Road, Santa Ysabel Valley, and SR78 just west of the community of Santa Ysabel before turning to the southwest.

Views of the Proposed Project would be available from several rural residences and numerous public roads including Grapevine Canyon Road, San Felipe Road (S2), BIA Road 51, SR79 (State-eligible Scenic Highway), SR76 (State-eligible Scenic Highway), Mesa Grande Road, SR78, and other local access roads. The portion of the route crossing the northern end of the Matagual Valley, just east of SR79 would also be prominently visible from the western end of the access road (continuation of BIA Road 51) to the Mataguay Scout Reservation (Boy Scout Camp), though it would not be visible from the Scout camp or recreation facilities. The proposed route would also be visible from the Pacific Crest National Scenic Trail in the San Felipe Hills and the proposed San Dieguito River Trail between Sutherland Lake and the town of Santa Ysabel. Although the area is relatively undeveloped, there are notable built features including the linear forms of the paved and unpaved roads and existing electric transmission infrastructure including several wood-pole utility lines.

Seven areas of potential visual sensitivity were selected for detailed analysis: (1) views of the proposed route from the upper end of Grapevine Canyon in the vicinity of rural residences, (2) views of the route from SR79 (a State-eligible Scenic Highway), (3) the view of the route from Mesa Grande Road (a primary rural residential access road), (4) the vista view from Inaja Monument Park Overlook, (5) the view of the route's span of SR78 just west of the community of Santa Ysabel, (6) the view of the Proposed Central East Substation from BIA Road 51 (to capture local residential access views), and (7) the view of the Proposed Central East Substation from San Felipe Road (the primary travel corridor in the area of the substation site). Therefore, seven KVPs (KVP 13 through KVP 19) were selected to represent the visual setting along this link. The location of each of these KVPs is shown on Figure D.3-1C. The results of the visual analysis are summarized in table format in Appendix VR-1 (at the end of this section). A discussion of the existing visual setting for each KVP is presented in the following paragraphs.

Key Viewpoint 13 (KVP 13) – Grapevine Canyon Residential Area (VS-VC)

KVP 13 was established on Grapevine Canyon Road, just west of the ABDSP boundary (see Figure D.3-14A). Viewing to the east-southeast down canyon and toward proposed structure location SP32, this location is representative of the existing landscape views within upper Grapevine Canyon in the vicinity of rural residences.

Visual Quality. Moderate. The view from KVP 13 encompasses a foreground to background rugged, shallow desert canyon landscape with substantial topographic variation, which adds visual variety and enhances overall visual quality. Also present in the northern portion of the canyon are scattered rural residences. Sightlines are somewhat restricted by the relatively narrow canyon. A wood-pole transmission line is prominently visible in the center of the canyon.

Viewer Concern. High. Travelers within the northern portion of Grapevine Canyon are typically either seeking recreational and nature opportunities within the nearby ABDSP, which offers a predominantly natural desert setting, or they are local residents accessing the scattered rural residences in the northern portion of the canyon. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground of views from KVP 13 as it passes through the canyon bottom. The route's location would result in "in-line" views down the corridor from Grapevine Road, placing the structures within the primary cone of vision of both northbound and southbound travelers and central to views from some residences. The number of viewers would be low but the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers and residents within Grapevine Canyon, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 14 (KVP 14) – SR79 – Valle De San Jose (VS-VC)

KVP 14 was established on southbound SR79, approximately 2.25 miles south of the intersection with San Felipe Road (see Figure D.3-15A). Viewing to the south toward proposed structure locations C77 and C78, this viewpoint is representative of the existing landscape views available to travelers on SR79, a State-eligible Scenic Highway, in the vicinity of the proposed route.

Visual Quality. Moderate. The view from KVP 14 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation. The linear form of SR79 (a State Eligible Scenic Highway) is a prominent built feature. Although a simple, wood-pole utility line is also visible crossing the grasslands adjacent to the highway, the landscape is predominantly natural appearing.

Viewer Concern. High. Travelers on SR79 expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting. Travelers may be accessing either nearby rural residences or nearby recreational areas. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding hills) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The Proposed Project would be highly visible in the foreground of views from KVP 14 with the transmission line structures appearing within the primary cone of vision of both northbound and southbound travelers. The number of viewers would be moderate and the duration of view would be moderate-to-extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR79, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 15 (KVP 15) – Mesa Grande Road (VS-VC)

KVP 15 was established on westbound Mesa Grande Road, just northwest of Green Oaks Drive (see Figure D.3-16A). Viewing to the northwest toward proposed structure locations C45 and C46, this viewpoint is representative of the existing landscape views available to travelers on Mesa Grande Road in the vicinity of the proposed route.

Visual Quality. Moderate. The view from KVP 15 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation. The linear form of Mesa Grande Road is a prominent built feature in this rural landscape, along with the vertical forms of a roadside wood-pole utility line.

Viewer Concern. High. Travelers on Mesa Grande Road expect a predominantly rural inland valley landscape setting and may be accessing either nearby rural residences or nearby recreational areas. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding hills and sky) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The Proposed Project would be highly visible in the foreground of views from KVP 15 with the transmission line structures, particularly at the span of Mesa Grande Road, appearing within the primary cone of vision of both westbound and eastbound travelers. The number of viewers would be low-to-moderate but the duration of view would be moderate-to-extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on Mesa Grande Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 16 (KVP 16) – Inaja Monument Park Overlook (VS-VC)

KVP 16 was established at the Inaja Monument Park Overlook, off of SR78 (see Figure D.3-17A). Viewing to the west toward the span of SR78 between proposed structure locations C17 and C18, this viewpoint is representative of the existing vista view toward the Proposed Project from the Overlook.

Visual Quality. Moderate-to-high. The view from KVP 16 encompasses a panoramic view offering a rare overlook of the surrounding pastoral, inland valley landscape that appears visually coherent. Prominently featured in the landscape are the rolling hills that surround the valley and the informal groupings of trees within the grass-covered valley floor. Also visible is a simple wood-pole utility line that crosses the valley floor though it does not appear out of place in this rural setting and becomes substantially less apparent with distance.

Viewer Concern. High. Inaja Monument Park Overlook specifically provides viewers with panoramic viewing opportunities of the adjacent inland valley with its predominantly natural appearing, pastoral setting. Therefore, the introduction of any noticeable industrial character into the existing landscape setting would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The Proposed Project would be highly visible in the foreground of views from KVP 16 as the transmission line crosses the valley from north to south, spanning SR78 mid-way across the valley. The number of viewers would be low but the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For visitors to the monument, combining the equally weighted moderate-to-high visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 17 (KVP 17) – SR78 Near Santa Ysabel (VS-VC)

KVP 17 was established on westbound SR78, just west of Santa Ysabel and the intersection of SR78 and SR79 (see Figure D.3-18A). Viewing to the west toward the span of SR78 between proposed structure locations C17 and C18, this viewpoint is representative of the existing landscape views available to travelers on SR78 in the vicinity of the proposed route and Santa Ysabel.

Visual Quality. Moderate. The view from KVP 17 encompasses a foreground to background rolling pastoral landscape supporting grass and oak woodland vegetation. The curvilinear form of SR78 is a prominent feature, bisecting the valley. Other notable built features include the roadside wood-pole utility lines (both sides of the road), which reduces landscape coherence and overall visual quality to a moderate level from this vantage point.

Viewer Concern. High. Travelers on SR78 in the vicinity of Santa Ysabel expect a predominantly rural inland valley landscape setting and may be accessing either nearby rural residences or nearby recreational areas. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding hills and sky) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The Proposed Project span of SR78 would be highly visible in the foreground of views from SR78 in general and KVP 17 specifically. The transmission line structures, particularly at the span, would appear within the primary cone of vision of both westbound and eastbound travelers. The number of viewers would be moderate and the duration of view would be moderate-to-extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR78, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 18 (KVP 18) – Central East Substation / BIA Road 51 (VS-VC)

KVP 18 was established on BIA Road 51, approximately 0.9 miles west of San Felipe Road (see Figure D.3-19A). Viewing to the north toward the proposed Central East Substation site, this location is representative the existing landscape views available on the access road to the residences in close proximity to the substation site.

Visual Quality. Moderate. The view from KVP 18 encompasses a foreground to middleground arid landscape of rolling hills with predominantly grass and shrub vegetation. There are also several rural

residences off the main access road. Although the landscape is predominantly natural appearing, there are few notable landscape features or characteristics that enhance visual variety and a simple wood-pole utility line is visible to the east.

Viewer Concern. High. Travelers on BIA Road 51 are typically accessing the scattered rural residences in the area. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding ridges or sky) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed substation would be highly visible in the foreground of views from KVP 18 with the substation structures appearing within the primary cone of vision of northbound travelers. The number of viewers would be low but the duration of view would be moderate-to-extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on BIA Road 51, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 19 (KVP 19) – Central East Substation / San Felipe Road (VS-VC)

KVP 19 was established on northbound San Felipe Road (S2), approximately 0.7 miles south of San Felipe (see Figure D.3-20A). Viewing to the west-northwest toward the proposed Central East Substation site, this location is representative of the existing landscape views available to northbound travelers on San Felipe Road in the vicinity of the proposed substation site.

Visual Quality. Moderate. The view from KVP 19 encompasses a foreground to background semi-arid landscape of rolling hills with predominantly grass and shrub vegetation. There are also several rural residences off San Felipe Road. Although the landscape is predominantly natural appearing, there are few notable landscape features or characteristics that enhance visual variety and there are simple wood-pole utility lines visible in the landscape though they are not dominant landscape features.

Viewer Concern. High. Travelers on San Felipe Road expect a predominantly rural landscape setting and may be accessing either adjacent residences or nearby recreational areas. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed substation would be highly visible in the foreground of views from KVP 19 with the substation structures appearing within the primary cone of vision of northbound travelers. The number of viewers would be moderate and the duration of view would be moderate-to-extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For northbound travelers on San Felipe Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

D.3.2.4 Inland Valley Link Environmental Setting

Extending from just southwest of Santa Ysabel to Sycamore Canyon Substation, the Inland Valley Link of the Proposed Project continues to pass through rural areas of San Diego County, which becomes progressively more urbanized as the route moves west. Urban and suburban landscapes in the town of Ramona are surrounded by large expanses of unimproved areas that contain wooded slopes, open meadows, and grassy rolling hills. There are numerous groupings of residences as well as dispersed residences throughout the less developed portion of the link. Passing south of Ramona along San Vicente Road, the route would diverge from San Vicente to the west and south, crossing Mussey Grade Road before spanning SR67 and connecting to Sycamore Canyon Substation. Although the area is relatively undeveloped, there are several wood-pole utility lines and a steel-pole transmission line that pass through the landscape.

Views of the Proposed Project would be available from numerous rural residences and suburban residential developments, as well as numerous public roads including Old Julian Highway, Westside Road, Little Page Road, San Vicente Road, Mussey Grade Road, SR67 and other local access roads.

Two areas of potential visual sensitivity were selected for detailed analysis: (1) views of the proposed cable pole (aboveground to underground transition structure) from San Vicente Road in Ramona, and (2) views of the span of SR67 from SR67. Therefore, two KVPs (20 and 21) were selected to represent the visual setting along this link. The location of each of these KVPs is shown on Figure D.3-1D. The results of the visual analysis are summarized in table format in Appendix VR-1 (at the end of this section). A discussion of the existing visual setting for each KVP is presented in the following paragraphs.

Key Viewpoint 20 (KVP 20) – San Vicente Road in Ramona (VS-VC)

KVP 20 was established on westbound San Vicente Road, just west of Chuck Wagon Road (see Figure D.3-21A). Viewing to the west toward proposed structure location I124, this viewpoint is representative of the existing landscape views available to travelers on San Vicente Road in the vicinity of the transition structure in Ramona.

Visual Quality. Moderate. The view from KVP 20 encompasses a foreground to middleground rural residential landscape bounded by rocky ridges and bisected by the curvilinear form of San Vicente Road. Also noticeable are road signage infrastructure and adjacent wood-pole utility lines.

Viewer Concern. High. Travelers on San Vicente Road and adjacent residents expect a predominantly rural residential inland valley landscape with relatively unobstructed views of the surrounding rocky ridges. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding hills and sky) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The Proposed Project cable pole would be highly visible in the foreground of views from SR78 in general and KVP 20 specifically. The transition structure would appear within the primary cone of vision of both westbound and eastbound travelers. The number of viewers would be moderate and the duration of view would be brief-to-moderate. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on San Vicente Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 21 (KVP 21) – Southbound SR67 (VS-VC)

KVP 21 was established on southbound SR67, approximately 0.25 miles north of the span of SR67 (see Figure D.3-22A). Viewing to the east-southeast toward the span of SR67 between proposed structure locations I31 and I32, this viewpoint is representative of the existing landscape views available to travelers on SR67 in the vicinity of the proposed route span of SR67.

Visual Quality. Moderate. The view from KVP 21 encompasses a rural landscape of foreground to middleground rolling grass- and shrub-covered hills, backdropped by distant rocky ridges. The curvilinear form of SR67 is a prominent built feature in the predominantly natural appearing landscape. A tubular steel pole transmission line is also prominently visible as it spans the highway.

Viewer Concern. High. Although energy transmission infrastructure is presently visible in the foreground views from SR67, travelers would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (hills, ridgelines, or background sky) an adverse visual change.

Viewer Exposure. High. The Proposed Project span of SR67 would be highly visible in the foreground of views from SR67 in general and KVP 21 specifically. The transmission line structures, particularly at the span, would appear within the primary cone of vision of both northbound and southbound travelers. The number of viewers would be moderate-to-high and the duration of view would be moderate-to-extended. Combining these four equally weighted factors results in an overall high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR67, combining the equally weighted moderate visual quality, high viewer concern, and high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

D.3.2.5 Coastal Link Environmental Setting

Extending from Sycamore Canyon Substation in the east to Peñasquitos Substation in the west, the Coastal Link of the Proposed Project passes through a highly urbanized portion of the City of San Diego and several coastal communities. This urban landscape is topographically diverse and includes canyons, hillsides, and ridges ranging in elevation from 200 feet in the Los Peñasquitos Canyon Preserve to 1,700 feet in Rancho Encantada. Much of the planned suburban and commercial development that dominates this link is located on flat to gently sloping terraces, interspersed with parks and open spaces. The residential communities crossed by the proposed route include Rancho Encantada, Scripps Miramar Ranch, Miramar Ranch North, Rancho Peñasquitos, Carmel Valley, and Torrey Hills. This area also hosts a number of existing transmission facilities.

Views of the Proposed Project would be available from numerous suburban residential and commercial developments, and numerous public roads including Pomerado Road, Cypress Canyon Road, Candy Rose Way, Evergold Street, Springbrook Drive, Scripps Poway Parkway, Ivy Hill Drive, Wexford Street, Scripps Summit Drive, Poway Road, I-15, Rancho Peñasquitos Boulevard, Carmel Mountain Road, East Ocean Air Drive, and other residential streets.

Five areas of potential visual sensitivity were selected as representative of the landscapes and views available along this link. Detailed analyses were conducted for these representative KVPs, which included: (1) the view from Cypress Canyon Park Drive in Miramar Ranch North, (2) the view from Spring Canyon Park off of Scripps Poway Parkway, (3) residential views in the vicinity of the cable pole at Chicarita Substation, (4) the distant ridgeline views from The Preserve residential development in Dell Mar Mesa, and (5) landscape views from the commercial and residential areas near Peñasquitos Substation. The location of each of these KVPs is shown on Figure D.3-1E. The results of the visual analysis are summarized in table format in Appendix VR-1 (at the end of this section). A discussion of the existing visual setting for each KVP is presented in the following paragraphs.

Key Viewpoint 22 (KVP 22) – Cypress Canyon Park Drive in Miramar Ranch North (VS-VC)

KVP 22 was established on westbound Cypress Canyon Park Drive, midway between Cypress Terrace Place and Candy Rose Way in Miramar Ranch North (see Figure D.3-23A). Viewing to the northwest toward the proposed route, this viewpoint is representative of the existing landscape views available to residences located in close proximity to the route as it passes residential subdivisions in Miramar Ranch North.

Visual Quality. Moderate. The view from KVP 22 encompasses a foreground suburban residential landscape of newer two-story single-family homes. Prominent energy transmission infrastructure with strong linear forms and vertical lines passes north of the residential development in close proximity. From this viewing perspective (looking upslope from the south), the H-frame structures appear comparably prominent with the 230 kV tubular steel pole line.

Viewer Concern. High. Although energy transmission infrastructure features prominently in the foreground of views from the adjacent neighborhood, residents would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (background sky or hills) an adverse visual change.

Viewer Exposure. Moderate-to-high. The Proposed Project would be highly visible in the foreground of views from numerous residences. Project structures would appear within the field of view of residences and within the primary cone of vision of travelers on Cypress Canyon Park Drive. The number of viewers would be low-to-moderate and the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For residents and travelers along Cypress Canyon Park Drive (and other local streets in close proximity to the project), combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 23 (KVP 23) – Spring Canyon Neighborhood Park (VS-VC)

KVP 23 was established in the southwest portion of Spring Canyon Neighborhood Park on Scripps Poway Road, just east of Spring Canyon Road (see Figure D.3-24A). Viewing to the east-northeast toward proposed structure location C42, this viewpoint is representative of the existing landscape views available to park users.

Visual Quality. Moderate. The view from KVP 23 encompasses a foreground, maintained park landscape of grass, trees, and recreational facilities, which provides open views and aesthetic appeal. Existing electric transmission facilities and park light standards impart noticeable industrial character with

prominent linear forms and vertical lines. From this viewing perspective, the H-frame transmission line structures appear much less prominent compared to the view from KVP 22.

Viewer Concern. High. Visitors to the park and the residents adjacent to the park expect to see a landscape with high aesthetic appeal, characterized by a mosaic of natural and managed vegetative forms and lands for recreational use. Any additional intrusion of built structures with industrial character or blockage of views would be seen as an adverse visual change.

Viewer Exposure. High. The Proposed Project would be highly visible in the foreground of views from the park and the adjacent residences immediately south of the park. The number of viewers would be moderate and the duration of view would be extended. Combining these four equally weighted factors results in an overall high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For park visitors and adjacent residents, combining the equally weighted moderate visual quality, high viewer concern, and high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 24 (KVP 24) – Calle De Las Rosas (VS-VC)

KVP 24 was established on Calle De Las Rosas at Via La Cantera, just southwest of the intersection with Rancho Peñasquitos Boulevard (see Figure D.3-25A). Viewing to the north-northeast toward proposed cable pole location C32, this viewpoint is representative of the existing landscape views available to residents adjacent to Chicarita Substation and the proposed cable pole location.

Visual Quality. Moderate. The view from KVP 24 encompasses a foreground suburban residential landscape of predominantly one-story single-family homes and prominent energy transmission infrastructure (structures and conductors). The highly industrial appearing Chicarita Substation is partially visible as some of the taller components extend above the foreground hilltop.

Viewer Concern. High. Although energy transmission infrastructure features prominently in the foreground of views from the adjacent neighborhood, residents would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (background sky or hills) an adverse visual change.

Viewer Exposure. Moderate-to-high. The Proposed Project would be highly visible in the foreground of views from the adjacent neighborhood, Calle De Las Rosas, and Rancho Peñasquitos Boulevard. While the number of viewers would be low-to-moderate (in the neighborhood represented by KVP 24), the duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For the neighboring residents and travelers on Calle De Las Rosas, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 25 (KVP 25) – The Preserve at Dell Mar Mesa (VS-VC)

KVP 25 was established within the recently constructed, ridge top residential development known as *The Preserve* (see Figure D.3-26A). Viewing to the south toward Proposed Project structures C15 and C16, this viewpoint is representative of the existing landscape views available to the numerous ridge top residents along this portion of the route.

Visual Quality. Moderate. The view from KVP 25 encompasses panoramic vista views of a foreground suburban landscape of undeveloped ridges with their strong horizontal forms and lines supporting substantial energy infrastructure with contrasting vertical forms and lines, and backdropped by more distant urban development.

Viewer Concern. High. Although energy transmission infrastructure features prominently in the panoramic views from *The Preserve* residential development, residents would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (background sky or hills) an adverse visual change.

Viewer Exposure. Moderate-to-high. The Proposed Project would be highly visible in the foreground of views from the hilltop residences. While the number of viewers would be low for this specific neighborhood (represented by KVP 25), there are numerous other hilltop residential developments in the immediate vicinity. The duration of view would be extended. Combining these four equally weighted factors results in an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For hilltop residents, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 26 (KVP 26) – Corte Belleza in Torrey Hills (VS-VC)

KVP 26 was established at the southern end of a cul-de-sac on Corte Belleza, just to the north of Carmel Mountain Road (see Figure D.3-27A). Viewing to the southeast toward Proposed Project structure C3, this viewpoint is representative of the existing landscape views available to the adjacent residents and patrons of the shopping center on Carmel Mountain Road.

Visual Quality. Low-to-moderate. The view from KVP 26 encompasses the foreground, suburban landscape views available to patrons of the adjacent commercial development and residents of the nearby two-story single-family homes. The dominant energy transmission infrastructure (structures and conductors) with its strong vertical forms and industrial character reduces landscape coherence and overall visual quality to a low-to-moderate level. This rating is substantially influenced by the close proximity of the structurally complex lattice transmission line structures.

Viewer Concern. High. Although energy transmission infrastructure features prominently in the foreground of views from the adjacent commercial development and residential neighborhood, patrons of the commercial development and local residents would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (background sky or hills) an adverse visual change.

Viewer Exposure. High. The Proposed Project would be highly visible in the foreground of views from the residences and adjacent commercial development. While the number of viewers would be moderate-to-high, the duration of view would be extended. Combining these four equally weighted factors results in an overall high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For nearby residents and patrons of the shopping center, combining the equally weighted low-to-moderate visual quality, high viewer concern, and high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

D.3.3 Applicable Regulations, Plans, and Standards

Public agencies and planning policy establish visual resource management objectives in order to protect and enhance public scenic resources. Goals, objectives, policies, and implementation strategies and guidance are typically contained in resource management plans, comprehensive plans and elements, and local specific plans. As described elsewhere in this document and in the following table, federal guidance comes from (1) the BLM's Visual Resource Management Classifications, California Desert Conservation Area Plan, Yuha Basin ACEC Management Plan, and Eastern San Diego County Management Framework Plan; (2) the Forest Service's Scenic Integrity Objectives and Cleveland National Forest Plan; and (3) the National Park Service's Juan Bautista de Anza National Historic Trail Comprehensive Management and Use Plan and Pacific Crest National Scenic Trail Goals. State guidance is found in the Anza-Borrego Desert State Park Goals and Policies. Local guidance is found in plans and policy documents for Imperial County; San Diego County; SANDAG Regional Government; the Cities of Poway, San Diego, and Chula Vista; and the community of Ramona.

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Environmental Impacts and Mitigation Measures for the Proposed Project

D.3.4 Significance Criteria and Approach to Impact Assessment

D.3.4.1 Approach to Impact Assessment

The factors considered in determining impacts on visual resources included: (1) scenic quality of the project site and vicinity; (2) available visual access and visibility, frequency and duration that the landscape is viewed; (3) viewing distance and degree to which project components would dominate the view of the observer; (4) resulting contrast of the proposed facilities or activities with existing landscape characteristics; (5) the extent to which project features or activities would block views of higher value landscape features; and (6) the level of public interest in the existing landscape characteristics and concern over potential changes.

An *adverse visual impact* occurs within public view when: (1) an action perceptibly changes existing features of the physical environment so that they no longer appear to be characteristic of the subject locality or region; (2) an action introduces new features to the physical environment that are perceptibly uncharacteristic of the region and/or locale; or (3) aesthetic features of the landscape become less visible (e.g., partially or totally blocked from view) or are removed. Changes that seem uncharacteristic are those that appear out of place, discordant, or distracting. The degree of the visual impact depends upon how noticeable the adverse change may be. The noticeability of a visual impact is a function of project features, context, and viewing conditions (angle of view, distance, primary viewing directions, and duration of view).

Impacts on visual resources within the study area could result from various activities including: structure and line construction, substation construction, establishment of construction staging areas and access roads, and project operation or presence of the built facilities. As stated in Section D.3.1.2 above, the Visual Resources technical approach utilizes three technical methodologies — the BLM's VRM methodology for BLM administered public lands, the U.S. Forest Service's Scenery Management System for National Forest lands, and the Visual Sensitivity-Visual Change method for all other public and private lands throughout the study area.

The approach to impact assessment under each of the three methodologies used is discussed in the following sections. The results of the impact assessment under all three methodologies are summarized and presented as a series of foldout tables at the end of the Visual Resources section in Appendix VR-1.

BLM VRM Contrast Analysis Methodology

The key component of the impact assessment under the BLM's Visual Resource Management (VRM) methodology is the determination of visual contrast caused by a project's features or activities. Visual Contrast Ratings were conducted using the BLM's VRM system manuals (BLM, 1984, 1986a). The Visual Contrast Rating Forms are provided in Appendix VR-4. Under the VRM system, the degree to which a project or activity affects the visual quality of a landscape depends on the visual contrast created between the project components and the major features, or predominant qualities, in the existing landscape. Visual contrast evaluates the project's consistency with the visual elements of form, line color and texture already established in the viewshed. In a sense, visual contrast indirectly indicates a particular landscape's ability to absorb a project's components and location without resulting in an uncharacteristic appearance. Other elements that are considered in evaluating visual contrast include the

degree of natural screening by vegetation and landforms, placement of structures relative to existing vegetation, landforms and other structures, distance from the point of observation, and relative size or scale. Once the degree of anticipated contrast is determined (ranging from none to strong), a conclusion on the overall level of change is made (ranging from very low to high) and compared to the applicable VRM Class objective for a determination of consistency with the management objectives and level of visual impact. For the present project, if a determination was made that the resulting level of change would be inconsistent with the VRM class objective for that location, and the inconsistency was considered a significant visual impact, the impact situation was further evaluated against the application of feasible mitigation measures in an effort to reduce the visual impact to a level of less than significant if possible. A final conclusion on impact significance was then reached.

U.S. Forest Service Project Evaluation Methodology

The evaluation of activities (projects or alternative management actions) on the forest generally focuses on changes to the existing scenery. Adverse scenery effects can include changes to Landscape Character and/or Scenic Integrity. The evaluation of Landscape Character changes focuses on the following questions:

1. Will the existing Landscape Character be sustained or changed?
2. Will changes to Landscape Character exceed the limits of its historic range and will the changes effect the sustainability of the Landscape Character?
3. Are there opportunities for enhancement of existing Landscape Character and Scenic Attractiveness, and if so, to what extent can they be achieved?

The evaluation of Scenic Integrity effects includes:

1. Determining if Scenic Integrity would be significantly or irreversibly altered.
2. Determining if opportunities for restoration of Scenic Integrity can be achieved.
3. Determining changes relative to cumulative effects thresholds for scenery.

Ultimately, the impact evaluation strives to assess whether or not the project action will be consistent or inconsistent with the established Scenic Integrity Objectives and if it is not consistent, whether or not it can be made consistent through mitigation.

Visual Sensitivity – Visual Change Methodology

Under the Visual Sensitivity–Visual Change (VS-VC) method, field analysis at each KVP included assessment of visual contrast, project dominance, and view blockage. Subsequently, a conclusion was made regarding the extent of overall visual change, and taken together with the existing landscape’s visual sensitivity, the level of probable visual impact significance was determined. In most cases, a visual simulation was also prepared with which to further evaluate the preliminary impact determination. A conclusion on initial impact significance was then reached. If a determination was made that the resulting impact would be significant, the impact situation was further evaluated against the application of feasible mitigation measures in an effort to reduce the visual impact to a level of less than significant if possible. A final conclusion on impact significance was then reached.

Each of the key factors considered in the evaluation of visual change is generally expressed as low, low-to-moderate, moderate, moderate-to-high, or high and is discussed below (also, see Table D.3-7 provided above for additional discussion of the visual change factors).

Visual Contrast describes the degree to which a project’s visual characteristics or elements (consisting of form, line, color, and texture) differ from the same visual elements established in the existing landscape.

The degree of contrast can range from low to high. The presence of forms, lines, colors, and textures in the landscape similar to those of a Proposed Project indicates a landscape more capable of accepting those project characteristics than a landscape where those elements are absent. This ability to accept alteration is often referred to as visual absorption capability and typically is inversely proportional to visual contrast.

Project Dominance is a measure of a feature's apparent size relative to other visible landscape features and the total field of view. A feature's dominance is affected by its relative location in the field of view and the distance between the viewer and the feature. The level of dominance can range from subordinate to dominant.

View Blockage or Impairment describes the extent to which any previously visible landscape features are blocked from view as a result of the project's scale and/or position. Blockage of higher quality landscape features by lower quality project features causes adverse visual impacts. The degree of view blockage can range from none to high.

Overall Visual Change is a concluding assessment as to the degree of change that would be caused by a project. Overall visual change is derived by combining the three equally weighted factors of visual contrast, project dominance, and view blockage. Overall visual change can range from low to high.

D.3.4.2 Significance Criteria

The criteria used to assess the significance of visual impacts resulting from a project take into consideration the factors described in the previous section, as well as federal, State, and local policies and guidelines pertaining to visual resources. Appendix G of the CEQA Guidelines identifies four circumstances that can lead to a determination of significant visual impact. These have been adapted as set forth below for the analysis that follows:

- Project construction or the long-term presence of project components would cause a substantial effect on a scenic vista.
- Project construction or the long-term presence of project components would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within view of a State Scenic Highway.
- Project construction or the long-term presence of project components would substantially degrade the existing visual character or quality of the site and its surrounding landscape. [Note: Substantial degradation results from higher levels of visual contrast, project dominance, and view blockage. Visual contrast relates to spatial characteristics, visual scale, texture, form, line, and color.]
- Project construction or the long-term presence of the Proposed Project would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area or be hazardous to motorists or pedestrians.

Four additional criteria that can lead to a determination of significant visual impact include:

- The presence of the Proposed Project or Alternative would result in a long-term (greater than three years) inconsistency with established (or interim) BLM Visual Resource Management Class objectives (applies only to public lands administered by the BLM). This would typically occur where a landscape with a relatively high visual quality and viewer concern is noticeably altered.
- The presence of the Proposed Project or Alternative would result in an inconsistency with Cleveland National Forest Land Management Plan Aesthetic Management Standard S9 requiring activities

to meet the applicable Scenic Integrity Objective (SIO), and it does not qualify as an exception under Aesthetic Management Standard S10, which allows a minor adjustment (one level reduction with approval) to the SIO, or a temporary drop of more than one SIO not to exceed three years in duration.

- Construction of the Proposed Project or the presence of project components would result in an inconsistency with local regulations, plans, and standards applicable to the protection of visual resources.
- The presence of the Proposed Project would add to a cumulative visual alteration.

Under the **Visual Sensitivity–Visual Change methodology**, the degree of impact significance is a function of overall visual sensitivity and visual change. Table D.3-9 illustrates the general interrelationship between visual sensitivity and visual change and is used as a consistency check between individual KVP evaluations. Actual parameter determinations (e.g., visual contrast, project dominance, and view blockage) are based on analyst experience and site-specific circumstances.

Table D.3-9. Visual Sensitivity–Visual Change Guidance for Review of Impact Significance

OVERALL VISUAL SENSITIVITY	OVERALL VISUAL CHANGE				
	Low	Low to Moderate	Moderate	Moderate to High	High
Low	Not Significant ¹	Not Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse but Less Than Significant
Low to Moderate	Not Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse and Potentially Significant
Moderate	Adverse but Less Than Significant ²	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse and Potentially Significant	Adverse and Potentially Significant
Moderate to High	Adverse but Less Than Significant	Adverse but Less Than Significant	Adverse and Potentially Significant	Adverse and Potentially Significant	Significant ⁴
High	Adverse but Less Than Significant	Adverse and Potentially Significant ³	Adverse and Potentially Significant	Significant ⁴	Significant

1 **Not Significant** impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

2 **Adverse but Less Than Significant** impacts are perceived as negative but do not exceed environmental thresholds.

3 **Adverse and Potentially Significant** impacts are perceived as negative and may exceed environmental thresholds depending on project and site-specific circumstances.

4 **Significant** impacts with feasible mitigation may be reduced to levels that are less than significant or avoided all together. Without mitigation, significant impacts would exceed environmental thresholds.

While the interrelationships presented in Table D.3-9 are intended as guidance only, it is reasonable to conclude that lower visual sensitivity ratings paired with lower visual change ratings will generally correlate well with lower degrees of impact significance when viewed onsite. Conversely, higher visual sensitivity ratings paired with higher visual change ratings will tend to result in higher degrees of visual impact.

Implicit in this rating methodology is the acknowledgment that, for a visual impact to be considered significant, two conditions generally exist: (1) the existing landscape is of reasonably high quality and is relatively

valued by viewers; and (2) the perceived incompatibility of one or more Proposed Project elements or characteristics tends toward the high extreme, leading to a substantial reduction in visual quality.

D.3.4.3 Mitigation Approach

Mitigation for visual resources impacts resulting from energy infrastructure and similar types of industrial facilities typically focuses on methods to minimize the visibility of the resulting visual change, either by screening the change from view or by blending the change with the background (by selective use of coloration and/or screening). By their very nature, transmission lines (towers and conductors) tend to be large and exposed, and thus, difficult to either hide from view or blend into the background. Frequently, the only way to avoid a significant visual impact from a transmission line is to re-route the transmission line or underground it, though in some situations these measures are not feasible. Also problematic is the construction of permanent access and structure spur roads and “temporary” cleared areas that become persistent in arid and semi-arid landscapes where vegetation recruitment and growth are slow. These areas often cause unnatural and discordant demarcations in the vegetation landscape that increase the visual contrast of project activities.

However, in some cases there are techniques that can reduce the prominence of transmission lines, land scarring, and vegetation changes though they may not reduce the impact to a level that is not significant. The following techniques were considered where appropriate for the Proposed Project and alternatives:

- Implement route adjustments where such adjustments would reduce visual contrast, structural dominance, or view blockage
- Reduce structure height to minimize or eliminate skylining (extension above the horizon line) when viewed from critical viewpoints (recognizing that reduced structure height will usually result in shorter spans and, therefore, more structures)
- Increase structure height to eliminate one or more structures in particularly sensitive locations
- Match structure height and locations, and conductor spans to existing adjacent facilities
- Require screening adjacent to sensitive viewpoints if visual access is already limited under existing conditions and selective placement of vegetation would reduce structure visibility
- Require specific coloration of structures to blend with the background more effectively
- Require changes from lattice to tubular design and/or vice versa in selected areas to reduce visual contrast. This technique can be effective depending on the viewing distance (lattice structures are less visible from distant viewpoints compared to tubular structures and tubular structures appear less industrially complex from close vantage points compared to lattice structures and cause less view blockage) and whether the recommended changes match the design of existing structures if present
- Require revegetation and restoration efforts to mitigate the unnatural demarcation in vegetation landscapes caused by removal of or changes in the vegetation within the right-of-way (ROW) as a result of ROW clearing and maintenance
- Consider alternative low-impact construction techniques such as structure installation by helicopter where traditional construction techniques and the associated access and spur roads would cause prominent land scarring visible to sensitive viewpoints.

For each of the visual impacts identified in the following sections, the mitigation approaches discussed above were evaluated for applicability and likelihood of success. In almost all cases, the combination of

existing landscape characteristics and structure prominence and visibility resulted in impacts that could not be mitigated, even with a reroute in the project vicinity. However, where mitigation opportunities were identified, they are discussed.

D.3.4.4 Applicant Proposed Measures

Applicant Proposed Measures (APMs) were identified by SDG&E in its CPCN Application to the CPUC. Table D.3-10 presents the APMs that are relevant to visual resources. The impact analysis assumes that all APMs will be implemented as part of the Proposed Project as defined in the table.

APM No.	Description
APM VR-1	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.
APM VR-2	SDG&E will use dulled metal finish transmission structures and non-specular conductors in visually sensitive areas including the ABDSP, new ROW in the Central Link and Peñasquitos Junction to Peñasquitos Substation in the Coastal Link.
APM VR-3	Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.
APM VR-4	No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
APM VR-5	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.
APM VR-6	In scenic view areas as designated by land management agencies, structures would be placed to avoid sensitive features and/or allow conductors to clearly span the features, within limits of standard design where possible.
APM BIO-23	Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas containing sensitive habitat shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this APM.
APM GEO-2	1. Vehicle and construction equipment use will be restricted to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance. 4. Disturbed areas will be returned to their pre-construction contours and allowed to revegetate naturally, or will be reseeded with an appropriate seed mixture if necessary.
T-APM-9a	Eligible and Officially Designated Scenic Highways are located within Imperial and San Diego Counties. The California Public Utilities Code Section 320 requires that all new or relocated utility facilities within 1,000 feet of an Officially Designated Scenic Highway be undergrounded where feasible. SDG&E will bury all new or relocated utilities where feasible to avoid possible revocation of SR78 as an Officially Designated Scenic Highway within the ABDSP.

D.3.4.5 Impacts Identified

Table D.3-11 lists the impacts identified for the Proposed Project, along with the significance of each impact. Detailed discussions of each impact and the specific locations where each is identified are presented in the following sections. Impacts are classified as Class I (significant, cannot be mitigated to a level that is less than significant), Class II (significant, can be mitigated to a level that is less than significant), Class III (adverse, but less than significant), and Class IV (beneficial).

Table D.3-11. Impacts Identified – Proposed Project – Visual Resources

Impact No.	Description	Impact Significance
Proposed Project – All Links		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
Proposed Project – Imperial Valley Link		
V-3	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 1 on westbound Interstate 8.	Class III
V-4	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 2 on northbound Westmorland Road.	Class III
V-5	Inconsistency with Interim BLM VRM Class III management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 3 on BLM Road 326 north of Superstition Hills.	Class I
V-6	Inconsistency with Interim BLM VRM Class III management objective due to the introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 4 on SR78/86 north of Superstition Hills.	Class I
V-7	Increased structure contrast, industrial character, view blockage, and skylining, when viewing the Imperial Valley Substation modifications from the nearby BLM access roads.	Class III
Proposed Project – Anza-Borrego Link		
V-8	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 5 on eastbound Old Kane Springs Road.	Class I
V-9	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 6 on westbound SR78 at The Narrows.	Class I
V-10	Increased structure contrast, industrial character, and view blockage, when viewed from Key Viewpoint 7 on northbound Mine Wash Road.	Class I
V-11	Increased structure contrast, industrial character, and view blockage, when viewed from Key Viewpoint 8 at Kenyon Overlook.	Class I
V-12	Increased structure contrast, industrial character, and view blockage, when viewed from Key Viewpoint 9 at Station 6 on the Cactus Loop Trail out of Tamarisk Grove Campground.	Class I
V-13	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 10 in the Yaqui Well Primitive Camping Area.	Class I
V-14	Increased structure contrast, industrial character, and view blockage, when viewed from Key Viewpoint 11 on westbound SR78.	Class I
V-15	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 12 on Grapevine Canyon Road within Anza-Borrego Desert State Park.	Class I
Proposed Project – Central Link		
V-16	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 13 on Grapevine Canyon Road, just west of Anza-Borrego Desert State Park.	Class I
V-17	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 14 on southbound SR79.	Class I
V-18	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 15 on westbound mesa Grande Road.	Class I
V-19	Increased structure contrast, industrial character, and view blockage, when viewed from Key Viewpoint 16 at the Inaja Monument Park Overlook.	Class I
V-20	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 17 on westbound SR78.	Class I
V-21	Increased structure contrast, industrial character, view blockage, and skylining when viewing the Central East Substation site from Key Viewpoint 18 on BIA Road 51.	Class I
V-22	Increased structure contrast, industrial character, and view blockage, when viewing the Central East Substation site from Key Viewpoint 19 on northbound San Felipe Road (S2).	Class I

Sunrise Powerlink Project
D.3 VISUAL RESOURCES

Table D.3-11. Impacts Identified – Proposed Project – Visual Resources

Impact No.	Description	Impact Significance
Proposed Project – Inland Valley Link		
V-23	Increased structure contrast, industrial character, view blockage, and skylining when viewing Cable Poles I124 from Key Viewpoint 20 on westbound San Vicente Road.	Class I
V-24	Increased structure contrast, industrial character, view blockage, and skylining when viewing the Span of SR67 from Key Viewpoint 21 on southbound SR67.	Class I
Proposed Project – Coastal Link		
V-25	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 22 on Cypress Canyon Park Drive.	Class III
V-26	Increased structure contrast, industrial character, view blockage, and skylining, when viewed from Key Viewpoint 23 at Spring Canyon Neighborhood Park.	Class III
V-27	Increased structure contrast, industrial character, view blockage, and skylining, when viewing Cable Pole C32 from Key Viewpoint 24 on Calle De Las Rosas.	Class II
V-28	Increased structure contrast, industrial character, view blockage, and skylining, when from Key Viewpoint 25 at The Preserve residential development on Del Mar Mesa.	Class III
V-29	Increased structure contrast, industrial character, view blockage, and skylining, when from Key Viewpoint 26 on Corte Belleza in Torrey Hills.	Class III
V-30	Increased structure contrast, industrial character, view blockage, and skylining, when viewing the Sycamore Canyon Substation modifications from the nearby ridgetop residential developments.	Class III
V-31	Increased structure contrast and industrial character when viewing the Peñasquitos Substation modifications from nearby residential developments and public roads.	Class III
V-32	Increased structure contrast, industrial character, view blockage, and skylining when viewing the San Luis Rey Substation modifications from nearby residences and public roads.	Class III
V-33	Increased structure contrast and industrial character when viewing the South Bay Substation modifications from nearby public parks and roads.	Class III
Proposed Project – Future Transmission System Expansion		
V-1	Short-term visibility of construction activities, equipment, and night lighting.	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes.	Class II
V-1FT	Increased structure contrast, industrial character, view blockage, and skylining.	Class I
V-2FT	Increased structure contrast, industrial character, view blockage, and skylining, resulting in cumulative visual impacts.	Class I
V-3FT	Increased structure contrast, industrial character, view blockage, and skylining from the addition of a 500 kV transmission line	Class I
V-4FT	Increased structure contrast, industrial character, view blockage, and skylining from the addition of a 500 kV transmission line	Class I
Proposed Project – Connected Actions		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all connected actions).	Class I, II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all connected actions).	Class II
V-1CA	Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage, skylining and glare associated with the SES Solar Two Project.	Class I
V-2CA	Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage, skylining and glare associated with the SES Solar Two 230 kV Transmission Interconnection.	Class I
V-3CA	Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage, skylining and glare associated with IID 230 kV Transmission Line.	Class I

Table D.3-11. Impacts Identified – Proposed Project – Visual Resources

Impact No.	Description	Impact Significance
V-4CA	Increased structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the San Felipe 500 kV to 230 kV Substation from Key Viewpoint 30 on northbound Split Mountain Road	Class I

D.3.5 Imperial Valley Link Impacts and Mitigation Measures

Construction Impacts

Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force (Impact V-1) at Imperial Valley Substation, at Drew Road Staging Area at I-8 in Imperial Valley, at Westmorland Staging Area near the IID 161 kV line and SR86, at Ocotillo Air Strip Staging Area and Helicopter Fly Yard, located on a portion of the Ocotillo Air Strip, north of SR78 in Ocotillo Wells, and along the new transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms (rutting and leveling) and vegetation clearance (Impact V-2) along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during substation modifications, access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for transmission line)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. Please note the full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents in Lower Borrego Valley as well as travelers and recreationists on highways and local roads (I-8, SR78, SR86, SR98, Dunaway Road, Evan Hewes Highway, Westmorland Road, Huff Road, Wheeler Road, Old Kane Springs Road, Split

Mountain Road), and numerous BLM 4WD access roads and smaller local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

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. 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. 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:

- 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.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

V-2a Reduce in-line views of land scars. Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. 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-2c Reduce color contrast of land scars on non-Forest lands.** For non-USFS-administered land areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings (Eonite and Permeon are commercially available chemical treatments that “age” or oxidize rock and are used specifically for coloring concrete or rock surfaces to tone down glare and contrast and simulate naturally occurring desert varnish). SDG&E will consult with the Authorized Officer (as determined by the CPUC and BLM as appropriate) on a site-by-site basis for the use of Eonite. 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-2d Construction by helicopter.** In those areas where long-term land-scarring and vegetation clearance impacts would be visible to sensitive public viewing locations, or where construction would occur on slopes over 15 percent, SDG&E will consult with the Authorized Officer and appropriate land management agency, on a site-by-site basis regarding the use of helicopter construction techniques and the prohibition of access and spur roads. Agency consultations must be conducted and approvals received at least 120 days prior to the start of construction.

Operational Impacts

From Imperial Valley Substation to the eastern border of Anza-Borrego Desert State Park, the Proposed Project would result in visual impacts that would range from adverse but less than significant (Class III) as the project parallels the existing Southwest Powerlink (SWPL) transmission line, spans Interstate 8 (I-8) and passes adjacent to Imperial Valley agricultural lands, to significant and unavoidable (Class I) as the route passes through Interim VRM Class III BLM lands from the vicinity of Huff Road to the eastern boundary of Anza-Borrego Desert State Park. Long-term, operational visual impacts would be experienced by: (a) travelers on SR98, I-8, Dunaway Road, Evan Hewes Highway, Westmorland Road, Huff Road, SR78, SR86 and other local roads, (b) recreationists accessing BLM lands in the Yuha Basin and West Mesa via Old Kane Springs Road, numerous BLM 4WD access roads and other local access roads; and (c) residents in Lower Borrego Valley. Four representative KVPs (KVP 1 through KVP 4) were selected to characterize the visual impacts that would occur along this route segment. For the impact headings below, the impact significance classification is indicated in parentheses at the end of the statement and is typically preceded by an indication of the methodology used (i.e., “VS-VC” for Visual Sensitivity–Visual Change on non-BLM/non-Forest lands, “VRM” for Visual Resource Management on BLM-administered lands, and “SMS” for Scenery Management System on USFS-administered lands).

Impact V-3: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 1 on westbound Interstate 8 (VS-VC) (Class III)

Figure D.3-2A presents the existing view to the southwest from KVP 1 on westbound I-8, just west of the Westside Canal and approximately 0.3 miles east of the proposed span. Figure D.3-2B presents a visual simulation that depicts the addition of the proposed transmission line as it spans I-8. As shown in the simulation, the new structures (AG7 and AG8 [out of the frame of the image]) and conductors would be prominently visible from I-8, and would introduce additional industrial character into the I-8 corridor. The structures and conductors would skyline (extend above the horizon line) and cause view blockage of background sky and distant mountains when viewing to the west and southwest. As a result, visual contrast would be moderate-to-high and the Proposed Project would appear co-dominant with the existing landscape features (primarily the horizontal forms of the basin floor and background mountain

ranges). View blockage of background sky and mountains would be moderate. The overall visual change would be moderate and in the context of the existing landscape's moderate visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). This conclusion is in part, reflective of the fact that the existing SWPL transmission line and the I-8 transportation corridor substantially influence the viewing experience and expectations in the vicinity of the I-8 span. This conclusion also assumes that APMs VR-1 through VR-6, which commit SDG&E to several tower design and placement measures to minimize visual impacts, would be implemented for all structures and route segments as part of the project. As a result, visual resources Mitigation Measure V-3a is recommended to provide additional detail pertaining to structure design and placement and is recommended for all structures and route segments. The purpose of this measure is to reduce the potential for structure skylining as a result of viewing the structure from an ascending line of travel that places the structure in the primary cone of vision and above the horizon line. Although Mitigation Measure V-3a is recommended to reduce the visual impact along this portion of the project, in compliance with NEPA requirements, it is not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1. This viewpoint analysis is considered representative of project views from the point where the project diverges from SWPL to the project's convergence on the agricultural area west of El Centro.

Mitigation Measure for Impact V-3: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 1 on westbound Interstate 8

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

- All new conductors and re-conducted spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.
- No new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures.

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Figure D.3-2A. Key Viewpoint 1 – Proposed Project – Interstate 8 – Existing Condition
[CLICK HERE TO VIEW](#)

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Impact V-4: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 2 on northbound Westmorland Road (VS-VC) (Class III)

Figure D.3-3A presents the existing view to the southwest from KVP 2 on northbound Westmorland Road, just north of Evan Hewes Highway. Figure D.3-3B presents a visual simulation that depicts the addition of the proposed transmission line as it passes around the western perimeter of the El Centro agricultural area. This viewpoint analysis is representative of project views from local roads north of I-8 in the Yuha Basin in general and specifically from the adjacent agricultural area east of the project route before it begins to converge on and then span Westmorland Road.

As shown in the simulation, the new structures and conductors would cause a noticeable increase in structure prominence and industrial character though the change would not be prominent when viewing from more distant local roads east of the route (e.g., Westmorland Road). Views of the structures would be at right angles to the direction of travel on north-south roads and thus, would not be in the primary cone of vision of travelers along this stretch of Westmorland Road. Skylining (extending above the horizon line) and view blockage of background sky and distant mountains would occur. As a result, visual contrast would be low-to-moderate and the Proposed Project would appear subordinate to co-dominant with the existing landscape features (primarily the horizontal form of the basin floor). View blockage of background sky and mountains would be low-to-moderate. The overall visual change would be low-to-moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's low-to-moderate visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). However, Mitigation Measure V-3a is recommended to further reduce the visual impact along this portion of the project. While Impact V-4 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1).

Mitigation Measure for Impact V-4: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 2 on northbound Westmorland Road

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

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Figure D.3-3A/3B. Key Viewpoint 2 – Proposed Project – El Centro Agriculture – Existing Condition and Simulation

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Impact V-5: Inconsistency with Interim BLM VRM Class III management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 3 on BLM Road 326 north of Superstition Hills (VRM) (Class I)

Figure D.3-4A presents the existing view to the southeast from KVP 3 on BLM Road 326, approximately 1.8 miles south of SR78/86. Figure D.3-4B presents a visual simulation that depicts the addition of the proposed transmission line adjacent and to the east of the existing IID wood-pole H-frame transmission line. This viewpoint analysis is representative of project views from BLM 4WD access roads within the West Mesa area that offer in-line views of the project.

The Proposed Project would be prominently visible to 4WD recreationists on BLM Road 326 and other BLM access roads in the area. As shown in the simulation, this portion of the Proposed Project would be built in an area that does not presently contain structures of similar scale and character. The resulting structural visual contrast (for form and line) would range from moderate-to-strong and the overall level of change would be moderate-to-high. The BLM's Interim Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. The new line would not repeat the basic elements of the existing natural features in the landscape (simple, flat horizontal landform) though it would share some characteristics (linear forms and vertical lines) with the existing wood-pole line. However, the proposed structures would appear much more structurally complex and exhibit greater industrial character. The structures would be prominent to dominant features in the landscape, which would be accentuated by the skylining that would occur. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall level of change would be moderate-to-high. The moderate-to-high level of change that would be caused by this portion of the Proposed Project would not be consistent with the applicable Interim VRM Class III management objective and the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant as the open terrain along this route segment does not offer opportunities to either screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Although it would not reduce the impact to a less than significant level, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project to the extent feasible.

It should be noted that what differentiates the Proposed Project-induced level of change north of I-8 from that occurring south of I-8 is the considerable influence of the existing 500 kV SWPL transmission line south of I-8. As a result, south of I-8, in the vicinity of SWPL, the level of change caused by the Proposed Project would be moderate, which would fall within the threshold of Interim VRM Class III consistency. Therefore, south of I-8, the Proposed Project would cause adverse but less than significant (Class III) visual impacts. It should also be noted that implementation of any one of the SWPL Alternatives, described later in this report would eliminate Impact V-5 though the significant impact would merely be shifted to a different location(s).

Mitigation Measure for Impact V-5: Inconsistency with Interim BLM VRM Class III management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 3 on BLM Road 326 north of Superstition Hills

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

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Figure D.3-4A/B. Key Viewpoint 3 – Proposed Project – BLM Road 326 – Existing Condition and Simulation

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Impact V-6: Inconsistency with Interim BLM VRM Class III management objective due to the introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 4 on SR78/86, north of Superstition Hills (VRM) (Class I)

Figure D.3-5A presents the existing view to the west from KVP 4 on northbound SR78/86, just southeast of the Old Kane Springs Road intersection. Figure D.3-5B presents a visual simulation that shows the proposed transmission line converging on SR78/86 from the south. This viewpoint analysis is representative of project views from SR78/86 and SR78 west of the split from SR86.

The Proposed Project would be prominently visible to both westbound and eastbound (northbound–southbound) travelers on SR78/86. As shown in the simulation, this portion of the Proposed Project would be built in an area that does not currently contain structures of similar scale and character (though there are smaller transmission lines in the area). The resulting structural visual contrast (for form and line) would range from moderate for more distant views from SR78/86 (KVP 3) to strong for more proximal views when the project is adjacent to the highway. The overall level of change would be moderate-to-high.

The BLM’s Interim Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. The new line would not repeat the basic elements of the existing natural features in the landscape (simple, flat horizontal landform and the proposed structures would be prominent features in the landscape, which would be accentuated by the skylining that would occur. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall level of change would be moderate-to-high. The moderate-to-high level of change that would be caused by this portion of the Proposed Project would not be consistent with the applicable Interim VRM Class III management objective and the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant as the open terrain along this route segment does not offer opportunities to either screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. The line could be moved further from the highway but it would still be inconsistent with VRM Class III objectives when viewed from other vantage points within West Mesa and would still result in a Class I visual impact. Although it would not reduce the visual impact to a level that would be less than significant, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives, described later in this report would eliminate Impact V-6 though the significant impact would merely be shifted to a different location(s).

Mitigation Measure for Impact V-6: Inconsistency with Interim BLM VRM Class III management objective due to the introduction of structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 4 on SR78/86, north of Superstition Hills

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

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Figure D.3-5A/B. Key Viewpoint 4 – Proposed Project – SR78/86 – Existing Condition and Simulation

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Modifications to Imperial Valley Substation

Construction impacts associated with the modifications to Imperial Valley Substation would be as described above under “Construction Impacts” and would include visibility of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2).

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substation, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction site. The primary viewing opportunities of concern in the vicinity of the substation would be from nearby BLM 4WD access roads into the Yuha Basin ACEC including Roads 358 and 247. Construction impacts at the substation could last two years and the resulting visual impact would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b (full text presented above) are required to reduce the impacts to levels that would be less than significant.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from construction at the substation, use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing substation maintenance or if a changed vegetation structure is maintained adjacent to the substation.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

Operational impacts, discussed below, would include the long-term visibility of new components including dead-end structures, circuit breakers, disconnect switches, communication interfaces, and metering equipment. All new structures and equipment would be located within the existing fenced substation property with the tall dead-end structures being the most noticeable of the new facilities.

Impact V-7: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Imperial Valley Substation modifications from the nearby BLM access roads (VRM) (Class III)

The new dead-end structures would be quite visible from considerable distance given the flat nature of the Basin topography. The new structures and equipment would increase overall structural complexity and industrial character of the site. However, the resulting visual contrast for form and line would be low-to-moderate in the context of the existing substation characteristics (the structures would blend in with the other complex structures of the substation). The overall level of change would be low-to-moderate. The BLM's Interim Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. Although the substation modifications would not repeat the basic elements of the existing natural features in the landscape, they would repeat the characteristics of the existing substation facilities and would not dominate the view of the casual observer. Therefore, the low-to-moderate level of visual change that would be caused by the modifications would be consistent with the Interim VRM Class III management objective and the resulting visual impact would be adverse but less than significant (Class III). While the visual impacts at the substation would be less than significant, Mitigation Measures V-7a and V-7b are recommended to further reduce the visual impact of the substation modifications. While Impact V-7 would be less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1).

Mitigation Measures for Impact V-7: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Imperial Valley Substation modifications from the nearby BLM access roads

V-7a Reduce visual contrast associated with ancillary facilities. SDG&E shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:

- Specification, and 11" x 17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture
- A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)
- Two sets of brochures and/or color chips for each proposed color
- A detailed schedule for completion of the treatment

A procedure to ensure proper treatment maintenance for the life of the project.

SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SDG&E receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the BLM and CPUC that all buildings and structures are ready for inspection.

V-7b Screen ancillary facilities. SDG&E shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities (except Imperial Valley Substation) and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SDG&E shall submit the Plan to the BLM and CPUC for review and approval at least 90 days prior to installing the landscape screening. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- An 11" x 17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements
- A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity.

SDG&E shall complete installation of the screening prior to the start of project operation. SDG&E shall notify the BLM and CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.

D.3.6 Anza-Borrego Link Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Anza-Borrego Link would be as described above for the Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). Although there are no ancillary facilities (e.g., substations, staging areas or fly yards) proposed along this route segment, there are numerous viewing opportunities of concern throughout this segment.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substation, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents in Lower Borrego Valley as well as travelers and recreationists on highways and local roads (SR78, Old Kane Springs Road, Split Mountain Road, Yaqui Pass Road, and Grapevine Canyon Road). View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b (full text presented above) are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC, USBLM, and ABDSP as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

Within Anza-Borrego Desert State Park, the Proposed Project would result in significant and unmitigable (Class I) visual impacts as the project parallels Old Kane Springs Road, SR78 (a State-designated Scenic Highway), and Grapevine Canyon Road. Long-term, operational visual impacts would be experienced by travelers on SR78 and local roads and recreationists accessing the Park on the numerous paved and 4WD roads and the Pacific Crest National Scenic Trail through Grapevine Mountain Wilderness. The impacts on views from SR78 are particularly notable given SR78's scenic highway status and

the severity of the visual impact that would be visible from much of the highway within the Park. Indeed, the introduction of a prominent to dominant series of industrial appearing structures would impair traveler's views of the landscape and substantially compromise the scenic quality of the existing landscape to the extent that the structures would intrude upon the traveler's enjoyment of the view. As a result, with the Proposed Project, SR78 would no longer meet some of the state scenic highway criteria including:

- The proposed scenic highway is principally within an unspoiled native habitat and showcases the unique aspects of the landscape.

Existing visual intrusions do not significantly impact the scenic corridor.

Further, Caltrans monitors officially designate scenic highways at least every five years. Designations can be revoked if the local authorities cease to enforce the scenic highway protection program. Therefore, SR78 could lose its scenic highway status within ABDSP with implementation of the Proposed Project. More detailed discussions of the impacts on SR78 are presented in several of the KVP discussions that follow.

Eight representative KVPs (KVP 5 through KVP 12) were selected to characterize the visual impacts that would occur along the Anza-Borrego Link. The following paragraphs discuss the impacts that would be experienced at each representative viewpoint.

Impact V-8: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 5 on eastbound Old Kane Springs Road (VS-VC) (Class I)

Figure D.3-6A presents the existing view to the east from KVP 5 on eastbound Old Kane Springs Road, approximately 0.8 miles east of the junction with SR78 in Anza-Borrego Desert State Park. Figure D.3-6B presents a visual simulation that depicts the addition of the proposed transmission line adjacent and to the south of Old Kane Springs Road. This viewpoint analysis is representative of project views from Old Kane Springs Road.

In-line views of the project down Old Kane Springs Road would cause numerous structures to be visible in the same field of view within the primary cone of vision of travelers on Old Kane Springs Road. As shown in the simulation, the new structures and conductors would cause a noticeable increase in structure prominence and industrial character. The resulting visual contrast would be high. The co-dominant-to-dominant project features would also cause a moderate degree of view blockage of background sky and mountains (to the south). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall level of change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant. The open terrain along this route segment does not offer opportunities to either screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. The line could be moved further to the south away from Old Kane Springs Road but it would still result in a moderate-to-high degree of visual change when viewed from other nearby vantage points (such as the road to Harper Canyon) and would still result in a Class I visual impact. However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact.

Figure D.3-6A. Key Viewpoint 5 – Proposed Project – Old Kane Springs Road – Existing Condition
[CLICK HERE TO VIEW](#)

Figure D.3-6B. Key Viewpoint 5B – Proposed Project – Old Kane Springs Road – Simulation
[CLICK HERE TO VIEW](#)

along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-8 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-8: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 5 on eastbound Old Kane Springs Road

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

V-8a Structure design consultation in ABDSP. SDG&E shall consult with Anza-Borrego Desert State Park regarding structure design, height, color, and placement for any facilities to be placed within the State Park. Structure designs shall be submitted to ABDSP for approval at least 90 days prior to (a) ordering any components to be manufactured, or (b) construction of any of the ancillary facility components to be placed in the Park, whichever comes first. If ABDSP notifies SDG&E that revisions to structure design are needed, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised design(s).

Impact V-9: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 6 on westbound SR78 at The Narrows (VS-VC) (Class I)

Figure D.3-7A presents the existing view to the southwest from KVP 6 on westbound SR78, approximately 0.1 miles east of Narrows Substation in Anza-Borrego Desert State Park. Figure D.3-7B presents a visual simulation that depicts the addition of the proposed transmission line adjacent and to the north of SR78 as it passes through The Narrows. This viewpoint analysis is representative of project views from SR78 where the Proposed Project would be in close proximity to the highway.

In-line views of the project from SR78 (a State-designated Scenic Highway within ABDSP) would cause several structures to be visible in the same field of view and within the primary cone of vision of travelers on SR78. As shown in the simulation, the new steel, H-frame structures and conductors would cause a noticeable increase in structure prominence and industrial character within the narrow corridor approaching The Narrows. The resulting visual contrast would be high. The co-dominant-to-dominant project features would cause a moderate-to-high degree of view blockage of background sky and mountain ridges (to the north). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The open terrain along this route segment does not offer opportunities to either screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-9 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-9: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 6 on westbound SR78 at The Narrows

- V-3a Reduce visual contrast of towers and conductors.**
- V-8a Structure design consultation in ABDSP.**

Figure D.3-7A. Key Viewpoint 6 – Proposed Project – SR78 The Narrows – Existing Condition
[CLICK HERE TO VIEW](#)

Figure D.3-7B. Key Viewpoint 6 – Proposed Project – SR78 The Narrows – Simulation
[CLICK HERE TO VIEW](#)

Impact V-10: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 7 on northbound Mine Wash Road (VS-VC) (Class I)

Figure D.3-8A presents the existing view to the north from KVP 7 on Mine Wash Road, approximately 0.3 miles south of SR78 in Anza-Borrego Desert State Park. Figure D.3-8B presents a visual simulation that depicts the addition of the proposed transmission line adjacent and to the north of SR78 as it crosses Mescal Bajada. This viewpoint analysis is representative of project views from several of the 4WD roads that branch off of SR78.

As shown in the simulation, the new H-frame structures would be noticeable linear, vertical built features in an otherwise natural appearing landscape. The resulting visual contrast would be moderate. The co-dominant project features would cause a moderate degree of view blockage of the background landform (Yaqui Ridge). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). This conclusion is strongly influenced by the high degree of viewer concern assigned to this and other locations within the State Park. There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The relatively confined terrain along this route segment does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-10 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-10: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 7 on northbound Mine Wash Road

- V-3a Reduce visual contrast of towers and conductors.**
- V-8a Structure design consultation in ABDSP.**

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Figure D.3-8A/B. Key Viewpoint 7 – Proposed Project – Mine Wash Road – Existing Condition
and Simulation

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Impact V-11: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 8 at Kenyon Overlook (VS-VC) (Class I)

Figure D.3-9A presents the existing view to the south-southeast from KVP 8 at Kenyon Overlook off of Yaqui Pass Road, near the pass in Anza-Borrego Desert State Park. Figure D.3-9B presents a visual simulation that depicts the addition of the proposed transmission line adjacent and to the north of SR78 as it crosses Mescal Bajada. This viewpoint analysis is representative of project views from the elevated vantage points along Yaqui Pass Road.

As shown in the simulation, the new steel, H-frame structures would be noticeable linear, vertical built features in an otherwise natural appearing landscape that exhibits a relatively prominent horizontal form and line. Also, the cleared access road and structure pads would contribute additional color and line contrast due to the visibility of exposed soils and unnatural demarcations in the vegetation, which is readily apparent from this elevated viewing location. Although the existing wood pole transmission line would be relocated underground, the visual improvement would be only slight because of the limited visibility/noticeability of the existing line. The resulting visual contrast would be moderate-to-high. The co-dominant project features would cause a moderate degree of view blockage of the background landform (Mescal Bajada). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). This conclusion is strongly influenced by the high degree of viewer concern assigned to this and other locations within the State Park. This viewpoint's special status as a scenic overlook is also an influential factor in determining the Class I impact. There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The open terrain along this route segment, when viewed from Kenyon Overlook, does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route (SR78 and Kenyon Overlook respectively), different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. While changing the tower design to lattice structures would make the project less visible from Kenyon Overlook, the structures would still be prominently visible from SR78 (adjacent to the proposed route) and the visual impact would still be significant (Class I). However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-10 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-11: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 8 at Kenyon Overlook

- V-3a Reduce visual contrast of towers and conductors.**
- V-8a Structure design consultation in ABDSP.**

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Figure D.3-9A. Key Viewpoint 8 – Proposed Project – Kenyon Overlook – Existing Condition
[CLICK HERE TO VIEW](#)

Figure D.3-9B. Key Viewpoint 8 – Proposed Project – Kenyon Overlook – Simulation
[CLICK HERE TO VIEW](#)

Impact V-12: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 9 at Station 6 on the Cactus Loop Trail out of Tamarisk Grove Campground (VS-VC) (Class I)

Figure D.3-10A presents the existing view to the south toward Tamarisk Grove Campground from KVP 9 at Station 6 on the Cactus Loop Trail out of Tamarisk Grove Campground in Anza-Borrego Desert State Park. Figure D.3-10B presents a visual simulation that depicts the proposed transmission line passing adjacent and to the south of the Campground and north of SR78. This viewpoint analysis is representative of project views from the elevated trail vantage points in the vicinity of Tamarisk Grove Campground. It should be noted that views of the Proposed Project from within the campground would be minimally affected because the existing trees that surround the campground almost entirely screen views to the east, south, and west. However, if during construction, any trees were to be removed that would open up views from the campground toward the project, the resulting visual impact could become significant.

The Cactus Loop Trail is a popular trail because it affords views of the surrounding landscape that are not available from within the campground. As shown in the simulation, the new steel, H-frame structures would be prominent, linear, vertical built features in the landscape. The industrial character and vertical form of the structures would contrast with the prominent horizontal line associated with the road cut and the horizontal distribution of trees at the campground and background landform. The resulting visual contrast would be moderate-to-high. The co-dominant project features would cause a moderate degree of view blockage of the background landform (Pinyon Mountains). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The confined terrain along this route segment does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. While changing the tower design to lattice structures would make the project slightly less visible from the Cactus Loop Trail, the structures would still be prominently visible from nearby trails and SR78 (adjacent to the proposed route) and the visual impact would still be significant (Class I). However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-12 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-12: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 9 at Station 6 of the Cactus Loop Trail

- V-3a** **Reduce visual contrast of towers and conductors.**
- V-8a** **Structure design consultation in ABDSP.**

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Figure D.3-10A. Key Viewpoint 9 – Proposed Project – Cactus Loop Trail – Existing Condition
[CLICK HERE TO VIEW](#)

Figure D.3-10B. Key Viewpoint 9 – Proposed Project – Cactus Loop Trail – Simulation
[CLICK HERE TO VIEW](#)

Impact V-13: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 in the Yaqui Well Primitive Camping Area (VS-VC) (Class I)

Figure D.3-11A presents the existing view to the west-southwest toward Grapevine Mountain from KVP 10 in the Yaqui Well Primitive Camping area, just west of Yaqui Pass Road (S3) in Anza-Borrego Desert State Park. Figure D.3-11B presents a visual simulation that depicts the proposed transmission line passing adjacent to the primitive camping area and heading west across Yaqui Flat, north of SR78. This viewpoint analysis is representative of project views from the Yaqui Well Primitive Camping Area, Yaqui Flat, and the entrance to Grapevine Canyon.

In-line views of the project from the primitive camping area or Grapevine Canyon Road would cause numerous structures to be visible in the same field of view. As shown in the simulation, the new lattice structures would introduce prominent, structurally complex features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics. The resulting visual contrast would be high. The co-dominant-to-dominant project features would cause a moderate-to-high degree of view blockage of the background landform (Grapevine Mountain) and sky. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The open terrain along the flat does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of either one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-13 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-13: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 in the Yaqui Well Primitive Camping Area

- V-3a Reduce visual contrast of towers and conductors.**
- V-8a Structure design consultation in ABDSP.**

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Figure D.3-11A. Key Viewpoint 10 – Proposed Project – Yaqui Well Primitive Camping Area –
Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-11B. Key Viewpoint 10 – Proposed Project – Yaqui Well Primitive Camping Area – Simulation

[**CLICK HERE TO VIEW**](#)

Impact V-14: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 11 on westbound SR78 (VS-VC) (Class I)

Figure D.3-12A presents the existing view to the northwest across Yaqui Flat from KVP 11 on westbound SR78 (a State-designated Scenic Highway in ABDSP), approximately 0.7 miles west of Yaqui Pass Road (S3) in Anza-Borrego Desert State Park. Figure D.3-12B presents a visual simulation that depicts the proposed transmission line crossing Yaqui Flat just to the north of SR78 and in front of Pinyon Ridge. This viewpoint analysis is representative of project views from SR78 when the Proposed Project is crossing the open flats (either north or south) adjacent to the highway.

As shown in the simulation, the new lattice structures would introduce prominent, structurally complex features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics. Also, the cleared structure pads would contribute additional color and line contrast due to the visibility of exposed soils and unnatural demarcations in the vegetation. The resulting visual contrast would be moderate-to-high. The co-dominant project features would cause a moderate degree of view blockage of the background landform (Yaqui Flat). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). This conclusion is strongly influenced by the high degree of viewer concern assigned to this and other locations within the State Park. This viewpoint's location on a State-designated Scenic Highway is also an influential factor in determining the Class I impact. There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The open terrain across Yaqui Flat and consistent backdrop do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-14 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-14: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 11 on westbound SR78

- V-3a Reduce visual contrast of towers and conductors.**
- V-8a Structure design consultation in ABDSP.**

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Figure D.3-12A. Key Viewpoint 11 – Proposed Project – Westbound SR78 – Existing Condition
[CLICK HERE TO VIEW](#)

Figure D.3-12B. Key Viewpoint 11 – Proposed Project – Westbound SR78 – Simulation
[CLICK HERE TO VIEW](#)

Impact V-15: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 12 on Grapevine Canyon Road within Anza-Borrego Desert State Park (VS-VC) (Class I)

Figure D.3-13A presents the existing view to the east down Grapevine Canyon from KVP 12 on Grapevine Canyon Road, just southeast of Angelina Spring in Anza-Borrego Desert State Park. Figure D.3-13B presents a visual simulation that depicts the proposed transmission line passing through the canyon. This viewpoint analysis is representative of project views from within Grapevine Canyon.

In-line views of the project from Grapevine Canyon Road would, in many cases, cause several structures to be visible in the same field of view. As shown in the simulation, the new lattice structures would introduce prominent, structurally complex features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics, though there is an existing wood-pole line in the canyon. The resulting visual contrast would be moderate-to-high. The co-dominant-to-dominant structures would cause a moderate-to-high degree of view blockage of the background sky and canyon slopes and ridges. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The confined terrain within Grapevine Canyon does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measures V-3a and V-8a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-15 though the significant impact would merely be shifted to different locations.

Mitigation Measures for Impact V-15: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 12 on Grapevine Canyon Road within Anza-Borrego Desert State Park

- V-3a Reduce visual contrast of towers and conductors.**
- V-8a Structure design consultation in ABDSP.**

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Figure D.3-13A. Key Viewpoint 12 – Proposed Project – Grapevine Canyon Road – Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-13B. Key Viewpoint 12 – Proposed Project – Grapevine Canyon Road – Simulation
[CLICK HERE TO VIEW](#)

D.3.7 Central Link Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Central Link would be as described above for the Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). Ancillary facilities along this link would include the proposed Central East Substation and the following construction staging areas and helicopter fly yards: (a) a portion of the Proposed Central East Substation pad and separate 4- and 7-acre sites for the batch plant and fly yard, respectively; (b) property adjacent to existing Warners Substation at the intersection of SR79 and S2 (material and equipment storage); and (c) SDG&E property adjacent to the existing Santa Ysabel Substation (material equipment and storage).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

Along the Central Link, the Proposed Project would result in significant and unmitigable (Class I) visual impacts as the project exits Grapevine Canyon, passes north of the San Felipe Hills and Volcan Mountains, and turns south through Santa Ysabel Valley. Long-term, operational visual impacts would be experienced by rural residences and travelers on the numerous public roads including Grapevine Canyon Road, San Felipe Road (S2), BIA Road 51, SR79 (State-eligible Scenic Highway), SR76 (State-eligible Scenic Highway), Mesa Grande Road, SR78, and other local access roads. Travelers on the Pacific Crest

Trail crossing Grapevine Mountain Wilderness and the San Felipe Hills would also experience significant visual impacts from the elevated views of the route passing through Grapevine Canyon before the transmission line would span the trail at the north end of the Hills. Visitors to the Mataguay Scout Ranch would also experience significant visual impacts as they approach and then pass beneath the line as it spans the access road to the Ranch. Although the Proposed Project would not be visible from the facilities in the Valley, it would be visible from the higher elevation trail to Pardee Outpost in the future when the Ranch's Master Plan is implemented. Users of the proposed San Dieguito River Trail would also experience the project's visual impacts. Seven representative KVPs (KVP 13 through KVP 19) were selected to characterize the visual impacts that would occur along the Central Link.

Impact V-16: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 13 on Grapevine Canyon Road, just west of Anza-Borrego Desert State Park (VS-VC) (Class I)

Figure D.3-14A presents the existing view to the east-southeast down Grapevine Canyon from KVP 13 on Grapevine Canyon Road, just west of the Anza-Borrego Desert State Park boundary. Figure D.3-14B presents a visual simulation that depicts the proposed transmission line passing through the canyon, adjacent to a rural residence. This viewpoint analysis is representative of project views from within upper Grapevine Canyon including Grapevine Canyon Road and adjacent residences.

In-line views of the project from Grapevine Canyon Road and adjacent rural residences would cause several structures to be visible in the same field of view. As shown in the simulation, the new lattice structures would introduce prominent, structurally complex features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics, though there is an existing wood-pole line in the canyon. The resulting visual contrast would be moderate-to-high. The co-dominant-to-dominant structures would cause a moderate-to-high degree of view blockage of the background sky and canyon slopes and ridges. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The confined terrain within Grapevine Canyon does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective and undergrounding the 500 kV line for an extended distance is not feasible. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of either one of the SWPL Alternatives or the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (230 kV line) through ABDSP, described later in this report, would eliminate Impact V-16 though the significant impact would merely be shifted to different locations.

Mitigation Measure for Impact V-16: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 13 on Grapevine Canyon Road, just west of Anza-Borrego Desert State Park

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

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Figure D.3-14A. Key Viewpoint 13 – Proposed Project – Upper Grapevine Canyon – Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-14B. Key Viewpoint 13 – Proposed Project – Upper Grapevine Canyon – Simulation
[CLICK HERE TO VIEW](#)

Impact V-17: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 14 on southbound SR79 (VS-VC) (Class I)

Figure D.3-15A presents the existing view to the south from KVP 14 on southbound SR79 (a State-eligible Scenic Highway), approximately 2.25 miles south of the intersection with San Felipe Road (S2). Figure D.3-15B presents a visual simulation that depicts the proposed transmission line as it parallels the east side of SR79 through San Jose Del Valle. This viewpoint analysis is representative of project views from and in the vicinity of SR79.

In-line views of the project from SR79 would cause several structures to be visible in the same field of view. As shown in the simulation, the new steel-pole structures would introduce structurally prominent features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics, though there are existing wood-pole lines in the vicinity. The resulting visual contrast would be moderate-to-high. The co-dominant structures would cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky (due to skylining). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The relatively open terrain and consistent backdrop along this route segment does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives or the Santa Ysabel All Underground Alternative, described later in this report, would eliminate the visual impacts along SR79 south of SR76 though under the SWPL Alternatives, the significant impact would merely be shifted to different locations. Implementation of the Santa Ysabel Partial Underground Alternative would eliminate the visual impacts along SR79 south of Mesa Grande Road.

Mitigation Measure for Impact V-17: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 14 on southbound SR79

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

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Figure D.3-15A. Key Viewpoint 14 – Proposed Project – Southbound SR79 – Existing Condition
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Figure D.3-15B. Key Viewpoint 14 – Proposed Project – Southbound SR79 – Simulation
[CLICK HERE TO VIEW](#)

Impact V-18: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 15 on westbound Mesa Grande Road (VS-VC) (Class I)

Figure D.3-16A presents the existing view to the northwest from KVP 15 on westbound Mesa Grande Road, just northwest of Green Oaks Drive. Figure D.3-16B presents a visual simulation that depicts the proposed transmission line as it spans and then parallels the south side of Mesa Grande Road. This viewpoint analysis is representative of project views from and in the vicinity of Mesa Grande Road.

As shown in the simulation, the new steel-pole structures would be prominently visible from Mesa Grande Road and nearby residences. The proposed structures would introduce substantial industrial character into a predominantly natural-appearing landscape lacking similar characteristics, though there is an existing wood-pole line in the vicinity. The resulting visual contrast would be high. The co-dominant-to-dominant structures would cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky (due to skylining). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The relatively open terrain along Mesa Grande Road does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective because they would merely shift the impact to a different location. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of any one of the SWPL Alternatives, the Santa Ysabel All Underground Alternative, or the Santa Ysabel Existing ROW Alternative, described later in this report would eliminate the visual impacts along Mesa Grande Road. However, the SWPL Alternatives or Existing ROW Alternative would merely shift the visual impact from Mesa Grande Road to other locations.

Mitigation Measure for Impact V-18: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 15 on westbound Mesa Grande Road

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

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Figure D.3-16A. Key Viewpoint 15 – Proposed Project – Mesa Grande Road – Existing Condition
[CLICK HERE TO VIEW](#)

Figure D.3-16B. Key Viewpoint 15 – Proposed Project – Mesa Grande Road – Simulation
[CLICK HERE TO VIEW](#)

Impact V-19: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 16 at the Inaja Monument Park Overlook (VS-VC) (Class I)

Figure D.3-17A presents the existing view to the west from KVP 16 at the Inaja Monument Park Overlook. Figure D.3-17B presents a visual simulation that depicts the proposed transmission line as it passes through the west side of Santa Ysabel Valley. This viewpoint analysis is representative of project views from the Inaja Monument Park Overlook and other elevated vantage points bordering the Santa Ysabel Valley.

As shown in the simulation, the new steel-pole structures would be prominently visible from the overlook. The proposed structures would introduce substantial industrial character into a predominantly natural-appearing landscape lacking similar characteristics, though there is an existing wood-pole line in the vicinity. The resulting visual contrast would be moderate-to-high. The co-dominant structures would cause a moderate-to-high degree of view blockage of the background hills. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. The open terrain along this route segment does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project to the extent feasible. It should also be noted that implementation of one of the SWPL Alternatives or the Santa Ysabel Partial Underground Alternative, described later in this report, would eliminate Impact V-19. However, the SWPL Alternatives would merely shift the significant visual impact to other locations.

Mitigation Measure for Impact V-19: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 16 at the Inaja Monument Park Overlook

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

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Figure D.3-17A. Key Viewpoint 16 – Proposed Project – Inaja Monument Park Overlook – Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-17B. Key Viewpoint 16 – Proposed Project – Inaja Monument Park Overlook –
Simulation

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Impact V-20: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 17 on westbound SR78 (VS-VC) (Class I)

Figure D.3-18A presents the existing view to the west toward the span of SR78 from KVP 17 on westbound SR78, approximately 0.4 miles west of the intersection with SR79. Figure D.3-18B presents a visual simulation that depicts the proposed transmission line as it spans SR78 along the west side of Santa Ysabel Valley. This viewpoint analysis is representative of project views from Santa Ysabel Valley in general and SR78 in particular.

As shown in the simulation, the new steel-pole structures would be prominently visible from SR78. The proposed structures would introduce substantial industrial character into a predominantly rural-appearing landscape lacking similar characteristics, though there are existing wood-pole lines along SR78. The resulting visual contrast would be moderate-to-high. The co-dominant structures would cause a moderate-to-high degree of view blockage of the background hills and sky (due to skylining). Despite Implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project.

Mitigation Measure for Impact V-20: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 17 on westbound SR78

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

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Figure D.3-18A/B. Key Viewpoint 17 – Proposed Project – Westbound SR78 Santa Ysabel –
Existing Condition and Simulation

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Proposed Central East Substation

Impact V-21: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Central East Substation site from Key Viewpoint 18 on BIA Road 51 (VS-VC) (Class I)

Figure D.3-19A presents the existing view to the north toward the proposed Central East Substation site from KVP 18 on BIA Road 51, approximately 0.9 miles west of San Felipe Road (S2). Views of the substation would be available to travelers and local residents on BIA Road 51. Figure D.3-19B presents a visual simulation that depicts the proposed substation. This viewpoint analysis is representative of close-in views in the vicinity of the substation site.

As shown in the simulation, the proposed substation would appear as an assemblage of complex, geometric forms with vertical to diagonal lines. The substation components would be prominently visible and would introduce considerable industrial character into a natural-appearing landscape lacking similar characteristics, though there is an existing wood-pole line nearby. The resulting visual contrast would be high. The co-dominant-to-dominant structures would cause a moderate degree of view blockage of the background sky due to the skylining that would occur. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact of the substation to a level that would be less than significant. The open terrain and exposed location do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Also, given the scale of the structures, landscape plantings would not be adequate to sufficiently screen the substation components. However, Mitigation Measures V-7a, V-7b, and V-21a would be required to reduce the visual impact of the Central East Substation. It should also be noted that implementation of one of the SWPL Alternatives or the Top of the World Substation Alternative, described later in this report, would eliminate Impact V-21. However, under the SWPL Alternatives, the Class I impact would merely be shifted to a different location.

Mitigation Measures for Impact V-21: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Central East Substation site from Key Viewpoint 18 on BIA Road 51

V-7a Reduce visual contrast associated with ancillary facilities.

V-7b Screen ancillary facilities.

V-21a Reduce night lighting impacts. SDG&E shall design and install all permanent lighting 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. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SDG&E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following:

- 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.

Figure D.3-19A/B. Key Viewpoint 18 – Proposed Project – BIA Road 51 – Existing Condition and Simulation

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Impact V-22: Increased structure contrast, industrial character, and view blockage when viewing the Central East Substation site from Key Viewpoint 19 on northbound San Felipe Road (VS-VC) (Class I)

Figure D.3-20A presents the existing view to the west-northwest toward the proposed Central East Substation site from KVP 19 on northbound San Felipe Road (S2), approximately 0.7 miles south of San Felipe. Views of the substation would be available to northbound travelers and local residents on San Felipe Road. Figure D.3-20B presents a visual simulation that depicts the proposed substation. This viewpoint analysis is representative of views from San Felipe Road (S2) and adjacent residences.

As shown in the simulation, the proposed substation would appear as an assemblage of complex, geometric forms with vertical to diagonal lines. The substation components would be noticeably visible and would introduce industrial character into a natural-appearing landscape lacking similar characteristics, though there is an existing wood-pole line nearby. The resulting visual contrast would be moderate-to-high. The subordinate-to-co-dominant structures would cause a low-to-moderate degree of view blockage of the background hill slopes and ridges. Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact of the substation to a level that would be less than significant. The open terrain and exposed locations of both the substation and approaching 500 kV structures, do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Also, given the scale of the structures, landscape plantings would not be adequate to sufficiently screen the substation components. However, Mitigation Measures V-7a, 7b and 21a would be required to reduce the visual impact of the Central East Substation. It should also be noted that implementation of any one of the SWPL Alternatives or the Top of the World Substation Alternative, described later in this report, would eliminate Impact V-22 if Mitigation Measure V-52a is implemented. However, under the SWPL Alternatives, the Class I impact would merely be shifted to a different location.

Mitigation Measures for Impact V-22: Increased structure contrast, industrial character, and view blockage when viewing the Central East Substation site from Key Viewpoint 19 on northbound San Felipe Road (S2)

- V-7a Reduce visual contrast associated with ancillary facilities.**
- V-7b Screen ancillary facilities.**
- V-21a Reduce night lighting impacts.**

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Figure D.3-20A/B. Key Viewpoint 19 – Proposed Project – Northbound San Felipe Road –
Existing Condition and Simulation

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D.3.8 Inland Valley Link Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Inland Valley Link would be as described above for the Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). Ancillary facilities along this link would include material and equipment storage yards at the following two locations: (a) north end of Gunn Stage Road at the entrance to Mount Gower Preserve, and (b) an existing 40-acre SDG&E parcel at the northwest corner of Ashley Road and Creelman Lane.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

Along the Inland Valley Link, the aboveground portion of the Proposed Project would result in significant and unmitigable (Class I) visual impacts as the project passes southwest of Ramona, south of Iron Mountain, and then crosses the northern reach of West Sycamore Canyon. Long-term, operational visual impacts would be experienced by numerous rural residences and suburban residential developments, as well as numerous public roads including Old Julian Highway, Westside Road, Little Page Road, San Vicente Road, Mussey Grade Road, SR67 and other local access roads. Two representative KVPs (KVP 20 and KVP 21) were selected to characterize the visual impacts that would occur along the Inland Valley Link.

Impact V-23: Increased structure contrast, industrial character, view blockage, and skylining when viewing Cable Poles 1124 from Key Viewpoint 20 on westbound San Vicente Road (VS-VC) (Class I)

Figure D.3-21A presents the existing view to the west toward the proposed cable pole from KVP 20 on westbound San Vicente Road, just west of Chuck Wagon Road. Figure D.3-21B presents a visual simulation that depicts the proposed transition structures, just north of San Vicente Road. This viewpoint analysis is representative of views of the cable poles from San Vicente Road and nearby residences.

As shown in the simulation, the new cable poles would be structurally complex and prominently visible from San Vicente Road. The proposed structures would also introduce substantial industrial character into the predominantly rural-appearing landscape lacking similar characteristics. The resulting visual contrast would be moderate-to-high. The co-dominant structures would cause a moderate degree of view blockage of the background hills and sky (due to skylining). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). There is no mitigation available to reduce the significant visual impact of the cable pole at the proposed location to a level that would be less than significant. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project. It should also be noted that implementation of either the San Vicente Road Transition Alternative or the Chuck Wagon Road Alternative, described later in this report, would eliminate Impact V-23.

Mitigation Measure for Impact V-23: Increased structure contrast, industrial character, view blockage, and skylining when viewing Cable Poles 1124 from Key Viewpoint 20 on westbound San Vicente Road

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

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Figure D.3-21A. Key Viewpoint 20 – Proposed Project – San Vicente Road – Existing Condition
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Figure D.3-21B. Key Viewpoint 20 – Proposed Project – San Vicente Road – Simulation
[CLICK HERE TO VIEW](#)

Impact V-24: Increased structure contrast, industrial character, view blockage, and skylining when viewing the span of SR67 from Key Viewpoint 21 on southbound SR67 (VS-VC) (Class I)

Figure D.3-22A presents the existing view to the east-southeast toward the proposed span of SR67 from KVP 21 on southbound SR67, approximately 0.25 miles north of the span. Figure D.3-22B presents a visual simulation that depicts the Proposed Project's span of SR67, approximately one mile south of the intersection with Scripps Poway Parkway. This viewpoint analysis is representative of views of the project in the vicinity of SR67 and Sycamore Canyon.

As shown in the simulation, the new steel-pole structures and conductors would be prominently visible from SR67. The proposed structures would introduce substantial industrial character into a predominantly rural-appearing landscape lacking similar characteristics, though there are smaller existing wood-pole and steel-pole lines along SR67. The resulting visual contrast would be moderate. The co-dominant structures would cause a moderate-to-high degree of view blockage of the background hills and sky (due to skylining). Despite implementation of APMs VR-1 through VR-6 (as set forth in Table D.3-10), the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant and unavoidable (Class I). This conclusion is strongly influenced by the highly visible locations of these structures and the high degree of viewer concern assigned. There is no mitigation available to reduce the significant visual impact to a level that would be less than significant. The open terrain and lack of vegetation in the vicinity of the SR67 span, results in a lack of opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes or structure placements would not be effective. Also, with the availability of both close and distant views of the route along SR67, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a would be required to reduce the visual impact along this portion of the project. It should also be noted that implementation of any one of the SWPL Alternatives, described later in this report would eliminate Impact V-24 but the Class I impact would merely be shifted to other locations.

Mitigation Measure for Impact V-24: Increased structure contrast, industrial character, view blockage, and skylining when viewing the span of SR67 from Key Viewpoint 21 on southbound SR67

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

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Figure D.3-22A/B. Key Viewpoint 21 – Proposed Project – Southbound SR67 – Existing
Condition and Simulation

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D.3.9 Coastal Link Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Coastal Link would be as described above for the Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). Ancillary facilities along this link would include Sycamore Canyon and Peñasquitos Substations and a material and equipment storage yard east of the 200-foot ROW at existing Chicarita Substation.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

Along the Coastal Link, the aboveground portions of the Proposed Project would result in significant and mitigable (Class II), and adverse but less than significant (Class III) visual impacts as the project crosses the more urbanized coastal portion of the project area. Long-term, operational visual impacts would be experienced by numerous suburban residential developments, commercial developments, and travelers on the numerous public roads including Pomerado Road, Cypress Canyon Road, Candy Rose Way, Evergold Street, Springbrook Drive, Scripps Poway Parkway, Ivy Hill Drive, Wexford Street, Scripps Summit Drive, Poway Road, I-15, Rancho Peñasquitos Boulevard, Carmel Mountain Road, East. Ocean Air Drive,

and other residential streets. Five representative KVPs (KVP 22 through KVP 26) were selected to characterize the visual impacts that would occur along the Coastal Link.

Impact V-25: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 22 on Cypress Canyon Park Drive (VS-VC) (Class III)

Figure D.3-23A presents the existing view to the northwest toward the Proposed Project from KVP 22 on Cypress Canyon Park Drive, midway between Cypress Terrace Place and Candy Rose Way in Miramar Ranch North. Figure D.3-23B presents a visual simulation that depicts the addition of the Proposed Project to an existing transmission line corridor. This viewpoint analysis is representative of the numerous residential views along this portion of the project.

As shown in the simulation, the new steel-pole structures would be of the same design and height as the existing 230 kV transmission line and the structures would be paired up. The conductor spans would be matched to the extent possible. An existing H-frame transmission line would be replaced by the new structures. However, from this viewing perspective (looking upslope from the south), the existing H-frame structures appear comparably prominent with the 230 kV tubular steel pole line while the new structures would be taller but structurally less complex than the H-frame structures they would replace. As a result, visual contrast would be low-to-moderate because the visual change is less noticeable than from other viewing locations. The co-dominant structures would cause a low-to-moderate degree of view blockage of the background sky (due to skylining). Additionally, implementation of APMs VR-1 through VR-6 would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. As a result, the overall visual change would be low-to-moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). Mitigation Measures V-3a and V-25a are also recommended to provide additional detail pertaining to structure design and placement, in compliance with NEPA. Although Mitigation Measures V-3a and V-25a are recommended to reduce the visual impact along this portion of the project in compliance with NEPA, they are not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-25: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 22 on Cypress Canyon Park Drive

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

V-25a Structure design and placement guidance. The following design and placement measures shall be applied to all new 230 kV structures and conductors in the Coastal Link in order to reduce the degree of visual contrast caused by the new facilities:

- All new structures are to as closely as possible match the design of the existing structures with which they will be seen.

- All new structures are to be paired as closely as possible with the existing structures in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements.
- All new structures are to match the heights of the existing structures to the extent possible as dictated by variation in terrain.
- All new spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans.

Figure D.3-23A/B. Key Viewpoint 22 – Proposed Project – Cypress Canyon Park Drive – Existing Condition and Simulation

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Impact V-26: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 23 at Spring Canyon Park (VS-VC) (Class III)

Figure D.3-24A presents the existing view to the east-northeast toward the Proposed Project from KVP 23 at the southwest corner of Spring Canyon Neighborhood Park, on Scripps Poway Parkway. Figure D.3-24B presents a visual simulation that depicts the addition of the Proposed Project to an existing transmission line corridor. This viewpoint analysis is representative of the numerous residential, park, and roadway views along Scripps Poway Parkway.

As shown in the simulation, the new steel-pole structures would be of the same design and height as an existing 230 kV transmission line and the structures would be paired up. The conductor spans would be matched to the extent possible. An existing H-frame transmission line would be replaced by the new structures. However, from this viewing angle, the H-frame structures appear substantially less prominent compared to KVP 22 and the new structures would be taller but structurally less complex than the H-frame structures they would replace. The resulting visual contrast would be moderate because the level of visible change would appear greater (compared to KVP 22). The co-dominant structures would cause a moderate degree of view blockage of the background sky (due to skylining). Additionally, implementation of APMs VR-1 through VR-6 (presented in Table D.3-10) would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. As a result, the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). This conclusion is substantially influenced by the relatively lower noticeability of incremental change due to the existing presence of similar scale (and in some cases design) structures. Mitigation Measures V-3a and V-25a are recommended to provide additional detail pertaining to structure design and placement. Although Mitigation Measures V-3a and V-25a are recommended to reduce the visual impact along this portion of the project, in compliance with NEPA, they are not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-26: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 23 at Spring Canyon Park

- V-3a Reduce visual contrast of towers and conductors.**
- V-25a Structure design and placement guidance.**

Figure D.3-24A/B. Key Viewpoint 23 – Proposed Project – Spring Canyon Park – Existing Condition and Simulation

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Impact V-27: Increased structure contrast, industrial character, view blockage, and skylining when viewing Cable Pole C32 from Key Viewpoint 24 on Calle De Las Rosas (VS-VC) (Class II)

Figure D.3-25A presents the existing view to the north-northeast toward the proposed cable pole from KVP 24 on Calle De Las Rosas, just southwest of the intersection with Rancho Peñasquitos Boulevard. Figure D.3-25B presents a visual simulation that depicts the proposed transition structure, just east of Rancho Peñasquitos Boulevard and just south of Chicarita Substation. This viewpoint analysis is representative of views of the cable pole from Calle De Las Rosas, Rancho Peñasquitos Boulevard, and nearby residences.

As shown in the simulation, the new cable pole would be structurally complex and prominently visible from the residential development along Calle De Las Rosas and Rancho Peñasquitos Boulevard. The proposed structure would also introduce substantial industrial character into the suburban landscape though there are adjacent transmission lines and Chicarita Substation is slightly visible above the vegetation and hilltop to the north. The resulting visual contrast would be moderate-to-high. The co-dominant-to-dominant structure would cause a moderate degree of view blockage of the background hills and sky (due to skylining). Additionally, implementation of APMs VR-1 through VR-6 would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. As a result, the overall visual change would be moderate-to-high when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be significant though mitigable (Class II). Mitigation Measures V-3a and V-27a would reduce the visual impact associated with the cable pole to a level that would be less than significant. This measure would require the relocation of Cable Pole C32 approximately 0.12 miles north to the northwest corner of Chicarita Substation. From here, the line would transition underground, heading north to Azuaga Street. The underground route would turn west at Azuaga Street and continue west along the south side of the Highway 56 off-ramp and Highway 56 for a distance of approximately 0.25 miles west of Rancho Peñasquitos Boulevard. At this point, the route would rejoin the proposed ROW. The relocation of the cable pole would place it in a location that would be less visible to both nearby residents and motorists. Figure D.3-25C shows the location of this mitigation measure on a map.

Mitigation Measures for Impact V-27: Increased structure contrast, industrial character, view blockage, and skylining when viewing Cable Pole C32 from Key Viewpoint 24 on Calle De Las Rosas

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

V-27a Relocate of Cable Pole C32 to the north side of Chicarita Substation. Require the relocation of Cable Pole C32 approximately 0.12 miles north to the northwest corner of Chicarita Substation, as shown in Figure D.3-25C.

Figure D.3-25A. Key Viewpoint 24 – Proposed Project – Calle De Las Rosas – Existing Condition
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Figure D.3-25B. Key Viewpoint 24 – Proposed Project – Calle De Las Rosas – Simulation
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Figure D.3-25C. Chicarita Substation Cable Pole Relocated per Mitigation Measure V-27a
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Impact V-28: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 25 at The Preserve residential development on Del Mar Mesa (VS-VC) (Class III)

Figure D.3-26A presents the existing view to the south toward the Proposed Project from KVP 25 in The Preserve residential development on Del Mar Mesa. Figure D.3-26B presents a visual simulation that depicts the addition of the Proposed Project to an existing transmission line corridor. This viewpoint analysis is representative of the ridge-top and mesa\top residential views along this portion of the route.

As shown in the simulation, the new steel-pole structures would be of a different design but similar height compared to the existing 230 kV transmission line in the corridor. The conductor spans would be matched to the extent possible. An existing H-frame transmission line would be replaced by the new structures. The new structures would be taller but structurally less complex than the H-frame structures they would replace. The resulting visual contrast would be moderate. The co-dominant structures would cause a moderate degree of view blockage of the background sky (due to skylining). Implementation of APMs VR-1 through VR-6 (presented in Table D.3-10) would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. As a result, the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). This conclusion is substantially influenced by the relatively lower noticeability of incremental change due to the existing presence of similar scale (and in some cases design) structures. Mitigation Measures V-3a and V-25a are also recommended to provide additional detail pertaining to structure design and placement. Although Mitigation Measures V-3a and V-25a are recommended to reduce the visual impact along this portion of the project, in compliance with NEPA, they are not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-28: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 25 at The Preserve residential development on Del Mar Mesa

- V-3a Reduce visual contrast of towers and conductors.**
- V-25a Structure design and placement guidance.**

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Figure D.3-26. Key Viewpoint 25 – Proposed Project – The Preserve – Existing Condition and Simulation

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Impact V-29: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 26 on Corte Belleza in Torrey Hills (VS-VC) (Class III)

Figure D.3-27A presents the existing view to the southeast toward the Proposed Project from KVP 26 in the southern cul-de-sac on Corte Belleza, just to the north of Carmel Mountain Road in Torrey Hills. Figure D.3-27B presents a visual simulation that depicts the addition of the Proposed Project to an existing transmission line corridor. This viewpoint analysis is representative of the residential, commercial, and roadway views along this portion of the route.

As shown in the simulation, the new steel-pole structures would be of a different design but similar height compared to the existing 230 kV transmission line in the corridor. The conductor spans would be matched to the extent possible. An existing H-frame transmission line would be replaced by the new structures. The new structures would be taller but structurally less complex than the H-frame structures they would replace. The resulting visual contrast would be moderate. The co-dominant structures would cause a moderate degree of view blockage of the background sky (due to skylining). Implementation of APMs VR-1 through VR-6 (presented in Table D.3-10) would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. As a result, the overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). This conclusion is substantially influenced by the relatively lower noticeability of incremental change due to the existing presence of similar scale (and in some cases design) structures. Mitigation Measures V-3a and V-25a are recommended to provide additional detail pertaining to structure design and placement. Although Mitigation Measures V-3a and V-25a are recommended to reduce the visual impact along this portion of the project, in compliance with NEPA, they are not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-29: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 26 on Corte Belleza in Torrey Hills

- V-3a Reduce visual contrast of towers and conductors.**
- V-25a Structure design and placement guidance.**

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Figure D.3-27. Key Viewpoint 26 – Proposed Project – Corte Belleza – Existing Condition and Simulation

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Modifications to Sycamore Canyon Substation

Construction Impacts

Construction impacts associated with the modifications to Sycamore Canyon Substation would be similar to those described above for Imperial Valley Substation in Section D.3.5.1 and would include visibility of construction activities and equipment (Impact V-1).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class III)

The primary viewing opportunities of concern in the vicinity of the substation would be from nearby residential developments. Due to the relatively short duration of project construction in any one geographic area (approximately 24 months or less), project construction impacts would be adverse, but less than significant (Class III) visual impacts. In particular, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. APM VR-4 (presented in Table D.3-10) would be somewhat helpful in preventing the impact at these sites because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits. However, to ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b (full text presented above) are recommended in compliance with NEPA, but are not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

Operational impacts would include the long-term visibility of new components including dead-end structures, circuit breakers, disconnect switches, communication interfaces, and metering equipment. All new structures and equipment would be located within the existing fenced substation property with the tall dead-end structures being the most noticeable of the new facilities.

Impact V-30: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Sycamore Canyon Substation modifications from the nearby ridgetop residential developments (VS-VC) (Class III)

The new dead-end structures would be noticeable from nearby ridgetop residential developments. The new structures and equipment would increase overall structural complexity and industrial character of the site. However, the resulting visual contrast for form and line would be low-to-moderate in the context of the existing substation characteristics. The subordinate to co-dominant structures would also cause a slight increase of view blockage of background sky (due to skylining). Implementation of APMs VR-1 through VR-6 (presented in Table D.3-10) would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to

indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. The resulting overall level of change would be low-to-moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). While the visual impacts at the substation would be less than significant, Mitigation Measures V-7a and V-7b are recommended to further reduce the visual impact of the substation modifications. While Impact V-30 would be less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1).

Mitigation Measures for Impact V-30: Increased structure contrast, industrial character, view blockage, and skylining when viewing the Sycamore Canyon Substation modifications from the nearby ridgetop residential developments

V-7a Reduce visual contrast associated with ancillary facilities.

V-7b Screen ancillary facilities.

Modifications to Peñasquitos Substation

Construction Impacts

Construction impacts associated with the modifications to Sycamore Canyon Substation would be similar to those described above for Imperial Valley Substation in Section D.3.5.1 and would include visibility of construction activities and equipment (Impact V-1).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the substation. Construction impacts at the substation could last two years and the resulting visual impact would be significant but mitigable (Class II). Mitigation Measures V-1a and V-1b (full text presented above) are required to reduce the impacts to levels that would be less than significant.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

Operational impacts would include the long-term visibility of new components including circuit breakers, disconnect switches, bus support structures, protection relay panels, and communication interfaces. However, the new structures and equipment would be similar to the respective facilities in place at the

substation and there would be no additional structurally prominent facilities such as dead-end structures. As a result, the new components would be minimally noticeable.

Impact V-31: Increased structure contrast and industrial character when viewing the Peñasquitos Substation modifications from nearby residential developments and public roads (VS-VC) (Class III)

The new structures and equipment and Peñasquitos Substation would be minimally noticeable from nearby residential developments and public roads. The new structures and equipment would slightly increase overall structural complexity and industrial character of the site. However, the resulting visual contrast for form and line would be low in the context of the existing substation characteristics. The subordinate to co-dominant structures would also cause a slight increase of view blockage of background sky (due to skylining). Implementation of APMs VR-1 through VR-6 (presented in Table D.3-10) would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. The resulting overall level of change would be low when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). While the visual impacts at the substation would be less than significant, Mitigation Measures V-7a and V-7b are recommended to further reduce the visual impact of the substation modifications. While Impact V-31 would be less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1).

Mitigation Measures for Impact V-31: Increased structure contrast and industrial character when viewing the Peñasquitos Substation modifications from nearby residential developments and public roads

V-7a Reduce visual contrast associated with ancillary facilities.

V-7b Screen ancillary facilities.

D.3.10 Other System Upgrades – Impacts and Mitigation Measures

Reconductor Sycamore Canyon to Elliot 69 kV Line

Construction Impacts

Construction impacts associated with the reconductoring of the Sycamore Canyon to Elliot 69 kV Line would be similar to those described above in Section D.3.5.1 and would include visibility of construction activities and equipment (Impact V-1).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the

project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

Operational impacts would be minimally noticeable because the new components (insulators and conductors) would appear similar (insulators) to identical (conductors) when compared to the components that would be replaced. To the extent that any change is noticed as a result of the reconductoring and replacement of insulators, the impact would be adverse but less than significant (Class III). No mitigation is recommended or required.

Modifications to San Luis Rey Substation

Construction Impacts

Construction impacts associated with the modifications to San Luis Rey Substation would be similar to those described above for Imperial Valley Substation in Section D.3.5.1 and would include visibility of construction activities and equipment (Impact V-1).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not

appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the substation. Construction impacts at the substation could last two years and the resulting visual impact would be significant but mitigable (Class II). Mitigation Measures V-1a and V-1b (full text presented above) are required to reduce the impacts to levels that would be less than significant.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

Operational impacts would include the long-term visibility of new components including dead-end structures, circuit breakers, disconnect switches, a transformer, a capacitor with surge arrestors, current limiting reactors, communication interfaces, and protection relay panels. All new structures and equipment would be located within the existing fenced substation property with the tall dead-end structures being the most noticeable of the new facilities.

Impact V-32: Increased structure contrast, industrial character, view blockage, and skylining when viewing the San Luis Rey Substation modifications from the nearby residences and public roads (VS-VC) (Class III)

The new dead-end structures would be noticeable from nearby residences and public roads. The new structures and equipment would increase overall structural complexity and industrial character of the site. However, the resulting visual contrast for form and line would be low-to-moderate in the context of the existing substation characteristics. The subordinate to co-dominant structures would also cause a slight increase of view blockage of background sky (due to skylining). Implementation of APMs VR-1 through VR-6 would ensure that structures would be placed at the maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard features and/or allow conductors to clearly span the features where possible within the limits of standard design. The resulting overall level of change would be low-to-moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). While the visual impacts at the substation would be less than significant, Mitigation Measures V-7a and V-7b are recommended to further reduce the visual impact of the substation modifications. While Impact V-32 would be less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1).

Mitigation Measures for Impact V-32: Increased structure contrast, industrial character, view blockage, and skylining when viewing the San Luis Rey Substation modifications from the nearby residences and public roads

V-7a Reduce visual contrast associated with ancillary facilities.

V-7b Screen ancillary facilities.

Modifications to South Bay Substation

Construction Impacts

Construction impacts associated with the modifications to South Bay Substation would be similar to those described above in Section D.3.5.1 for Imperial Valley Substation and would include visibility of construction activities and equipment (Impact V-1).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the substation. Construction impacts at the substation could last two years and the resulting visual impact would be significant but mitigable (Class II). Mitigation Measures V-1a and V-1b (full text presented above) are required to reduce the impacts to levels that would be less than significant.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

Operational impacts would include the long-term visibility of new components including a shunt capacitor, switch rack, circuit breaker, capacitor bank with associated reactors and surge arrestors, disconnect switches, and protection relay panels. All new structures and equipment would be located within the existing fenced substation property.

Impact V-33: Increased structure contrast and industrial character when viewing the South Bay Substation modifications from nearby public parks and roads (VS-VC) (Class III)

The new structures and equipment would be minimally noticeable within the context of the existing substation and its substantial industrial character. To the extent that the new components are noticeable, they would only slightly increase overall structural complexity and industrial character of the site. The resulting visual contrast for form and line would be low in the context of the existing substation characteristics. The subordinate structures would also cause only a slight increase of view blockage of background sky (due to skylining), but only from limited vantage points. Implementation of APMs VR-1 through VR-6 (presented in Table D.3-10) would ensure that structures would be placed at the

maximum feasible distance from highway, canyon, and trail crossings; that a dulled metal finish would be used on all structures and conductors; that the spacing of structures would match existing structures where feasible; that no paint or permanent discoloring agents would be applied to rocks or vegetation to indicate survey or construction activity limits; that structures would not be installed directly in front of residences or in direct line-of-sight from a residence where possible; and that structures in scenic view areas would be placed to avoid sensitive features and/or allow conductors to clearly span the features where possible within the limits of standard design. The resulting overall level of change would be low when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's low-to-moderate overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). While the visual impacts at the substation would be less than significant, Mitigation Measures V-7a and V-7b are recommended to further reduce the visual impact of the substation modifications. While Impact V-33 would be less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1).

Mitigation Measures for Impact V-33: Increased structure contrast and industrial character when viewing the South Bay Substation modifications from nearby public parks and roads

V-7a Reduce visual contrast associated with ancillary facilities.

V-7b Screen ancillary facilities.

D.3.11 Future Transmission System Expansion

The Proposed Project would facilitate the possible future construction of additional 230 kV and 500 kV transmission lines. These lines are not proposed at this time, but because the construction of the Proposed Project would include a substation and create new transmission corridors that could be used by these additional circuits, impact analysis is presented in this EIR/EIS.

D.3.11.1 Environmental Setting: 230 kV Future Transmission System Expansion

As described in Section B.2.7, the Central East Substation that would be built as a part of the Proposed Project would accommodate up to six 230 kV circuits. Only two circuits are proposed by SDG&E at this time, but construction of additional 230 kV circuits out of the Central East Substation may be required within the next 10 years. This section considers the impacts of construction and operation of these potential future transmission lines. Based on information provided by SDG&E, there are four substation endpoints and five routes that would be most likely for these future lines; each is addressed below. Figure B-12a illustrates the potential routes of each of the 230 kV transmission lines.

Central East Substation to Sycamore Canyon or Peñasquitos Substation

The future 230 kV lines from the Central East Substation to Sycamore or Peñasquitos Substation would most likely follow the proposed SRPL project route.

Central Link

See Section D.3.2.3 for more information on the setting in this link. The future 230 kV line would follow the proposed SRPL project route from the Central East Substation through the Central Link route and would head north and west across the north end of the Volcan Mountains and Matagual Valley before turning south to parallel and then cross SR79, near the junction with SR76. Continuing south, the Cen-

tral Link would cross Mesa Grande Road, Santa Ysabel Valley, and SR78 just west of the community of Santa Ysabel before turning to the southwest.

Views of the future 230 kV line would be available from several rural residences and numerous public roads including Grapevine Canyon Road, San Felipe Road (S2), BIA Road 51, SR79 (State-eligible Scenic Highway), SR76 (State-eligible Scenic Highway), Mesa Grande Road, SR78, and other local access roads. The new 230 kV line along the proposed SRPL route would also be visible from the proposed San Dieguito River Trail between Sutherland Lake and the town of Santa Ysabel. Although the area is relatively undeveloped, there are notable built features including the linear forms of the paved and unpaved roads and existing electric transmission infrastructure including several wood-pole utility lines.

Seven areas of potential visual sensitivity were identified as representative of the landscapes and views available along the proposed SRPL project: (1) views of the proposed route from the upper end of Grapevine Canyon in the vicinity of rural residences, (2) the view of the Proposed Central East Substation from BIA Road 51 (to capture local residential access views), (3) the view of the Proposed Central East Substation from San Felipe Road (the primary travel corridor in the area of the substation site), (4) views of the route from SR79 (a State-eligible Scenic Highway), (5) the view of the route from Mesa Grande Road (a primary rural residential access road), (6) the vista view from Inaja Monument Park Overlook, and (7) the view of the route's span of SR78 just west of the community of Santa Ysabel. Therefore, seven representative KVPs (KVP 13 through KVP 19) describe the visual setting along this link. The location of each of these KVPs is shown on Figure D.3-1C. The results of the visual analysis are summarized in table format in Appendix VR-1.

Inland Valley Link

See Section D.3.2.4 for more information on the setting in this link. Extending from just southwest of Santa Ysabel to Sycamore Canyon Substation, the Inland Valley Link of the future 230 kV line along the proposed SRPL project continues to pass through rural areas of San Diego County, though becoming progressively more urbanized moving to the west. Urban and suburban landscapes in the town of Ramona are surrounded by large expanses of unimproved areas that contain wooded slopes, open meadows, and grassy rolling hills. There are numerous groupings of residences as well as dispersed residences throughout the less developed portion of the link. Passing south of Ramona along San Vicente Road, the route would diverge from San Vicente to the west and south, crossing Mussey Grade Road before spanning SR67 and connecting to Sycamore Canyon Substation. Although the area is relatively undeveloped, there are several wood-pole utility lines and a steel-pole transmission line that cross the landscape.

Views of the future 230 kV line along the proposed SRPL project would be available from numerous rural residences and suburban residential developments, as well as numerous public roads including Old Julian Highway, Westside Road, Little Page Road, San Vicente Road, Mussey Grade Road, SR67 and other local access roads.

Two areas of potential visual sensitivity were selected for detailed analysis for the proposed SRPL project: (1) views of the proposed cable pole (aboveground to underground transition structure) from San Vicente Road in Ramona, and (2) views of the span of SR67 from SR67. Therefore, two KVPs (20 and 21) provide representative descriptions of the visual setting along this link. The location of each of these KVPs is shown on Figure D.3-1D. The results of the visual analysis are summarized in table format in Appendix VR-1.

Coastal Link

See Section D.3.2.5 for more information on the setting of this link. Extending from Sycamore Canyon Substation in the east to Peñasquitos Substation in the west, the Coastal Link of the future 230 kV line along the proposed SRPL project passes through a highly urbanized portion of the City of San Diego and several coastal communities. This urban landscape is topographically diverse and includes canyons, hillsides, and ridges ranging in elevation from 200 feet in the Los Peñasquitos Canyon Preserve to 1,700 feet in Rancho Encantada. Much of the planned suburban and commercial development that dominates this link is located on flat to gently sloping terraces, interspersed with parks and open spaces. The residential communities crossed by the proposed route include Rancho Encantada, Scripps Miramar Ranch, Miramar Ranch North, Rancho Peñasquitos, Carmel Valley, and Torrey Hills. This area also hosts a number of existing transmission facilities.

Views of the future 230 kV line along the proposed SRPL project would be available from numerous suburban residential and commercial developments, and numerous public roads including Pomerado Road, Cypress Canyon Road, Candy Rose Way, Evergold Street, Springbrook Drive, Scripps Poway Parkway, Ivy Hill Drive, Wexford Street, Scripps Summit Drive, Poway Road, I-15, Rancho Peñasquitos Boulevard, Carmel Mountain Road, East Ocean Air Drive, and other residential streets.

Five areas of potential visual sensitivity were selected as representative of the landscapes and views available along this link for the proposed SRPL project. Detailed analyses were conducted for these representative KVPs and included: (1) the view from Cypress Canyon Park Drive in Miramar Ranch North, (2) the view from Spring Canyon Park off of Scripps Poway Parkway, (3) residential views in the vicinity of the cable pole at Chicarita Substation, (4) the distant ridgeline views from The Preserve residential development in Dell Mar Mesa, and (5) landscape views from the commercial and residential areas near Peñasquitos Substation. The location of each of these KVPs is shown on Figure D.3-1E. The results of the visual analysis are summarized in table format in Appendix VR-1.

Central East Substation to Mission Substation

The future 230 kV line from the Central East Substation to Sycamore Substation would most likely follow the proposed SRPL project route for 45.3 miles (see Central Link and Inland Valley Link information above). From the Sycamore Canyon Substation to the Mission Substation, the line would pass through the Marine Corps Air Station Miramar, Mission Trails Regional Park, and residential areas in the City of San Diego.

Views of the future 230 kV line would be available from numerous suburban residential areas, rural residences, a regional park, and commercial developments, as well as numerous public roads. Although some areas are relatively undeveloped, there are notable built features including the linear forms of the paved and unpaved roads and existing electric transmission infrastructure including several wood-pole utility lines.

Central East Substation to Los Coches Substation

The future 230 kV line from the Central East Substation to Los Coches Substation would most likely follow the proposed SRPL project route for 31.2 miles to approximately 1.0 mile south of the Creelman Substation in the Town of Ramona (see Central Link and Inland Valley Link information above). The future 230 kV line would pass through unincorporated rural residential areas of San Diego County and hilly open space on the Barona Reservation east of the San Vicente Reservoir and west of the Barona

Creek Golf Club, Barona Valley Resort and Casino, and Oak Oasis Open Space Preserve. The route would then pass through or adjacent to Louis A. Stelzer County Park, cross the San Diego River and terminate at the existing Los Coches Substation 0.3 miles northwest of Lake Jennings near Lake Jennings County Park and the community of Lakeside. Other route segments to Los Coches would include a route along Creelman Road, crossing San Vicente Road west of its intersection with Wildcat Canyon Road.

Views of the future 230 kV line would be available from numerous suburban residential areas, rural residences, a golf course, various open space and recreations areas, commercial developments, as well as numerous public roads. Although some areas are relatively undeveloped, there are notable built features including the linear forms of the paved and unpaved roads and existing electric transmission infrastructure including several wood-pole utility lines.

Central East Substation to Escondido Substation

Northern Route. From the proposed Central East Substation, the future 230 kV transmission line route would travel west through Vista Irrigation District land paralleling the proposed SRPL route for approximately 6.6 miles to its intersection with SR79. At SR79 the line would diverge from the proposed SRPL route and would head north parallel to SR79 for approximately 1.2 miles to the intersection of Highway S2 with SR79 at the existing Warner Substation. From there the route would parallel the existing 69 kV corridor west across open space owned by Vista Irrigation District north of Lake Henshaw and then it would turn southwest, following the northwest edge of the lake to SR76.

At SR76 the route would turn west-northwest paralleling SR76 for 13.3 miles following the existing Warners-Rincon 69 kV transmission corridor across and/or bordering parcels of the Cleveland National Forest for approximately four miles and across La Jolla Reservation for six miles and then into to Rincon Substation, which is just north of the Rincon Reservation at the Highway S6 intersection with SR76. The hilly route along SR76 is primarily agricultural/open space with scattered rural residences.

At Rincon Substation the route would diverge from SR76 and would follow the existing Rincon-Escondido 69 kV corridor, generally parallel to Highway S6 south, through the Rincon Reservation for three miles passing through some medium density single family residential and commercial land uses. South of the Rincon Reservation, the route would turn west in the Valley Center Substation area generally paralleling Highway S6, passing on the west side of Hellhole Canyon County Open Space Preserve (approximately 0.30 miles from the ROW), and then would turn south on the east side of Highway S6 for 1.6 miles before turning southwest, crossing Highway S6, and entering the City of Escondido after approximately 0.75 miles. The new line could run adjacent to or cross Daley Ranch near Escondido. In the City of Escondido, the route would turn south and then southwest for approximately eight miles following the existing 69 kV corridor into Escondido Substation.

Views of the future 230 kV line would be available from numerous suburban residential areas, rural residences, various open space and recreational areas, wilderness areas, commercial developments, as well as numerous public roads. Although some areas are relatively undeveloped, there are notable built features including the linear forms of the paved and unpaved roads and existing electric transmission infrastructure including several wood-pole utility lines.

Southern Route. From Central East Substation, the future Southern 230 kV would most likely follow the proposed SRPL project route for approximately 51.3 miles to Chicarita Substation (see discussions of the Central, Inland Valley, and Coastal Links above for more information about this portion of the

route). From Chicarita Substation, the Southern Route would diverge from the Proposed Project and extend north, following existing 230 kV and 69 kV transmission lines for approximately 6.2 miles. Along this segment, the route would span Ted Williams Freeway (SR 56) and pass adjacent to residential subdivisions before entering undeveloped lands north of Sundevil Way. From here, the route would pass through approximately 4.5 miles of broad open areas of level to rolling rural landscapes characterized by undeveloped lands and agricultural fields. Upon entering the San Dieguito River Planning Area, the route would turn west-northwest for one mile to follow the existing lines. The route would then turn east and north along the west bank of Lake Hodges, following an existing 69 kV line and spanning the Del Dios Highway. From here it would travel 7.2 miles to the north crossing hill slopes and hilltops and skirting residential areas to terminate at Escondido Substation in the urban landscape bordering the SR78 corridor in the City of Escondido.

Views of the future 230 kV line would be available from numerous suburban residential areas, rural residences, various open space and recreations areas, commercial developments, as well as numerous public roads. While much of the route is relatively undeveloped, the southern and northern portions of the route are highly urbanized with established residential, commercial, and industrial uses and numerous, heavily traveled public roads. Also, much of the route parallels existing transmission lines of both wood and steel construction.

D.3.11.2 Environmental Impacts: 230 kV Future Transmission System Expansion

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II – Substations, construction and storage yards, fly yards; and Class III – Transmission line/ROW)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Mitigation Measures V-1a and V-1b (full text presented above) and V-1c (described below) are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration.

Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers

would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1c are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1. The full text of the mitigation measures appears in Appendix 12.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

V-1c Prohibit construction marking of natural features. [APM VR-4]

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the right of way.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), V-2c (Reduce color contrast), V-2e (Minimize vegetation removal), and G-1b (Implement erosion control procedures). Furthermore, Mitigation Measure V-2f (Reduce land scarring and vegetation clearance impacts on USFS-administered lands) shall be implemented for construction on USFS-administered lands to ensure consistency with the required Scenery Conservation Plan described in Mitigation Measure V-45a. However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC, USBLM, and USFS as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

V-2e Minimize vegetation removal. [APM-BIO-23]

G-1b Implement erosion control procedures. [APM GEO-2]

- V-2f Reduce land scarring and vegetation clearance impacts on USFS-administered lands.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line (USFS Scenery Conservation Plan)

Operational Impacts

Impact V-1FT: Increased structure contrast, industrial character, view blockage, and skylining (Class I)

Operational impacts of the future 230 kV lines would be very noticeable. Where an additional future 230 kV line is located along an existing 230 kV route and the 230 kV transmission lines are paired up, viewers would be able to see a doubling of the built features (structures and conductors) with increased visual contrast and view blockage. Assuming that the transmission lines are of identical design and are effectively paired up, tower for tower with synchronized conductor spans, the incremental impact would be adverse but less than significant. However, in the likely event that three or more transmission lines are co-located in a corridor, even with identical designs, it would be very unlikely that natural terrain variations would allow for a consistent pairing of all structures. As a result, structures would be offset in terms of location and elevation. This would cause asynchronous structure positioning and conductor spans. The corridor would appear more structurally complex with substantially greater industrial character. View blockage of higher valued landscape features (hills, ridgelines, mountains, and sky) would also increase. Landscape integrity would be substantially compromised and the resulting incremental visual impact would be significant and unmitigable (Class I).

Where future 230 kV lines are located along existing 69 kV routes, the new towers would be structurally more prominent with increased industrial character compared to the existing transmission line facilities. The likely result would be more instances of structure skylining (extending above the horizon) and increased view blockage of higher valued landscape features. Structure positioning and conductor spans would be asynchronous, the transmission line corridor would appear more structurally complex, and the resulting visual impacts would be significant and unmitigable (Class I).

Cumulative Impact V-2FT: Increased structure contrast, industrial character, view blockage, and skylining resulting in cumulative visual impacts (Class I)

Most cumulative impacts of the Proposed Project are addressed in Section G. The visual sensitivity of the existing landscape and viewing conditions, structure design, site-specific siting locations of future transmission structures, and the resulting cumulative visual impacts of the future 230 kV lines vary along the length of the potential future routes. Where two transmission lines are lined up, viewers would be able to see a doubling of the built features (structures and conductors) with increased visual contrast and view blockage. Assuming that the new transmission line is of identical design and is effectively matched up with an existing 230 kV line, tower for tower with synchronized conductor spans, the cumulative impact would be less than significant. However, with three or more transmission lines in a corridor, even with identical designs, it would be very unlikely that natural terrain variations would allow for a consistent matching of structures. As a result, structures would likely be offset in terms of both location and elevation. This would cause asynchronous structure positioning and conductor spans. The corridor would appear more structurally complex with substantially greater industrial character. View blockage of higher valued landscape features (hills, ridgelines, mountains, and sky) would also be more substantial. The resulting cumulative visual impact would be significant and unmitigable (Class I). The future 230

kV lines that would be located along existing 69 kV routes, could also cause substantial cumulative impacts on visual resources due to the larger, taller pole sizes needed to support the weight of the new lines. The new towers would be structurally more prominent with increased industrial character compared to the existing transmission line facilities and would likely result in more instances of structure skylining (extending above the horizon). View blockage of higher valued landscape features would increase. Such substantial cumulative visual impacts would be significant and unavoidable (Class I).

Mitigation Measures for Impact V-2FT: Increased structure contrast, industrial character, view blockage, and skylining resulting in cumulative visual impacts (as appropriate)

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

V-25a Structure design and placement guidance.

V-45a Prepare and implement Scenery Conservation Plan. Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify specific actions that will minimize the project's visible disturbance to the naturally established scenery and to establish final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan. To achieve the greatest consistency with the Scenic Integrity Objectives, the project shall detail and integrate the following design recommendations into the Scenery Conservation Plan:

- **Power Line and Support Towers.** Transmission lines shall be non-specular (non-reflective) and neutral in coloration. Support towers shall be custom-colored with a flat, non-reflective finish, to visually blend with native vegetation colors to appear as visually transparent as possible within the natural landscape pattern. Towers shall be designed to minimize their visual prominence and contrast to the natural landscape.
- **Distance Zones.** Support towers within approximately one mile of sensitive primary viewpoints and without a backdrop, should be a monopole design with a simple, clean and less industrial appearance. Support towers viewed beyond one mile from sensitive viewpoints or only at distance, should be lattice towers.
- **Vegetation Clearing.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line.
- **Roads.** No new access or spur roads, or improvements (reconstruction/expansion) to existing roads are to be constructed in the following areas: (1) where ground slopes exceed 15%, or (2) on Forest lands subject to a HIGH Scenic Integrity Objective (SIO) where the new access or spur road would be visible from primary travel (paved) roads or the Pacific Crest National Scenic Trail, regardless of ground slope. Existing roads needing reconstruction/expansion on other areas of the forest shall be configured to minimize the creation of cut/fill slopes. Where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species.
- **Structures.** All structures and structural elements, that may be constructed as part of the project shall be designed, located, shaped, textured, colored and/or screened as necessary

to minimize their visual contrast, blend, and complement the adjacent forest and community architectural character.

- **Evaluation of Effects.** The Licensee may be required to provide photorealistic visual simulations of proposed designs and mitigation measures to demonstrate their effectiveness in achieving Land and Resource Management Plan Scenic Integrity Objectives as viewed from sensitive viewsheds.
- **Off-Site Mitigation.** Where project features create unavoidable and permanent negative scenery effects that are inconsistent with CNF Plan Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas in new viewsheds agreeable to the Forest shall be purchased and assigned to the Forest for its stewardship.

D.3.11.3 Environmental Setting: 500 kV Future Transmission System Expansion

As described in Section B.7.2 and illustrated in Figure B-12b, the potential Future 500 kV Circuit would connect the proposed Central East Substation to the Southern California Edison (SCE) transmission system at a new substation north of Interstate 15 (I-15), about 20 miles west of SCE's Valley Substation.

From Warners Substation to Camp Pendleton, the 500 kV line would parallel the existing Warners-Rincon 69 kV transmission line, the Rincon-Lilac 69 kV transmission line, and the Talega-Escondido 230 kV transmission line. From Camp Pendleton, the route would follow the LEAPS Project 500 kV transmission line route north through Cleveland National Forest, turning northwest to avoid the more developed suburban areas around Lake Elsinore before turning north to eventually span I-15 and then turning northeast to intersect the Serrano-Valley 500 kV transmission line in Riverside County. Figure B-12c illustrates the potential 500 kV route. The route would pass through a variety of landscapes including undeveloped hills, grasslands, and rolling to angular and rugged ridges and slopes that are predominantly natural in appearance. It would also pass through, and adjacent to, rural residential areas. The 500 kV route would cross I-15 twice, parallel SR 76 (a State eligible scenic highway) for a portion of the route, and span numerous local public roads. Views of the future 500 kV line would be available from rural residences, commercial areas, recreation facilities and dispersed recreation areas, and numerous public roads. See Section E.7 for additional information on the LEAPS transmission line route between Camp Pendleton and the future switching station north of I-15.

D.3.11.4 Environmental Impacts: 500 kV Future Transmission System Expansion

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II – Substations, construction and storage yards, and fly yards; and Class III – Transmission line/ROW)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, outdoor recrea-

tion enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Mitigation Measures V-1a through V-1c are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line routes. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a (full text presented above) and V-1c are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a **Reduce visibility of construction activities and equipment.**

V-1b **Reduce construction night lighting impacts.**

V-1c **Prohibit construction marking of natural features.** [APM VR-4]

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the right of way.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), V-2c (Reduce color contrast), V-2e (Minimize vegetation removal), and G-1b (Implement erosion control procedures). Furthermore, Mitigation Measure V-2f (Reduce land scarring and vegetation clearance impacts on USFS-administered lands) shall be implemented for construction on USFS-administered lands to ensure consistency with the required Scenery Conservation Plan described in Mitigation Measure V-45a. However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than signifi-

cant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC, USBLM, and USFS as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a** **Reduce in-line views of land scars.**
- V-2b** **Reduce visual contrast from unnatural vegetation lines.**
- V-2c** **Reduce color contrast of land scars on non-Forest lands.**
- V-2d** **Construction by helicopter.**
- V-2e** **Minimize vegetation removal.** [APM BIO-23]
- G-1b** **Implement erosion control procedures.** [APM GEO-2]
- V-2f** **Reduce land scarring and vegetation clearance impacts on USFS-administered lands.**

Operational Impacts

Operational impacts of the 500 kV Future Transmission System Expansion would be very similar to those described above for the 230 kV Future Transmission System Expansion.

Impact V-3FT: Increased structure contrast, industrial character, view blockage, and skylining from the addition of a 500 kV transmission line (Class I)

Transmission Line. Operational impacts of a future 500 kV line would be very noticeable. Where an additional future 500 kV line is located along an existing 230 kV or 69 kV route, the new towers would be structurally more prominent with increased industrial character compared to the existing transmission line facilities. The likely result would be more instances of structure skylining (extending above the horizon) and increased view blockage of higher valued landscape features. Structure positioning and conductor spans would be asynchronous because of the larger structures and greater conductor spans associated with the 500 kV transmission line. The corridor would appear more structurally complex with substantially greater industrial character. View blockage of higher valued landscape features (hills, ridgelines, mountains, and sky) would also increase and the landscape integrity would be substantially compromised. The resulting incremental visual impact would be significant and unmitigable (Class I).

Switching Station. The new switching station would appear as an assemblage of complex, geometric forms with vertical to diagonal lines. The substation components would be prominently visible and would introduce considerable industrial character into a predominantly natural appearing landscape, though the existing Serrano-Valley 500 kV transmission line would be a prominent built industrial feature. The resulting visual impact would be significant and unmitigable (Class I).

Cumulative Impact V-4FT: Increased structure contrast, industrial character, view blockage, and skylining from the addition of a 500 kV transmission line (Class I)

Most cumulative impacts of the Proposed Project are addressed in Section G. The visual sensitivity of the existing landscape and viewing conditions, structure design, site-specific siting locations of future transmission structures, and the resulting cumulative visual impacts of the future 500 kV line vary along the length of the potential future route. However, because the 500 kV transmission line would have substantially taller towers and longer conductor spans, structures would be offset in terms of both location and elevation. This would cause asynchronous structure positioning and conductor spans along the route. The corridor would appear more structurally complex with substantially greater industrial

character. View blockage of higher valued landscape features (hills, ridgelines, mountains, and sky) would also be more substantial. The future 500 kV line would also cause substantial cumulative impacts on visual resources due to the larger, taller towers and more prominent conductors, and increased industrial character within the corridor. The increased occurrence of structure skylining (extending above the horizon), would exacerbate structure prominence and cause more view blockage of higher valued landscape feature (hills, ridgelines, and sky). The addition of a new Switching Station at the point of interconnection with the Serrano-Valley 500 kV transmission line in the rugged hills north of I-15 and southeast of El Cerrito would add considerable industrial character and structural complexity to the existing 500 kV corridor. Such substantial cumulative visual impacts would be significant and unavoidable (Class I). However, Mitigation Measures V-3a, V-7a, V-7b, V-21a (to be applied to the new switching station), and V-45a are recommended to reduce the resulting visual impact to the extent possible.

Mitigation Measures for Impact V-4FT: Increased structure contrast, industrial character, view blockage, and skylining resulting in cumulative visual impacts

- V-3a Reduce visual contrast of towers and conductors.**
- V-7a Reduce visual contrast associated with ancillary facilities.**
- V-7b Screen ancillary facilities.**
- V-21a Reduce night lighting impacts.**
- V-45a Prepare and implement Scenery Conservation Plan.**

D.3.12 Connected Actions and Indirect Effects

Section B.6 describes the other projects that have been found to be related to the Sunrise Powerlink Project. They fall into two categories:

- **Connected Actions.** The four projects found to be connected to the Sunrise Powerlink Project are the Stirling Energy Systems solar facility, two components of the IID 230 kV transmission system upgrades, the Esmeralda-San Felipe Geothermal Project, and the Jacumba Substation. Those projects are addressed in Sections D.3.12.1 through D.3.12.4.
- **Indirect Effects.** One project, the SCE La Rumorosa Wind Project, would create effects as a result of the construction and operation of the Sunrise Powerlink Project. That project is addressed in Section D.3.12.5.

D.3.12.1 Stirling Energy Systems Solar Two LLC Project

As agreed in a Power Purchase Agreement (PPA) approved by the CPUC, SDG&E would purchase up to 900 MW of solar power produced at a proposed 8,000-acre Concentrating Solar Power (CSP) facility in the Imperial Valley (see Section B.6.1). At least 600 MW of this total would be transmitted via the SRPL. Stirling Energy Systems (SES) Solar Two, LLC would construct, own and operate the CSP facility and an associated 230 kV transmission line. The CSP site would be leased by SES from BLM, and additional individual private parcels within the site boundaries would be acquired. The transmission line would be constructed within a new ROW easement just north of and adjacent to the SWPL.

As described in Section B.6, the CPUC and BLM have determined that the Stirling CSP facility and associated 230 kV transmission line are so closely related to the Proposed Project as to be considered “connected actions” under the National Environmental Policy Act (NEPA). Therefore, the Stirling site

and transmission line are discussed in this EIR/EIS in order to fully disclose the potential for this project to be constructed as a result of the presence of the SRPL (if it is approved and constructed).

Approval of the SRPL would not result in automatic approval of the Stirling CSP facility or transmission line discussed below, and the project would require SES permit applications to CEC and BLM and compliance with CEQA and NEPA, followed by approvals from the CEC and BLM prior to construction on BLM lands.

Environmental Setting

Heading northwest from Imperial Valley Substation, the 230 kV transmission line route would pass through BLM public lands in the Yuha Desert basin. This desert landscape supports a low diversity of vegetation, composed primarily of short grass and shrubs. The landscape of the Yuha Desert is generally flat with an occasional low, isolated desert hill and localized areas of considerable erosion and steeply cut drainages and washes that add some topographic variety and visual interest to an otherwise relatively non-descript desert landscape. The desert flats are bordered on the west by rugged mountain ranges including the Jacumba and Coyote Mountains and to the northeast is the Salton Sea. To the east are the agricultural areas of Imperial Valley. The area is relatively undeveloped and the linear form of I-8 is the prominent built feature in the landscape. The other notable built features are the existing lattice towers of the Southwest Powerlink, which the 230 kV transmission line would parallel, and which would transect the Stirling CSP site. At the northern part of the CSP site is the unincorporated town of Plaster City. Plaster City is primarily comprised of a large gypsum quarry and plant, operated by United States Gypsum, that is a prominent industrial feature in the surrounding landscape.

Views of the 230 kV transmission line would be available from SR98, I-8, Dunaway Road, Evan Hewes Highway, and numerous BLM and 4WD access roads on public lands. Three KVPs capture portions of the visual setting in the vicinity of project features. The location of each of these KVPs is shown on Figure D.3-1A (KVP 28, KVP 44, and KVP 45). A discussion of the existing visual setting for each KVP is presented in the following paragraphs.

Key Viewpoint 28 (KVP 28) – Northbound Dunaway Road (VRM)

KVP 28 was established on northbound Dunaway Road, just north of the I-8 overpass (see Figure D.3-30A). Viewing to the north-northwest across the southern portion of West Mesa toward Superstition Mountain (the low, light-colored hills on the horizon), this location generally characterizes the existing landscape visible to travelers in the vicinity of Dunaway Road and the Dunaway OHV Staging Area. This land area, including portions of the Yuha Desert, is in close proximity to major infrastructure corridors including I-8 and the existing SWPL transmission line (out of view and to the south of the landscape visible in Figure D.3-30A). The flat, desert basin landscape supports a sparse distribution of short grasses and shrubs of subdued color and matte texture. Although there are distant mountain ranges and areas of localized erosion that create land variation of visual interest, the overall scenic quality of the desert basin landscape is somewhat non-descript and compromised by the prominence of the nearby infrastructure. Landform colors are predominantly tan with lavender and bluish hues for the distant mountains. Landform textures appear smooth to granular while vegetation is patchy with clumps, transitioning to continuous blocks at greater distance. Vegetation exhibits a matte texture. Vegetation colors include tans to pale yellow for grasses with muted to light and dark greens for the shrubs. In the distance, a simple wood pole utility line is faintly visible along the railroad right of way while vehicles on I-8 are quite noticeable. The BLM scenic quality classification is Class C. Viewer sensitivity is rated

high as are all BLM lands within the California Desert Conservation Area because of the public importance attributed to these special status lands. The Interim VRM Class Rating is III.

Key Viewpoint 44 (KVP 44) – Dunaway OHV Staging Area (VRM)

KVP 44 was established at the Dunaway OHV Staging Area, just south of the Dunaway Road/I-8 overpass (see Figure D.3-1A). Viewing to the south across the Yuha Desert, this location generally characterizes the existing landscape visible to recreationists in the vicinity of the Dunaway OHV Staging Area and the OHV recreation trails within the Yuha Basin ACEC near the proposed SRPL route, which would parallel the new 230 kV transmission line proposed by SES. This land area encompasses a portion of the existing SWPL transmission line. The flat desert landscape supports a sparse distribution of short grasses and shrubs of subdued color. Although there are distant mountain ranges and some areas of localized erosion that create land variation of visual interest, the overall scenic quality of the desert basin landscape is somewhat non-descript and compromised by the noticeable presence of the steel-lattice transmission line with its industrial character. Landform colors are predominantly tan with lavender and bluish hues for the distant mountains. Landform textures appear smooth to granular while vegetation is patchy with clumps, transitioning to continuous blocks at greater distance. Vegetation exhibits a matte texture. Vegetation colors include tans to pale yellow for grasses with muted to light and dark greens for the shrubs. In the distance, the complex structural forms and lines of the existing SWPL structures cross the basin floor. The BLM scenic quality classification is Class C while viewer sensitivity is high. The Interim VRM Class Rating is III.

Key Viewpoint 45 (KVP 45) – Yuha Desert I-8 Span (VRM)

KVP 45 was established on westbound I-8, approximately 0.2 miles west of the Dunaway Road overpass (see Figure D.3-1A). Viewing to the west along the I-8, crossing of the Yuha Desert, this location generally characterizes the existing landscape visible to travelers on I-8 in the vicinity of the proposed SRPL span. However, viewers from this vantage point would also have a view of a southern portion of the Stirling CSP site and associated transmission line. This landscape encompasses a portion of the existing SWPL transmission line and the linear feature of I-8. Views from I-8 in the vicinity of the span are unobstructed and panoramic. Adjacent landform colors are predominantly tan with lavender and bluish hues for the distant mountains. Landform textures appear smooth to granular while vegetation is patchy with clumps, transitioning to continuous blocks at greater distance. Vegetation exhibits a matte texture. Vegetation colors include tans to pale yellow for grasses with muted to light and dark greens for the shrubs. Although there are distant mountain ranges that create land variation of visual interest, the overall scenic quality of the desert basin landscape is somewhat non-descript and compromised by the noticeable presence of the steel-lattice transmission line with its industrial character and the linear form the freeway that creates an unnatural demarcation in the desert vegetation. The BLM scenic quality classification is Class C while viewer sensitivity is high. The Interim VRM Class Rating is III.

Environmental Impacts and Mitigation Measures

The Stirling CSP project and associated new 230 kV transmission line would result in significant (Class I and Class II) and adverse but less than significant (Class III) short-term construction impacts (Impacts V-1 and V-2) and significant (Class I) long-term operational visual impacts (V-1CA and V-2CA).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Classes I, II, and III)

Stirling CSP Site. Construction activities at the Stirling CSP site would be similar to those described above for the Proposed Project in Section D.3.5 and would include the visual intrusion of construction vehicles, equipment, materials, and work force at the site. While the construction impacts would be temporary, they would be of an estimated duration of between five and six years. While construction night lighting impacts could be mitigated to a level that would be less than significant (Class II), the impact associated with the visibility of construction activities and equipment could not (Class I). The large scale and extent of the impact area could not be adequately screened from view because of the numerous sightlines to the construction area including elevated sightlines from the Dunaway overpass. Even though the significant construction impacts are unavoidable, Mitigation Measures V-1a through V-1c are recommended to ensure that viewers are not unnecessarily impacted during construction.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III).

Mitigation Measures for Impact V-1: Visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

V-1c Prohibit construction marking of natural features. [APM VR-4]

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the right of way.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), V-2c (Reduce color contrast), V-2e (Minimize vegetation removal), and G-1b (Implement erosion control procedures). However, if site-specific conditions

indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a** **Reduce in-line views of land scars.**
- V-2b** **Reduce visual contrast from unnatural vegetation lines.**
- V-2c** **Reduce color contrast of land scars on non-Forest lands.**
- V-2d** **Construction by helicopter.**
- V-2e** **Minimize vegetation removal.** [APM BIO-23]
- G-1b** **Implement erosion control procedures.** [APM GEO-2]

Operational Impacts

The Concentrating Solar Power (CSP) facility and the 230 kV Transmission Interconnection would result in visual impacts that would be adverse and significant (Class I). Toward the end of the five- to six-year construction period and during project operations, the Stirling CSP project site would be highly visible from locations adjacent to the site. Long-term, operational visual impacts would be experienced by: (a) travelers on I-8, Dunaway Road, Evan Hewes Highway, and other local roads, and (b) recreationists accessing BLM lands in the Yuha Basin.

Impact V-1CA: Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage, skylining and glare associated with the SES Solar Two Project (Class I)

Figures D.3-30A and E.1.3-3A (in Section E.1.3) present existing views to the northwest from KVP 28 on northbound Dunaway Road, just north of I-8, and to the west from KVP 45 on westbound I-8, just west of Dunaway Road respectively. Views from these vantage points as well as other vantage points on I-8, Dunaway Road, and Evan Hewes Highway would be dominated by a vast expanse of tens of thousands of 45-foot-high solar collection dishes, which would be visible within the foreground of views and within the primary cone of vision of travelers on these roads. From these locations, the project would appear to completely transform a desert landscape into an industrial setting with prominent structures that would skyline (extend above the horizon line) and cause view blockage of the background sky, the distant Superstition Mountain, and the Coyote, Fish Creek and Jacumba Mountains. Also, from some vantage points, viewers would be subjected to glare from the mirror array. The overall resulting level of change would be high, which would not meet the VRM Class III objective of a moderate (or lower) degree of visual change. The resulting visual impact would be adverse and significant (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant.

Impact V-2CA: Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage and skylining associated with the 230 kV Transmission Interconnection (Class I)

Figures E.1.3-2A and E.1.3-3A (in Section E.1.3) present existing views to the south from KVP 44 at the Dunaway OHV Staging Area, just south of I-8, and to the west from KVP 45 on westbound I-8, just west of Dunaway Road respectively. Views from these vantage points as well as other vantage points in

the immediate vicinity of the transmission interconnection would have open, unobstructed views of the 230 kV transmission line, which would be located immediately adjacent and to the north of the existing SWPL line. The 230 kV line would be prominently visible to 4WD recreationists at the Dunaway OHV Staging Area and on the BLM access roads leading out from the staging area into the Yuha Desert and Yuha Basin ACEC. Although the SES-proposed transmission line would have shorter towers compared to the existing SWPL line, the line would also have shorter conductor spans. As a result, there would be substantially more transmission towers visible, which would be of a different design than the existing structures. Also, the shorter spans would result in asynchronous conductor spans and tower locations off-set from the existing SWPL structures. The new structures would also cause additional skylining as they cross the flat expanse of the Yuha Desert, resulting in view blockage of sky and mountains. The resulting structural complexity of the transmission line corridor, associated industrial character, and view blockage would cause an overall level of change that would be moderate-to-high.

The BLM's Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. The new line would not repeat the basic elements of the existing natural features in the landscape, nor would it repeat the characteristics of the existing line. Therefore, the moderate-to-high level of visual change that would be caused by the new 230 kV transmission line would not be consistent with the applicable VRM Class III management objective and the resulting visual impact would be significant (Class I). Although there is no mitigation available to reduce the significant visual impact to a level that would be less than significant, the following mitigation measures are recommended to reduce the visual impact of the project in compliance with NEPA requirements.

Mitigation Measures for Impact V-2CA: Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage and skylining associated with the 230 kV Transmission Interconnection

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

V-3b Use non-specular design to reduce conductor visibility and visual contrast. [APM VR-2]

D.3.12.2 IID Transmission System Upgrades

As part of Phase 2 of the Imperial Valley Study Group's development plan (see Section A.4.3), IID would construct a new 230 kV line from the Bannister Substation to a new San Felipe 500/230 kV Substation to interconnect to the proposed Imperial Valley to San Diego 500 kV line (i.e., the Sunrise Powerlink line). The new San Felipe Substation could potentially provide an additional interconnection between the IID and CAISO systems, and thus another point for the delivery of renewable resources to Southern California loads. IID would construct, own and operate these upgrades.

As described in Section B.6, the CPUC and BLM have determined that these IID Transmission System Upgrades are so closely related to the Proposed Project as to be considered "connected actions" under the National Environmental Policy Act (NEPA). Therefore, IID Transmission System Upgrades are discussed in this EIR/EIS in order to fully disclose the potential for a Bannister-San Felipe 230 kV transmission line and new San Felipe 500/230 kV Substation to be constructed as a result of the presence of the SRPL (if it is approved and constructed).

Approval of the SRPL would not result in automatic approval of the IID Transmission System Upgrades discussed below, and the projects would require applications by IID, and compliance with CEQA and NEPA, followed by approvals from the BLM prior to construction on BLM lands.

Environmental Setting

San Felipe 500/230 kV Substation. The relatively flat, desert landscape supports a low diversity of vegetation, composed primarily of short grass and shrubs. The existing transmission lines and San Felipe Substation, which are located immediately west of the proposed new San Felipe Substation site, are industrial features east of the ABDSP boundary and within San Diego County. Foreground views of the new substation would be available from Old Kane Springs Road, Split Mountain Road, and several residences that surround the site.

The new San Felipe Substation would be a 500 kV to 230 kV substation and would be located on private land, just east of the existing 92 kV substation and the intersection of Old Kane Springs Road and Split Mountain Road. The site would be located on open, flat desert scrub land in Lower Borrego Valley. The existing visual quality of the site is moderate with the flat, valley floor exhibiting rather moderate degrees of visual variety, vegetative patterns, and appeal. The existing San Felipe Substation and wood-pole transmission line that pass through the site appear as discordant alterations but they are subordinate to the vast horizontal desert expanse. While much of the landscape is predominantly natural in appearance, there have been considerable modifications around the site associated with rural residential development. The resulting landscape integrity is moderate. Nearby residents and travelers on Old Kane Springs Road and Split Mountain Road anticipate panoramic views across the flat, desert valley landscape, punctuated by the discordant features of the existing small substation and wood-pole transmission line. However, any introduction of industrial character to the predominantly natural appearing landscape or blockage of views to higher quality landscape features (valley floor, rocky ridges, distant mountains, or sky) would be perceived as an adverse visual change. The resulting viewer concern would be high. The substation would be highly visible in the foreground of views from the adjacent residences and roads. While the number of viewers would be low, the duration of view would be extended. Combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

IID Bannister–San Felipe 230 kV Transmission Line. This transmission line would parallel an existing transmission line and the SRPL transmission line (if constructed) across the open expanses of West Mesa desert area, staying west of SR86 and south of SR78. The route would pass through the U.S. Naval Air Facility El Centro Military Height Limitation area (20 to 200 feet); however, because the transmission towers would be approximately 120 feet tall and would be adjacent to 160-foot 500 kV lattice towers the height limitation should not present any regulatory infeasibility.

SRPL KVP 3, which is described in Section D.3.2.1, was established on BLM Road 326, approximately 1.8 miles south of SR78/86 and north of the Superstition Hills (see Figure D.3-4A). It illustrates the environmental setting for the Bannister–San Felipe 230 kV line, because it would parallel the 500 kV SRPL corridor in this area. This location generally characterizes the existing landscape of West Mesa along the 230 kV route. The flat mesa landform exhibits a strong horizontal line while areas of localized erosion create variation in the land that adds visual variety. Landform color is predominantly light tan. Vegetation is sparse and limited to short grasses and shrubs with irregular to patchy distributions. Vegetative lines are irregular to distinct where defined by the line of the mesa. Vegetation colors range from tan for grasses and tannish-gray to muted green for shrubs. Overall, the natural

landscape is relatively non-descript and is somewhat influenced by the existing wood-pole transmission line. The scenic quality classification is Class C and viewer sensitivity is high because of its status within the Desert Conservation Area. Combined with the foreground to middleground viewing opportunities, the resulting Interim VRM Class Rating is Class III.

SRPL KVP 4, which is described in Section D.3.2.1, was established on northbound SR78/SR86, just southeast of the Old Kane Springs Road intersection with SR78/SR86 (see Figure D.3-5A). This viewpoint captures the environmental setting for the Bannister–San Felipe 230 kV line, because it would parallel the 500 kV SRPL corridor in this area. The flat desert landscape is predominantly natural appearing with minimal built features (prior to construction of the Proposed Project) and exhibits a prominent horizontal line. Areas of localized erosion create modifications in the land that add visual variety. More distant, angular mountain ranges do provide limited backdrops of visual interest though they appear low on the horizon and are partially obscured by haze. Vegetation is limited to short grasses and shrubs with irregular to patchy distributions. Vegetative lines are irregular to distinct where defined by the line of the mesa. The scenic quality classification is Class C and viewer sensitivity is high because of its status within the Desert Conservation Area. Combined with the foreground to middleground viewing opportunities, the resulting Interim VRM Class Rating is III.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II – San Felipe Substation, construction and storage yards, and fly yards; and Class III – Transmission line/ROW)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at San Felipe Substation, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents in Lower Borrego Valley as well as travelers and recreationists on highways, local roads (e.g., Old Kane Springs Road and Split Mountain Road), and numerous BLM 4WD access roads and local roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Mitigation Measures V-1a through V-1c are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line routes. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents in Lower Borrego Valley as well as travelers and recreationists on highways, local roads (e.g., Old Kane Springs Road and Split Mountain Road), and numerous BLM 4WD access roads and local roads. View durations from these vantage points would vary from moderate to extended. However, construction activities along the trans-

mission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III).

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

V-1c Prohibit construction marking of natural features. [APM VR-4]

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites (San Felipe Substation) and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the right of way.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), V-2c (Reduce color contrast), V-2e (Minimize vegetation removal), and G-1b (Implement erosion control procedures). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

V-2e Minimize vegetation removal. [APM-BIO-23]

G-1b Implement erosion control procedures. [APM GEO-2]

Operational Impacts

The transmission line route would pass through Interim VRM Class III BLM lands from the vicinity of Bannister Substation to the eastern boundary of Anza-Borrego Desert State Park (ABDSP). The San Felipe 500 kV/230 kV Substation would be located on private land in Lower Borrego Valley, just east of ABDSP. Long-term, operational visual impacts would be experienced by: (a) travelers on SR78, SR86, Split

Mountain Road and other local roads; (b) recreationists accessing BLM lands in the West Mesa via Old Kane Springs Road, numerous BLM 4WD access roads and other local access roads; and (c) residents in Lower Borrego Valley.

Impact V-3CA: Inconsistency with Interim BLM VRM Class III management objective due to increased structure contrast, industrial character, view blockage, and skylining associated with the IID 230 kV transmission line (VRM) (Class I)

Figures D.3-4A and D.3-5A present existing views to the southeast from KVP 3 on BLM Road 326 and to the west from KVP 4 on SR78/86 respectively. Views from these vantage points as well as other vantage points in the immediate vicinity of the 230 kV line would have open, unobstructed views of the 230 kV transmission line, which would be located immediately adjacent and to the east of the existing wood-pole line. The 230 kV line would be prominently visible to 4WD recreationists on BLM Road 326 and other BLM access roads in the area. Aside from the 500 kV SRPL line, this portion of the 230 kV line would be built in an area that does not presently contain structures of similar scale and character. Because the line would be parallel to an existing larger line (if built), the change would be incremental. However, spans for a 230 kV transmission line (approximately 900-foot intervals) are much shorter than for a 500 kV line (1,300 to 1,700 feet), and therefore, the towers and conductors would not be synchronized. Consequently, there would be substantially more transmission towers visible, which would be of a different design than the existing (H-frame) or proposed (SRPL) structures. The structures would be more prominent as a result of the skylining (extending above the horizon) that would occur. The additional towers and asynchronous conductor spans would also cause considerable more view blockage of sky and background landform features. The resulting structural complexity of the transmission line corridor, associated industrial character, and view blockage would cause an overall level of change that would be moderate-to-high.

The Visual Resource Management (VRM) Class III objective allows for a moderate or lower degree of visual change that, while it may attract attention, should not dominate the view of the casual observer. The new line would not repeat the basic elements of the existing natural features in the landscape, nor would it repeat the characteristics of the existing line. Therefore, the moderate-to-high level of visual change that would be caused by the new 230 kV transmission line would not be consistent with the applicable VRM Class III management objective and the resulting visual impact would be significant (Class I).

There is no mitigation available to reduce the significant visual impact to a level that would be less than significant, aside from selection of an entirely different route (alternative) and landscape setting. The open terrain along this route segment does not offer opportunities to either screen the structures from view or blend them more effectively with a different background. However, the following mitigation measures are recommended to reduce the visual impact of the project in compliance with NEPA requirements.

Mitigation Measures for Impact V-3CA: Inconsistency with Interim BLM VRM Class III management objective due to increased structure contrast, industrial character, view blockage, and skylining associated with the IID 230 kV transmission line

- V-3a Reduce visual contrast of towers and conductors.**
- V-3b Use non-specular design to reduce conductor visibility and visual contrast. [APM VR-2]**
- V-3c Coordinate with affected property owners on structure siting. [APM VR-5]**

Impact V-4CA: Increased structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the San Felipe 500 kV to 230 kV Substation from Key Viewpoint 30 on northbound Split Mountain Road (VS-VC) (Class I)

Figure D.3-32A (in Section D.3.15.1, Partial Underground 230 kV ABDSP SR78 to S2 Alternative) presents the existing view to the northeast toward the alternative substation site from KVP 30 on northbound Split Mountain Road. Figure D.3-32B (in Section D.3.15.1) presents a visual simulation that depicts the addition of the San Felipe 500kV/230kV Substation. This viewpoint analysis is representative of views of the substation from the immediate vicinity of the substation site.

The proposed substation would appear as an assemblage of complex, geometric forms with vertical to diagonal lines. The substation components would be prominently visible and would introduce industrial character into a natural-appearing landscape lacking similar characteristics, though there is a small 92 kV substation and wood-pole transmission line adjacent to the site. The resulting visual contrast would be high. The co-dominant-to-dominant structures would cause a moderate-to-high degree of view blockage of the background valley floor and more distant mountains. As a result, the overall visual change would be moderate-to-high. In the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant (Class I). There is no mitigation available to reduce the significant visual impact of the substation to a level that would be less than significant, aside from selection of an entirely different substation location. The open terrain and vast expanse of desert floor with relatively consistent visual character do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Also, given the scale of the structures, landscape plantings would not be adequate to sufficiently screen the substation components. However, Mitigation Measures V-7a, V-7b, and V-21a are recommended to further reduce the visual impact of the new San Felipe Substation. This viewpoint analysis is considered representative of views from nearby residences, Old Kane Springs Road, and Split Mountain Road. It should also be noted that implementation of the Proposed Project, or any of the other alternatives, described elsewhere in this report, would eliminate Impact V-37. However, under any of the other choices, a Class I visual impact would merely be shifted to a different location.

Mitigation Measure for Impact V-4CA: Increased structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the San Felipe 500 kV to 230 kV Substation from KVP 30 on northbound Split Mountain Road

- V-7a Reduce visual contrast associated with ancillary facilities.**
- V-7b Screen ancillary facilities.**
- V-21a Reduce night lighting impacts.**

D.3.12.3 Esmeralda–San Felipe Geothermal Project

An EIS was prepared by BLM to analyze the leasing of geothermal resources exploration, development, and utilization in the Truckhaven Geothermal Leasing Area (Truckhaven) located in western Imperial County, California (refer to Figure B-46). Currently, BLM has non-competitive geothermal lease applications pending for portions of this land, including lease applications from Esmeralda Energy, LLC (Esmeralda); however, the land must first be assessed under NEPA regulations before granting leases. Under the Proposed Action analyzed in the EIS, BLM would approve the pending non-competitive leases and offer competitive leases for all other available lands at Truckhaven.

The Esmeralda–San Felipe Geothermal Project would develop 20 MW of geothermal resources within the Truckhaven Geothermal Leasing Area; however, Esmeralda is not able to submit a project application to BLM for the Esmeralda–San Felipe Geothermal Project until their pending lease applications with BLM for Truckhaven are approved. In the absence of a formal Project application, it is assumed that roughly half of the components identified under the Reasonably Foreseeable Development (RFD) scenario in BLM’s Truckhaven EIS would apply to the Esmeralda–San Felipe Geothermal Project. Additionally, the description of the environmental setting and likely impacts are partially adapted from the Draft EIS for the Truckhaven Geothermal Leasing Area (February 2007). The RFD describes the anticipated development that would occur at Truckhaven to facilitate geothermal resources exploration, development and utilization should the leases be approved by BLM and include new wells, a power plant and transmission lines, as described in Section B.6.3. Geothermal energy uses heat from the earth, extracted through geothermal wells in the form of steam or brine, which is then transported via pipeline and used to drive turbines, which drive electricity generation.

As described in Section B.6, the CPUC and BLM have determined that the Esmeralda–San Felipe Geothermal Project is so closely related to the Proposed Project as to be considered a “connected action” under the National Environmental Policy Act (NEPA). Therefore, the Esmeralda–San Felipe Geothermal Project is discussed in this EIR/EIS in order to fully disclose the potential for a new geothermal plant and associated linears to be constructed as a result of the presence of the SRPL (if it is approved and constructed). Types of mitigation that would likely reduce potentially significant impacts of the Esmeralda–San Felipe Geothermal Project have been included in the environmental impact analysis below; however, implementation of specific mitigation measures would be developed and executed by Esmeralda at the time of project permitting and approval.

Approval of the SRPL would not result in automatic approval of the Esmeralda–San Felipe Geothermal Project discussed below, and the project would require applications by Esmeralda Energy, LLC, compliance with CEQA and NEPA, followed by approvals from the BLM prior to construction on BLM lands.

Environmental Setting

Much of the landscape within the Truckhaven Geothermal Leasing Area is flat and relatively non-descript though there are localized areas that exhibit visually interesting erosional patterns. While there is little vegetation due to the vehicular recreation activities, there are irregular distribution of grass and low growing shrubs of subdued color in some areas. The southeast portion of the Vehicular Recreation Area in the vicinity of Gas Domes and Artesian Well is characterized by rugged, irregular landforms that possess an almost “moonscape” quality, which enhances visual interest. Also, a limited area within the northwest portion of the Vehicular Recreation Area in the vicinity of Arroyo Salado is characterized by a rugged wash badlands landscape that is visually complex and exhibits a visual variety that sets this area apart from the surrounding, rather non-distinctive desert lands. The Draft EIS identifies two VRM Classes (Class III and Class IV) within the Truckhaven proposed action area. The management objective of the two VRM Classes are presented below.

***VRM Class III.** To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be [no greater than] moderate. Management Activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.*

VRM Class IV. To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Environmental Impacts and Mitigation Measures

BLM's Draft EIS for the Truckhaven Geothermal Leasing Area determined that the proposed action would not result in significant visual impacts. The following impact analysis is reprinted from the Truckhaven EIS.

Management Goals for Visual Resources

From the California Desert Conservation Area Plan (BLM 1999):

The CDCA has a superb variety of scenic values. The public considers these scenic values a significant resource. The Bureau recognizes these values as a definable resource and an important recreation experience. These visual resources will receive consideration in Bureau of Land Management resource management decisions.

Many management activities involve alteration of the natural character of the landscape to some degree; the Bureau will take the following actions to effectively manage for these activities:

- (1) The appropriate levels of management, protection, and rehabilitation on all public lands in the CDCA will be identified, commensurate with visual resource management objectives in the multiple-use class guidelines.*
- (2) Proposed activities will be evaluated to determine the extent of change created in any given landscape and to specify appropriate design or mitigation measures using the Bureau's contrast rating process. 4-39 Truckhaven Geothermal Leasing Draft EIS Chapter 4 – Environmental Consequence*

Impact Criteria

For the purposes of the DEIS, impacts on visual resources are considered in the context of the following:

- Substantial adverse effects on a scenic vista;
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic roadway;
- Substantial degradation of the existing visual character or quality of the site and its surroundings; or
- Creation of a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

General Impacts

All land-disturbing activities directly affect the visual resource. These effects can be either positive or negative, depending on the location, size, color, and viewing location. Generally speaking, alternatives with high levels of geothermal development have the highest potential for decreasing scenic quality.

Ground-disturbing activities such as road and power plant construction have the potential of not blending with the natural character of the landscape. Construction of transmission lines that would interconnect with the IID 230 kV line would also have the potential to degrade the landscape, though to a much lesser degree.

Development of geothermal resources could directly affect visual resources in the following ways:

- Visual impacts from steam dissipating into the atmosphere;
- Visibility of cooling towers from two likely power plants;
- Visibility of roads and transmission lines; and
- Increased alteration of an already heavily altered landscape, resulting in scenic quality impacts.

Impacts by Alternative

The following sections detail the expected effects of each of the three alternatives on visual resources. These effects may vary depending on the total area available to leasing.

Alternative 1. Under Alternative 1, the BLM would not offer any additional lands for geothermal leasing. There would be no future impacts to visual resources from geothermal energy development in the leasing area.

Alternative 2. Under Alternative 2, the BLM would offer 11 sections (7,051 acres) of land for non-competitive leasing for the lands currently nominated. Only those tracts for which BLM currently has noncompetitive lease applications would be leased under this alternative.

Two new power plants could be constructed under this alternative over the next several years. The specific locations for these new facilities have not been identified, though they would be located within the leasing area. New power plants would likely be similar in design to the existing Ormesa Geothermal binary power plants, with the cooling tower likely the most visible component at each plant. Each power plant would also require a transmission line up to five miles in length to be built to interconnect with IID near SR-86. The construction of two power plants and two transmission lines would be visible in the foreground and middle-ground distance zone from low sensitivity viewpoints. This assumes neither would be built in the rolling and occasional steep topographic features visible near SR-78. Since neither would be visible from SR-78, a significant impact would not occur.

Because of the low relief and partial visibility of the area and the distance to any location with a substantial number of highly sensitive viewers, the leasing area would remain in conformance with the existing BLM VRM objectives for a Class IV Management Area.

Alternative 3. Under Alternative 3, BLM would issue leases for tracts with existing noncompetitive leasing applications and offer competitive leases for all other lands at Truckhaven, totaling 14,731 acres. These leases would be issued with standard resource protection stipulations.

This alternative would have the same number of power plants and transmission lines as Alternative 2, but it would result in additional geothermal wells and associated roads/underground pipelines potentially visible from low-sensitivity viewpoints (Pole Line Road and SR-86). Additionally, the added roads and pipeline networks would result in low to moderate impacts to Class C scenic quality found on the VRM Class IV Management Area.

Given the low desert climate, water cooling would be likely be used for any future development. Water cooling would result in steam plumes from the cooling towers that would rise up to several hundred feet above the cooling towers on cold days. During the hot summer months, the steam plume would be minimal.

In particular, power plant cooling towers would be the tallest and most visible part of the power plants as they would be approximately 45 feet tall and would release a condensate plume that, under some atmospheric conditions, would extend much further into the sky and be visible for miles from the power plants. Assuming the power plants would occur near the existing well, most of the power plants would not be visible from high sensitivity viewpoints (SR-78). Since the power plant would not be visible from SR-78, a significant impact would not occur. It is possible the steam plume could be visible from SR-78. However, the visibility of this steam plume would be viewed from more than 7 miles from its assumed location. This would result in a less-than-significant impact. The potential geothermal facilities would be painted colors that complement the desert environment and would not dominate the view of the desert landscape from typical public observation perspectives such as from SR-86, located approximately 2 miles east of the assumed power plant locations.

Because of the low relief and partial visibility of the area and the distance to any location with a substantial number of highly sensitive viewers, the leasing area would remain in conformance with the existing BLM VRM objectives for a Class IV Management Area.

D.3.12.4 Jacumba Substation

In its testimony during the CPUC's Phase 1 hearings on the need and economics of the Proposed Project, SDG&E staff stated that a new 230/500 kV substation would be required to allow future wind generation projects to transmit generated power via the existing 500 kV Southwest Powerlink (SWPL) transmission line. The SWPL currently has limited available capacity, but if the Sunrise Powerlink Project is approved and constructed, some electricity currently carried by the SWPL will be transmitted via Sunrise, making more capacity available on the SWPL. There are a number of possible new wind generation projects near the Jacumba area (about 5 miles west of the San Diego/Imperial County line), some in San Diego County (Crestwood wind area) and some in Mexico (La Rumorosa wind area). Therefore, the impacts of this substation are evaluated as part of the Proposed Project.

This 230/500 kV substation would allow incoming transmission lines at 230 kV from wind farms in either the Crestwood or La Rumorosa areas. The power would be transformed to 500 kV in order to allow it to be transmitted via the SWPL to the Miguel Substation in San Diego. The substation is assumed to occupy about 20 acres, and while its location has not been defined by SDG&E, for the purposes of this EIR/EIS it is assumed to be located just east of the point where the Interstate 8 Alternative diverges from the SWPL. Figure B-47 illustrates the approximate location and size of the substation area. The impacts of this substation are also evaluated as a part of the wind component of the Non-Wires In-Area Renewable Generation Alternative, as defined and analyzed in Section E.5. Approval of the SRPL would not result in automatic approval of the Jacumba Substation discussed below, and the project would require applications by SDG&E, and compliance with CEQA and NEPA.

Environmental Setting

Jacumba 500/230 kV Substation. The mesa landscape supports a low diversity of vegetation, composed primarily of short grass and shrubs. The existing SWPL transmission line is sited adjacent to the proposed new Jacumba Substation. This is an industrial feature located south of the ABDSP boundary and

within San Diego County. A distant view of the new substation (from approximately one mile) would be available from Old Highway 80 and from Boundary Creek Road.

The Jacumba Substation would be a 230/500 kV substation and would be located on private land, along the existing SWLP line northwest of the City of Jacumba. The site would be located on open, flat mesa scrub land. The existing visual quality of the site is moderate with the flat, valley floor exhibiting rather moderate degrees of visual variety, vegetative patterns, and appeal. The existing SWPL transmission lines that pass through the site appear as discordant alterations but they are subordinate to the vast horizontal desert/mountainous expanse. While much of the landscape is predominantly natural in appearance, there have been considerable modifications associated with the residential development of the town of Jacumba. Nearby residents and travelers on Desert Rose Ranch Road, and smaller roads anticipate panoramic views across the hilly and mesa landscape, punctuated by the discordant features of the SWPL transmission line and views of the town of Jacumba.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at Jacumba Substation, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents near the town of Jacumba as well as travelers and recreationists on highways, local roads (e.g., Desert Rose Ranch Road), and access roads and local roads. Construction impacts at these sites could be lengthy and the resulting visual impacts would be significant but mitigable (Class II). Mitigation Measures V-1a through V-1c are required to reduce the impacts to levels that would be less than significant.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

V-1c Prohibit construction marking of natural features. [APM VR-4]

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to the construction site of the Jacumba Substation and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the right of way.

Long-term land scarring and vegetation clearance impacts would constitute significant visual impacts that would be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), V-2c (Reduce color contrast), V-2e (Minimize vegetation removal), and G-1b (Implement erosion control procedures).

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a** **Reduce in-line views of land scars.**
- V-2b** **Reduce visual contrast from unnatural vegetation lines.**
- V-2c** **Reduce color contrast of land scars on non-Forest lands.**
- V-2e** **Minimize vegetation removal.** [APM BIO-23]
- G-1b** **Implement erosion control procedures.** [APM GEO-2]

Operational Impacts

The Jacumba 500 kV/230 kV Substation would be located on private land northwest of the town of Jacumba, just south of ABDSP. Long-term, operational visual impacts would be experienced by: (a) travelers on the Desert Rose Ranch Road and other local roads; (b) recreationists accessing BLM lands south of the lower ABDSP via numerous BLM 4WD access roads and other local access roads; and (c) residents in the town of Jacumba.

Impact V-NW4: Increased structure contrast, industrial character, view blockage, and skylining associated with substation development (Class I)

Although the Jacumba substation would be located adjacent to the existing SWPL, the substation would be a 20- to 25-acre facility and would introduce a prominent industrial feature. Any introduction of industrial character to the predominantly natural appearing existing landscape at the substation location or blockage of views to higher quality landscape features (valley floor, rocky ridges, distant mountains, or sky) would be perceived as an adverse visual change. The resulting viewer concern would be high.

The substation would be visible in the middle distance from the adjacent residences and roads. While the number of viewers would be low, the duration of view would be extended. In addition, the substation would be highly visible at night in this rural setting. Combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Therefore, while implementation of the mitigation measures V-3a, V-3b, V-3c and V-21a would minimize the visual impact of the Jacumba substation, this impact cannot be mitigated to an insignificant level and the impact would remain significant (Class I).

Mitigation Measures for Impact V-NW4: Increased structure contrast, industrial character, view blockage, and skylining associated with substation development

- V-3a** **Reduce visual contrast of towers (second bullet of mitigation only applies).**
- V-3b** **Use non-specular design to reduce conductor visibility and visual contrast.** [APM VR-2]
- V-3c** **Coordinate with affected property owners on structure siting.** [APM VR-5]
- V-21a** **Reduce night lighting impacts.**

D.3.12.5 SCE La Rumorosa Wind Project

Environmental Setting

United States. A new 230 kV transmission line would be required to connect the Rumorosa Wind Developers II (RWD) to the existing 500 kV SWPL. It is assumed that this new 230 kV transmission line would end at the Jacumba Substation, and travel south-southwest for approximately 1.7 miles through the mostly arid, sparsely vegetated foothills of the Jacumba Mountains. Views of this transmission line would be available from numerous vantage points, including the town of Jacumba itself because it is located approximately 1,000 feet east of the proposed ROW. Old Highway 80 would be crossed by the ROW approximately 3,000 feet southwest of the town of Jacumba.

Mexico. The RWD project would be located east of the town of La Rumorosa, population 1,615 (Mexico Census, 2005). It would be near the existing CFE La Rumorosa Substation. This region is within the Sierra de Juárez Mountains, and the landscape along this area is rugged, offering partial screening of the wind farm from the town of La Rumorosa. Highway Mexico 2 (toll road) and the original Highway Mexico 2, running between Tijuana and Mexicali, would border the RWD on both the northern and the southern sides. In addition there are several dirt roads leading into La Rumorosa. Views of the mountains from Highway Mexico 2 and from all local roads are unobstructed except by the natural landscape. The mountainous landscape has minimal evidence of built modifications other than the town of La Rumorosa and the existing transmission line. East of the proposed wind farm site is the La Rumorosa Substation. Landform colors are predominantly light tan to dark tan for soils, and darker brown for rocks and crags.

Approximately 20 miles of new 230 kV transmission line would follow the existing ROW and the Highway Mexico 2 ROW around the town of La Rumorosa. While the transmission line would be visible from both the town and the highway, it would be similar to the already existing view of the Tijuana/La Rosita transmission line.

The new 230 kV transmission line would turn north-northeast for approximately 7 miles near Agua Hechicera and would run through primarily natural landscape. There are no towns in or adjacent to this new ROW. However, the ROW would cross several dirt roads and would pass approximately 1.1 miles east of Jácume, a border town south of Jacumba. The mountainous landscape is predominantly natural appearing with minimal evidence of built modifications, although some landscape has been converted to agricultural use, primarily around Agua Hechicera. Landform colors are predominantly light tan to dark tan for soils, and darker brown for rocks and crags. There is also interspersed pine forest within this region.

Figure B-50 in Section B, Project Description, presents two photographs of the La Rumorosa region.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class III for the United States; Class II for Mexico)

United States. There are two viewing opportunities of concern for the RWD transmission line as described above. Construction activities associated with the transmission line would be transient and of relative short duration. As a result, affected viewers would be aware of the temporary nature of the impact and

project construction impacts would generally constitute adverse, but less than significant (Class III) visual impacts. Although Impact V-1 for the RWD project transmission component would be less than significant, mitigation is recommended in compliance with NEPA requirements. Mitigation Measures V-1a, V-1b and V-1c are recommended to reduce construction impacts.

Mexico. There are numerous viewing opportunities of concern for the RWD wind project and transmission line as described above. Construction activities for the transmission line component would be transient and of relative short duration. As a result, affected viewers would be aware of the temporary nature of the impact and project construction impacts would generally constitute adverse, but less than significant (Class III) visual impacts. Although Impact V-1 for the RWD project transmission component would be less than significant, mitigation is recommended in compliance with NEPA requirements. Mitigation Measures V-1a, V-1b, and V-1c are recommended to reduce construction impacts. The full text of the mitigation measures appears in Appendix 12.

Construction activities for the wind farm component in La Rumorosa would be more visible and of a longer duration. View durations from vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. Night lighting impacts during construction would occur if lighting at construction and storage yards and staging areas were not appropriately controlled. Mitigation Measures V-1a, V-1b, and V-1c are recommended to reduce construction impacts of the wind farm to less than significant levels (Class II.)

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a **Reduce visibility of construction activities and equipment.**

V-1b **Reduce construction night lighting impacts.**

V-1c **Prohibit construction marking of natural features.** [APM VR-4]

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II for the United States; Class I for Mexico)

United States. This impact, described in Section D.3.5.1, would occur along the 1.7 mile transmission line segment where it passes through undeveloped arid and semi-arid landscapes. The installation of new structures and construction of new access roads would cause disturbance of soils and vegetation. This would be a significant impact. Mitigation Measures V-2a through V-2c, V-2e and G-1b would reduce impacts to a less than significant level. (Class II).

Mexico. This impact would occur in the 7 miles of transmission line along new ROW and in the entire wind farm area of the RWD project which passes through undeveloped arid and semi-arid landscapes. The installation of new structures and construction of new access/spur roads would cause disturbance of soils and vegetation as vehicles and equipment access the wind turbine installation areas and equipment and materials are moved. This would be a significant impact. Mitigation Measures V-2a through V-2c, V-2e and G-1b are recommended in order to reduce impacts. However, given the extensive network of permanent access and spur roads that would be required for the RWD primarily along ridge lines and their slopes, even with mitigation, it is likely that Impact V-2 could not be reduced to an insignificant level (Class I).

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

- V-2b** **Reduce visual contrast from unnatural vegetation lines.**
- V-2c** **Reduce color contrast of land scars on non-Forest lands.**
- V-2e** **Minimize vegetation removal. [APM BIO-23]**
- G-1b** **Implement erosion control procedures. [APM GEO-2]**

Operational Impacts

From the La Rumorosa Substation to the Jacumba Substation, the RWD project transmission line would be visible as the route passes through new ROW for 8.7 miles (7 miles in Mexico and 1.7 miles in the United States) and then parallels the existing Tijuana/Mexicali transmission line, and spans Highway Mexico 2. Long-term, operational visual impacts would be experienced by: (a) travelers on local roads leading to Jácume just south of the U.S./Mexico border, (b) recreationists accessing La Rumorosa lands and the Jacumba Mountains; (c) residents of Jácume and La Rumorosa in Mexico and Jacumba in the United States and (d) travelers on Highway Mexico 2.

The RWD wind farm would be very noticeable because the new facilities (wind towers/turbines, meteorological towers, switchyard, substation, and operation and maintenance facilities) would be new industrial features within open space and rural density areas.

Impact V-LR3: Long-term visibility of RWD turbines and associated facilities from Highway Mexico 2, nearby residences and public roads (No Impact for the United States; Class I for Mexico)

United States. No wind tower/turbines and associated facilities would be located within the United States as a part of the RWD project.

Mexico. The La Rumorosa wind farm of the RWD project could be viewed from Highway Mexico 2 (both the toll section and the free section). The RWD wind farm is located east of the existing La Rumorosa Substation. Future development of the wind farm would introduce industrial structures that would also be visible from Highway Mexico 2, greatly intensifying the industrialization of the area. Given the inability of mitigation to reduce this visual impact to a less than significant level, Impact V-LR3 is considered to be a significant and unavoidable impact (Class I). Mitigation Measures are presented below to reduce the impact, although not to a less than significant level.

Mitigation Measures for Impact V-LR3: Long-term visibility of RWD project turbines and associated facilities from Highway Mexico 2

- V-3a** **Reduce visual contrast of towers (second bullet of mitigation only applies).**
- V-3b** **Use non-specular design to reduce conductor visibility and visual contrast. [APM VR-2]**
- V-3c** **Coordinate with affected property owners on structure siting. [APM VR-5]**

Impact V-LR4: Increased industrial character, view blockage, and skylining associated with new 230 kV transmission line along the 8.7 miles of new ROW and along existing ROW (Class I for the United States; Class III for Mexico)

United States. The existing view to the west of the town of Jacumba, United States is predominantly natural, mountainous settings. Approximately 1.7 miles of the new 230 kV transmission line connecting the La Rumorosa wind farm with the existing SWPL 500 kV transmission line would pass within 1,000 feet of the western edge of the town of Jacumba. There are no structures similar to the transmission line

in this area (the existing 500 kV SWPL is approximately 2,000 feet north of town and minimally visible from the town). The transmission line would be a prominent feature in the landscape. The transmission line would also exhibit considerable industrial character. The resulting structural visual contrast (for form and line) would be moderate-to-strong. The overall level of change would be moderate-to-high.

The complex structural forms and vertical to diagonal lines would not repeat the basic elements of the existing natural features in the landscape (flat to rolling landforms and horizontal to curvilinear line). Therefore, the resulting visual impact would be significant (Class I). Mitigation Measures V-3a, V-3b and V-3c are recommended, although implementation of these measures would not reduce the impact to less than significant.

Mexico. The 7 miles of new 230 kV transmission line would be located perpendicular to the existing Tijuana/Mexicali 230 kV line. Portions of the new 230 kV transmission line connecting the La Rumorosa wind farm with the existing SWPL 500 kV transmission line would pass within 1.1 miles from the town of Jácume. Because this area has relatively level terrain (at Jácume) and open, unobstructed sightlines, the transmission line would like be visible. The transmission line would also exhibit considerable industrial character. The resulting structural visual contrast (for form and line) would be moderate-to-strong. The overall level of change would be moderate-to-high.

The complex structural forms and vertical to diagonal lines would not repeat the basic elements of the existing natural features in the landscape (flat to rolling landforms and horizontal to curvilinear line). Therefore, the resulting visual impact would be significant (Class I). Mitigation Measures V-3a, V-3b and V-3c are recommended, although implementation of these measures would not reduce the impact to less than significant.

The 20 miles of new 230 kV transmission line along the existing Tijuana/Mexicali ROW would introduce a prominent industrial feature. Because of the existing ROW and transmission line, the impact while adverse would not be significant (Class III). However, to ensure that viewers are not unnecessarily impacted, in compliance with NEPA, Mitigation Measures V-3a, V-3b, and V-3c are recommended, but are not required because the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-LR5: Increased industrial character, view blockage, and skylining associated with new 230 kV transmission line in existing ROW

- V-3a** **Reduce visual contrast of towers (second bullet of mitigation only applies).**
- V-3b** **Use non-specular design to reduce conductor visibility and visual contrast.** [APM VR-2]
- V-3c** **Coordinate with affected property owners on structure siting.** [APM VR-5]

D.3.13 Overall Visual Impacts of Proposed Project

Construction Impacts

Construction of the Proposed Project, Future Transmission System Expansion, Connected Actions and Indirect Effects would result in both short-term (visibility of activities, equipment, personnel, and night lighting) and long-term (land scars and vegetation clearance in arid and semi-arid environments) visual impacts. The short-term impacts would be significant but mitigable (Class II) for substations, construction and storage yards, and fly yards, and less than significant (Class III) for transmission lines.

The long-term impacts (from land scarring) would be significant but could be mitigated to levels that would be less than significant (Class II). There would be no significant, unmitigable (Class I) visual impacts as a result of the construction of the Proposed Project. Construction of the SES project would result in a significant, unmitigable impact (Class I) because the scale and extent of the impact area could not be adequately screened from view.

Operational Impacts

A majority (approximately 76 percent) of the Proposed Project would result in significant, unmitigable (Class I) visual impacts during project operation. Class I visual impacts would occur primarily as a result of the introduction of new or additional structural visual contrast, industrial character, and view blockage into predominantly natural-appearing or rural landscapes, not presently exhibiting those characteristics. In most of these cases, the Proposed Project would be located in landscapes not containing similar transmission line structures or industrial character. While the Proposed Project would parallel existing transmission lines along much of the route, those existing facilities are typically constructed of simple wood poles and/or are of a substantially smaller scale. Figure D.3-28 presents a Summary Impact Profile for the Proposed Project. As shown in the figure, significant Class I visual impacts would occur throughout all of the Anza-Borrego and Central Links and a majority of the Imperial Valley and Inland Valley Links. No significant Class I visual impacts would occur in the Coastal Link though one significant but mitigable (Class II) visual impact would occur at the Cable Pole C32 location adjacent to Chicarita Substation.

Also, with the exception of the Proposed Central East Substation (which would result in significant and unmitigable [Class I] visual impacts [from new construction]), the visual impacts associated with the other substations (modifications) would be adverse but less than significant (Class III). (See Section D.3.5, D.3.9, and D.3.10 for details on substations.) The Central East Substation visual impacts would be Class I because of the introduction of a large-scale, highly industrial facility into a landscape that is predominantly natural in appearance, which lacks any comparable built features, and is highly visible. The scale and hilltop location of the facility also precludes the possibility of successful screening.

The Proposed Project would facilitate the possible future construction of additional 230 kV and 500 kV transmission lines. The operational impacts of the future transmission facilities would be very noticeable. Where an additional future 230 kV line is located along an existing 230 kV route, the impact could be adverse but less than significant if the transmission lines are identical in design and effectively paired up, however should three or more transmission lines be co-located in a corridor, it is unlikely that the terrain would allow for consistent pairing of structures causing a substantially greater industrial character. Where future 230 kV lines are located along existing 69 kV routes, the new towers would be structurally more prominent with increased industrial character compared to the existing transmission line facilities. Where an additional future 500 kV line is located along an existing 230 kV or 69 kV route, the new towers would be structurally more prominent with increased industrial character compared to the existing transmission line facilities. Landscape integrity would be substantially compromised and the resulting incremental visual impact would be significant and unmitigable (Class I).

The new switching station associated with the future transmission lines would appear as an assemblage of complex, geometric forms with vertical to diagonal lines. The substation components would be prominently visible and would introduce considerable industrial character into a predominantly natural appearing landscape. The resulting visual impact would be significant and unmitigable (Class I).

Operation of the Connected Actions and Indirect Effects would result in visual impacts that would be significant and unmitigable (Class I). Inconsistency with Interim BLM VRM Class III management objectives would occur with both the SES Solar Two Project and the Transmission Interconnection, resulting in significant unmitigable (Class I) visual impacts. A similar impact resulting from the inconsistency with VRM Class II Management objectives would occur due to the IID 230 kV transmission line (Class I). The San Felipe 500kV/230 kV Substation would result in a significant unmitigable impact (Class I) due to structure contrast, industrial character, view blockage, skylining and glare as represented by KVP 30. According to the Bureau of Land Management's Esmeralda-San Felipe Geothermal Project EIS, the project would not result in significant unmitigable (Class I) visual impacts. The La Rumorosa Wind Developers project would result in significant impacts in both the United States and in Mexico as the wind turbines and new transmission line would be visible from a number of view points near the La Rumorosa region and the town of Jacumba respectively.

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Figure D.3-28. Visual Resources Impact Profile for the Proposed Project
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Environmental Impacts and Mitigation Measures for Alternatives Along Proposed Project Route

Table D.3-12 summarizes the impacts that have been identified for the alternatives along the Proposed Project route.

Table D.3-12. Impacts Identified – Alternatives – Visual Resources

Impact No.	Description	Impact Significance
FTHL Eastern Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-34	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 27 on northbound Jeffrey Road (VS-VC)	Class III
SDG&E West of Dunaway Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-35	Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 28 on Dunaway Road	Class I
SDG&E West Main Canal–Huff Road Modification Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-36	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 29 on northbound Huff Road	Class III
Partial Underground 230 kV ABDSP SR78 to S2 Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-37	Increased structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the San Felipe 500 kV to 230 kV Substation	Class I
V-38	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 30 on southbound San Felipe Road	Class I
V-39	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 31 on southbound San Felipe Road near San Felipe	Class I
Partial Underground 230 kV ABDSP SR78 to S2 Alternative with All Underground Option		
V-38, V-39	Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoints 30 and 31 on southbound San Felipe Road	No Impact
Overhead 500 kV ABDSP within Existing ROW Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-40	Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 32 on westbound SR78 in ABDSP	Class I
Santa Ysabel Existing ROW Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III

Table D.3-12. Impacts Identified – Alternatives – Visual Resources

Impact No.	Description	Impact Significance
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-41	Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 33 on southbound SR79	Class I
Santa Ysabel Partial Underground Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-42	Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 34 on Mesa Grande Road	Class II
Santa Ysabel SR79 All Underground Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-43	Slight degree of structure contrast, industrial character, and view blockage, when viewed from SR78	Class III
SDG&E Mesa Grande Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-44	Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 35 on Mesa Grande Road	Class I
CNF Existing 69 kV Route Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-45	Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from forest lands along the CNF Alternative route	Class I
Oak Hollow Road Underground Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-46	Introduced structure contrast and industrial character while reducing view blockage when viewed from Key Viewpoint 37 in Oak Hollow	Class III
San Vicente Road Transition Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-47	Introduced structure contrast and industrial character, and view blockage when viewed from Key Viewpoint 38 on San Vicente Road	Class III
Chuck Wagon Road Transition Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-2	Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (all links).	Class II
V-48	Introduced structure contrast and industrial character, and view blockage when viewed from private lands along the alternative	Class III
Pomerado Road to Miramar Area North		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-49	Introduced structure contrast and industrial character, and view blockage when viewed from Key Viewpoint 39 on Rose Garden Court in the Mill Creek residential development	Class III

Table D.3-12. Impacts Identified – Alternatives – Visual Resources

Impact No.	Description	Impact Significance
Los Peñasquitos Canyon Preserve–Mercy Road Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-50	Introduced structure contrast and industrial character, and view blockage when viewed from Key Viewpoint 40 at the intersection of Scripps Poway Parkway and Spring Canyon Road	Class III
Black Mountain to Park Village Road Underground Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class III
Coastal Link System Upgrade Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting	Class III
Top of the World Substation Alternative		
V-1	Short-term visibility of construction activities, equipment, and night lighting (all links).	Class II, III
V-52	Introduced structure contrast, industrial character, view blockage, and skylining when viewing the Top of the World Substation Alternative from KVP 19	Class II
V-53	Introduced structure contrast, industrial character, view blockage, and skylining when viewing the Top of the World Substation Alternative 230 kV Transmission Line from KVP 41 at the Scout Ranch Flag Pole and Fire Ring Area	Class II
V-54	Introduced structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the Top of the World Substation Alternative from KVP 42 at the entrance to the Mataguay Scout Ranch on SR79	Class III
V-55	Introduced structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the Top of the World Substation Alternative from KVP 43 at Henshaw Overlook	Class III

D.3.14 Imperial Valley Link Alternatives Impacts and Mitigation Measures

There are three alternatives analyzed in the Imperial Valley Link, the FTHL Eastern Alternative, the SDG&E West of Dunaway Alternative, and the SDG&E West Main Canal–Huff Road Modification Alternative.

D.3.14.1 FTHL Eastern Alternative

This alternative was developed by the EIR/EIS team as a way to avoid almost 2 miles within the Flat-Tailed Horned Lizard (FTHL) Management Area. Instead the 500 kV overhead route would follow section lines within agricultural lands and would be approximately 1.5 miles shorter than the proposed route.

Environmental Setting

The FTHL Eastern Alternative begins at MP 3 by turning north and diverging from the proposed route. It would extend to the north approximately 4.5 miles following section lines across agricultural lands and crossing I-8 to rejoin the Proposed Project at MP 8.8. This route would be approximately 1.5 miles shorter than the proposed route. The landscape of the flat agricultural lands consist primarily of low-growing, irrigated row crops, irrigation canals and ditches, and local unpaved access roads, though a portion of the route does parallel Jeffrey Road, which is paved.

Views of the FTHL Eastern Alternative would be available from I-8 at the crossing, Evan Hewes Highway at the crossing, Jeffrey Road, which is paralleled by the route, Stevens Road at the crossing, and several unpaved access roads.

KVP 27 was selected for detailed analysis of this alternative and is considered representative of the visual impact that would be experienced along this alternative because of the flat, open landscape and unobstructed views of the route. The location of KVP 27 is shown on Figure D.3-1A. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 27 is presented in the following paragraphs.

Key Viewpoint 27 (KVP 27) – Northbound Jeffrey Road (VS-VC)

KVP 27 was established on northbound Jeffrey Road, just south of the intersection with Stevens Road and just north of I-8 (see Figure D.3-29). The view from KVP 27 encompasses the alternative route and adjacent lands in the vicinity of Jeffrey Road. This location was selected to generally characterize the existing landscape visible to travelers in the agricultural area that would be in close proximity to the alternative and would have open, unobstructed views of the transmission line.

Visual Quality. Low-to-moderate. Viewing to the north, down Jeffrey Road, the foreground to background flat, horizontal landform of the highly modified valley floor (from its original desert basin character), is comprised of irrigated agricultural fields, punctuated by the simple, vertical forms of an existing wood-pole utility line, and a solitary communication tower. The low, horizontal form of the desert hills that spread out east of Superstition Mountain are only slightly noticeable on the horizon and provide minimal visual variety. During the growing season, irrigated crops appear green while unplanted soils appear tan in color. Overall, the landscape is lacking in visual variety, vividness, and uniqueness and the built, vertical features appear discordant with the flat landform.

Viewer Concern. Low-to-moderate. Travelers on Jeffrey Road and other local public and agricultural access roads anticipate a highly modified agricultural landscape that is characteristic of this portion of the western Imperial Valley. Viewers also anticipate the presence of existing utility infrastructure. However, an increase in industrial character or blockage of higher value landscape features (sky, hills, and mountains) would be seen as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground, of views from Jeffrey Road in general and KVP 27 specifically as the route passes through the agricultural fields west of El Centro. The route would be visible within the primary cone of vision of either north- or southbound views on Jeffrey Road and east- and westbound travelers on I-8, Evan Hewes Highway, and Stevens Road when approaching the spans. The number of viewers would be low-to-moderate but the duration of view would be moderate-to-extended. Combining these four equally weighted factors gives an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate. For travelers on Jeffrey Road, combining the equally weighted low-to-moderate visual quality and viewer concern, and moderate-to-high viewer exposure results in an overall moderate visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the FTHL Eastern Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (minimal – along the southern 1,400 linear feet – Impact V-2). No additional ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly

exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Figure D.3-29. Key Viewpoint 27 – FTHL Eastern Alternative – Jeffrey Road – Existing Condition
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Operational Impacts

The FTHL Eastern Alternative would result in adverse but less than significant (Class III) visual impacts as the route diverges from the proposed route and heads due north, primarily through developed agricultural lands. Long-term, operational visual impacts would be experienced by a few rural residences and travelers on public roads including I-8, Evan Hewes Highway, Jeffrey Road, Stevens Road, and other local agricultural access roads. One representative key viewpoint (KVP 27) was selected to characterize the visual impacts that would occur along this alternative route.

Impact V-34: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 27 on northbound Jeffrey Road (VS-VC) (Class III)

Figure D.3-29 presents the existing view to the north from KVP 27 on northbound Jeffrey Road, just south of Stevens Road. While the majority of this route would parallel existing unpaved agricultural access roads, the lattice towers would be within the primary cone of vision of travelers on several paved roads including Jeffrey Road (paralleling) and I-8, Evan Hewes Highway, and Stevens Road (approaching the spans). From these locations, particularly along Jeffrey Road, the transmission line would cause an increase in structure prominence and industrial character. Skylining (extending above the horizon line) and view blockage of background sky and distant hills would also occur. As a result, visual contrast would be moderate and the transmission line would appear co-dominant-to-dominant compared to the existing landscape features (primarily the existing, vertical utility infrastructure and horizontal form of the agricultural fields). View blockage of background sky and mountains would be moderate. The overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). However, Mitigation Measure V-3a is recommended to reduce the visual impact along this portion of the project. While Impact V-34 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views of this alternative from the agricultural areas in the vicinity of the route in general and specifically from the public roads immediately adjacent and parallel to the route.

Mitigation Measure for Impact V-34: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 27 on northbound Jeffrey Road

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

D.3.14.2 SDG&E West of Dunaway Alternative

This 6.1-mile alternative was suggested by SDG&E and approved by the proposed land use developer in the area. It would be an overhead 500 kV line, and would be 2.2 miles longer than the Proposed Project.

Environmental Setting

The West of Dunaway Alternative would diverge from the Proposed Project at MP 4 and extend north for approximately 2.5 miles, passing close to the Dunaway OHV Staging area just south of I-8, then spanning I-8 and closely paralleling Dunaway Road (to the west) north of I-8. At the Arizona and San Diego Railroad ROW, the route would turn east and parallel the tracks for 1.25 miles before turning

briefly north to cross the tracks and Evan Hewes Highway, then turning northeast to rejoin the proposed route at MP 7.9. This alternative would be approximately 2.2 miles longer than the proposed route.

Views of the West of Dunaway Alternative would be available from the Dunaway OHV Staging Area, several BLM access roads into the Yuha Desert ACEC out of the staging area, I-8 at the crossing, Dunaway Road, which is paralleled by the route, and Evan Hewes Highway, which would also be paralleled and then spanned.

KVP 28 was selected for detailed analysis and is considered representative of the visual impact that would be experienced along this alternative because of the flat, open landscape and the unobstructed views of the alternative that would be available. The location of KVP 28 is shown on Figure D.3-1A. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 28 is presented in the following paragraph.

Key Viewpoint 28 (KVP 28) – Northbound Dunaway Road (VRM)

KVP 28 was established on northbound Dunaway Road, just north of the I-8 overpass (see Figure D.3-30A). Viewing to the north-northwest across the southern portion of West Mesa toward Superstition Mountain (the low, light-colored hills on the horizon), this location was selected to generally characterize the existing landscape visible to travelers in the vicinity of Dunaway Road and the Dunaway OHV Staging Area. This land area, including portions of the Yuha Desert, is in close proximity to major infrastructure corridors including I-8 and the existing SWPL transmission line (out of view and to the south of the landscape visible in Figure D.3-30A). The flat, desert basin landscape supports a sparse distribution of short grasses and shrubs of subdued color and matte texture. Although there are distant mountain ranges and areas of localized erosion that create land variation of visual interest, the overall scenic quality of the desert basin landscape is somewhat non-descript and compromised by the prominence of the nearby infrastructure. Landform colors are predominantly tan with lavender and bluish hues for the distant mountains. Landform textures appear smooth to granular while vegetation is patchy with clumps, transitioning to continuous blocks at greater distance. Vegetation exhibits a matte texture. Vegetation colors include tans to pale yellow for grasses with muted to light and dark greens for the shrubs. In the distance, a simple wood pole utility line is faintly visible along the railroad right of way while vehicles on I-8 are quite noticeable. The BLM scenic quality classification is Class C while viewer sensitivity is high. The Interim VRM Class Rating is III.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the West of Dunaway Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and

work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to

access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a** **Reduce in-line views of land scars.**
- V-2b** **Reduce visual contrast from unnatural vegetation lines.**
- V-2c** **Reduce color contrast of land scars on non-Forest lands.**
- V-2d** **Construction by helicopter.**

Operational Impacts

The West of Dunaway Alternative would result in significant (Class I) visual impacts as the route diverges from the proposed route and heads due north, passing the Dunaway OHV Staging Area and paralleling Dunaway Road through undeveloped desert scrub lands. Long-term, operational visual impacts would be experienced by OHV enthusiasts accessing the Yuha Desert and Yuha Basin ACEC from the Dunaway OHV Staging Area, as well as travelers on public roads including I-8, Dunaway Road, and Evan Hewes Highway. One representative key viewpoint (KVP 28) was selected to characterize the visual impacts that would occur along this alternative route.

Impact V-35: Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 28 on Dunaway Road (VRM) (Class I)

Figure D.3-30A presents the existing view to the northwest from KVP 28 on northbound Dunaway Road, just north of I-8. Figure D.3-30B presents a visual simulation that depicts the addition of the West of Dunaway Alternative parallel and to the west of Dunaway Road. The lattice towers would be within the primary cone of vision of travelers on several roads including I-8, Dunaway Road, and Evan Hewes Highway. It would also be in the foreground of views from the Dunaway OHV Staging Area south of I-8. From these locations, this alternative would result in the introduction of prominent structures with considerable industrial character into a landscape generally lacking similar features. Although the SWPL Line is visible to the south, it is sufficiently distant to not appear noticeable in views from Dunaway Road north of I-8. Skylining (extending above the horizon line) would also occur. The resulting vegetation line contrast would be moderate due to vegetation clearance associated with access and spur roads. Vertical structural form and line contrast would be moderate-to-strong (compared to the horizontal form and line of the Yuha Desert) and the color contrast would be weak-to-moderate. The new line would not repeat the basic elements of the existing natural features in the landscape and would cause view blockage of background sky and the distant Superstition Mountain and Coyote, Fish Creek,

Figure D.3-30A/B. Key Viewpoint 28 – West of Dunaway Alternative – Dunaway Road – Existing Condition and Simulation

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and Jacumba Mountains. The new line would also dominate the views of the casual observer, particularly along Dunaway Road and viewing west from the Dunaway OHV Staging Area. The overall level of change would be moderate-to-high, which would not meet the VRM Class III objective of a moderate (or lower) degree of visual change. The resulting visual impact would be adverse and significant (Class I). There is no mitigation available to reduce the significant visual impact to a level that would be less than significant. However, Mitigation Measure V-3a is recommended to reduce the visual impact along this alternative. This viewpoint analysis is considered representative of views of this alternative from the Dunaway OHV Staging Area and public roads and BLM access roads in the vicinity of the alternative.

Mitigation Measure for Impact V-35: Inconsistency with Interim BLM VRM Class III management objective due to introduction of structure contrast, industrial character, view blockage and skylining when viewed from Key Viewpoint 28 on Dunaway Road (VRM) (Class I)

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

D.3.14.3 SDG&E West Main Canal–Huff Road Modification Alternative

This 4.9-mile alternative would follow the IID Westside Main Canal to the east-northeast, and then turn north on Huff Road. Existing IID 92 kV transmission lines are located on the west side of Huff Road along most of this segment; however, where the IID line would turn northwest, this alternative would continue straight along Huff Road to reconnect with the Proposed Project 0.2 miles south of Wheeler Road (MP 15.9). The lengths of the alternative and the proposed routes would be essentially the same; however, this route would avoid direct effects to the Bullfrog Farms and also to the Raceway development.

Environmental Setting

Views of the West Main Canal–Huff Road Modification Alternative would be available from Huff Road, which parallels a portion of the route, Westmoreland Road, and several unpaved agricultural access roads.

KVP 29 was selected for detailed analysis of this alternative and is considered representative of the visual impact that would be experienced along the most visible portion of this alternative because of the close proximity to a paved road and the flat, open landscape and unobstructed views of the alternative. The location of KVP 29 is shown on Figure D.3-1A. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 29 is presented in the following paragraphs.

Key Viewpoint 29 (KVP 29) – Huff Road (VS-VC)

KVP 29 was established on northbound Huff Road, just north of the span of Huff Road (see Figure D.3-31). The view from KVP 29 encompasses the alternative route and adjacent agricultural fields in the vicinity of Huff Road. This location was selected to generally characterize the existing landscape visible to travelers in the agricultural area that would be in close proximity to the alternative and would have open, unobstructed views of the transmission line.

Visual Quality. Low-to-moderate. Viewing to the north, down Huff Road, the foreground to background flat, horizontal landform of the highly modified valley floor (from its original desert basin character), is comprised of irrigated agricultural fields, punctuated by the simple, vertical forms of an existing wood-

pole utility line that parallels the west side of Huff Road. The low, horizontal form of the desert hills that spread out east of Superstition Mountain are also visible along the horizon in the background but provide minimal visual variety. During the growing season, irrigated crops appear green while unplanted soils appear tan in color. Overall, the landscape is lacking in visual variety, vividness, and uniqueness and the built features appear discordant with the flat landform.

Viewer Concern. Low-to-moderate. Travelers on Huff Road and other local public and agricultural access roads anticipate a highly modified agricultural landscape that is characteristic of this portion of western Imperial Valley. Viewers also anticipate the presence of existing utility infrastructure. However, an increase in industrial character or blockage of higher value landscape features (sky, hills, and mountains) would be seen as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The proposed route would be highly visible in the foreground, of views from Huff Road in general and KVP 29 specifically as the route passes through the agricultural fields west of El Centro. The route would be visible within the primary cone of vision of either north- or southbound views on Huff Road and Westmoreland Road at the turn. The number of viewers would be low-to-moderate but the duration of view would be moderate-to-extended. Combining these four equally weighted factors gives an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate. For travelers on Huff Road, combining the equally weighted low-to-moderate visual quality and viewer concern, and moderate-to-high viewer exposure results in an overall moderate visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the West Main Canal–Huff Road Modification Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1).

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission

line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

The West Main Canal–Huff Road Modification Alternative would result in adverse but less than significant (Class III) visual impacts as the route diverges from the proposed route and heads east-northeast and then north through developed agricultural lands. Long-term, operational visual impacts would be experienced by travelers on public roads including Huff Road, Westmoreland Road, and other local agricultural access roads. One representative key viewpoint (KVP 29) was selected to characterize the visual impacts that would occur along this alternative route.

Impact V-36: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 29 on northbound Huff Road (VS-VC) (Class III)

Figure D.3-31 presents the existing view to the north from KVP 29 on northbound Huff Road, just north of the span of Huff Road. While the majority of this route would parallel existing agricultural access roads and cross agricultural fields, the northern portion of the route would be prominently visible to travelers on Huff Road, a primary public road through the agricultural area west of El Centro. The line would be located immediately adjacent to the east side of Huff Road. The lattice structures would introduce structure prominence and industrial character into the landscape visible from Huff Road and Westmoreland Road. Skylining and view blockage of background sky and distant hills and mountains would also occur. As a result, visual contrast would be moderate-to-high and the transmission line would appear co-dominant compared to the existing landscape features (primarily the existing, vertical utility infrastructure and horizontal form of the agricultural fields). View blockage of background sky and mountains would be moderate. The overall visual change would be moderate when the three equally weighted factors of visual contrast, project dominance, and view blockage are combined. In the context of the existing landscape's moderate visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III). However, Mitigation Measure V-3a is recommended to reduce the visual impact along this portion of the project. While Impact V-36 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views of this alternative from the agricultural areas in the vicinity of the route in general and specifically from the public roads immediately adjacent and parallel to the route.

Mitigation Measure for Impact V-36: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 29 on northbound Huff Road

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

Figure D.3-31. Key Viewpoint 29 – West Main Canal–Huff Road Alternative – Huff Road –
Existing Condition

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D.3.15 Anza-Borrego Link Alternatives Impacts and Mitigation Measures

Two alternatives are considered in the Anza-Borrego Link: the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (also considered with an All Underground Option) and the Overhead 500 kV ABDSP within Existing ROW Alternative.

D.3.15.1 Partial Underground 230 kV ABDSP SR78 to S2 Alternative

This alternative was developed by the EIR/EIS team and would include installation of a double-circuit bundled 230 kV line (as opposed to an overhead 500 kV with the Proposed Project) that would be installed underground in SR78 through ABDSP. The proposed Central East Substation would not be constructed with this alternative and approximately 2 miles of transmission line (one mile of 500 kV and one mile of 230 kV) to and from that substation would be eliminated. Instead a new 500 kV/230 kV substation would be constructed adjacent to the existing IID San Felipe Substation to accommodate the new transmission line.

There is also an *All Underground Option* considered for this alternative, in which the entire length of the 230 kV transmission line between the San Felipe Substation and the connection to the Proposed Project would be installed underground in Highways SR78 and S2.

Environmental Setting

The Partial Underground 230 kV ABDSP SR78 to S2 Alternative would include the construction of a new 500 kV to 230 kV substation at the existing San Felipe 92 kV Substation in Lower Borrego Valley. The substation would be located on private land, just east of the existing substation and the intersection of Old Kane Springs Road and Split Mountain Road. From the substation, the alternative would transition underground as a double-circuit 230 kV transmission line. The line would continue west and then north to intersect with SR78 before turning west again beneath SR78 through ABDSP, continuing west to a point one mile east of the intersection with San Felipe Road (S2) where it would transition overhead on the north side of the roadway. It would continue west for approximately one mile and then transition underground again, turning northwest for three miles. Approximately 50 to 100 feet west of the Earthquake Valley Fault zone, the line would transition to overhead once again and would continue north adjacent to the east side of San Felipe Road for approximately 8.8 miles, bypassing the Central East Substation area. The route would rejoin the proposed route on San Felipe Road at MP 92.7 near Montezuma Valley Road (S22). At each point of transition there would be a pair of 230 kV transition structures.

Foreground views of the new substation would be available from Old Kane Springs Road, Split Mountain Road, and several residences that surround the site. The aboveground transmission line would be visible from SR78 (an Eligible State Scenic Highway) and San Felipe Road (S2).

Three KVPs (KVPs 30, 31 and 32) were selected for detailed analysis of the substation and overhead transmission line and are considered representative of the visual impact that would be experienced along the aboveground portion of this alternative because of the close proximity of the route to viewing locations, the flat, open landscape, and the unobstructed views of the alternative that would be available. The location of KVPs 30, 31 and 32 are shown on Figure D.3-1B. The results of the visual analyses are summarized in Appendix VR-1. A discussion of the existing visual setting for the three KVPs is presented in the following paragraphs.

Key Viewpoint 30 (KVP 30) – San Felipe 500 kV to 230 kV Substation (VS-VC)

KVP 30 was established on northbound Split Mountain Road, just southwest of the alternative substation site (see Figure D.3-32A). Viewing to the northeast toward the alternative substation site, this viewpoint was selected to generally characterize the existing landscape views available to travelers on Split Mountain Road, the primary access for residents in the immediate area and visitors to the Split Mountain and Fish Creek areas of ABDSP.

Visual Quality. Moderate. The view from KVP 30 encompasses a foreground to background flat, grass- and shrub-covered valley, punctuated by the simple, vertical forms of a wood-pole utility line that become minimally noticeable at a distant foreground to middleground viewing distance. Also visible is the existing 92 kV San Felipe Substation, which is small and unobtrusive and several rural residences in close proximity to the substation site, on both the east and west sides of Split Mountain Road. Rugged, rolling to angular hills and mountain ranges provide a backdrop to the north. The paved Split Mountain Road is a prominent linear feature bisecting the landscape. Even with the presence of the existing utility facilities, and rural residences, the landscape is predominantly natural in appearance with the background landforms adding some topographic variety and visual interest.

Viewer Concern. High. Travelers on Split Mountain Road are provided panoramic views across a broad, flat landscape to distant mountain ranges. Since the typical traveler on Split Mountain Road would be either there for the recreational and nature experience or to access nearby residences, any addition of industrial character to the predominantly natural appearing landscape or blockage of views to more valued landscape features (distant mountains) would be seen as an adverse visual change.

Viewer Exposure. Moderate-to-high. The substation would be highly visible in the foreground of views from nearby residences and Split Mountain Road. The substation would be within the primary cone of vision of both northbound and southbound travelers on Split Mountain Road. The number of viewers would be low-to-moderate and the duration of view would be extended. Combining these four equally weighted factors leads to an overall moderate-to-high viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on Split Mountain Road and nearby residents, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure would result in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 31 (KVP 31) – San Felipe Road Transition Structures (VS-VC)

KVP 31 was established on southbound San Felipe Road (S2), just south of the California Riding and Hiking Trail trailhead on S2 (see Figure D.3-33A). Viewing to the south-southeast toward the alternative's middle transition location, this viewpoint was selected to generally characterize the existing landscape views available to travelers on San Felipe Road, in the vicinity of the middle transition location.

Visual Quality. Moderate-to-high. The view from KVP 31 encompasses a foreground sloping to level, arid, San Felipe Valley floor, surrounded by rocky hills and rugged ridges and backdropped by the more distant, angular forms of the North Pinyon Mountains (to the southeast), Granite Mountain (to the south), and the Volcan Mountains (to the west). The landscape is predominantly natural in appearance with minimal intrusion of built structures or industrial character. The integrity of the landscape is moderate-to-high and exhibits a harmony of landforms, vegetation, and color.

Viewer Concern. High. Travelers on San Felipe Road are provided panoramic views across a flat valley floor to a background of rocky hills and more distant mountain ranges. Any introduction of industrial character to the predominantly natural appearing landscape or blockage of views to higher quality landscape features (valley floor, rocky ridges, distant mountains, or sky) would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The alternative would be highly visible in the foreground of views from KVP 31 with the transmission line structures appearing within the primary cone of vision of both northbound and southbound travelers. The number of viewers would be low-to-moderate and the duration of view would be extended. The combination of these four equally weighted factors results in a moderate-to-high degree of overall viewer exposure

Overall Visual Sensitivity. Moderate-to-high. For travelers on San Felipe Road, combining the equally weighted moderate-to-high visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 32 (KVP 32) – San Felipe Road Valley North (VS-VC)

KVP 32 was established on southbound San Felipe Road (S2), approximately 0.8 miles south of San Felipe (see Figure D.3-34A). Viewing to the southeast toward the alternative east of San Felipe Road, location, this viewpoint was selected to generally characterize the existing landscape views available to travelers on San Felipe Road and nearby residents in the vicinity of the route in the northern portion of the valley where the route passes several rural residences.

Visual Quality. Moderate. The view from KVP 32 encompasses a foreground sloping to level, arid, San Felipe Valley floor, surrounded by rocky hills and rugged ridges and backdropped by the more distant, angular forms of the North Pinyon Mountains (to the southeast), Granite Mountain (to the south), and the Volcan Mountains (to the west). The landscape is predominantly natural in appearance though there are several rural residences along the valley floor in the north valley area. There is also a simple wood-pole utility line that parallels the road in this location. The integrity of the landscape is moderate and while there is an apparent harmony of landforms, vegetation, and color, the built alterations are somewhat discordant though subordinate.

Viewer Concern. High. Travelers on San Felipe Road and nearby residents are provided panoramic views across a flat valley floor to a background of rocky hills and more distant mountain ranges. Any introduction of industrial character to the predominantly natural appearing landscape or blockage of views to higher quality landscape features (valley floor, rocky ridges, distant mountains, or sky) would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The alternative would be highly visible in the foreground of views from KVP 32 with the transmission line structures appearing within direct view of nearby residents and within the primary cone of vision of northbound and southbound travelers on San Felipe Road. The number of viewers would be low-to-moderate but the duration of view would be extended. The combination of these four equally weighted factors results in a moderate-to-high degree of overall viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For nearby residents and travelers on San Felipe Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Partial Underground 230 kV ABDSP SR78 to S2 Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. Of particular concern is Tamarisk Grove Campground near the intersection of SR78 and Yaqui Pass Road View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. Although campers at Tamarisk Grove Campground would be adversely affected by construction, most of the construction activity would be screened by vegetation adjacent to the campground. Also, while the impact would be noticeable to the campers, only a small number of campers would be affected relative to the total camping population at the campground over a season. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC, USBLM, and ABDSP as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

The new San Felipe Substation and overhead portion of the Partial Underground 230 kV ABDSP SR78 to S2 Alternative along SR78 and San Felipe Road (S2) would result in significant (Class I) visual impacts. Long-term, operational visual impacts would be experienced by nearby residents and travelers on Old Kane Springs Road and Split Mountain Road near the substation and travelers on SR78 and San Felipe Road, and scattered rural residences in the northern portion of San Felipe Valley for the aboveground transmission line portion of the alternative. Three representative KVPs (KVPs 30, 31, and 32) were

selected to characterize the visual impacts that would occur from the aboveground components of this alternative

Impact V-37: Increased structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the San Felipe 500 kV to 230 kV Substation from Key Viewpoint 30 on northbound Split Mountain Road (VS-VC) (Class I)

Figure D.3-32A presents the existing view to the northeast toward the alternative substation site from Key Viewpoint 30 on northbound Split Mountain Road. Figure D.3-32B presents a visual simulation that depicts the addition of the San Felipe 500 kV/230 kV Substation. This viewpoint analysis is representative of views of the substation from the immediate vicinity of the substation site.

The proposed substation would appear as an assemblage of complex, geometric forms with vertical to diagonal lines. The substation components would be prominently visible and would introduce industrial character into a natural-appearing landscape lacking similar characteristics, though there is a small 92 kV substation and wood-pole transmission line adjacent to the site. The resulting visual contrast would be high. The co-dominant-to-dominant structures would cause a moderate-to-high degree of view blockage of the background valley floor and more distant mountains. As a result, the overall visual change would be moderate-to-high. In the context of the existing landscape's moderate-to-high visual sensitivity, the resulting visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact of the substation to a level that would be less than significant, aside from selection of an entirely different substation location. The open terrain and vast expanse of desert floor with relatively consistent visual character do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Also, given the scale of the structures, landscape plantings would not be adequate to sufficiently screen the substation components. However, Mitigation Measures V-7a through V-7c are recommended to further reduce the visual impact of the new San Felipe Substation. This viewpoint analysis is considered representative of views from nearby residences, Old Kane Springs Road, and Split Mountain Road. It should also be noted that implementation of the Proposed Project, or any of the other alternatives, described elsewhere in this report, would eliminate Impact V-37. However, under any of the other choices, a Class I visual impact would merely be shifted to a different location.

Mitigation Measure for Impact V-37: Increased structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the San Felipe 500 kV to 230 kV Substation from Key Viewpoint 30 on northbound Split Mountain Road

- V-7a Reduce visual contrast associated with ancillary facilities.**
- V-7b Screen ancillary facilities.**
- V-21a Reduce night lighting impacts.**

Figure D.3-32A. Key Viewpoint 30 – Partial Underground 230 kV ABDSP SR78 to S2 – San Felipe Substation – Existing Condition and Simulation

[CLICK HERE TO VIEW](#)

Figure D.3-32B. Key Viewpoint 30 – Partial Underground 230 kV ABDSP SR78 to S2 – San Felipe Substation – Existing Condition and Simulation

[CLICK HERE TO VIEW](#)

Impact V-38: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 31 on southbound San Felipe Road (VS-VC) (Class I)

Figure D.3-33A presents the existing view to the south-southeast from KVP 31 on southbound San Felipe Road (S2), just south of the California Riding and Hiking Trail trailhead on S2. Figure D.3-33B presents a visual simulation that depicts the alternative as it transitions overhead from an underground segment, on the east side of San Felipe Road. In-line views of the transmission line from San Felipe Road would cause several structures to be visible in the same field of view. As shown in the simulation, the paired transition structures and steel-pole tangent structures would introduce structurally prominent features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics. The resulting visual contrast would be moderate-to-high. The co-dominant structures would also cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky (due to skylining). These three equally weighted factors would result in an overall visual change that would be moderate-to-high, and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor, aside from selection of an entirely different route (alternative) and landscape setting. The relatively open terrain and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a is still recommended to reduce the visual impact along this portion of the alternative. This viewpoint analysis is considered representative of project views from and in the vicinity of San Felipe Road and SR78. It should also be noted that implementation of the Proposed Project, the Overhead 500 kV ABDSP within Existing ROW, or any one of the SWPL Alternatives, described elsewhere in this report, would eliminate the visual impacts along this portion of San Felipe Road, though under the other options, the significant impact would merely be shifted to different locations.

Mitigation Measure for Impact V-38: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 31 on southbound San Felipe Road (Class I)

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

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Figure D.3-33A/B. Key Viewpoint 31 – Partial Underground 230 kV ABDSP SR78 to S2 – San Felipe Road South – Existing View and Simulation

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Impact V-39: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 32 on southbound San Felipe Road near San Felipe (VS-VC) (Class I)

Figure D.3-34A presents the existing view to the southeast from KVP 32 on southbound San Felipe Road (S2), approximately 0.8 miles south of San Felipe. Figure D.3-34B presents a visual simulation that depicts the alternative as it converges on and then diverges from San Felipe Road. This portion of the route would be prominently visible from both southbound and northbound San Felipe Road and nearby rural residences as the route converges on San Felipe Road and then diverges away from the road, passing near several scattered rural residences. The structures would be prominently visible and would introduce substantial industrial character into a rural landscape that is predominantly natural appearing. The resulting visual contrast would be high. The co-dominant-to-dominant structures would also cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky (due to skylining). These three equally weighted factors would result in an overall moderate-to-high visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor, aside from selection of an entirely different route (alternative) and landscape setting. The relatively open terrain and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a is still recommended to reduce the visual impact along this portion of the alternative. This viewpoint analysis is considered representative of project views from and in the vicinity of San Felipe Road and SR78. It should also be noted that implementation of the Proposed Project, the Overhead 500 kV ABDSP within Existing ROW, or any one of the SWPL Alternatives, described elsewhere in this report, would eliminate the visual impacts along this portion of San Felipe Road though under the other options, the significant impact would merely be shifted to different locations.

Mitigation Measure for Impact V-39: Increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 32 on southbound San Felipe Road (Class I)

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

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Figure D.3-34A. Key Viewpoint 32 – Partial Underground 230 kV ABDSP SR78 to S2 – San Felipe Road North – Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-34B. Key Viewpoint 32 – Partial Underground 230 kV ABDSP SR78 to S2 – San Felipe Road North – Visual Simulation

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D.3.15.2 Overhead 500 kV ABDSP within Existing ROW Alternative

The alternative would follow the same route as the proposed route, except for in the Grapevine Canyon area in the Angelina Springs Cultural District where the alternative would remain within the existing SDG&E 69 kV ROW/easement and towers would not be located on State-designated Wilderness. Undergrounding of the existing 69 kV and 92 kV lines would not occur with this alternative; however, the lines would be underbuilt on Delta lattice towers.

The *East of Tamarisk Grove Campground 150-Foot Option* was suggested by SDG&E in which the alternative would follow the Proposed Project route in the 150-foot proposed alignment, and not the existing ROW, between the eastern Park boundary (MP 60.9) to Tamarisk Grove Campground (MP 74.8) near the SR78/Highway S3 intersection. Similar to the Proposed Project described in Section B.2.2, SDG&E would underbuild and underground the existing 92 kV and 69 kV lines.

Environmental Setting

The Overhead 500 kV ABDSP within Existing ROW Alternative would stay within the existing ROW and not require the additional 50-foot expansion needed by the Proposed Project. This alternative would follow the same route as the proposed route, except for in the Grapevine Canyon area in the Angelina Springs Cultural District where the alternative would remain within the existing SDG&E 69 kV ROW/easement and towers would not be located on State-designated Wilderness.

Foreground views of this alternative would be available from SR78 (a Designated State Scenic Highway), Yaqui Pass Road (S3), Tamarisk Grove Campground, Yaqui Well dispersed camping area, and Grapevine Canyon Road.

KVP 33 was selected for detailed analysis and is considered representative of the visual impact that would be experienced along this alternative because of the close proximity of the route to viewing locations and the open, unobstructed views of the alternative that would be available. The location of KVP 33 is shown on Figure D.3-1B. The results of the visual analyses are summarized in Appendix VR-1. A discussion of the existing visual setting for the KVP is presented in the following paragraphs.

Key Viewpoint 33 (KVP 33) – SR78 in ABDSP (VS-VC)

KVP 33 was established on westbound SR78), approximately 0.4 miles west of the intersection with Old Kane Springs Road (see Figure D.3-35A). Viewing to the west-southwest down SR78 and the alternative's proposed route, this viewpoint was selected to generally characterize the existing landscape views available to travelers on SR78 and recreationists in the vicinity of the alternative in ABDSP.

Visual Quality. Moderate. The view from KVP 33 encompasses a landscape comprise of foreground to background rugged desert flats, backdropped by the angular to rolling forms of Yaqui Ridge (to the north) Grapevine Mountain (to the west), and the North Pinyon Mountains (to the south), which add visual variety to the view from SR78 (a State Designated Scenic Highway in ABDSP). A simple wood-pole transmission line is also visible as it crosses Yaqui Flats, slightly compromising the otherwise natural appearing landscape and reducing landscape coherence, integrity, and overall visual quality to a moderate level.

Viewer Concern. High. SR78 is a State Designated Scenic Highway in ABDSP and therefore warrants a high rating for viewer concern. Travelers on this stretch of scenic highway may also be pursuing recreational opportunities within ABDSP, which offers a predominantly natural desert setting. Any addi-

tion of developed industrial features to the landscape or blockage of views to higher quality landscape features (Pinyon Ridge) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. High. The alternative would be highly visible in the foreground of views from KVP 33 with the transmission line structures appearing within the primary cone of vision of both eastbound and westbound travelers. The number of viewers would be moderate and the duration of view would be extended. The combination of these four equally weighted factors results in a moderate-to-high degree of overall viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR78 in ABDSP, combining the equally weighted moderate visual quality, high viewer concern, and high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Overhead 500 kV ABDSP within Existing ROW Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. Of particular concern is Tamarisk Grove Campground near the intersection of SR78 and Yaqui Pass Road View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be

transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. Although campers at Tamarisk Grove Campground would be adversely affected by construction, most of the construction activity would be screened by vegetation adjacent to the campground. Also, while the impact would be noticeable to the campers, only a small number of campers would be affected relative to the total camping population at the campground over a season. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC, USBLM, and ABDSP as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

The Overhead 500 kV ABDSP within Existing ROW Alternative would result in significant (Class I) visual impacts. Long-term, operational visual impacts would be experienced by travelers on SR78 and Yaqui Pass Road; visitors to Tamarisk Grove Campground, Yaqui Well Dispersed Camping Area, or Grapevine Canyon; and recreationists in the vicinity of the route. One representative Key Viewpoint (KVP 33) was selected to characterize the visual impacts that would occur along this alternative route.

Impact V-40: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 33 on westbound SR78 in ABDSP (VS-VC) (Class I)

Figure D.3-35A presents the existing view to the west-southwest from KVP 33 on westbound SR78, approximately 0.4 miles west of the intersection with Old Kane Springs Road. Figure D.3-35B presents a visual simulation that depicts the alternative within the existing ROW adjacent to SR78. In-line views of the transmission line from SR78 would cause several structures to be visible in the same field of view. As shown in the simulation, the lattice structures would introduce structurally complex and prominent features with considerable industrial character into a predominantly natural-appearing landscape lacking similar characteristics. The resulting visual contrast would be high. The co-dominant-to-dominant structures would also cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky (due to skylining). These three equally weighted factors would result in a moderate-to-high overall visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor, aside from selection of an entirely different route (alternative) and landscape setting. The relatively open terrain and consistent backdrop along this route segment do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a is still recommended to reduce the visual impact along this portion of the alternative. This viewpoint analysis is considered representative of project views from and in the vicinity of the route in general and SR78 in particular. It should also be noted that implementation of the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, or any one of the SWPL Alternatives, described elsewhere in this report, would eliminate the visual impacts along this portion of SR78 though under the other options, the significant impact would merely be shifted to different locations.

Mitigation Measure for Impact V-40: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 33 on westbound SR78 in ABDSP

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

Figure D.3-35A/B. Key Viewpoint 33 – Overhead 500 kV ABDSP within Existing ROW – SR78 –
Existing Condition and Simulation

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D.3.16 Central Link Alternatives Impacts and Mitigation Measures

Four Central Link Alternatives are considered in this section: the Santa Ysabel Existing ROW Alternative, the Santa Ysabel Partial Underground Alternative, the Santa Ysabel SR79 All Underground Alternative, and the Mesa Grande Alternative.

D.3.16.1 Santa Ysabel Existing ROW Alternative

This alternative would follow an existing 69 kV transmission line ROW on the west side of SR79 in the northern half and east of SR79, along the toe of the hill slope in the southern portion of the alternative. This route would pass east of the existing Santa Ysabel Substation and continue to follow the existing 69 kV line south of SR78 until it rejoins the proposed corridor.

Environmental Setting

The Santa Ysabel Existing ROW Alternative would begin at MP 100 and would travel south for approximately 4.7 miles on the west side of SR79, following the west side (farther from SR79) of an existing SDG&E 69 kV transmission line. Where the southern border of the Santa Ysabel Reservation no longer parallels the east side of SR79 and the valley begins to open up, the alternative route and the existing 69 kV transmission line would cross to the east side of SR79 (approximately 1,800 feet south of School House Canyon Road). The route would continue south for 3.2 miles (19 towers) on the east side of SR79, behind the Santa Ysabel Mission until it would pass east of the Santa Ysabel Substation and then cross SR78 as it turns south in the town of Santa Ysabel. The route would continue south for 0.5 miles before turning southwest for one mile and rejoining the Proposed Project at approximately MP 110.

Foreground views of the aboveground portion of this alternative would be available from SR78 and SR79 (Eligible State Scenic Highways), rural residences on the Santa Ysabel Reservation, Santa Ysabel Mission, the town of Santa Ysabel, and the Inaja Monument Park Overlook.

KVP 34 was selected for detailed analysis and is considered representative of the visual impact that would be experienced along this alternative because of the similar qualities of the existing landscape along the route, the close proximity of the route to viewing opportunities, the relatively open landscape, and the unobstructed views of the alternative that would be available. The location of KVP 34 is shown on Figure D.3-1C. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 34 is presented in the following paragraphs.

Key Viewpoint 34 (KVP 34) – SR79 South of Schoolhouse Canyon Road (VS-VC)

KVP 34 was established on southbound SR79, just south of Schoolhouse Canyon Road (see Figure D.3-36A). Viewing to the south toward the alternative's span of SR79, this viewpoint was selected to generally characterize the existing landscape views available to travelers on SR79.

Visual Quality. Moderate. The view from KVP 34 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation. The curvilinear form of SR79 (an Eligible State Scenic Highway) is a prominent built feature. Although two simple, wood-pole utility lines are also visible adjacent to the highway, the landscape is predominantly natural appearing and exhibits a distinct rural character with a few scattered rural residences also visible. The integrity of the landscape is moderate and exhibits a harmony of landforms, vegetation, and color though there is some intrusion of built structures.

Viewer Concern. High. Travelers on SR79 expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting. Travelers may be accessing either nearby rural residences or nearby recreational areas. Any introduction of industrial character to the predominantly natural appearing landscape or blockage of views to higher quality landscape features (surrounding hills or sky) would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The alternative would be highly visible in the foreground of views from KVP 34 with the transmission line structures appearing within the primary cone of vision of both northbound and southbound travelers. The number of viewers would be moderate and the duration of view would be moderate-to-extended. The combination of these four equally weighted factors results in a moderate-to-high degree of overall viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR79, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Santa Ysabel Existing Right of Way Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers

and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

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

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

V-2c Reduce color contrast of land scars on non-Forest lands.

V-2d Construction by helicopter.

Operational Impacts

The Santa Ysabel Existing Right of Way Alternative would result in significant (Class I) visual impacts. Long-term, operational visual impacts would be experienced by travelers on SR78 and SR79, rural residents on the Santa Ysabel Reservation, the town of Santa Ysabel, and visitors to the Santa Ysabel Mission and Inaja Monument Park Overlook. One representative Key Viewpoint (KVP 34) was selected to characterize the visual impacts that would occur along this alternative route.

Impact V-41: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 34 on southbound SR79 (VS-VC) (Class I)

Figure D.3-36A presents the existing view to the south from KVP 34 on southbound SR79, just south of Schoolhouse Canyon Road. Figure D.3-36B presents a visual simulation that depicts the alternative as it spans SR79 and then turns south, paralleling the road on the east side. In-line views of the transmission line from SR79 would cause several structures to be visible in the same field of view. As shown in the simulation, this alternative would be prominently visible from both northbound and southbound SR79 as it spans and then parallels the road on the east side. This alternative would introduce vertical, linear features with substantial industrial character into a rural landscape that is predominantly natural appearing. The resulting visual contrast would be moderate-to-high. The co-dominant structures would also cause a moderate-to-high degree of view blockage of the background hills, ridgelines, and sky (due to skylining). These three equally weighted factors would result in an overall visual change that would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that would be less than significant in this corridor, aside from selection of an entirely different route (alternative) and landscape setting. The relatively open terrain and consistent backdrop along this route segment does not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. Also, with the availability of both close and distant views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a is still recommended to reduce the visual impact along this portion of the alternative. This viewpoint analysis is considered representative of project views in Santa Ysabel Valley in general and from SR79 specifically. It should also be noted that implementation of either the Santa Ysabel SR79 All Underground Alternative or the Santa Ysabel Partial Underground Alternative would eliminate the visual impact to SR79 south of SR76. However, in the case of the Santa Ysabel Partial Underground Alternative, a Class I visual impact would be shifted to visible landscapes north of Mesa Grande Road. Also, any one of the SWPL Alternatives, described elsewhere in this report, would also eliminate the visual impacts along this alternative though under those alternatives, the significant impact would merely be shifted to different locations.

Mitigation Measure for Impact V-41: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 34 on southbound SR79

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

Figure D.3-36A/B. Key Viewpoint 34 – Santa Ysabel Existing Right of Way – SR79 – Existing
Condition and Simulation

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D.3.16.2 Santa Ysabel Partial Underground Alternative

This 230 kV alternative would begin at MP 105.5 where the proposed route would join Mesa Grande Road at the base of the hills at the western side of the Santa Ysabel Valley. The alternative would transition underground at the southern side of Mesa Grande Road and would travel underground in Mesa Grande Road, SR79 and then, south of SR78, following property lines for approximately one mile to rejoin the proposed route at approximately MP 109.5 where it would transition overhead. The route would be 0.7 miles longer than the proposed route.

Environmental Setting

Foreground views of the aboveground transition structures would be available from Mesa Grande Road.

KVP 35 was selected for detailed analysis and is considered representative of the visual impact that would be experienced from Mesa Grande Road because of the similar qualities of the existing landscape in the vicinity of the transition structure, the close proximity of the route to Mesa Grande Road, the relatively open landscape, and the unobstructed views of the alternative that would be available. The location of KVP 35 is shown on Figure D.3-1C. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 35 is presented in the following paragraphs.

Key Viewpoint 35 (KVP 35) – Mesa Grande Road Transition Structures (VS-VC)

KVP 35 was established on westbound Mesa Grande Road, just east of the transition structures (see Figure D.3-37A). Viewing to the northwest toward the alternative's proposed location for the transition structures, this viewpoint was selected to generally characterize the existing landscape views available to travelers on Mesa Grande Road.

Visual Quality. Moderate. The view from KVP 35 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation. The curvilinear form of Mesa Grande Road is a prominent built feature. Although there is a simple, wood-pole utility line adjacent to the road, the landscape is predominantly rural in character and there are no built features exhibiting industrial character in the vicinity. The integrity of the landscape is moderate and exhibits a harmony of landforms, vegetation, and color though there is some intrusion of built structures.

Viewer Concern. High. Travelers on Mesa Grande Road expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting. Travelers may be accessing either nearby rural residences or nearby recreational areas. Any introduction of industrial character to the predominantly natural appearing landscape or blockage of views to higher quality landscape features (surrounding hills or sky) would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The transition structures would be highly visible in the foreground of views from KVP 35, appearing within the primary cone of vision of both eastbound and westbound travelers. The number of viewers would be low and the duration of view would be moderate-to-extended. The combination of these four equally weighted factors results in an overall moderate-to-high degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on Mesa Grande Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Santa Ysabel Partial Underground Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

The Santa Ysabel Partial Underground Alternative would result in significant (Class I) visual impacts due to the visibility of the transition structures. Long-term operational visual impacts would be experienced by travelers on Mesa Grande Road. One representative Key Viewpoint (KVP 35) was selected to characterize the visual impacts that would occur at the transition structures location.

Impact V-42: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 35 on Mesa Grande Road (VS-VC) (Class II)

Figure D.3-37A presents the existing view to the northwest from KVP 35 on westbound Mesa Grande Road, just east of the Transition structures. Figure D.3-37B presents a visual simulation of the transition structures adjacent to the south side of the road. This alternative would introduce two prominently visible, vertical, linear features with substantial structural complexity and industrial character into a rural

landscape that is predominantly natural appearing. The project would result in a high degree of visual contrast with the existing landscape character. The co-dominant-to-dominant structures would cause substantial view blockage of the background hills, ridgelines, and sky (due to structure skylining). These three equally weighted factors would result in an overall visual change that would be moderate-to-high and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class II). Mitigation Measure V-42a is recommended to reduce the visual impact of the transition structures to a level that would be less than significant. This viewpoint analysis is considered representative of project views from Mesa Grande Road. It should also be noted that implementation of the Santa Ysabel All Underground Alternative or the Santa Ysabel Existing ROW Alternative would eliminate the visual impact on Mesa Grande Road, though a Class I visual impact would be shifted to visible landscapes elsewhere in Santa Ysabel Valley. Also, any one of the SWPL Alternatives, described elsewhere in this report, would also eliminate the visual impacts along this alternative though under those alternatives, the significant impact would again be shifted to different locations.

Mitigation Measure for Impact V-42: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 35 on westbound Mesa Grande Road

V-42a **Reduce visibility of the transition structures by relocating the structures.** In order to substantially reduce the visibility of the transition structures in the vicinity of Mesa Grande Road, the structures shall be relocated approximately 0.5 miles further west along the Proposed Route to a location immediately adjacent to an existing ranch road. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.

Figure D.3-37A. Key Viewpoint 35 – Santa Ysabel Partial Underground Alternative – Mesa Grande Road – Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-37B. Key Viewpoint 35 – Santa Ysabel Partial Underground Alternative – Mesa Grande Road – Simulation

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D.3.16.3 Santa Ysabel SR79 All Underground Alternative

This alternative would diverge from the Proposed Project at MP 100, just south of the crossing of SR78. It would start as an overhead 230 kV line, which would then transition to an underground route on private property, west of SR79. It would be underground along existing dirt roads and within hay fields and SR79 through the Santa Ysabel Valley, rejoining the proposed route south of SR78.

Environmental Setting

This underground route would pass through grasslands and oak woodlands in unpaved, ranch roads or beneath SR79, which is a paved road. Public views of the route are very limited along the north portion of the route because it is on private property and is screened from view. It does not become visible until it passes beneath SR79, south of Mesa Grande Road. The view along SR79 encompasses a foreground to background rolling, pastoral landscape supporting grass and oak woodland vegetation on either side of the road. The curvilinear form and line of SR79 is a prominent built feature in the predominantly rural landscape. The southern portion of the route (south of SR78) also passes beneath ranch roads on private property though much of this portion of the route segment would be visible from the Inaja Monument Park Overlook which views out to the west over the valley and the route. A portion of the underground segment in this area would be visible from the Monument as an existing ranch road until it turns southwest and becomes screened by oak woodlands. The landscape along this underground route is as described for Proposed Project KVP 16 at the Monument and shown in Figure D.3-17A. Because of the limited public visibility, a KVP was not established for this alternative.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Santa Ysabel All Underground Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for substations, construction and storage yards, and fly yards; Class III for tower construction)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, commercial users, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. Of particular concern are views from SR79, Santa Ysabel, SR78, and the Inaja Monument Park Overlook. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of residents or travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less

than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

The Santa Ysabel All Underground Alternative would result in adverse but less than significant (Class III) visual impacts. Minimal long-term operational visual impacts would be experienced by the general public because of the very limited visibility of the transition structures on private land. However, the southern pair of structures would be slightly visible to travelers on westbound SR78.

Impact V-43: Slight degree of structure contrast, industrial character, and view blockage, when viewed from SR78 (VS-VC) (Class III)

The transition structures would be located on private property at both ends of the underground route and would have very limited visibility to the public. The north pair of transition structures would be located relatively close to SR76 and SR79, but would be screened by oak woodlands. The southern pair of transition structures would be located near proposed route MP 109.5 in a grassland and oak woodland landscape, but would be sufficiently south of SR78 and the Inaja Monument Park Overlook and it would be minimally visible and partially screened by terrain and oak woodlands. As a result, the transition structure would be only slightly visible from westbound SR78 and at a 90 degree viewing angle from the direction of travel. The remainder of the route would be located underground beneath paved or graded roads and would not be visible. To the extent that the southern transition structures would be noticed by travelers on SR78, the visual impact would be adverse but not significant (Class III) and no mitigation measures are proposed.

D.3.16.4 SDG&E Mesa Grande Alternative

This alternative to a one-mile portion of the proposed overhead 230 kV route was proposed by the landowner and also by SDG&E in order to reduce the visibility of the overhead line west of Mesa Grande Road. It would diverge from the proposed route at MP 102.2, and rejoin it before MP 104.

Environmental Setting

Foreground views of this alternative would be available from Mesa Grande Road. KVP 36 was selected for detailed analysis and is considered representative of the visual impact that would be experienced from Mesa Grande Road because of the similar qualities of the existing landscape in the vicinity of the alternative, the close proximity of the route to Mesa Grande Road, the relatively open landscape, and the unobstructed views of the alternative that would be available. The location of KVP 36 is shown on Figure D.3-1C. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 36 is presented in the following paragraphs.

Key Viewpoint 36 (KVP 36) – Mesa Grande Road (VS-VC)

KVP 36 was established on Mesa Grande Road, just west of the alternative (see Figure D.3-38A). Viewing to the east toward the low hills north of Mesa Grande Road and the route of this alternative, this viewpoint was selected to generally characterize the existing landscape views available to travelers on Mesa Grande Road.

Visual Quality. Moderate. The view from KVP 36 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation. The curvilinear form of Mesa Grande Road is a prominent built feature and there are a few rural residences nearby. Although there is a simple, wood-pole utility line adjacent to the road, and one crossing the field to the north, the landscape is predominantly rural in character and there are no built features exhibiting noticeable industrial character in the vicinity. The integrity of the landscape is moderate and exhibits a harmony of landforms, vegetation, and color though there is some intrusion of built structures.

Viewer Concern. High. Nearby residents and travelers on Mesa Grande Road expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting. Travelers may be accessing either nearby rural residences or nearby recreational areas. Any introduction of industrial character to the rural, predominantly natural appearing landscape or blockage of views to higher quality landscape features (surrounding hills or sky) would be perceived as an adverse visual change.

Viewer Exposure. Moderate-to-high. The transmission line would be highly visible in the foreground of views from KVP 36, appearing within the primary cone of vision of both eastbound and westbound travelers. The number of viewers would be low but the duration of view would be moderate-to-extended. The combination of these four equally weighted factors results in an overall moderate-to-high degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For nearby residents and travelers on Mesa Grande Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the Mesa Grande Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, outdoor recreation enthusiasts, and trav-

elers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of residents or travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USBLM as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

The Mesa Grande Alternative would result in significant (Class I) visual impacts. Long-term operational visual impacts would be experienced by nearby residents and travelers on Mesa Grande Road. One representative Key Viewpoint (KVP 36) was selected to characterize the visual impacts that would occur from this alternative.

Impact V-44: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 36 on Mesa Grande Road (VS-VC) (Class I)

Figure D.3-38A presents the existing view to the east from KVP 36 on Mesa Grande Road, just west of the alternative. Figure D.3-38B presents a visual simulation that depicts the alternative as it crosses the open hill slopes north of Mesa Grande Road. This alternative would be prominently visible from Mesa Grande and would introduce vertical, linear features with substantial industrial character into a rural, pastoral landscape that presently is absent similar features. Also, the cleared access and spur roads would contribute additional color and line contrast due to the visibility of exposed soils and unnatural lines of demarcation in the grass-covered slopes. Although there is an existing, simple wood-pole transmission line that crosses the fields to the north, it does not substantially contrast with the rural landscape. The resulting visual contrast would be moderate-to-high. The co-dominant structures would cause moderate-to-high view blockage of the background hills and sky (due to structure skylining). These three equally weighted factors would result in an overall moderate-to-high visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that would be less than significant, aside from selection of an entirely different route (alternative) and landscape setting. The relatively open terrain and limited geographic extent of the valley do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. Also, because of the close views of the route, different structure designs would not be effective in reducing the visual impact to a level that would be less than significant. However, Mitigation Measure V-3a is still recommended to reduce the visual impact along this portion of the alternative. This viewpoint analysis is considered representative of views from and in the vicinity of Mesa Grande Road.

It should also be noted that implementation of the Santa Ysabel All Underground Alternative or the Santa Ysabel Existing ROW Alternative would eliminate the visual impact to Mesa Grande Road, though, in the case of the Existing ROW Alternative, a Class I visual impact would be shifted to visible landscapes adjacent to SR79. Also, any one of the SWPL Alternatives, described elsewhere in this report, would also eliminate the visual impacts along this alternative though under those alternatives, the significant impact would merely be shifted to different locations. It should be noted that compared to the Proposed Project route (see Figure D.3-38C), the Mesa Grande Alternative would be less visually impacting because its lower elevation traverse of the hillside would result in less structure skylining, which would reduce structure prominence.

Mitigation Measure for Impact V-44: Introduced structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 36 on Mesa Grande Road

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

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Figure D.3-38A/B. Key Viewpoint 36 – Mesa Grande Alternative – Mesa Grande Road – Existing Condition and Simulation

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Figure D.3-38C. Key Viewpoint 36 – Mesa Grande Alternative – Mesa Grande Road – Proposed
Project Visual Simulation Comparison

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D.3.17 Inland Valley Link Alternatives Impacts and Mitigation Measures

Four alternatives are considered within the Inland Valley Link: the CNF Existing 69 kV Route Alternative, the Oak Hollow Road Underground Alternative, the San Vicente Road Transition Station Alternative, and the Chuck Wagon Road Alternative.

D.3.17.1 CNF Existing 69 kV Route Alternative

This 0.5-mile alternative segment would start at MP 111.3 where the proposed 230 kV and existing 69 kV transmission lines would be routed west for 0.5 miles and then south for approximately 0.5 miles to avoid Cleveland National Forest (CNF). The alternative would remain in the existing 69 kV ROW heading southwest through Cleveland National Forest to rejoin the proposed route at MP 111.8. This alternative would be 0.5 miles shorter than the Proposed Project and the existing 69 kV transmission line would not need to be relocated out of the existing ROW.

Environmental Setting

This alternative would cross a portion of Cleveland National Forest that is designated Upper San Diego River Place, which is a relatively remote, rugged landscape defined by rocky, angular landforms. This portion of the forest is very remote and surrounded by private property on the north and west. Therefore, public views of this area are very limited. The mix of vegetative communities ranges from chaparral on lower elevation hillsides to Coulter pine and black oak mixed with manzanita at higher elevations. The landscape is undeveloped along this alternative except for the simple wood-pole utility line and is dominated by grass and oak woodland vegetation.

The Upper San Diego River Place is maintained as a remote, natural appearing landscape that functions as a respite for the surrounding urban population. Valued landscape attributes to be preserved (or restored) over time include broad, undisturbed expanses of landscape that frame panoramic vistas; opportunities for viewing unique landscape features, such as deeply dissected canyons, waterfalls, and distant landmarks from vista points and road and trail corridors; and built elements that are rustic and unobtrusive. Part of the management emphasis is to maintain the natural-appearing setting. As a result, the Scenic Integrity Objective (SIO) for this area is HIGH. The HIGH SIO is defined as follows:

Appears Unaltered. High scenic integrity refers to landscapes where the valued landscape character "appears" intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.

Because of the general lack of public visual access this portion of the forest, a KVP was not established.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts along the CNF Existing 69 kV Route Alternative would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1) and visibility of land scarring and vegetation clearance (Impact V-2). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of residents or travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the

life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), and V-2b (Reduce visual contrast from unnatural vegetation lines). Furthermore, Mitigation Measure V-2f (Reduce land scarring and vegetation clearance impacts on USFS-administered lands) shall be implemented for construction on USFS-administered lands to ensure consistency with the required Scenery Conservation Plan described in Mitigation Measure V-45a. However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC and USFS as appropriate.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a** **Reduce in-line views of land scars.**
- V-2b** **Reduce visual contrast from unnatural vegetation lines.**
- V-2d** **Construction by helicopter.**
- V-2f** **Reduce land scarring and vegetation clearance impacts on USFS-administered lands.**

Operational Impacts

Under the current Cleveland National Forest Plan, the CNF Existing 69 kV Route Alternative would result in significant (Class I) visual impacts.

Long-term, operational visual impacts would be experienced by viewers along this short alternative. However, because of the limited public visual access to this alternative, a KVP was not established.

Impact V-45: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from forest lands along the CNF Alternative route (SMS) (Class I)

This alternative would introduce prominent built structures with substantial industrial character into a predominantly natural landscape absent similar features. The resulting visual contrast would be substantial. The openness of the terrain and large scale of the structures would allow foreground to distant views of the transmission line (structures and conductors) from adjacent forest lands. View blockage of the surrounding hills would also occur, as would skylining (extending above the horizon). Skylining would exacerbate structure prominence and the transmission line would reduce the integrity of the existing landscape. The resulting level of change would be moderate-to-high.

The moderate-to-high level of change that would result from this alternative would not be consistent with Aesthetic Management Standard S9 of the Cleveland National Forest Land Management Plan requiring activities to meet the applicable SIO. Specifically, the transmission line would not repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that it is not evident, as required by the applicable "HIGH" SIO. Indeed, the structures would be prominent features in the landscape. Furthermore, the transmission line would not qualify for the exceptions of (1) a minor adjustment (one level reduction with approval) to the SIO, or (2) a temporary drop of more than one SIO not to exceed three years in duration, as required in Aesthetic Management Standard S10. The resulting visual impact would be significant (Class I). Although APMs VR-1 through VR-6 (presented in Table D.3-10) commit SDG&E to several tower design and placement measures to minimize visual impacts, there is no mitigation available to reduce the significant visual impact to a level that would be less than significant, aside from selection of an entirely different route (alternative) and landscape setting. The relatively open terrain and available sightlines do not offer opportunities to either better screen the structures from view or blend them more effectively with a different background. Therefore, localized reroutes would not be effective. However, Mitigation Measures V-3a and V-45a are recommended to reduce the visual impact along this alternative. While implementation of these measures will not achieve the HIGH SIO, they will enable achievement of the highest scenic integrity possible. This viewpoint analysis is considered representative of views of this alternative from the forest lands in the vicinity of the CNF Alternative. It should also be noted that implementation of the Proposed Project or any one of the SWPL Alternatives would eliminate the visual impact along this small portion of forest lands, though, in the case of the SWPL Alternatives, described elsewhere in this report, a Class I visual impact would be shifted to other visible landscapes within Cleveland National Forest.

Mitigation Measures for Impact V-45: Inconsistency with USFS Scenic Integrity Objective due to introduction of structure contrast, industrial character, view blockage, and skylining when viewed from forest lands along the CNF Alternative route

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

V-45a Prepare and Implement Scenery Conservation Plan. Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify specific actions that will minimize the project's visible disturbance to the naturally established scenery and to establish final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan. To achieve the greatest consistency with the Scenic Integrity Objectives, the project shall detail and integrate the following design recommendations into the Scenery Conservation Plan:

- **Power Line and Support Towers.** Transmission lines shall be nonspecular (nonreflective) and neutral in coloration. Support towers shall be custom-colored with a flat, non-reflective finish, to visually blend with native vegetation colors to appear as visually transparent as possible within the natural landscape pattern. Towers shall be designed to minimize their visual prominence and contrast to the natural landscape.
- **Distance Zones.** Support towers within approximately one mile of sensitive primary viewpoints and without a backdrop, should be a monopole design with a simple, clean and less industrial appearance. Support towers viewed beyond one mile from sensitive viewpoints or only at distance, should be lattice towers.

- **Vegetation Clearing.** Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line.
- **Roads.** No new access or spur roads, or improvements (reconstruction/expansion) to existing roads are to be constructed in the following areas: (1) where ground slopes exceed 15%, or (2) on Forest lands subject to a HIGH Scenic Integrity Objective (SIO) where the new access or spur road would be visible from primary travel (paved) roads or the Pacific Crest National Scenic Trail, regardless of ground slope. Existing roads needing reconstruction/expansion on other areas of the forest shall be configured to minimize the creation of cut/fill slopes. Where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species.
- **Structures.** All structures and structural elements, that may be constructed as part of the project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast, blend, and complement the adjacent forest and community architectural character.
- **Evaluation of Effects.** The Licensee may be required to provide photorealistic visual simulations of proposed designs and mitigation measures to demonstrate their effectiveness in achieving Land and Resource Management Plan Scenic Integrity Objectives as viewed from sensitive viewsheds.
- **Off-Site Mitigation.** Where project features create unavoidable and permanent negative scenery effects that are inconsistent with CNF Plan Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas in new viewsheds agreeable to the Forest shall be purchased and assigned to the Forest for its stewardship.

D.3.17.2 Oak Hollow Road Underground Alternative

The purpose of this alternative would be to extend the proposed underground to the east of Mount Gower County Open Space Preserve so the line would be underground through the valley area. The alternative would require 0.6 miles of additional underground 230 kV transmission line, and the existing 69 kV would remain overhead.

Environmental Setting

The Oak Hollow Alternative would transition underground at approximately MP 116.7 (around proposed Tower 193) on a hill approximately 100 feet north of an existing dirt access road. The alternative would travel underground in the dirt road for approximately 1,400 feet before passing between a residence and a fenced pasture to join the a paved driveway at its intersection with Oak Hollow Road. The route would turn west and would travel underground in paved Oak Hollow Road for approximately 1,300 feet. The route would continue west-southwest in a maintained dirt and gravel access road to exit SMEO private property and enter Mt. Gower Open Space Preserve and rejoin the underground portion of the Proposed Route at MP 117.3.

KVP 37 was selected for detailed analysis and is considered representative of the visual impact that would be experienced in the Oak Hollow area because of the limited geographic extent of the alternative, the similar qualities of the existing landscape it passes through, the close proximity of the route to view opportunities, the relatively openness of the landscape, and the unobstructed views of the alternative that would be available. The location of KVP 37 is shown on Figure D.3-1D. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 37 is presented in the following paragraphs.

Key Viewpoint 37 (KVP 37) – Oak Hollow (VS-VC)

KVP 37 was established at the western access gate to the Oak Hollow residential area (see Figure D.3-39). Its view is to the northeast toward Oak Hollow and the proposed location of a pair of transition structures. This viewpoint was selected to generally characterize the existing landscape views available in Oak Hollow.

Visual Quality. Moderate. The view from KVP 37 encompasses a foreground confined, pastoral valley landscape supporting grass and riparian woodland vegetation, surrounded by rocky hillsides and ridges. The valley floor exhibits noticeable modifications associated with the several rural residences and equestrian facilities. A simple wood-pole utility line crosses the center of the valley floor. The landscape is predominantly rural in character and there are no built features exhibiting noticeable industrial character.

Viewer Concern. High. Residents in Oak Hollow and on the ridge to the north expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting. To some extent, the existing wood-pole utility line compromises views across the hollow and from the residences, though it is not inconsistent with the rural character of the hollow. However, any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. The transmission line would be highly visible in the foreground of views from KVP 37 and the nearby residences. The number of viewers would be low but the duration of view would be extended. The combination of these four equally weighted factors results in an overall moderate-to-high degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For residents of Oak Hollow, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Construction impacts within Oak Hollow would be as described above for the Proposed Project Imperial Valley Link in Section D.3.5.1 and would include the visual intrusion of construction activities and equipment (Impact V-1). No new ancillary facilities would be required for this alternative.

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work

force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents with Oak and on the bordering ridge. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

The Oak Hollow Alternative would result in slightly adverse but less than significant (Class III) visual impacts. Long-term operational visual impacts would be experienced by residents of Oak Hollow. One representative Key Viewpoint (KVP 37) was selected to characterize the visual impacts that would occur from this alternative.

Figure D.3-39. Key Viewpoint 37 – Oak Hollow Underground Alternative – Oak Hollow West Gate – Existing Condition

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Impact V-46: Introduced structure contrast and industrial character while reducing view blockage when viewed from Key Viewpoint 37 in Oak Hollow (VS-VC) (Class III)

Figure D.3-39 presents the existing view to the northeast from KVP 37 at the west entry gate to Oak Hollow. Figure D.3-39 also indicates the location of the pair of transition structures that would be located in the east portion of the hollow. The two transition structures would be prominently visible from certain viewing locations within Oak Hollow and would introduce linear features with substantial structural complexity and industrial character into a rural, pastoral landscape that presently is absent similar features. Although there is an existing, simple wood-pole transmission line that crosses the fields to the north, it does not substantially contrast with the rural landscape. The resulting visual contrast would range from moderate-to-high to reduced depending on the location of the viewer. For viewpoints in the east part of the Hollow, the new, highly prominent, and highly industrial transition structures required by the Proposed Project's 230 kV line would have a much greater effect on the viewshed. Similarly, the project dominance would range from subordinate for west hollow views to co-dominant for east hollow views. The resulting overall visual change would be moderate in the east hollow. In the context of the moderate-to-high overall visual sensitivity, the resulting visual impact would be adverse but less than significant (Class III) due to the structural prominence and industrial character of the new transition structures (east hollow). However, Mitigation Measure V-3a is recommended to reduce the visual impact of the transition structures. While Impact V-46 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views of this alternative from within Oak Hollow. It should also be noted that implementation of any one of the SWPL Alternatives, described elsewhere in this report, would eliminate the visual impacts associated with this alternative though under those alternatives, significant (Class I) impacts would occur.

Mitigation Measure for Impact V-46: Introduced structure contrast and industrial character while reducing view blockage when viewed from Key Viewpoint 37 in Oak Hollow

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

D.3.17.3 San Vicente Road Transition Alternative

The alternative would move the transition structure from its proposed location along San Vicente Road (MP 121.9) approximately 0.3 miles west to MP 122.2. The underground line would follow San Vicente Road within a 60-foot ROW for an additional 2,100 feet and would cross under an existing Creelman-Los Coches 69 kV transmission line, before it would turn north and would travel through open space for approximately 200 feet to the overhead transition point.

Environmental Setting

KVP 38 was selected for detailed analysis and is considered representative of the visual impact that would be experienced by travelers on San Vicente Road because of the limited sightlines to this location. The location of KVP 38 is shown on Figure D.3-1D. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 38 is presented in the following paragraphs.

Key Viewpoint 38 (KVP 38) – Eastbound San Vicente Road (VS-VC)

KVP 38 was established on eastbound San Vicente Road, just west of the proposed transition structure location (see Figure D.3-40). Viewing to the east-northeast toward a small clearing in an oak woodland landscape and the proposed location of a pair of transition structures, this viewpoint was selected to generally characterize the existing landscape views available to travelers on eastbound San Vicente Road. Westbound travelers on San Vicente Road would have very limited and very brief views of the site and the views would essentially be at right angles to the primary direction of travel.

Visual Quality. Moderate. The view from KVP 38 encompasses a foreground to middleground rural residential landscape with grass and oak woodland vegetation, bounded by rocky ridges and bisected by the curvilinear form of San Vicente Road. Also noticeable is an adjacent wood-pole utility line and a tubular steel-pole transmission line that spans San Vicente Road.

Viewer Concern. High. Travelers on San Vicente Road expect a predominantly rural residential, inland valley landscape with relatively unobstructed views of the surrounding rocky ridges. Any addition of developed industrial features to the landscape or blockage of views to higher quality landscape features (surrounding hill and sky) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate. The transition structures would be only moderately visible in the foreground of views from KVP 38 and San Vicente Road because of the screening provided by surrounding oak trees. The number of viewers would be moderate but the duration of view would be brief given the rate of travel speed on San Vicente Road and the limited sightlines to the structure location. The combination of these four equally weighted factors results in an overall moderate degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on San Vicente Road, combining the equally weighted moderate visual quality, high viewer concern, and moderate viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Transition Structures, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, suburban residents, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Figure D.3-40. Key Viewpoint 38 – San Vicente Road Transition Alternative – San Vicente Road
– Existing Condition

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Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

The San Vicente Road Transition Alternative would result in adverse but less than significant (Class III) visual impacts. Long-term operational visual impacts would be experienced by travelers on San Vicente Road. One representative Key Viewpoint (KVP 38) was selected to characterize the visual impacts that would occur from this alternative.

Impact V-47: Increased structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 38 on eastbound San Vicente Road (VS-VC) (Class III)

Figure D.3-40 presents the existing view to the east-northeast from KVP 38 on eastbound San Vicente Road. Figure D.3-40 also indicates the location of the pair of transition structures that would be located in a small grassy clearing north of San Vicente Road and immediately west of an existing steel-pole transmission line. While these structures with their considerable structural complexity and industrial character would substantially contrast with the existing, rural, oak woodland landscape, they would share built structural characteristics with the existing structures. However, the site is substantially screened from San Vicente Road. The resulting visual contrast would be moderate. The structures would appear subordinate to co-dominant and view blockage would be low-to-moderate. These ratings are somewhat lower than they would otherwise be because of the roadside screening and limited visibility of the site. These three equally weighted factors would result in an overall low-to-moderate visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be adverse but less than significant (Class III). However, Mitigation Measure V-3a is recommended to reduce the visual impact of the transition structures. While Impact V-47 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views of this alternative from San Vicente Road. It should also be noted that implementation of the Proposed Project or any one of the SWPL Alternatives, described elsewhere in this report, would eliminate the visual impacts associated with this alternative though under those options, significant (Class I) impacts would occur.

Mitigation Measure for Impact V-47: Introduced structure contrast and industrial character, and view blockage when viewed from Key Viewpoint 38 on San Vicente Road

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

D.3.17.4 Chuck Wagon Road Alternative

The Chuck Wagon Road Alternative would include both underground and aboveground segments. It would diverge from the proposed route in San Vicente Boulevard, turning south in Chuck Wagon Road approximately 0.2 miles east of the proposed transition point at MP 121.7. It would continue south for approximately 1.6 miles before passing under the existing Creelman-Los Coches 69 kV transmission line ROW. At this point, the route would transition to overhead and turn west for approximately 1.2 miles to rejoin the proposed route at MP 125.6.

Environmental Setting

There is essentially no public visual access to this alternative as it is either underground or crossing private lands or lands administered by the Nature Conservancy. Therefore a KVP was not established for this alternative. However, the aboveground portion of the alternative would cross an undeveloped landscape that is natural appearing with minimal modifications. Vegetation is primarily grass with oak woodlands, particularly along drainage courses. Hills are gently rolling to angular and ridges and hilltops can be rugged and rocky. Although the overall visual quality is moderate-to-high, and viewer concern would be high if the route was visible to the public, there are effectively minimal to no public viewing opportunities. Therefore, the overall visual sensitivity of this route would be low given the absence of viewers. In this case, the absence of public viewing opportunities was given greater weight, thereby reducing visual sensitivity to a level lower than it would otherwise be.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substations, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, outdoor recreation enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including rural residents as well as travelers and recreationists on highways and local roads. View durations from these vantage points would vary from moderate to extended where the facilities and activities remain in the field of view of residents or travelers for several minutes or miles. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is

less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

- V-1a Reduce visibility of construction activities and equipment.**
- V-1b Reduce construction night lighting impacts.**

Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes (Class II)

Land scarring from use of staging areas and construction yards, construction of new access and spur roads, and activities adjacent to construction sites and along the ROW can be long-lasting (several years) in arid and semi-arid environments where vegetation recruitment and growth are slow. In-line views of linear land scars or newly bladed roads are particularly problematic and introduce adverse visual change and contrast by causing unnatural vegetative lines and soil color contrast from newly exposed soils. Vegetation clearance could occur in conjunction with project construction or during the life of the project if vegetation is cleared as part of ongoing ROW maintenance or if a changed vegetation structure is maintained within the ROW.

APM BIO-23 would ensure that only the minimum amount of vegetation necessary would be removed during construction, and that topsoil in areas of sensitive habitat would be conserved and reused to facilitate vegetation re-growth. APM GEO-2 would restrict vehicle and construction equipment use to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance, and would require that any disturbed areas be returned to pre-construction contours and allowed to revegetate naturally or be reseeded with an appropriate seed mixture if necessary.

Long-term land scarring and vegetation clearance impacts would constitute potentially significant visual impacts that could likely be mitigated to levels that are less than significant (Class II) with effective implementation of Mitigation Measures V-2a (Reduce in-line views of land scars), V-2b (Reduce visual contrast from unnatural vegetation lines), and V-2c (Reduce color contrast). However, if site-specific conditions indicate that the mitigation measures would not be effective in eliminating unnatural demarcations in the vegetation landscape and reducing the resulting visual impact to a level that would be less than significant, then Mitigation Measure V-2d (Construction by helicopter) would be required following consultations with the CPUC.

Mitigation Measures for Impact V-2: Long-term visibility of land scars and vegetation clearance in arid and semi-arid landscapes

- V-2a Reduce in-line views of land scars.**
- V-2b Reduce visual contrast from unnatural vegetation lines.**
- V-2c Reduce color contrast of land scars on non-Forest lands.**
- V-2d Construction by helicopter.**

Operational Impacts

The Chuck Wagon Road Alternative would result in adverse but less than significant (Class III) visual impacts. However, these long-term operational visual impacts would essentially not be experienced by the public since the aboveground portion of the alternative, including the transition structures, would be

located on private land or land managed by the Nature Conservancy. Therefore, no KVPs were established to characterize the visual impacts that would occur from this alternative.

Impact V-48: Introduced structure contrast, industrial character, and view blockage when viewed from private lands along the alternative (VS-VC) (Class III)

This alternative would introduce prominent built structures with substantial industrial character into a predominantly natural landscape absent similar features. The resulting visual contrast would be substantial. The openness of the terrain and large scale of the structures would allow foreground to distant views of the transmission line (structures and conductors) from adjacent private lands. View blockage of the surrounding hills would also occur, as would skylining (extending above the horizon). Skylining would exacerbate structure prominence and the transmission line would reduce the integrity of the existing landscape. However, the aboveground portion of the route is located almost entirely on private lands or on lands managed by the Nature Conservancy. Therefore, there is essentially no public visual access to the aboveground route and the visual changes would not be visible to the public. The resulting visual impact is therefore adverse but less than significant (Class III) and no mitigation measures are proposed. It should also be noted that implementation of the Proposed Project or any one of the SWPL Alternatives, described elsewhere in this report, would eliminate the visual impacts associated with this alternative though under those alternatives, significant (Class I) impacts would occur.

D.3.18 Coastal Link Alternatives Impacts and Mitigation Measures

Four alternatives are considered within the Coastal Link: the Pomerado Road to Miramar Area North Alternative, the Los Peñasquitos Canyon Preserve and Mercy Road Alternative, the Black Mountain to Park Village Road Underground Alternative, and the Coastal Link System Upgrade Alternative.

D.3.18.1 Pomerado Road to Miramar Area North Alternative

This alternative would be underground with the exception of the east and west ends where the line is overhead within existing SDG&E transmission ROWs. This alternative would exit the Sycamore Substation at MCAS Miramar overhead westerly within an existing ROW toward Pomerado Road. The line would transition to underground beneath Pomerado Road in the vicinity of Legacy Road, then continuing underground in Miramar Road, Kearny Villa Road, Black Mountain Road, Activity Road, Camino Ruiz, Miralani Drive, Arjons Drive, Trade Place, Camino Santa Fe, Carroll Road/Carroll Canyon Road and Scranton Road. At the western end, the line would transition to overhead and would be located within the existing 230 kV ROW heading northward into the Peñasquitos Substation.

Environmental Setting

The Pomerado Road to Miramar Area North Alternative would consist of an underground segment and a much shorter aboveground segment. This alternative would transition to underground beneath Pomerado Road in the vicinity of Legacy Road. From here, it would travel southwest and west to a point adjacent to I-805 near Scranton Road. At this location, the line would transition to overhead and would be located within the existing 230 kV ROW heading north into the Peñasquitos Substation. The primary viewing opportunities of concern for this alternative would include Pomerado Road and the Scripps Legacy and Mill Creek residential developments in the vicinity of the Pomerado Road transition structure. The transition structure near I-805 would be located adjacent to existing transmission structures behind an office building and the overhead route would be located within an existing corridor

KVP 39 was selected for detailed analysis and is considered representative of the visual impact that would be experienced by travelers on Pomerado Road and nearby residences because of the open sightlines to this single tower location. The location of KVP 39 is shown on Figure D.3-1E. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 39 is presented in the following paragraphs.

Key Viewpoint 39 (KVP 39) – Rose Garden Court in the Mill Creek Residential Development (VS-VC)

KVP 39 was established on Rose Garden Court, just south of the intersection with Hideaway Lane in the Mill Creek residential development (see Figure D.3-41). Viewing to the north toward the transition structure location adjacent and to the east of Pomerado Road, this viewpoint was selected to generally characterize the existing landscape views available to residents in the vicinity of the transition structure. It would also be somewhat representative of the views from northbound Pomerado Road. Views to the transition structure site from southbound Pomerado Road would be substantially screened by a small grove of eucalyptus trees (visible in Figure D.3-41).

Visual Quality. Moderate. The view from KVP 39 encompasses a foreground suburban residential landscape of predominantly newer two-story single-family homes and landscaped roadways. Prominent energy transmission infrastructure (structures and conductors) with industrial character passes north of the residential development and constitute discordant built landscape features.

Viewer Concern. High. Although energy transmission infrastructure features prominently in the foreground of views from the adjacent neighborhoods and Pomerado Road, residents and travelers would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (background sky or hills) an adverse visual change.

Viewer Exposure. High. The transition structure would be highly visible in the foreground of views from KVP 39, the Scripps Legacy residential development, and Pomerado Road. The number of viewers would be moderate and the duration of view would be extended. The combination of these four equally weighted factors results in an overall high degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For residents of Mill Creek and Scripps Legacy, as well as travelers on Pomerado Road, combining the equally weighted moderate visual quality, high viewer concern, and high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites including rural residents, outdoor recreation

enthusiasts, and travelers on public roads. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible during access and spur road clearing and grading, structure erection, conductor stringing, and site/ROW clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including residents as well as travelers and recreationists on highways and local roads. The primary viewing opportunities of concern are from the Mill Creek and Scripps Legacy residential developments and northbound Pomerado Road. View durations from these vantage points would vary from moderate to extended. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

The Pomerado Road to Miramar Area North Alternative would result in adverse but less than significant (Class III) visual impacts. Long-term operational visual impacts would be experienced by residents of the Mill Creek and Scripps Legacy developments and travelers on northbound Pomerado Road. One representative Key Viewpoint (KVP 39) was selected to characterize the visual impacts that would occur from the eastern transition structure.

Impact V-49: Introduced structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 39 on Rose Garden Court in the Mill Creek residential development (VS-VC) (Class III)

Figure D.3-41 presents the existing view to the north from KVP 39 on Rose Garden Court, just south of the intersection with Hideaway Lane in the Mill Creek residential development. Figure D.3-41 also indicates the location of the eastern transition structure that would be located on a remnant of an old road, about 15 feet below the grade of present day Pomerado Road, and south of the existing transmission line corridor. The transition structure would be visible from nearby residences and from Pomerado Road though the view to southbound travelers would be partially screened by trees. The industrial

Figure D.3-41. Key Viewpoint 39 – Pomerado Road to Miramar Area North Alternative – Rose Garden Court – Existing Condition

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character of the structure would contrast with the suburban landscape and natural forms (hills and vegetation), though it would share similarities with the adjacent transmission line. The resulting visual contrast would be moderate-to-high. The co-dominant structure would cause a low-to-moderate degree of view blockage of the background trees, hillside, and sky. These three equally weighted factors in combination would result in an overall moderate visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be adverse but less than significant (Class III). However, Mitigation Measure V-3a is recommended to reduce the visual impact of the transition structures. While Impact V-49 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views of this alternative from the Mill Creek and Scripps Legacy residential developments and Pomerado Road. It should also be noted that implementation of the Proposed Project, described elsewhere in this report, would eliminate the specific visual impact of the eastern transition structure but would introduce a similar level of visual impact very nearby in the existing transmission corridor only the impact would be experienced by different residential developments and travelers on Scripps Poway Parkway instead of Pomerado Road.

Mitigation Measure for Impact V-49: Introduced structure contrast and industrial character, and view blockage when viewed from Key Viewpoint 39 on Rose Garden Court in the Mill Creek residential development

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

D.3.18.2 Los Peñasquitos Canyon Preserve–Mercy Road Alternative

This alternative route would bypass the Chicarita Substation and connect to existing ROW along Scripps Poway Parkway in the vicinity of Ivy Hill Drive. The line would then transition to underground and follow Scripps Poway Parkway/Mercy Road, Mercy Road, Black Mountain Road, and finally Park Village Drive, where the alternative route would rejoin the proposed route.

Environmental Setting

The Los Peñasquitos Canyon Preserve–Mercy Road Alternative is an underground alternative with a single transition structure at the eastern end. The structure would be adjacent to the north side of Scripps Poway Parkway, just east of Spring Canyon Road. From there the underground route would travel down Scripps Poway Parkway to Mercy Road to Black Mountain Road to Park Village Drive where it would rejoin the underground segment of the Proposed Project. The only visible portion of this alternative would be the eastern transition structure.

KVP 40 was selected for detailed analysis and is considered representative of the visual impact that would be experienced by travelers on Scripps Poway Parkway and nearby residences because of the limited sightlines to this single tower location. The location of KVP 40 is shown on Figure D.3-1E. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 40 is presented in the following paragraphs.

Key Viewpoint 40 (KVP 40) – Scripps Poway Parkway (VS-VC)

KVP 40 was established at the intersection of Scripps Poway Parkway and Spring Canyon Road (see Figure D.3-42). Viewing to the east-northeast toward the transition structure location adjacent to and north of Scripps Poway Parkway, this viewpoint was selected to generally characterize the existing

landscape views available to travelers on Scripps Poway Parkway. It would also be somewhat representative of the views from nearby residences. The location of the structure site would be at street level between two elevated berms. Views to the transition structure site from Scripps Poway Parkway would be partially screened by roadside landscaping and trees (see Figure D.3-42).

Visual Quality. Moderate. The view from KVP 40 encompasses a foreground suburban residential landscape dominated by a transportation corridor and an adjacent transmission line corridor with different types of transmission structures exhibiting considerable industrial character. These structures are discordant built landscape features. Also visible in the landscape are nearby commercial and residential developments. There is also considerable roadside landscaping, which provides limited screening of the adjacent transmission line facilities, which are situated on an elevated berm approximately 15 to 20 feet above the grade level of Scripps Poway Parkway.

Viewer Concern. High. Although energy transmission and transportation infrastructure features prominently in the foreground of views from Scripps Poway Parkway and adjacent uses, travelers and nearby residents would consider any increase in industrial character, structure prominence, or view blockage of higher value landscape features (background sky or hills) an adverse visual change.

Viewer Exposure. Moderate-to-high. The transition structure would be visible in the foreground of views from Scripps Poway Parkway in general and KVP 40 specifically. It would also be visible to nearby residences. The number of viewers would be moderate-to-high and the duration of view would be moderate-to-extended.

Overall Visual Sensitivity. Moderate-to-high. For travelers on Scripps Poway Parkway, as well as nearby residents, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Figure D.3-42. Key Viewpoint 40 – Los Peñasquitos Canyon / Mercy Road Alternative – Scripps
Poway Parkway – Existing Condition

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Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible along the ROW and during clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW including travelers on Scripps Poway Parkway and nearby residences. View durations from these vantage points would vary from moderate to extended. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

The Los Peñasquitos Canyon Preserve–Mercy Road Alternative would result in adverse but less than significant (Class III) visual impacts. Long-term operational visual impacts would be experienced by nearby residents and travelers on Scripps Poway Parkway. One representative Key Viewpoint (KVP 40) was selected to characterize the visual impacts that would be caused by the transition structure.

Impact V-50: Introduced structure contrast, industrial character, and view blockage when viewed from Key Viewpoint 40 at the intersection of Scripps Poway Parkway and Spring Canyon Road (VS-VC) (Class III)

Figure D.3-42 presents the existing view to the east-northeast from KVP 40 at the intersection of Scripps Poway Parkway and Spring Canyon Road. Figure D.3-42 also indicates the location of the transition structure that would be located adjacent and to the north of Scripps Poway Parkway, and about 15 to 20 feet below the grade of the adjacent berm to the north that supports the utility corridor. The transition structure's location below the grade of the adjacent transmission lines, along with the roadside vegetation, help to limit visibility and reduce structure prominence. The industrial character of the structure would contrast with the surrounding suburban landscape though it would share some similarities with the adjacent transmission lines. The resulting visual contrast would be moderate. The subordinate-to-co-dominant structure would cause a low-to-moderate degree of view blockage of the background trees and sky. These three equally weighted factors in combination would result in an overall low-to-moderate visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be adverse but less than significant (Class III). However, Mitigation Measure V-3a is recommended to reduce the visual impact of the transition structure. While Impact V-50 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views of this alternative from the adjacent road and nearby residences. It should also be noted that implementation of the Proposed Project or Pomerado

Road to Miramar Area North Alternative described elsewhere in this report, would eliminate the specific visual impact of the transition structure but would introduce a similar level of visual impact very nearby in the adjacent transmission corridor (for the Proposed Project) or on Pomerado Road (for the Alternative).

Mitigation Measure for Impact V-50: Introduced structure contrast and industrial character, and view blockage when viewed from Key Viewpoint 40 at the intersection of Scripps Poway Parkway and Spring Canyon Road

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

D.3.18.3 Black Mountain to Park Village Road Underground Alternative

This alternative would deviate from the Proposed Project alignment where the route approaches Black Mountain Road. Under this alternative, the line would remain underground but would be located underneath Black Mountain Road and would turn west onto Park Village Drive, following the project alignment into the Peñasquitos Substation via the Los Peñasquitos Canyon Preserve.

Environmental Setting

This alternative would avoid some of the homes in Rancho Peñasquitos that are located along the existing vacant ROW proposed to be used by the project. This alternative would not include any aboveground components. This underground route would pass through a suburban residential landscape comprise of single-family homes and broad streets. Because the alternative would not be visible once constructed, a KVP was not established for this alternative.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible along the ROW and during clean-up and restoration. Construction equipment

and activities would be seen by various viewers in close proximity to the ROW including residential developments adjacent to Black Mountain Road and Park Village Road. View durations from these vantage points would vary from moderate to extended. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

Because the Black Mountain to Park Village Road would be underground and have no associated aboveground facilities, there would be no long-term operation visual impacts and no mitigations measures are warranted.

D.3.18.4 Coastal Link System Upgrade Alternative

The Coastal Link System Upgrade Alternative would be a system modification to install a third 230/69 kV transformer at the existing Sycamore Canyon Substation. Expansion of the Sycamore Canyon Substation would occur within the existing substation easement. Additionally, SDG&E would either (a) install a new 230/138 kV transformer at the existing Encina Substation or (b) upgrade (reconductor) the existing Sycamore Canyon-Chicarita 138 kV circuit using 34 existing wood frame structures.

Environmental Setting

Visual resources along the Sycamore Canyon–Chicarita segment of the Coastal Link System Upgrade Alternative are the same as the eastern segment of the Proposed Project within the Coastal Link (MPs 132-146), which are described in Section D.3.2.5. Generally the existing transmission lines that would be upgraded under the alternative (Sycamore Canyon–Chicarita, Sycamore Canyon–Pomerado–Poway) pass through a highly urbanized portion of the City of San Diego and the City of Poway. This urban landscape is topographically diverse and includes canyons, hillsides, and ridges. Much of the planned suburban and commercial development that dominates this link is located on flat to gently sloping terraces, interspersed with parks and open spaces. This area also hosts a number of existing transmission facilities.

Environmental Impacts and Mitigation Measures

The Coastal Link System Upgrade Alternative would eliminate the impacts associated with the Proposed Project segment between Sycamore Canyon and Peñasquitos Substations.

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II for construction and storage yards, and fly yards; Class III for tower construction)

Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers in close proximity to the construction sites. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible along the ROW and during clean-up and restoration. Construction equipment and activities would be seen by various viewers in close proximity to the ROW. View durations from these vantage points would vary from moderate to extended. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

Because this alternative would upgrade existing transmission facilities without introducing new structures, the alternative would not have operational impacts to visual resources. Operational impacts would be minimally noticeable because the new components (insulators and conductors) would appear similar to identical when compared to the components that would be replaced. To the extent that any change is noticed as a result of the reconductoring and replacement of insulators, the impact would be adverse but less than significant (Class III). No mitigation is recommended or required.

D.3.19 Top of the World Substation Alternative Impacts and Mitigation Measures

The substation site would be located approximately one mile west of the proposed Central East Substation on Vista Irrigation District land. The transmission line routes into the substation would follow the Proposed Project route to approximately MP 92.7, then the alternative 500 kV route would turn west for 1.1 miles to enter the alternative site. Exiting the substation the line would travel southwest for 400 feet and then west and north-northwest to rejoin the Proposed Project around MP 95.

Environmental Setting

The Top of the World Substation Alternative would be located on Vista Irrigation District lands, approximately one mile west of the Proposed Central East Substation site. The site is situated on a relatively level plateau along the northern extension of the Volcan Mountains. There are several rocky ridges in the vicinity of the site, which is primarily grass covered with clusters of oaks in nearby drainages. Public views of this alternative are available from San Felipe Road (for the 500 kV transmission line connection), Road BIA51 (for the substation and 230 kV transmission line connection), the Mataguay Scout Ranch (for the substation and 230 kV transmission line connection, SR79 (for the 230 kV transmission line connection, and Henshaw Overlook (for the substation and 230 kV transmission line connection). San Felipe Road is located to the east of the substation site. While the substation site would be minimally visible from San Felipe Road, the 500 kV transmission line connection would be prominently visible from San Felipe Road. Road BIA51 is an unpaved, graded access road through the VID property that connects from San Felipe Road on the east to SR79 on the west via Matagal Valley. The Mataguay Scout Ranch is located along this road southwest of the substation site. Views of the substation would be limited to the higher elevation "Fun House" rock climbing area because of the terrain and vegetation screening that occurs lower down in the valley. Views of the 230 kV transmission line would be available from several areas within the Ranch property where there are breaks in the vegetation that allow unobstructed sightlines to the structures. Viewing distance from the Scout facilities would range from approximately 0.75 to 1.25 miles. Views from SR79 (located to the west) are generally unobstructed except for the ridge immediately to the west of the site, which would intersect sightlines to the lower elements of the substation. However, at a viewing distance of approximately 4.5 miles, structures would not be easily discernible. Also, views from SR79 would be at right angles to the primary directions of travel. Four KVPs (KVPs 19, 41, 42, and 43) were selected for detailed analysis and are considered representative of the visual impacts that would be experienced from San Felipe Road, the Mataguay Scout Ranch, along SR79, and from the Henshaw Overlook on Cleveland National Forest. The locations of KVPs 19 and 41 through 43 are shown on Figure D.3-1C. The results of the visual analysis are summarized in Appendix VR-1. A discussion of the existing visual setting for KVP 19 is presented above in Section D.3.2.3, Central Link Environmental Setting. A discussion of the existing visual settings for KVPs 41 through 43 is presented in the following paragraphs.

Key Viewpoint 41 (KVP 41) – Mataguay Scout Ranch – at the Flag Pole and Fire Ring (VS-VC)

KVP 41 was established at the flag pole and fire ring, adjacent to the main access (see Figure D.3-43A). Viewing to the north-northeast toward the Top of the World alternative transmission line route along the central ridge, north of the Scout Ranch, this viewpoint was selected to generally characterize the existing landscape views to the north available to visitors to the Scout Ranch.

Visual Quality. Moderate. The view from KVP 41 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation, surrounded by rocky hill slopes and

ridges. The landscape is predominantly natural appearing and exhibits no noticeable built features or industrial character.

Viewer Concern. High. Visitors to the Scout reservation expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting backdropped by angular to rolling ridgelines to the north. Any addition of developed industrial features to the landscape, modification of ridgelines, or blockage of views to higher quality landscape features (sky, surrounding hills, and ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Moderate-to-high. At a foreground viewing distance of approximately 0.8 to 1.0 miles from the Scout Ranch facilities and access road, visibility of the transmission line route would be moderate-to-high as the route traverses the hill slopes to the north and then crests the ridge, crossing to the north side. While the number of viewers would be low-to-moderate, the duration of view would be moderate (from the access road) to extended (from the fire ring). The combination of these four equally weighted factors results in an overall moderate-to-high degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For visitors to the Scout Ranch, combining the equally weighted moderate visual quality, high viewer concern, and moderate-to-high viewer exposure results in an overall moderate visual sensitivity of the visual setting and viewing characteristics.

Key Viewpoint 42 (KVP 42) – Mataguay Scout Ranch Entrance (VS-VC)

KVP 42 was established at the entrance to the Mataguay Scout Ranch off of SR79 (see Figure D.3-44). Viewing to the southeast toward the Top of the World alternative substation site on Vista Irrigation District land to the east, this viewpoint was selected to generally characterize the existing landscape views to the east available to travelers on SR79.

Visual Quality. Moderate. The view from KVP 42 encompasses a foreground to background, rolling pastoral landscape supporting grass and oak woodland vegetation, surrounded by rocky hill slopes and ridges. The distant ridgelines to the east exhibit no evidence of modification. Although simple, wood-pole utility lines are visible crossing the grasslands adjacent to the highway, the landscape is predominantly natural appearing and exhibits no noticeable industrial character.

Viewer Concern. High. Travelers on SR79 or visitors to the Scout Ranch expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting backdropped by angular to rolling ridgelines to the east. Any addition of developed industrial features to the landscape, modification of ridgelines, or blockage of views to higher quality landscape features (sky, surrounding hills, and ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Low-to-moderate. At a foreground viewing distance of approximately 4.5 miles, and beyond the furthest ridge visible from SR79, the substation site would be minimally visible in the background of views from SR79. While the number of viewers would be moderate, the duration of view would be brief (on SR79) to moderate (visitors entering the reservation). The combination of these four equally weighted factors results in an overall moderate-to-high degree of viewer exposure.

Overall Visual Sensitivity. Moderate-to-high. For travelers on SR79, combining the equally weighted moderate visual quality, high viewer concern, and low-to-moderate viewer exposure results in an overall moderate visual sensitivity of the visual setting and viewing characteristics.

Figure D.3-43A/B. Key Viewpoint 41 – Top of the World Substation Alternative – Mataguay
Scout Ranch Flag Pole / Fire Ring Area – Existing Condition and Simulation

[CLICK HERE TO VIEW](#)

Figure D.3-44. Key Viewpoint 42 – Top of the World Substation Alternative – Mataguay Scout Reservation Entrance – Existing Condition

[CLICK HERE TO VIEW](#)

Figure D.3-45. Key Viewpoint 43 – Top of the World Substation Alternative – Henshaw
Overlook – Existing Condition

[CLICK HERE TO VIEW](#)

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Key Viewpoint 43 (KVP 43) – Henshaw Overlook (VS-VC)

KVP 43 was established at Henshaw Overlook on Cleveland National Forest. Although the viewpoint is on land administered by the Forest Service, the project location is approximately 4.25 miles (transmission line) to 8.5 miles (substation site) east of the national forest (see Figure D.3-45). Viewing to the east toward the Top of the World alternative transmission line route and substation site, this viewpoint was selected to specifically characterize the existing landscape views to the east available to visitors to the Overlook.

Visual Quality. Moderate-to-high. The panoramic vista view from KVP 43 overlooks Lake Henshaw and the pastoral valley to the east. The predominantly pastoral, valley landscape supports grass and oak woodland vegetation and is bordered to the east by angular, forested ridges. Although a simple wood pole utility line does cross the valley, west of Warners Substation, which is barely discernible at a viewing distance of over four miles, the landscape is predominantly natural appearing and exhibits no noticeable industrial character.

Viewer Concern. High. Visitors to the Overlook expect a predominantly rural inland valley landscape with views of a relatively undeveloped pastoral setting backdropped by angular to rolling ridgelines to the east. Any introduction of developed industrial features to the landscape, modification of ridgelines, or blockage of views to higher quality landscape features (sky, surrounding hills, and ridges) would be perceived as an adverse visual change in the landscape.

Viewer Exposure. Low-to-moderate. At a middleground to background viewing distance of approximately 4.25 to 8.5 miles from the Overlook, visibility of the transmission line route would be low as the route descends the southwestern flanks of the rounded ridge in the center of the image presented in Figure D.3-45, and then converges on and parallels the eastern side of SR79. While the number of viewers would be low, the duration of view would be extended. The combination of these four equally weighted factors results in an overall low-to-moderate degree of viewer exposure. This conclusion is substantially influenced by the low visibility that would occur as a result of the substantial viewing distance and the blending of the medium-tone color with the background land and vegetation colors.

Overall Visual Sensitivity. Moderate-to-high. For visitors to Henshaw Overlook, combining the equally weighted moderate-to-high visual quality, high viewer concern, and low-to-moderate viewer exposure results in an overall moderate-to-high visual sensitivity of the visual setting and viewing characteristics.

Environmental Impacts and Mitigation Measures

Construction Impacts

Impact V-1: Short-term visibility of construction activities, equipment, and night lighting (Class II)

Substation, Construction and Storage Yards, and Fly Yards. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force at the substation site, construction and storage yards, and fly yards. Construction impacts on visual resources would also result from the temporary use of night lighting if night lighting is not appropriately controlled at these construction sites. Construction equipment and activities would be seen by various viewers including travelers on SR 79 and visitors to the Mataguay Scout Reservation, particularly at the Fun House rock climbing area and trails along the ridges south of the valley. Construction impacts at these sites could last two years and the resulting visual impacts would be significant but

mitigable (Class II). Although APM VR-4 (presented in Table D.3-10) would be somewhat helpful in minimizing the impact at the site because it would prohibit the application of paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits, Mitigation Measures V-1a and V-1b are required to reduce the impacts to levels that would be less than significant. The full text of the mitigation measures appears in Appendix 12.

Transmission Line. Construction impacts on visual resources would result from the presence and visual intrusion of construction vehicles, equipment, materials, and work force along the transmission line route that would connect to the alternative substation site. Construction impacts on visual resources would also result from the temporary alteration of landforms and vegetation along the ROW. Vehicles, heavy equipment, project components, and workers would be visible along the ROW and during clean-up and restoration. Viewers would include travelers on San Felipe Road, SR 79 and visitors to the Mataguay Scout Reservation, particularly at the Fun House rock climbing area and trails along the ridges south of the valley. Construction equipment and activities would be seen by various viewers in close proximity to the ROW. View durations from these vantage points would vary from moderate to extended. However, construction activities along the transmission line route would be transient and of short duration as construction progresses along the route. As a result, affected viewers would be aware of the temporary nature of project construction impacts, which would decrease their sensitivity to the impact. The resulting visual impacts would be adverse but less than significant (Class III). To ensure that viewers are not unnecessarily impacted during construction, Mitigation Measures V-1a and V-1b are recommended in compliance with NEPA, even though the impact is less than significant without mitigation. Please see the explanation of mitigation for less than significant impacts in Section D.1.4.1.

Mitigation Measures for Impact V-1: Short-term visibility of construction activities, equipment, and night lighting

V-1a Reduce visibility of construction activities and equipment.

V-1b Reduce construction night lighting impacts.

Operational Impacts

The Top of the World Substation Alternative would cause significant (Class II) visual impacts on views from San Felipe Road resulting from the visibility of the proposed 500 kV transmission line connection from the east, along San Felipe Road. Significant (Class II) visual impacts would also be experienced by visitors to the Mataguay Scout Ranch resulting from the visibility of the 230 kV transmission line exiting the substation to the west along the southern flanks of the central ridge. Adverse but less than significant (Class III) visual impacts would be experienced by travelers on SR79 and visitors to the Henshaw Overlook, just west of Lake Henshaw. Four representative KVPs (KVP 19, 40, 41, and 42) were selected to characterize the visual impacts that would occur from this alternative.

Impact V-52: Introduced structure contrast, industrial character, view blockage, and skylining when viewing the Top of the World Substation Alternative from KVP 19 (VS-VC) (Class II)

While the Top of the World Substation Alternative would not be prominently visible from San Felipe Road (S2), the 500 kV transmission line connecting to the substation from the east would be prominent. The transmission line would parallel the west side of San Felipe Road, following a slight southwest divergence from the road until reaching the proposed Central East Substation site. From there, the transmission line would turn west to connect to the Top of the World Substation. Figure D.3-20B provides a simulation of the Proposed Project from KVP 19 on northbound San Felipe Road and shows transmission lines entering and leaving the substation. While the routing for the Top of the World Alterna-

tive would be slightly different, Figure D.3-20B does illustrate the visibility of structures crossing the low rolling hills west of San Felipe Road. The transmission line structures would appear structurally complex with substantial industrial character, which would contrast with the predominantly natural landscape. The resulting visual contrast would be moderate-to-high. The subordinate-to-co-dominant structures would cause a low-to-moderate degree of view blockage of the background hills and sky (due to structure skylining). These three equally weighted factors would result in an overall moderate visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class II). Mitigation Measures V-3a and V-52a are recommended to reduce the visual impact of the 500 kV transmission connection to a level that would be less than significant. This viewpoint analysis is considered representative of project views from northbound San Felipe Road (the substation would not be noticeable to southbound travelers). It should also be noted that implementation of the Partial Underground 230 kV ABDSP SR78 to S2 Alternative or any of the SWPL Alternatives would eliminate the visual impact on views to the west of San Felipe Road, though a Class I visual impact would occur on the east side of San Felipe Valley for the ABDSP SR78 to S2 Alternative. Class I impacts would also occur under the SWPL Alternatives.

Mitigation Measures for Impact V-52: Introduced structure contrast, industrial character, view blockage, and skylining when viewing 500 kV transmission line connection to the Top of the World Substation Alternative from KVP 19 on northbound San Felipe Road

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

V-52a Reduce visibility of the 500 kV transmission line connection to the Top of the World Alternative Substation site. In order to substantially reduce the visibility of the 500 kV transmission line connection to the Top of the World Substation site, reroute the 500 kV line due west after crossing San Felipe Road, and then turning south, west, and south again over the primary ridgeline to access the substation site from the north rather than the east as currently proposed. Figure D.3-46 provides a map of the mitigation route. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.

Impact V-53: Introduced structure contrast, industrial character, view blockage, and skylining when viewing the Top of the World Substation Alternative 230 kV Transmission Line from KVP 41 at the Scout Ranch Flag Pole and Fire Ring Area (VS-VC) (Class II)

Portions of the Top of the World Substation Alternative 230 kV transmission line would be prominently visible from several locations within the Scout reservation where open terrain and breaks in the tree line allow unobstructed sightlines to the transmission line structures and conductors. In some cases, only the upper portions of the structures would be visible while in other cases, the entire structure would be visible. Figure D.3-43B provides a simulation of the 230 kV transmission line from KVP 41 at the Scout Ranch Flag Pole and Fire Ring area, adjacent to the Ranch access road and shows transmission lines ascending the southern flanks of the ridge before cresting the ridge to connect with the Propose Project route on the north side of the ridge. The industrial character of the structures would contrast with the predominantly natural character of the surrounding landscape. Visual contrast would be moderate-to-high and the subordinate-to-co-dominant structures would cause a moderate degree of view blockage of the background ridge and sky. The skylining that would occur in some cases would exacerbate structure prominence. These three equally weighted factors would result in an overall moderate visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be significant (Class II). Mitigation Measures V-3a and V-53a are recommended to reduce the visual impact of the 230 kV transmission line connection to a level that would be less than significant. This viewpoint analysis is considered representative of project views from the Scout Ranch. It should also be

noted that implementation of the Proposed Project, the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, or any of the SWPL Alternatives would eliminate the visual impact on views to the north from the Scout facilities, though a Class I visual impact would be shifted to the north side of the ridge for the Proposed Project. Also, under the SWPL Alternatives, the significant Class I impact would again be shifted to different locations.

Mitigation Measures for Impact V-53: Introduced structure contrast, industrial character, view blockage, and skylining when viewing the Top of the World Substation Alternative 230 kV Transmission Line from KVP 41 at the Scout Ranch Flag Pole and Fire Ring Area

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

V-53a Reduce visibility of the 230 kV transmission line connection existing the Top of the World Alternative Substation to the west. In order to eliminate the visibility of the 230 kV transmission line connection to the Top of the World Substation, reroute the 230 kV line due north after exiting the substation to re-cross the central ridge, then turning northwest to intersect and then follow the Proposed Project route on the north side of the ridge (see Figure D.3-46). SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.

Figure D.3-46. Map of Top of the World Transmission Line Connection Mitigation Route
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Impact V-54: Introduced structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the Top of the World Substation Alternative from KVP 42 at the entrance to the Mataguay Scout Ranch on SR79 (VS-VC) (Class III)

The Top of the World Substation Alternative would be minimally visible from SR79 due to terrain screening and a viewing distance of approximately 4.5 miles. However, the industrial character of the structures would contrast with the predominantly natural character of the surrounding landscape. Figure D.3-44 provides the existing view from KVP 42 at the entrance to the Mataguay Scout Reservation on SR79. Figure D.3-44 also indicates the location of the Top of the World Substation Alternative beyond the furthest visible ridgeline. Views from KVP 40 would generally be limited to the upper portions of some of the taller components (A-frame take-off structures). Visual contrast would be low-to-moderate and the subordinate project structures would cause a low-to-moderate degree of view blockage. These three equally weighted factors would result in an overall low-to-moderate visual change and in the context of the existing landscape's moderate visual sensitivity, the visual impact would be adverse but less than significant (Class III). Also, the potential for night lighting impacts would exist because of the present absence of night lighting at the substation site. However, at a viewing distance of approximately 4.5 miles, the lighting impact would also be adverse but less than significant (Class III). Mitigation Measures V-3A, V-7a, V-7b, and V-21a are recommended to ensure that visual impacts do not result from the operation of this highly complex facility or the lines entering and leaving the facility. While Impact V-54 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views from SR79. It should also be noted that implementation of the Proposed Project, the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, or any of the SWPL Alternatives would eliminate the visual impact of the Top of the World Substation, though, in the case of the Proposed Project or SWPL Alternatives, a Class I visual impact would be shifted to visible landscapes located elsewhere.

Mitigation Measures for Impact V-54: Introduced structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the Top of the World Substation Alternative from KVP 42 at the entrance to the Mataguay Scout Ranch on SR79

- V-3a Reduce visual contrast of towers and conductors.**
- V-7a Reduce visual contrast associated with ancillary facilities.**
- V-7b Screen ancillary facilities.**
- V-21a Reduce night lighting impacts.**

Impact V-55: Introduced structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the Top of the World Substation Alternative from KVP 43 at Henshaw Overlook (VS-VC) (Class III)

The Top of the World Substation Alternative would be minimally visible from Henshaw Overlook due to the substantial viewing distance of approximately 4.25 to 8.5 miles. To the extent that structures are visible, the industrial character (vertical structure and gray color) of the towers would contrast with the predominantly natural character of the surrounding landscape. Figure D.3-45 provides the existing view from KVP 43 at the Overlook. Figure D.3-45 also indicates the location of the Top of the World Substation Alternative transmission line descending the southwestern flanks of the central ridge in Figure D.3-45. Visual contrast would be low-to-moderate and the subordinate project structures would cause a low-to-moderate degree of view blockage. These three equally weighted factors would result in an overall low-to-moderate visual change and in the context of the existing landscape's moderate-to-high visual sensitivity, the visual impact would be adverse but less than significant (Class III). Also, the

potential for night lighting impacts would exist because of the present absence of night lighting at the substation site. However, at a viewing distance of approximately 8.5 miles, the lighting impact would also be adverse but less than significant (Class III). Mitigation Measures V-3A, V-7a, V-7b, and V-21a are recommended to ensure that visual impacts do not result from the operation of the substation or the lines entering and leaving the facility. While Impact V-55 is less than significant, mitigation is recommended in compliance with NEPA requirements (please see the explanation of mitigation for less than significant impacts in Section D.1.4.1). This viewpoint analysis is considered representative of views from the Overlook or other viewpoints along SR76. It should also be noted that implementation of any of the SWPL Alternatives would eliminate the visual impact of the Top of the World Substation, though a Class I visual impact would be shifted to visible landscapes located elsewhere.

Mitigation Measures for Impact V-55: Introduced structure contrast, industrial character, view blockage, skylining, and glare from night lighting when viewing the Top of the World Substation Alternative from KVP 43 at Henshaw Overlook

- V-3a** **Reduce visual contrast of towers and conductors.**
- V-7a** **Reduce visual contrast associated with ancillary facilities.**
- V-7b** **Screen ancillary facilities.**
- V-21a** **Reduce night lighting impacts.**

D.3.20 Mitigation Monitoring, Compliance, and Reporting Table

Table D.3-13 presents the mitigation monitoring, compliance and reporting table for Visual Resources. Mitigation measures not originating in this section do not appear in the table; they appear only in the mitigation monitoring, compliance and reporting table for the section in which they were originally recommended. For a summary of all impacts and their respective mitigation measures, please see the Impact Summary Tables at the end of the Executive Summary.

Sections D.3.11 and D.3.12 recommend mitigation measures for the projects described under Future Transmission System Expansion and Connected Actions/Indirect Effects. Those mitigation measures are presented for consideration by the agencies that will issue permits for construction of the connected and future projects. Because those projects would not be constructed as a result of approval of the Sunrise Powerlink Project, the recommended mitigation measures are not included in this mitigation monitoring table.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

MITIGATION MEASURE	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. 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.
Location	Mitigation Measure V-1a applies to all sites and all routes.
Monitoring / Reporting Action	CPUC and BLM to verify in the field during construction and following construction
Effectiveness Criteria	Project construction sites (static), construction yards, and staging areas will be screened during construction and all construction areas will appear in their original or improved condition following construction.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	Confirm implementation during and following construction.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

MITIGATION MEASURE	<p>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. 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
Location	Mitigation Measure V-1b applies to all static sites.
Monitoring / Reporting Action	CPUC and BLM to review and approve the Construction Lighting Mitigation Plan prior to construction and to monitor implementation in the field during construction.
Effectiveness Criteria	Light bulbs and reflectors at Construction yards and staging areas would not be visible from public viewing areas and night lighting would not cause reflected glare and illumination beyond the construction site and into the nighttime sky.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	Review and approve plan prior to start of construction and confirm implementation of plan during construction.
MITIGATION MEASURE	<p>V-2a: Reduce in-line views of land scars. Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded surfaces with existing terrain. 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.</p>
Location	All grading sites for access roads, spur roads, and ancillary facilities.
Monitoring / Reporting Action	CPUC and BLM to review construction plans prior to start of construction and verify compliance during construction.
Effectiveness Criteria	In-line views of land scars from grading will be minimized.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review construction plans prior to start of construction and verify compliance during construction.
MITIGATION MEASURE	<p>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.</p>

Table D.3-13. Mitigation Monitoring Program – Visual Resources

Location	All grading sites for access roads, spur roads, and ancillary facilities.
Monitoring / Reporting Action	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of unnatural vegetation lines will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	V-2c: Reduce color contrast of land scars on non-Forest lands. For non-USFS-administered land areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings (Eonite and Permeon are commercially available chemical treatments that “age” or oxidize rock and are used specifically for coloring concrete or rock surfaces to tone down glare and contrast and simulate naturally occurring desert varnish). SDG&E will consult with the Authorized Officer (as determined by the CPUC and BLM as appropriate) on a site-by-site basis for the use of Eonite. 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.
Location	Locations of all land scars that would be visible to the public.
Monitoring / Reporting Action	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of high-contrast colors from exposed soils will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	V-2d: Construction by helicopter. In those areas where long-term land-scarring and vegetation clearance impacts would be visible to sensitive public viewing locations, or where construction would occur on slopes over 15 percent, SDG&E will consult with the Authorized Officer and appropriate land management agency, on a site-by-site basis regarding the use of helicopter construction techniques and the prohibition of access and spur roads. Agency consultations must be conducted and approvals received at least 120 days prior to the start of construction.
Location	Locations of all land scars that would be visible to the public or where construction would occur on slopes over 15 percent.
Monitoring / Reporting Action	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of high-contrast colors from exposed soils will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	V-2f: Reduce land scarring and vegetation clearance impacts on USFS-administered lands. Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line (USFS Scenery Conservation Plan)
Location	Locations of all land scars and vegetation clearance on USFS – administered lands.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

Monitoring / Reporting Action	CPUC and USFS to review Scenery Conservation Plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of high-contrast colors from exposed soils will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC, USFS
Timing	CPUC and USFS to review Scenery Conservation Plan at least 120 days prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	<p>V-3a: Reduce visual contrast of towers and conductors. 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 facilities:</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. • No new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures.
Location	Applies to all tower locations and route segments.
Monitoring / Reporting Action	CPUC and BLM to review Project Design Plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of visual contrast from towers and conductor spans will be minimized. Asynchronous tower spans will be minimized.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review Project Design Plan prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	<p>V-7a: Reduce visual contrast associated with ancillary facilities. SDG&E shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:</p> <ul style="list-style-type: none"> • Specification, and 11" x 17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture • A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation) • Two sets of brochures and/or color chips for each proposed color • A detailed schedule for completion of the treatment • A procedure to ensure proper treatment maintenance for the life of the project. <p>SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SDG&E receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the BLM and CPUC that all buildings and structures are ready for inspection.</p>
Location	Applies to all permanent ancillary facilities including substations and switchyards.
Monitoring / Reporting Action	CPUC and BLM to review Surface Treatment Plan prior to start of construction and verify implementation following construction.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized and facilities will blend with the landscape to the extent feasible.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review Surface Treatment Plan prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	<p>V-7b: Screen ancillary facilities. SDG&E shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities (except Imperial Valley Substation) and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SDG&E shall submit the Plan to the BLM and CPUC for review and approval at least 90 days prior to installing the landscape screening. If the BLM or CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> • An 11" x 17" color simulation of the proposed landscaping at 5 years • A plan view to scale depicting the project and the location of screening elements • A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity <p>SDG&E shall complete installation of the screening prior to the start of project operation. SDG&E shall notify the BLM and CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.</p>
Location	Applies to all permanent ancillary facilities including substations and switchyards.
Monitoring / Reporting Action	CPUC and BLM to review Screening Plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized and facilities will blend with the landscape to the extent feasible.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review Screening Plan prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	<p>V-8a: Structure design consultation in ABDSP. SDG&E shall consult with Anza-Borrego Desert State Park regarding structure design, height, color, and placement for any facilities to be placed within the State Park. Structure designs shall be submitted to ABDSP for approval at least 90 days prior to (a) ordering any components to be manufactured, or (b) construction of any of the ancillary facility components to be placed in the Park, whichever comes first. If ABDSP notifies SDG&E that revisions to structure design are needed, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised design(s).</p>
Location	Applies to all facilities to be placed within ABDSP.
Monitoring / Reporting Action	ABDSP to review structure designs prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of visual contrast from facilities will be minimized and facilities will blend with the landscape to the extent feasible.
Responsible Agency	ABDSP
Timing	ABDSP to review structure designs 90 days prior to ordering any components to be manufactured or start of construction, whichever comes first, and verify implementation following construction.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

MITIGATION MEASURE	<p>V-21a: Reduce night lighting impacts. SDG&E shall design and install all permanent lighting 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. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SDG&E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. 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.
Location	Applies to all permanent ancillary facilities including substations, switchyards, series capacitor banks, and optical repeater stations.
Monitoring / Reporting Action	CPUC and BLM to review Lighting Mitigation Plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	Light bulbs and reflectors at Construction yards and staging areas would not be visible from public viewing areas and night lighting would not cause reflected glare and illumination beyond the construction site and into the nighttime sky.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review Lighting Mitigation Plan prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	<p>V-25a Structure design and placement guidance. The following design and placement measures shall be applied to all new 230 kV structures and conductors in the Coastal Link in order to reduce the degree of visual contrast caused by the new facilities:</p> <ul style="list-style-type: none"> • All new structures are to as closely as possible match the design of the existing structures with which they will be seen. • All new structures are to be paired as closely as possible with the existing structures in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements. • All new structures are to match the heights of the existing structures to the extent possible as dictated by variation in terrain. • All new spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans.
Location	Applies to all new 230 kV structures and conductors in the Coastal Link.
Monitoring / Reporting Action	CPUC and BLM to review Project Design Plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of visual contrast from towers and conductor spans will be minimized. Asynchronous tower spans will be minimized.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	CPUC and BLM to review Project Design Plan prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	<p>V-27a Relocate of Cable Pole C32 to the north side of Chicarita Substation. Require the relocation of Cable Pole C32 approximately 0.12 miles north to the northwest corner of Chicarita Substation, as shown in Figure D.3-25C.</p>
Location	Applies to the Chicarita Substation.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

Monitoring / Reporting Action	CPUC to review relocation plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	Cable pole visibility will be minimized.
Responsible Agency	CPUC
Timing	CPUC to review relocation plan prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	V-42a Reduce visibility of the transition structures by relocating the structures. In order to substantially reduce the visibility of the transition structures in the vicinity of Mesa Grande Road, the structures shall be relocated approximately 0.5 miles further west along the Proposed Route to a location immediately adjacent to an existing ranch road. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.
Location	Applies to the Santa Ysabel Partial Underground Alternative, transition structures location along Mesa Grande Road.
Monitoring / Reporting Action	CPUC to review relocation plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	Transition structure visibility will be minimized.
Responsible Agency	CPUC
Timing	CPUC to review relocation plan prior to start of construction and verify implementation following construction.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

MITIGATION MEASURE	<p>V-45a Prepare and implement Scenery Conservation Plan. Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify specific actions that will minimize the project's visible disturbance to the naturally established scenery and to establish final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan. To achieve the greatest consistency with the Scenic Integrity Objectives, the project shall detail and integrate the following design recommendations into the Scenery Conservation Plan:</p> <ul style="list-style-type: none"> • Power Line and Support Towers. Transmission lines shall be nonspecular (nonreflective) and neutral in coloration. Support towers shall be custom-colored with a flat, non-reflective finish, to visually blend with native vegetation colors to appear as visually transparent as possible within the natural landscape pattern. Towers shall be designed to minimize their visual prominence and contrast to the natural landscape. • Distance Zones. Support towers within approximately one mile of sensitive primary viewpoints and without a backdrop, should be a monopole design with a simple, clean and less industrial appearance. Support towers viewed beyond one mile from sensitive viewpoints or only at distance, should be lattice towers. • Vegetation Clearing. Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line. • Roads. No new access or spur roads, or improvements (reconstruction/expansion) to existing roads are to be constructed in the following areas: (1) where ground slopes exceed 15%, or (2) on Forest lands subject to a HIGH Scenic Integrity Objective (SIO) where the new access or spur road would be visible from primary travel (paved) roads or the Pacific Crest National Scenic Trail, regardless of ground slope. Existing roads needing reconstruction/expansion on other areas of the forest shall be configured to minimize the creation of cut/fill slopes. Where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species. • Structures. All structures and structural elements, that may be constructed as part of the project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast, blend, and complement the adjacent forest and community architectural character. • Evaluation of Effects. The Licensee may be required to provide photorealistic visual simulations of proposed designs and mitigation measures to demonstrate their effectiveness in achieving Land and Resource Management Plan Scenic Integrity Objectives as viewed from sensitive viewsheds. • Off-Site Mitigation. Where project features create unavoidable and permanent negative scenery effects that are inconsistent with CNF Plan Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas in new viewsheds agreeable to the Forest shall be purchased and assigned to the Forest for its stewardship.
Location	Applies to all tower locations, facilities, and route segments within Cleveland National Forest Lands.
Monitoring / Reporting Action	CNF to review Scenery Conservation Plan within one year after license issuance, or prior to any ground disturbing activities.
Effectiveness Criteria	The occurrence of visual contrast from towers and conductor spans will be minimized. Asynchronous tower spans will be minimized.
Responsible Agency	CNF
Timing	CNF to review Scenery Conservation Plan within one year after license issuance, or prior to any ground disturbing activities.

Table D.3-13. Mitigation Monitoring Program – Visual Resources

MITIGATION MEASURE	V-52a Reduce visibility of the 500 kV transmission line connection to the Top of the World Alternative Substation site. In order to substantially reduce the visibility of the 500 kV transmission line connection to the Top of the World Substation site, reroute the 500 kV line due west after crossing San Felipe Road, and then turning south, west, and south again over the primary ridgeline to access the substation site from the north rather than the east as currently proposed. Figure D.3-46 provides a map of the mitigation route. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.
Location	Applies to the 500 kV transmission line connection to the Top of the World Alternative Substation site.
Monitoring / Reporting Action	CPUC and USFS to review construction plans prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The visibility of the 500 kV transmission line connection to the Top of the World Alternative Substation site will be substantially reduced.
Responsible Agency	CPUC, USFS
Timing	CPUC and USFS to review construction plans at least 120 days prior to start of construction and verify implementation following construction.
MITIGATION MEASURE	V-53a Reduce visibility of the 230 kV transmission line connection existing the Top of the World Alternative Substation to the west. In order to eliminate the visibility of the 230 kV transmission line connection to the Top of the World Substation, reroute the 230 kV line due north after exiting the substation to re-cross the central ridge, then turning northwest to intersect and then follow the Proposed Project route on the north side of the ridge (see Figure D.3-46). SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.
Location	Applies to the 230 kV transmission line connection to the Top of the World Alternative Substation site to the west.
Monitoring / Reporting Action	CPUC and USFS to review construction plans prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The visibility of the 230 kV transmission line connection to the Top of the World Alternative Substation site will be substantially reduced.
Responsible Agency	CPUC, USFS
Timing	CPUC and USFS to review construction plans at least 120 days prior to start of construction and verify implementation following construction.

D.3.21 References

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