

D.3 Visual Resources

This section addresses the visual resources of the environmental setting/affected environment for visual resources in the project study area. Section D.3.1 provides a description of the existing visual setting/affected environment. Applicable regulations, plans, and standards are provided in Section D.3.2, and the visual impacts/environmental effects of the three projects, as well as the Campo, Manzanita, and Jordan wind energy projects, are discussed in Section D.3.3. Project alternatives are described in Sections D.3.4 through D.3.7. Section D.3.8 provides mitigation monitoring, compliance, and reporting information; Section D.3.9 addresses residual effects of the project; and Section D.3.10 lists the references cited in this section.

D.3.1 Environmental Setting/Affected Environment

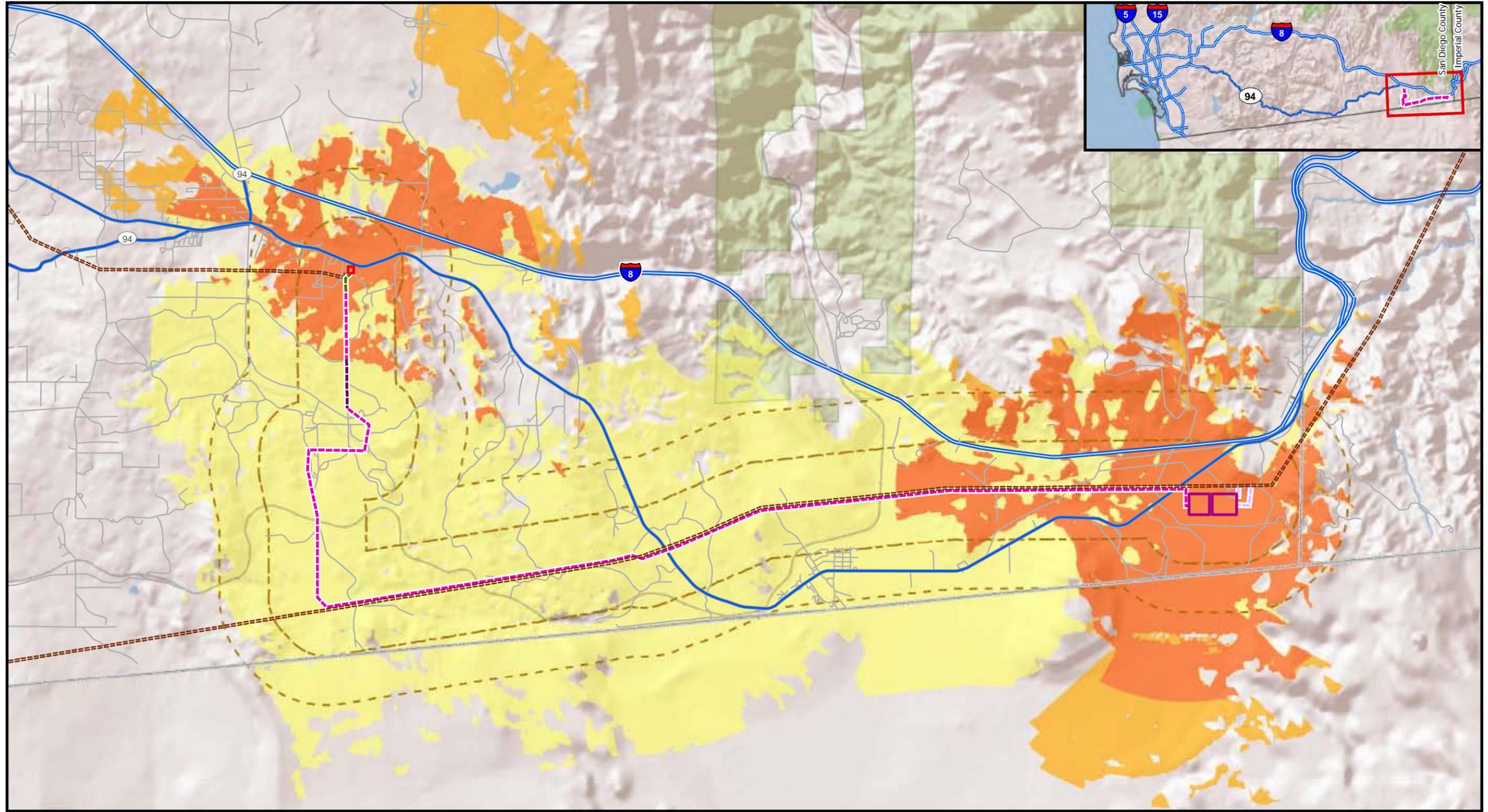
Methodology and Assumptions

The visual analysis was conducted between June 2009 and June 2010. Applicable Bureau of Land Management (BLM), county, and state plans and policies were reviewed, along with information provided by the project applicants for the proposed project and alternatives. San Diego Gas & Electric's (SDG&E's) East County (ECO) 500/230/138 kilovolt (kV) Substation Project Proponent's Environmental Assessment (PEA) (SDG&E 2009), Pacific Wind Development's Environmental Document for the Tule Wind Project (Iberdrola Renewables, Inc. 2010), Energia Sierra Juarez U.S. Transmission, LLC's, Major Use Permit Application (June 2009), and Visual Resources Report (ICF Jones & Stokes 2009) served as the primary sources for the project descriptions and description of alternatives. The location of key observation points (KOPs) from which to assess the anticipated visual impacts of the Proposed PROJECT were selected from those identified in the applicant's consultants' environmental documents prepared for the ECO Substation, Tule Wind, and Energia Sierra Juarez U.S. Generator-Tie (ESJ Gen-Tie) projects. For example, most of the KOPs identified in SDG&E's ECO 500/230/138 kV Substation Project PEA (August 2009) were used for the Proposed PROJECT as were the existing photos and visual simulations for the KOPs included in that document. Similarly, several KOPs, existing photos and visual simulations prepared for the Tule Wind and ESJ Gen-Tie projects (and included in Tule Wind Applicant's Environmental Document (Iberdrola 2010) and the ESJ Gen-Tie Visual Resources Report (ICF Jones & Stokes 2009) were reviewed and used for Proposed PROJECT impact evaluation purposes. Due to the proximity of the individual projects, there were instances where similar KOPs were used for the ECO Substation and ESJ Gen-Tie projects. For example, both SDG&E and ICF Jones & Stokes analyzed the visual change resulting from the ECO Substation and ESJ Gen-Tie projects from similar locations along Old Highway 80. In instances where KOP overlap occurred, one KOP was selected as representative for both projects and included the photos and visual simulations prepared for the individual projects in the Environmental Impact Report/Environmental Impact Statement

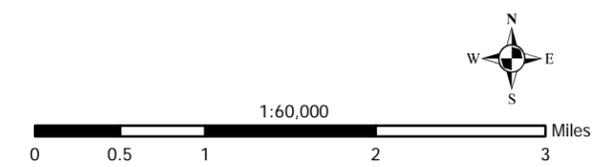
(EIR/EIS). Dudek contacted Iberdrola and confirmed that the BLM was consulted during the KOP selection process for the Tule Wind Project Environmental Document. The visual study (and KOP selection process) conducted for the proposed ECO Substation Project used assessment methods based on methods used by the U. S. Department of Transportation (DOT), the Federal Highway Administration, BLM, and other accepted visual analysis techniques (SDG&E 2009). KOPs for the visual analysis of the ESJ Gen-Tie Project were selected from candidate KOPs and determined to be most representative of gen-tie's potential effect on the viewshed (ICF Jones & Stokes 2009). Lastly, the individual project applicant's visual resource consultants prepared a viewshed analysis for their project to identify the overall visibility of project components. The viewshed analyses are included in this EIR/EIS as Figures D.3-1 through D.3-3.

Furthermore, the assessment of visual resource impacts was conducted based on established guidelines and methods adopted by the BLM through the Visual Resource Management System (Handbooks H-8410-1 and H-8431-1) (BLM 1986a and 1986b, respectively). Fieldwork was conducted on April 14 and April 15, 2010, when the climatic conditions provided good to excellent visibility conditions. Fieldwork methods performed during site visits included visiting each of the 18 identified KOP locations to photograph and describe the existing landscape conditions and document views of all applicable and estimated potential changes in line, form, color, and texture elements that could occur as a result of the Proposed PROJECT. Visual contrast rating sheets, based on the BLM's Handbook 8431-1, were used in the field to document viewer type; visibility conditions; angle of view; and duration of views, visual quality, and viewer sensitivity at each KOP location.

Dudek also contacted the BLM regarding visual resource management (VRM) classifications (Dalton, pers. comm. 2010) of BLM-administered lands and confirmed that off-site views and projects occurring on non-BLM administered lands should not be considered when determining an off-site project's potential impact to VRM class management objectives. Appendix 3A, Visual Resources Methodology and Assumptions, details the methodology and assumptions utilized during the preparation of this section.



- | | | | |
|-------------------------------------|---|------------|--------------------------------|
| Proposed Project Not Visible | Proposed 138 kV Underground* | Interstate | Proposed ECO Substation |
| ECO or Boulevard Substation Visible | Proposed SWPL Loop-In | Highway | Boulevard Substation Rebuild |
| Transmission Poles Visible | Proposed 138 kV Line | Local Road | 0.5 Mile from Proposed Project |
| Substation and Poles Visible | 445 Circuit Collocated with 138 kV Line | Railroad | 1 Mile from Proposed Project |
| | Existing Transmission Line | | |



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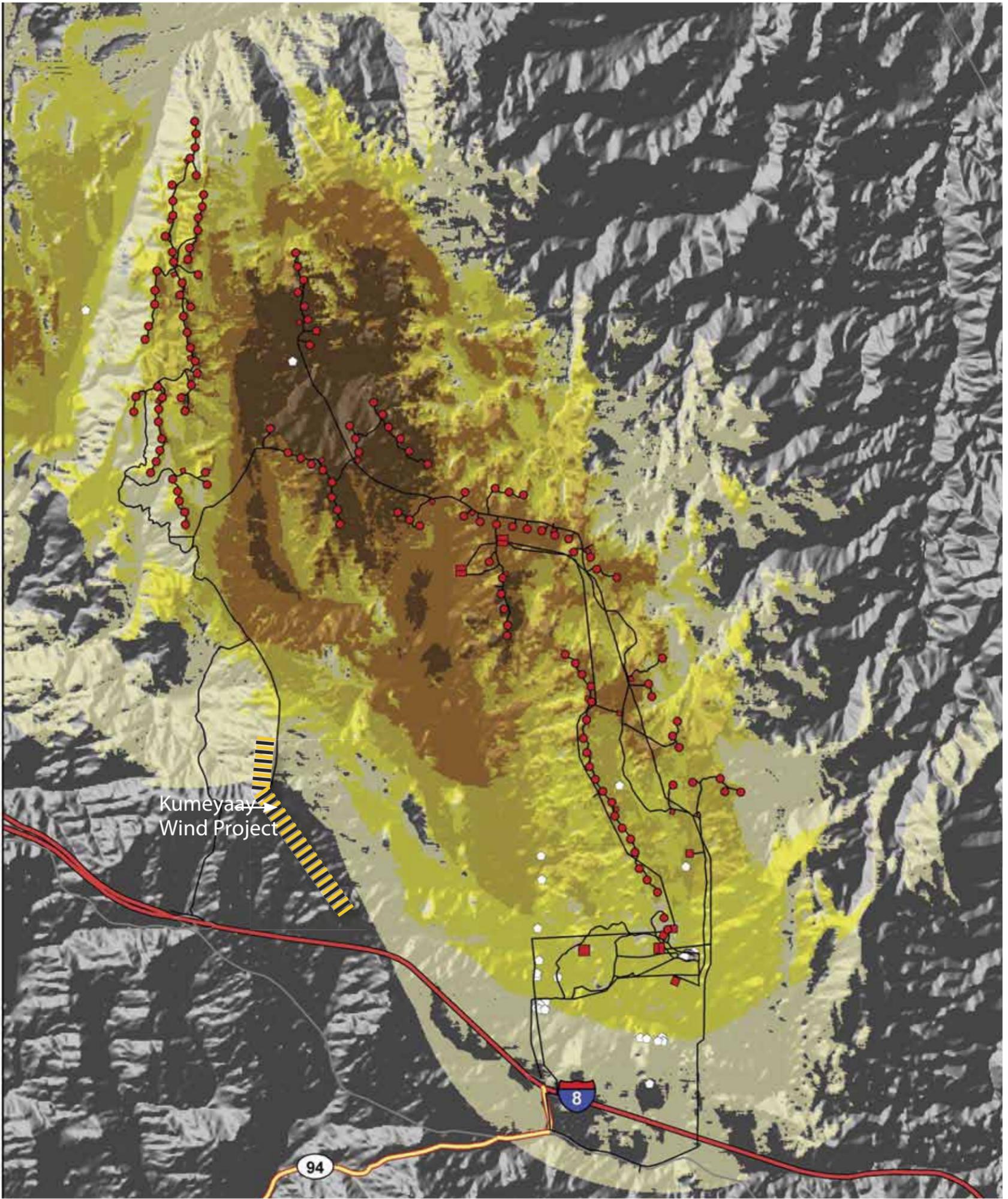
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SOURCE: SDG&E 2010

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects - EIR/EIS

**FIGURE D.3-1
ECO Substation Project Viewshed Analysis**

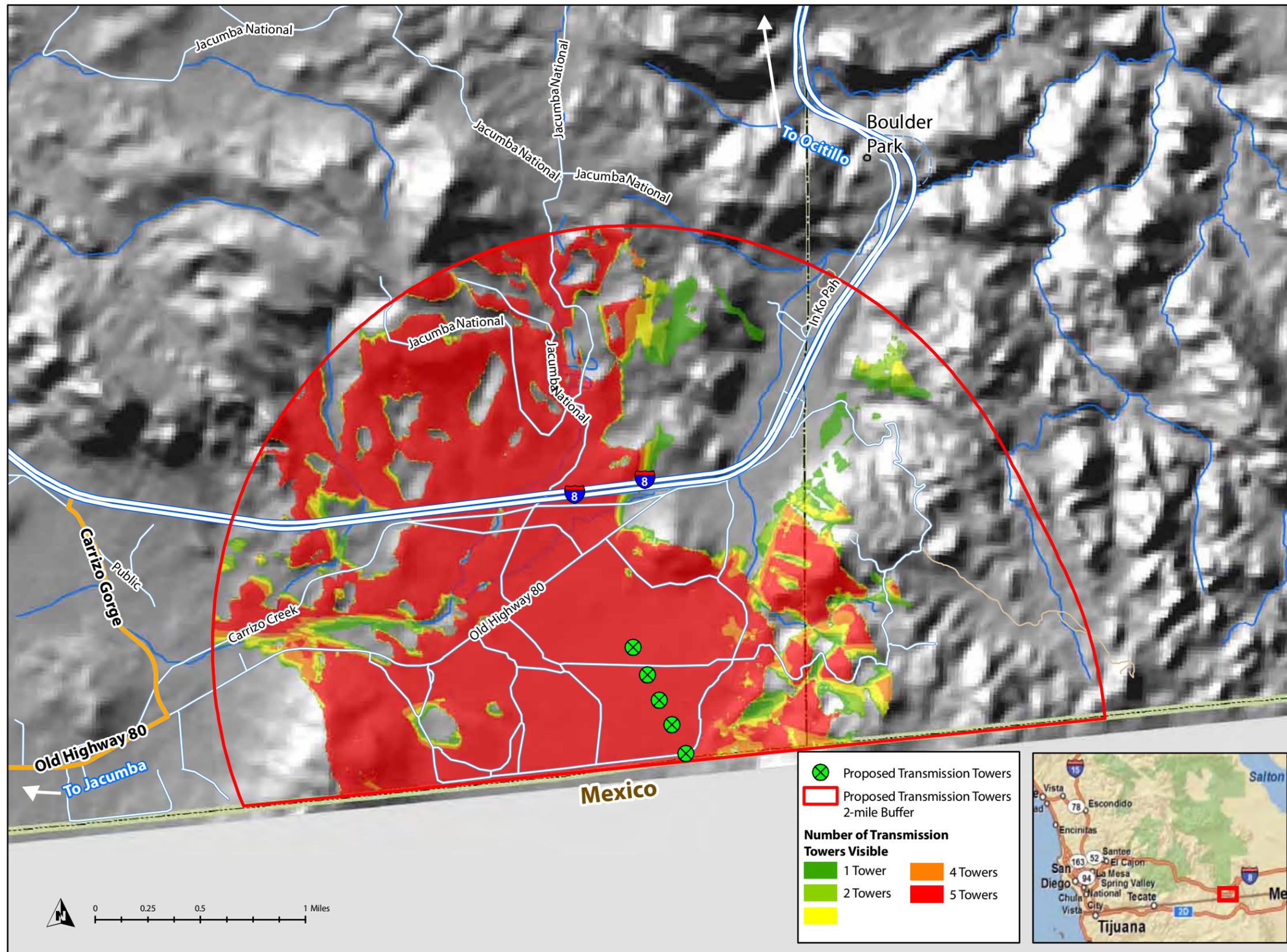
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Number of Towers Visible

- | | | |
|------------------------|--------------------------|-------------------------|
| 0 Towers Visible | 51 - 75 Towers Visible | Tower Location |
| 1 - 25 Towers Visible | 76 - 100 Towers Visible | Sensitive Visual Recept |
| 26 - 50 Towers Visible | 100 - 118 Towers Visible | Kumeyaay Wind Project |

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Key terms used in the visual resources section are defined as follows.

Project Area

The project area for visual resources is defined by the on-site landscapes directly affected by the various components of the Proposed PROJECT or alternatives and the surrounding off-site areas from which the Proposed PROJECT or alternatives may be visible. A viewshed is defined as all surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a road or trail) (Federal Highways Administration 1988). Based on field review of other similar projects, the project areas for the Tule and ESJ wind turbines are defined to encompass lands within 15 miles of the project facilities. The height of the turbines (450+ feet), combined with their light color, blade movement, night-lighting requirements, and placement on ridgelines, creates a maximum visibility potential for these structures to background distances of 10 miles and beyond. The project areas for the ECO and Tule substations and 138 kV transmission lines and the ESJ 230 kV and 500 kV transmission lines are defined to extend 5 miles from these types of project facilities. The height of the transmission structures (typically less than 150 feet), combined with their neutral colors and predominant locations on slopes and valley floors, would substantially lessen the distance at which these facilities would be perceived. For the purposes of this EIR/EIS, the project area lies in a transition zone between the California Peninsular Ranges to the west and the California desert to the east. Viewshed maps, prepared by the project applicant's visual resource consultants, have been included as Figures D.3-1 through D.3-3 of this section.

Visual Quality

Visual quality relates to the visual appeal of a landscape and is typically described according to seven contributing elements: landforms, vegetation, water, color, influences of adjacent scenery, cultural modifications, and scarcity. Scenic quality is described in the EIR/EIS according to the following terms or levels: Class A – Exceptional or High Visual Quality – defined as rare, unique, or exemplary of the visual qualities typically associated with a given physiographic province; Class B – Representative Visual Quality – defined as landscapes that have visual qualities typically associated with a given physiographic region; and Class C – Common or Undistinctive – defined as landscapes lacking visual diversity or features typically associated with the physiographic region. Information about visual quality for select KOP locations on BLM-administered lands (KOPs 13, 14, and 16) was provided by the BLM and is consistent with the visual quality ratings identified in the Visual Resource Inventory (VRI) Summary prepared for the Eastern San Diego County RMP (RECON 2008). The VRI Summary for the Eastern San Diego County RMP is included as Appendix 3b to this EIR/EIS. KOP 18 is also located on BLM lands; however, visual quality and visual sensitivity information for this location was not included in the VRI Summary (the area is, however, assessed as Class A – Exceptional (visual

quality) and high (visual sensitivity) due to its designation as an Area of Critical Environmental Concern (ACEC)). Information on visual quality for other lands was provided by the project applicant's visual resource consultants.

Visual Sensitivity

Visual sensitivity is defined as a measure of public concern for visual quality. Visual sensitivity is described in qualitative terms of *High*, *Medium*, or *Low*. Visual sensitivity is based on user volume and attitudes toward changes to the visual environment. Factors considered include the number and types of viewers potentially affected, viewing distances, and documented public concerns about visual changes. Information on visual sensitivity for KOP locations on BLM-administered lands was provided by the BLM and is consistent with the visual sensitivity ratings identified in the VRI Summary prepared for the Eastern San Diego County RMP (RECON 2006), included as Appendix 3b of this EIR/EIS. Information about visual sensitivity for other lands was provided by the project applicant's consultants. Visual sensitivity data were verified by the EIR/EIS team based on land use data and the Public Scoping Report.

Viewer Groups—Number and Types of Viewers

Potentially sensitive viewers are determined based on the type and amount of use various land uses receive. Land uses that derive value from the quality of their settings are considered potentially sensitive. Land uses within the project area that are considered sensitive to visual changes to their settings include residential areas; designated park, recreation, and natural areas; major transportation systems; and designated and eligible state historic routes and scenic highways.

Public Concerns

Public concerns about visual changes are considered in this analysis based upon the type of land use affected and public comments received during the EIR/EIS scoping process. Visual issues were raised by a number of local residents, elected officials, and representatives of state and local organizations. A summary of the visual issues raised during scoping are contained in the project Public Scoping Report (CPUC and BLM 2010).

Distance Zones—Foreground, Middle-Ground, and Background Distances

The distance from which a project component may be viewed affects the visual dominance and clarity that a feature or component may have within the seen landscape. Distance zones are described in this section according to *foreground views*, *middle-ground views*, and *background views*. *Foreground* views pertain to viewing distances where the viewer has close range visibility to a given object (generally within 0.25 to 0.5 mile away). *Middle-ground* views typically pertain to viewing distances between 0.5 mile and 3 miles away, where objects are still distinguishable

from other adjacent visual features. *Background* views pertain to viewing distances up to 15 miles away, where visibility of objects is less distinctive, and where ridges and skylines provide the greatest potential viewing opportunities to an object.

The Tule and ESJ Phase 1 wind turbines were evaluated for sensitive viewing locations within foreground, middle-ground, and background distance zones. The ECO, Tule, and ESJ transmission lines and the ECO and Tule substations were evaluated for sensitive viewing locations within foreground and middle-ground distance zones (up to 5 miles away). In most instances, the visibility of the transmission lines and substations would be substantially diminished beyond 2 miles by background screening of vegetation and topography. The wind turbines may be visible at background viewing distances, however, since multiple turbines may be openly visible and skylined on elevated ridgelines.

Viewer Exposure

In addition to the visual factors described previously, the visual resources analysis considered viewer exposure. Viewer exposure varies depending on the angle of view (i.e., normal, inferior, or superior viewing angles); the extent of visibility (i.e., whether views are panoramic or limited by vegetation, topography, or other land uses); and viewer screening conditions (e.g., whether the project facilities will be skylined on ridgelines, backscreened by topography and/or vegetation, or screened by structures or vegetation in the foreground). Viewer exposure also considers the duration of view based on type of use (e.g., travel route versus residential home). Viewer exposure is described as long term for residents, and short term for travelers along roadways and visitors to park and recreation areas.

Key Observation Points

KOPs are representative viewpoints evaluated in detail for this EIR/EIS section. KOPs are chosen based on the range of sensitive viewers, distance zones, viewing conditions, and visual changes that would result from the Proposed PROJECT or alternatives. In total, 18 KOPs are described and evaluated. The KOP locations and view orientation were initially identified by the project applicant's visual resource consultants. KOPs were subsequently reviewed in the field by the EIR/EIS team to verify their suitability. While the KOPs were determined to provide an appropriate range of viewing locations, the KOP locations and/or orientation were modified in some instances by the EIR/EIS team where deemed necessary to more fully capture the project elements that would be visible and the extent of visual changes that would occur.

Section D.3.1.1 provides an overview of each KOP according to location and viewer groups evaluated. KOPs are described in Sections D.3.1.2, D.3.1.3, and D.3.1.4 for the Proposed ECO Substation Project, the Tule Wind Project, and the ESJ Gen-Tie Project, respectively. KOP locations are shown on Figure D.3-4.

Visual Simulations

Simulations are defined as accurate, photorealistic images of proposed or alternative actions or facilities and are key to documenting visual changes and determining visual contrast levels from specific KOP viewing locations. Visual simulations were prepared by the project applicants consultants and were reviewed in the field by the EIR/EIS team for completeness and photorealism.

The KOPs and supporting simulations prepared by each of the project applicants' consultants were determined by the EIR/EIS team to provide photorealistic representations for various project components, covering a range of viewing locations and viewer types. However, since each of the applicant's consultants was responsible for, and focused on, their separate, respective projects, the KOP view orientations and simulations were found to be limited and deficient in a number of instances with respect to illustrating the full visual effects of the Proposed PROJECT or alternatives from various KOPs. In such instances, the EIR/EIS team further documented the degree of views potentially affected by the Proposed PROJECT or alternatives. Supplemental photographs with narrative notations are provided in the EIR/EIS Section D.3 figures to cover such instances. The lack of complete simulations for each KOP represents an analytical limitation that may affect the accuracy of some findings. Issues of concern include the lack of access roads shown in some simulations, as well as photographs with atypical lighting conditions. Simulation limitations are noted on Section D.3 figures, as applicable.

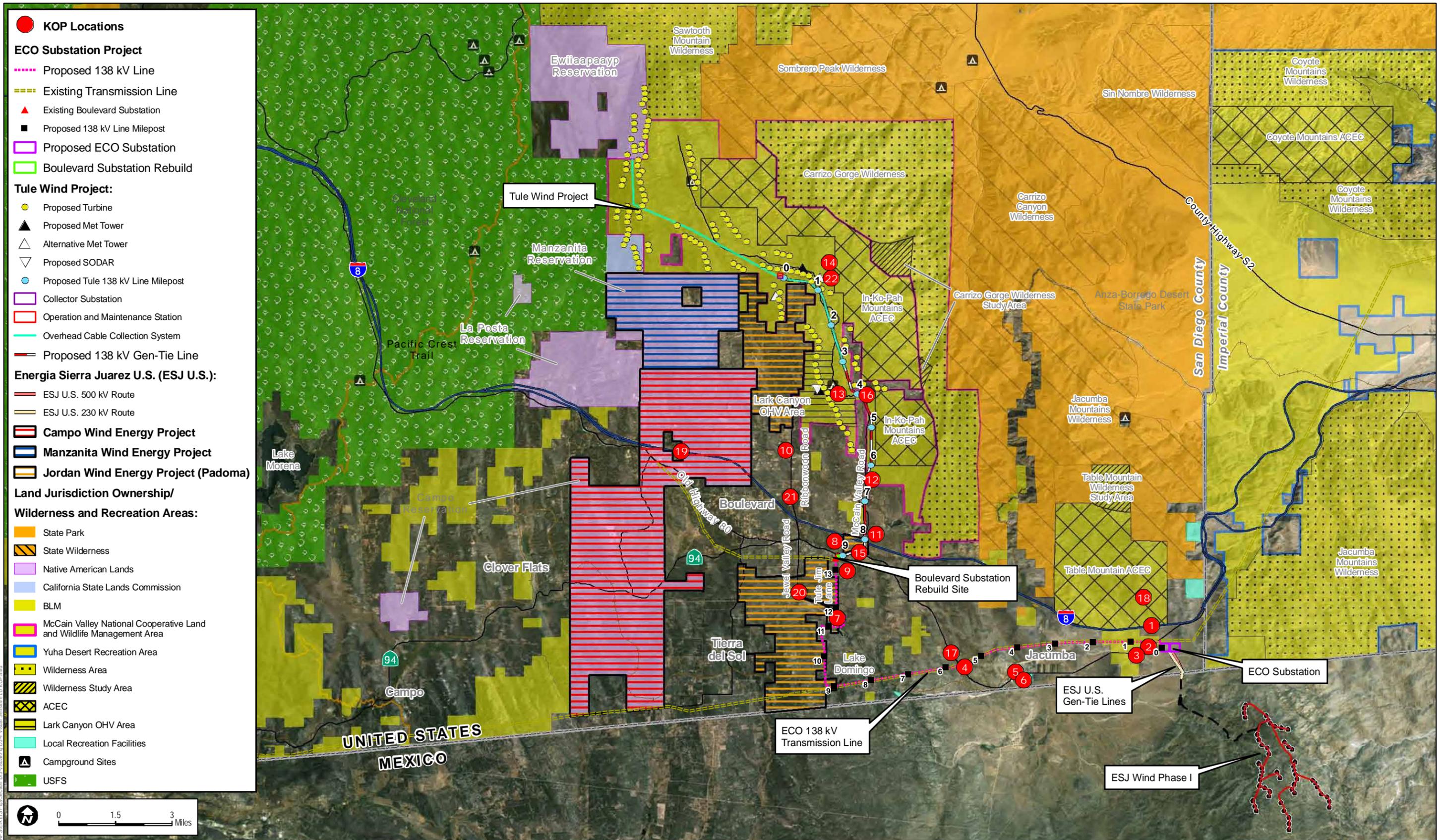


FIGURE D.3-4
Visually Sensitive Land Uses and Key Observation Points (KOPs)

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The visual simulations for the Campo, Manzanita, and Jordan wind energy projects were based on the following assumptions:

- Turbine locations were approximated based on the individual project polygons identified on Figure D.3-4. Specific turbine locations were approximated and dispersed within the individual project polygons and turbines were primarily sited along higher elevation areas (e.g.; ridgelines) within the individual project polygons.
- Data provided by project applicants was used to determine approximate MW wind turbine utilized in each specific project. A 1.5 MW wind turbine was assumed for the Campo Wind Project and 2.3 MW wind turbines were assumed for both the Manzanita and Jordan Wind Energy Projects.
- Turbine specifications (tower diameter, rotor diameter, etc.) were based on General Electric and Siemens specifications for 1.5 and 2.3 MW turbines. The specifications for GE's 1.5xle MW wind turbine (GE 2009) were referenced for the approximate rotor diameter and blade length of the wind turbine (project applicant data was utilized to approximate the wind turbine height) for the Campo Wind Project wind turbines. The specifications for Siemens' SWT-2.3-82 VS wind turbine (Siemens 2009) were referenced for the approximate rotor diameter and blade length (project applicant data was utilized to approximate the wind turbine height) for the Jordan and Manzanita wind turbines.
- The existing Kumeyaay wind farm (Campo Indian Reservation) and the Environmental Document for the proposed Tule Wind Project (Pacific Wind Development 2010) were reviewed in order to determine the appropriate spacing between turbines associated with the cumulative wind projects.

Visual Contrast Ratings

Visual contrasts were evaluated by the EIR/EIS team and documented on the BLM's Visual Contrast Worksheets (BLM Handbook 8431-1) (visual contrast rating worksheets have been included as Appendix 4 to this EIR/EIS). Contrast ratings are defined according to four levels: *None* – Element contrast is not visible or perceived; *Weak* – Element contrast can be seen but does not attract attention; *Moderate* – Element contrast begins to attract attention and is not easily overlooked; or *Strong* – Element contrast attracts attention, will not be overlooked, and is dominant in the landscape.

Contrast rating forms were used by the EIR/EIS team to describe the existing landscape character and visual sensitivity at each KOP; to document the project and alternative facilities and actions that would be viewed at each KOP; and to estimate the degree of change in line, form, color, and

texture that the Proposed PROJECT and alternatives would create from each KOP. Due to the complexity of this project, separate contrast rating worksheets were developed for each of the project components, at each applicable KOP. Contrast rating forms were used to determine the overall degree of visual change that would occur from a given KOP, as well as for determining the types of mitigation measures needed for reducing visual contrasts associated with specific project elements. With the exception of KOP 19 through KOP 23, visual contrast rating sheets were prepared for each of the identified KOPs. Due to similarities in location, the visual contrast ratings sheets for KOPs 1, 7, 10, and 14 should be referred to for KOPs 19, 20, 21, and 22.

D.3.1.1 *General Overview*

Visual Quality

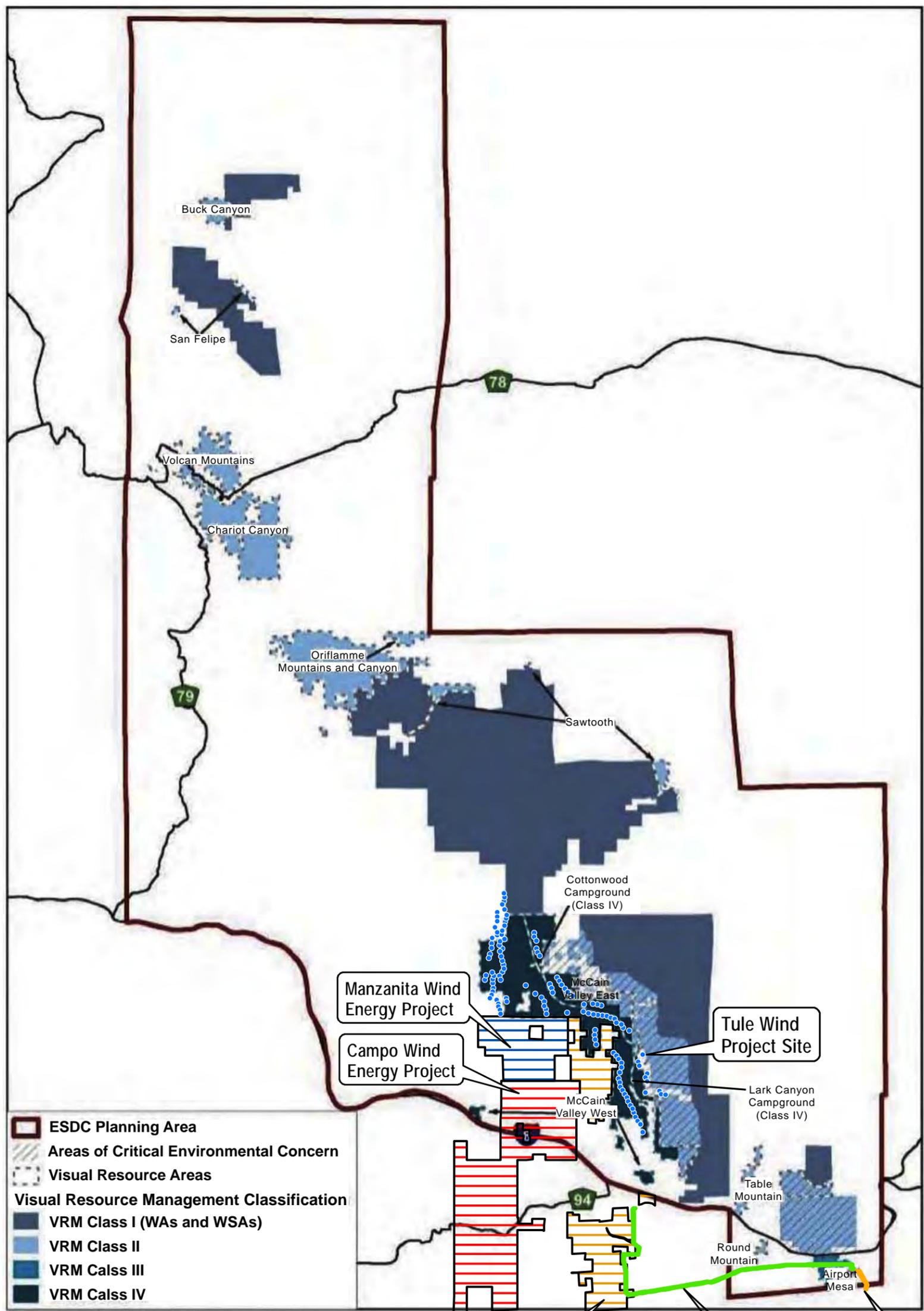
The project area is situated in eastern San Diego County and lies in a transition region between the California Peninsular Ranges physiographic province to the west and the California desert to the east. The California Peninsular Ranges are mainly situated to the north and west; where elevations range from 3,000 feet to 6,000 feet above mean sea level (amsl). Within the project area, mountain ranges are mainly characterized by steep mountain slopes covered with chaparral vegetation and numerous granite boulders. The desert region lies to the east and south of the project area. Elevations in the desert region range from sea level to over 3,000 feet amsl, with landforms primarily consisting of mountain ranges, mesas, alluvial fans, and desert floors. Desert vegetation is characterized as mixed wood scrub, with the dominant species being creosotebush (*Larrea tridentata*), which typically varies in height from 1 to 3 feet.

Within the project area, the most prominent mountain ranges are the Jacumba Mountains to the north and east, the In-Ko-Pah Mountains to the north and west, and the Sierra de Juarez Mountains to south and east. Separating the mountains are broad desert plains, alluvial fans, and valleys, including Jacumba Valley, Jewel Valley, and McCain Valley.

Visual Sensitivity

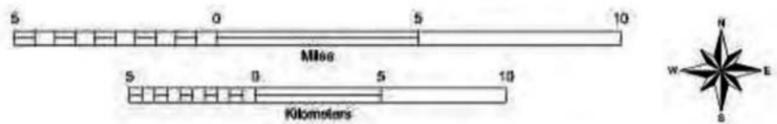
Viewer Groups

Viewers within the project area primarily are associated with travel on federal, state, and local roads; residences located in or near unincorporated communities in east San Diego County; and park, recreation, and natural areas on public lands. A variety of federal, state, and county preserves are also in the project area, as described in Section D.5. Figure D.3-4 shows the major land uses within the project area that are considered visually sensitive to changes brought about by the Proposed PROJECT or alternatives. Figure D.3-5 shows the applicable VRM classes for BLM lands occurring in the project area.



- ESJ Gen-Tie Project Site
- ECO Substation Project Site
- Tule Wind Project Components
 - Proposed Turbine

- Cumulative Projects:**
- Transmission/Renewable Energy**
- Campo Wind Energy Project
 - Manzanita Wind Energy Project
 - Jordan Wind Energy Project (Padoma)



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Mobile Viewers

Major travel routes in the project area are Interstate 8 (I-8) and Old Highway 80. Both highways are eligible state scenic highways under the California Scenic Highway Program. Old Highway 80 is also a designated California State Historic Route (Section D.3.2). I-8 passes east–west through the project area and is part of the federal interstate system connecting Southern California and San Diego to Phoenix and Tucson, Arizona. Old Highway 80 travels east–west through the project area, south of I-8. Old Highway 80 is mainly used for local access and by persons traveling through the area for recreation via car, motorcycle, or bicycle. Other San Diego County (County) travel routes discussed in Section D.3 include Tule Jim Road, Jewel Valley Road, McCain Valley Road, and Ribbonwood Road.

Local Communities and Dispersed Residential Viewers

The unincorporated communities of Jacumba, Boulevard, and Bankhead Springs are located along Old Highway 80 in east San Diego County. Other unincorporated communities are residential areas and the Ewiiapaayp, Campo, La Posta, and Manzanita Indian reservations. Rural residential communities and dispersed residences are along Old Highway 80, Tule Jim Road, Jewel Valley Road, Ribbonwood Road, and other local county roads.

Park, Recreation, and Designated Natural Area Viewers

Recreational activities in the project area mainly occur on public BLM and U.S. Forestry Service (USFS) lands. The BLM-managed Lark Canyon Off-Highway Vehicle (OHV) Area, is located north of I-8 near Boulevard, and is an area designated by the BLM for OHV use. The Lark Canyon OHV Area is located in the center of the project area and has developed campsites, staging areas, and recreational trails. In addition to the Lark Canyon OHV Area, the Cottonwood Campground, informal hiking trails, and two scenic overlooks are also located within the BLM-managed McCain Valley National Cooperative Land and Wildlife Management Area.

The Cleveland National Forest is situated in the northern part of the study area. Located within the Cleveland National Forest, the Laguna Mountain Recreation Area offers a variety of recreational opportunities including camping (six USFS-maintained campsites are located in the Recreation Area), hiking, mountain biking, and several picnic areas. The Pacific Crest Trail and County Highway S-1 (Sunrise Highway, a National Forest Scenic Byway) are also located within the eastern boundary of the Cleveland National Forest. The Mount Laguna Observatory (operated by San Diego State University) is also located within the Laguna Mountain Recreation Area.

In addition to federally administered recreation lands and national forests, state parks are also located within the project study area. Anza-Borrego Desert State Park, the largest state park in

the California, is located in the eastern part of the study area. In addition to 12 state-designated wilderness areas, Anza-Borrego Desert State Park offers opportunity for a variety of recreation activities including camping, hiking, wildlife and wildflower viewing, picnic areas, and horseback riding. Cuyamaca Rancho State Park is located northwest of the project study area and includes campsites, hiking trails, picnic areas, and opportunities for wildlife viewing and photography, and fishing.

Several conservation areas are also in the project area including the Carrizo Gorge Wilderness Area, the Jacumba Mountain Wilderness Area, the Table Mountain ACEC and the In-Ko-Pah ACEC. Figure D.3-4 shows the general location of designated recreation and conservation areas considered in this analysis.

Lastly, trails and pathways included in the Boulevard Community Trails and Pathways Plan (an individual plan of the larger County Trails Program and Community Trails Master Plan adopted by the County of San Diego Board of Supervisors in January 2005) are also located within the project area north and south of the community of Boulevard. The following trails and pathways are located in the project area: Ribbonwood Road Pathway, Ribbonwood Trail, Jewel Valley Road Pathway, Jewel Valley Trail, San Diego and Arizona Eastern Railway Trail, and the Lansing Trail. The location of existing trails and proposed pathways are identified in Section D.5, Wilderness and Recreation (Figure D.5-1, Wilderness and Recreation Overview Map).

Viewing distance zones, viewer exposure conditions, and viewer concerns of these viewer groups are described by KOPs in Sections D.3.1.2 through D.3.1.4.

Key Observation Points

Figure D.3-4 shows the location of the KOPs in the project area. A listing of the KOPs is presented as follows by general location, view orientation, and viewer groups considered. Sections D.3.1.2 through D.3.1.4 describe the existing setting at each KOP, including visual quality and visual sensitivity. All KOP figures are located at the end of Section D.3. Because multiple orientations, photographs, and simulations are provided for each KOP, only figures depicting the existing setting from KOP locations (for example, Figure D.3-6A shows the existing setting as viewed from KOP 1) and not those showing visual simulations or alternative visual simulations are referenced in the parenthetical citations as follows.

- **KOP 1:** I-8 Eastbound, view toward ECO Substation and ESJ Gen-Tie project sites—Interstate highway motorists (Figure D.3-6A)
- **KOP 2:** Old Highway 80 Eastbound, view toward ECO Substation Project site—State highway motorists, residents, and recreationists—bicyclists (Figure D.3-7A)

- **KOP 3:** Old Highway 80 Eastbound, view toward ECO Substation and ESJ Gen-Tie project sites—State highway motorists, and recreationists (e.g., hikers and bicyclists) (Figure D.3-8A and Figure D.3-8B)
- **KOP 4:** Old Highway 80 Westbound, view toward ECO Substation Project site—State highway motorists, residents, and recreationists (Figure D.3-9A)
- **KOP 5:** Community of Jacumba, view toward ECO Substation and ESJ Gen-Tie project sites—Residents and State highway motorists and recreationists (Figure D.3-10A)
- **KOP 6:** Community of Jacumba, Hill Street, view toward ECO Substation and ESJ Gen-Tie project sites—Residents (Figure D.3-11A and Figure D.3-11B)
- **KOP 7:** Community of Boulevard, Jewel Valley Road, view toward ECO Substation Project site—Residents and Recreationists (Figure D.3-12A)
- **KOP 8:** Community of Boulevard, Old Highway 80, view toward ECO Substation and Tule Wind project sites – Residents, state highway motorists, and recreationists (Figure D.3-13A)
- **KOP 9:** Community of Boulevard, south of Old Highway 80, view toward ECO Substation and Tule Wind project sites – Residents (Figure D.3-14A and Figure D.3-14B)
- **KOP 10:** Community of Boulevard, Ribbonwood Road, view toward Tule Wind Project site and Alternative Tule Wind sites—Residents and Recreationists (Figure D.3-15A)
- **KOP 11:** McCain Valley Road Northbound, view toward Tule Wind Project site—Public land recreationists (Figure D.3-16A)
- **KOP 12:** McCain Valley Road, Lark Canyon OHV Entrance, view toward Tule Wind Project site—Public land recreationists (Figure D.3-17A and Figure D.3-17B)
- **KOP 13:** Lark Canyon Staging Area, view toward Tule Wind Project site—Public land recreationists (Figure D.3-18A)
- **KOP 14:** Carrizo Overlook, view toward Tule Wind Project site—Public land recreationists (Figure D.3-19A)
- **KOP 15:** Old Highway 80 Westbound, view toward ECO Substation Alternative Project site—State highway motorists, residents, and recreationists (Figure D.3-20A)

- **KOP 16:** McCain Valley Road, BLM In-Ko-Pah ACEC, view toward Tule Wind Alternative Project sites–Public land recreationists (Figure D.3-21A)
- **KOP 17:** Old Highway 80 Westbound, view toward ECO Substation Alternative Project Site–State highway motorists, recreationists (Figure D.3-22A)
- **KOP 18:** Table Mountain ACEC, view toward ESJ Gen-Tie and ECO Substation project sites–Public land recreationists (Figure D.3-23A).
- **KOP 19:** I-8 Eastbound, view toward Campo and Jordan Wind Energy project sites–Interstate highway motorists (Figure D.3-24A).
- **KOP 20:** Jewel Valley Road, view toward Campo, Manzanita, Jordan Wind Energy and Tule Wind project sites - Residents and Recreationists (Figure D.3-25A).
- **KOP 21:** Ribbonwood Road, view toward Manzanita and Jordan Wind Energy and Tule Wind project sites - Residents and Recreationists (Figure D.3-26A).
- **KOP 22:** Carrizo Overlook, view toward Campo, Manzanita, and Jordan Wind Energy and Tule Wind Project sites–Public land recreationists (Figure D.3-27A).

D.3.1.2 ECO Substation Project

ECO 500 kV and 230 kV/138 kV Substation and Southwest Powerlink (SWPL) Loop-In

Visual Quality

The ECO Substation Yards site (ECO Substation) is situated in a predominantly natural, undeveloped desert landscape in eastern San Diego County. Elevations on the ECO Substation site are approximately 3,200 feet amsl and consist of flat to gently sloping desert terrain. Vegetation is predominantly creosotebush and other low-lying desert scrub communities, which create a homogenous, sparse cover over exposed tan desert soils. Exposed soils and large boulders contribute to a medium-grain soil texture, which is particularly evident from the surrounding mountain slopes.

The ECO Substation Project site is located southwest and adjacent to Jade Peak, an isolated peak that rises approximately 500 feet in elevation above the substation site. Higher mountainous terrain is seen further to the north in the Jacumba Mountains, north of I-8. Nearby peaks in the Jacumba Mountains include Whip Peak, Blue Angels Peak, and Nopal Peak; each reaches over 4,000 feet in elevation. The Jacumba Mountains Wilderness, a BLM-managed area, is approximately 0.5 mile to the east of the ECO Substation Project site. The Table Mountain

ACEC and Anza-Borrego Desert State Park lie to the north of the ECO Substation Project site, approximately 0.7 mile to 1.5 miles away, respectively.

In addition to the natural landscape characteristics, a number of man-made elements contribute to the visual quality of the ECO Substation Project area. Man-made influences are primarily linear features and include old Highway 80, approximately 500 feet to the north; I-8, approximately 1,500 feet to the north; a target practice range adjacent to Jade Peak, approximately 500 feet to the northeast; and the existing SWPL 500kV transmission line, which passes north of the ECO Substation Project site.

Visual Sensitivity

The ECO 500 kV/230 kV/138 kV Substation would mainly be visible from I-8 and Old Highway 80. Views would also be possible from the Table Mountain ACEC, Jacumba Mountains Wilderness, and other BLM-administered public lands.

Key Observation Points

The following two KOPs were selected to represent the visual quality and visual sensitivity of the ECO 500 kV and 230 kV/138 kV Substation and SWPL Loop-In project areas.

KOP 1: View looking southeast from Eastbound I-8 toward proposed ECO Substation Site and ESJ Gen-Tie Line and Wind Phase I Site (Figure D.3-6A)

KOP 1 is located on the eastbound side of I-8, approximately 0.5 mile northwest of the ECO Substation Project site, near the U.S. Border Patrol control point. The KOP orientation is to the southeast across the flat mesa toward the Sierra de Juarez Mountains.

Visual Quality: *Class B – Representative.* The landscape setting of KOP 1 is primarily natural, consisting of views to a flat grass- and shrub-covered desert mesa, with the Sierra de Juarez Mountains visually prominent to the southeast. Developed land uses are limited and include Old Highway 80 and the SWPL 500 kV transmission line to the south. The visual quality of KOP 1 is representative of the transitional desert landscape visible to eastbound interstate motorists.

Visual Sensitivity: *Medium to High.* The viewers from KOP 1 are travelers along I-8. KOP 1 lies within the foreground distance zone of the ECO Substation, SWPL Loop-In, and ECO 138 kV Transmission Line. Viewer exposure is unobstructed, although the ECO substation facility and transmission lines would be back screened by desert terrain and vegetation patterns due to the elevated viewing position from I-8. Viewer volume along I-8 is high. Public concerns from I-8 are assessed as moderate.

The ESJ 500 kV or 230 kV line and ESJ Wind Phase 1 turbines would be located farther to the southeast, within foreground to middle-ground viewing distances. The ECO 500 kV/230 kV/138 kV Substation and SWPL tie-in lines would block views to most of the ESJ transmission line. However, some of the ESJ Wind Phase 1 turbines would be skylined on the Sierra de Juarez Mountains farther to the southeast. The ESJ Wind Phase 1 turbines would be viewed at middle-ground distances of approximately 3 to 4 miles away.

KOP 2: View looking east from Old Highway 80 toward proposed ECO Substation Site and 138 kV Transmission Line (Figure D.3-7A)

KOP 2 is located on eastbound Old Highway 80, approximately 0.25 mile west of the ECO Substation Project site. The KOP orientation is to the east across the flat mesa toward the Sierra de Juarez Mountains. The existing SWPL 500 kV line is visible in the foreground. KOP 2 shows typical views that motorists and bicyclists have from Old Highway 80 in the direction of the ECO Substation Project site.

Visual Quality: *Class B – Representative.* The visual quality from Old Highway 80 is very similar to landscapes seen from KOP 1. See previous description.

Visual Sensitivity: *Medium to High.* Viewers associated with KOP 2 are persons traveling on Old Highway 80. Viewer groups are primarily travelers touring Old Highway 80 by car, motorcycle or bike, and local traffic. The duration of views along Old Highway 80 toward the ECO Substation Project area would be short term. From KOP 2, the ECO 138 kV transmission line would be within 500 feet of the highway and would be located parallel to, and south of, the existing SWPL 500 kV transmission line. KOP 2 would also provide potential views to the ESJ Wind Phase 1 turbines, which would be skylined on the Sierra de Juarez Mountains. Public concerns for increased industrialization of views are considered moderate to high.

138 kV Transmission Line

Visual Quality

The proposed 138 kV transmission line is approximately 13.3 miles long and will extend from the ECO Substation to the rebuilt Boulevard Substation. Landscape characteristics range from the desert settings near the ECO Substation at 3,200 feet amsl, to landscape settings similar to the California Peninsular Ranges at over 4,000 feet amsl near Boulevard. For the first 9.0 miles west of the ECO Substation, the 138 kV line will be located parallel to the SWPL. For the remaining 4.3 miles, the 138 kV line will route northward, establishing a new utility corridor, to the Boulevard Substation.

138 kV East–West Segment Parallel to SWPL 500 kV Line. Along the 9.0 miles where the 138 kV line will be parallel to the existing SWPL 500 kV line, the existing 500 kV lattice structures and lines have a dominant influence on the visual quality and character of the landscape. The existing 500 kV structures average 135 feet in elevation, and three to four lattice structures are present per mile. Other man-made influences affecting the visual character of the landscape include Old Highway 80, which lies north of and within 0.3 mile of the 138 kV line for the first 2 miles of line west of the ECO Substation; the community of Jacumba, which lies approximately 0.4 mile south of the 138 kV line; and rural residential and agricultural areas, which are dispersed within the landscape. West of the ECO Substation, I-8 also parallels portions of the 138 kV line to the north at viewing distances of approximately 0.5 mile away. I-8 runs north and parallels the 138 kV line for approximately 2.3 miles. Visibility of the existing 500 kV line contributes to diminished visual quality in the immediate vicinity of the 138 kV transmission line right-of-way (ROW).

138 kV North–South Segment Near Jim Tule Lane. Approximately 4.3 miles of 138 kV line diverges from the SWPL corridor and traverses northward to the Boulevard Substation. Along this stretch of the project area, the 138 kV line crosses natural desert landscapes, and passes near rural residential homes and south and east of the community of Boulevard. The landscape character of these settings is influenced by a combination of natural desert settings, interspersed with irrigated agricultural fields near Boulevard, mature trees and shrubs, large boulders, and community homes and ancillary structures. Natural features along this stretch of the project area include Boundary Peak, a 500-foot-tall cinder cone and Lake Domingo, a San Diego County reservoir. Rattlesnake Mountain is a 4,000-foot-tall peak, approximately 1 mile to the west. The visual quality and character of the desert landscapes are similar to those described for the ECO Substation. The rural communities and agricultural areas add a number of elements, such as structures, fences, power poles, and rural unpaved roads, which contribute to the color and textural elements of the visual environment.

Visual Sensitivity

The ECO Substation 138 kV transmission line would be visible within a foreground viewing distance from I-8, Old Highway 80, dispersed rural residences, from the communities of Jacumba and Boulevard, and from proposed trails and pathways of the Boulevard Community Trails and Pathways Plan. Views would also be possible within the middle-ground distance zone from the Table Mountain ACEC, Jacumba Mountains Wilderness, and other BLM-administered public lands.

Key Observation Points

Five KOPs were selected to represent the visual quality and sensitivity of the ECO Substation 138 kV transmission line project area. KOPs 4, 5, 6, and 7 pertain to the Proposed ECO

Substation Project. KOP 17 pertains to the ECO Substation 138 kV transmission line alternatives along Old Highway 80.

KOP 4: View looking northwest from Old Highway 80 toward proposed ECO 138 kV Transmission Line Site (Figure D.3-9A)

KOP 4 is located on westbound Old Highway 80, approximately 500 feet south of the existing SWPL 500 kV line. Foreground views from KOP 4 are oriented to the northwest toward the SWPL transmission line and the proposed ECO Substation 138 kV transmission line.

Visual Quality: *Class B – Representative.* The visual quality of KOP 4 is representative of the natural transitional desert landscape terrain and vegetation seen from Old Highway 80 in eastern San Diego County. Terrain is rolling hills, covered with granite boulders and desert shrubs. The SWPL 500 kV transmission line crosses the highway to the north and creates an industrial character within the immediate area of the proposed ECO Substation 138 kV transmission line.

Visual Sensitivity: *Medium to High.* Viewers from KOP 4 are travelers along the state highway, including motorists and bicyclists. Views from KOP 4 are limited to a foreground viewing distance zone to the northwest. Viewer volume is low. Viewer exposure is open to unobstructed views to the northwest. Duration of views would be short term. Given the type of recreational use Old Highway 80 receives, viewer concerns about increased industrialization of the views are considered high to moderate.

KOP 5: View looking north from Railroad Street (Community of Jacumba) toward proposed ECO 138 kV Transmission Line Site (Figure D.3-10A)

KOP 5 is located in the community of Jacumba, north of Highway 80, near Calexico Avenue. KOP 5 provides a view orientation to the north toward the ECO 138 kV transmission line and the existing SWPL 500 kV transmission line (the SWPL transmission line is located approximately 0.75 mile north of KOP 5).

This KOP view is a typical residential street within the unincorporated Jacumba community.

Visual Quality: *Class B (Representative) – Class C (Common).* Views are oriented to the north-northeast and backdropped by a ridge where the SWPL transmission line is visible. Vegetation includes a variety of trees along the residential street with short grasses and shrubs being the predominant vegetation patterns. While the natural landscape elements are representative of the desert transition zone, man-made elements, including the SWPL transmission line, diminish the overall visual quality of the landscape setting.

Visual Sensitivity: *Medium to High.* KOP 5 viewer types are residents of Jacumba and travelers along Old Highway 80. The volume of viewers is considered low; the duration of views would be long term for residents and short term for highway travelers. KOP 5 provides elevated foreground views to the ECO 138 kV transmission line, as well as the existing SWPL 500 kV line. The ESJ Wind Phase 1 development would also be seen from views oriented toward the southeast. The wind turbines would be visible at background viewing distances and partially skylined where turbines are located on the Sierra de Juarez Mountains ridgeline. Viewer concerns for changes to the seen environment are considered moderate to high, based on both the types of visually sensitive land uses affected.

KOP 6: View looking northeast from Hill Street (Community of Jacumba) toward proposed ECO 138 kV Transmission Line Site (Figure D.3-11A) and view looking southeast from Hill Street (Community of Jacumba) toward proposed ESJ Wind Phase 1 Development Site (Figure D.3-11B)

KOP 6 is located on Hill Street in the community of Jacumba. The KOP is south of Old Highway 80 and situated on an elevated east-facing slope, approximately 0.75 mile southwest of the ECO 138 kV transmission line, as well as approximately 6 miles west of the ESJ Wind Phase 1 development and ESJ 500 kV/230 kV gen-tie line. Views from KOP 6 are panoramic and extend from the southeast to the northeast. The view orientation toward the ECO 138 kV transmission line (Figure D.3-11A) is to the northeast. The view orientation toward the ESJ Wind Phase 1 Development Site (Figure D.3-11B) is to the southeast and the Sierra de Juarez Mountains.

Visual Quality: *Class B – Representative.* The views from KOP 6 are panoramic and encompass foreground views to nearby residences of Mexico to the southeast and middle-ground views to the existing SWPL 500 kV transmission line to the northeast. Foreground and middle-ground views are predominantly to community buildings and landscaping in the unincorporated community of Jacumba, the U.S.–Mexican border fence, the SWPL 500 kV transmission line, and irrigated agricultural fields east of Jacumba. The Sierra de Juarez Mountains are in the background distance zone, approximately 6 to 7 miles away. Noticeable industrial features visible from KOP 6 are the SWPL 500 kV transmission line to the northeast, and the U.S.–Mexican border fence to the southeast. Overall, visual quality is moderate and representative of community character in Jacumba. Although industrial elements have somewhat diminished the visual quality of the viewshed, the panoramic and elevated views available to the community of Jacumba and the surrounding natural desert landscapes provide visual variety and interest.

Visual Sensitivity: *Medium to High.* Viewer types associated with KOP 6 are residents of Jacumba. The volume of viewers is considered low; however, the duration of views from these residences would be high. Viewer exposure is high due to the elevated and panoramic visibility

conditions. Views to the SWPL and proposed ECO 138 kV transmission line are in the middle-ground distance zone of KOP 6. Views to the ESJ Wind Phase 1 turbines lie in the background distance zone. Public concerns for changes to the seen environment are considered high, based on the type of land uses, their elevated setting, and expressed public concerns.

KOP 7: View looking north to Tule Jim Road from Jewel Valley Road (Community of Boulevard) toward proposed ECO 138 kV Transmission Line Site (Figure D.3-12A)

KOP 7 is located on Jewel Valley Road at its intersection with Tule Jim Lane, south of Highway 80. KOP 7 provides a view orientation to the north toward the proposed ECO 138 kV transmission line (proposed steel pole (SP) 11 would be located approximately 600 feet north of KOP 7). This KOP provides views from a typical, rural residential street within the unincorporated community of Boulevard.

Visual Quality: *Class B – Representative.* Views to the north of KOP 7 are limited by terrain to foreground distances. Natural low-lying shrub vegetation and rock boulders cover slightly rising terrain to the north. An unpaved road, a distribution line, and several rural homes and related improvements are visible in this direction.

To the south, visibility extends to middle-ground viewing distances, where portions of the SWPL 500 kV line are seen in the distance. Natural landscape features include the Jewel Valley and several surrounding rock-strewn ridgelines and isolated hills. Boundary Peak, to the south, is visually prominent near the Mexican border. The natural landscape is representative of the transition region near the California Peninsular Ranges.

Visual Sensitivity: *Medium to High.* Viewer groups associated with KOP 7 include rural residents south of the unincorporated community of Boulevard and recreationists (hikers) utilizing the Jewel Valley Road Pathway and the Jewel Valley Trail identified in the Boulevard Community Trails and Pathways Plan. The number of viewers in this area is low; however, the duration of views to the ECO 138 kV transmission line would be high. Most viewers would be affected within the foreground viewing distance. Viewer concern is considered high due to the visual sensitivity of residential land uses, the open panoramic view opportunities generally afforded in this part of the project area, and community-expressed concerns regarding project-related visual changes.

KOP 17: View looking north–northeast from Old Highway 80 toward ECO Highway 80 138 kV Transmission Route Alternative Location (Figure D.3-22A)

KOP 17 is located on westbound Old Highway 80, approximately 500 feet north of the existing SWPL 500 kV line. Foreground views from KOP 17 are oriented to the north–northeast, toward the ECO Old Highway 80 Route Alternative and ECO Old Highway 80 Underground Route Alternative.

Visual Quality: *Class B – Representative.* Similar to the visual quality of KOP 4, the visual quality of KOP 17 is representative of the natural transitional desert landscape terrain and vegetation seen from Old Highway 80 in eastern San Diego County. The terrain consists of rolling hills covered with desert shrubs. The SWPL 500 kV transmission line crosses the highway to the south, creating an industrial character in the immediate vicinity of the ECO Old Highway 80 Route alternatives. An existing distribution line is also prominent in the visual landscape from KOP 17.

Visual Sensitivity: *Medium to High.* Viewers from KOP 17 are travelers along the state highway, including motorists and bicyclists. Views from KOP 17 are primarily limited to a foreground viewing distance zone to the north–northeast. Viewer volume is low. Viewer exposure is open to unobstructed views to the north–northeast, and the viewing angle would be normal. The ECO Old Highway 80 Route Alternative would be partially back-screened in some areas and partially skylined in others. Duration of views would be short term. Given the type of recreational use Old Highway 80 receives, viewer concerns for increased industrialization of the views are considered moderate to high.

Boulevard Substation Rebuild

Visual Quality

The Boulevard Substation would be rebuilt adjacent to and east of the existing substation, south of Old Highway 80, in the community of Boulevard. The Boulevard Substation project site is characterized by open undeveloped lands and rural residential structures. Vegetation includes both sparse low-lying desert scrub, as well as three mature coast live oak trees that are visually prominent from Old Highway 80. The surrounding project area is primarily composed of rural residential and commercial buildings located along local roads and old Highway 80. Commercial buildings and coast live oaks line Old Highway 80 to the west in the central business district of Boulevard.

Visual Sensitivity

The Boulevard Substation Rebuild would be visible within foreground to middle-ground viewing distances from I-8, Old Highway 80, and from dispersed residences in or near the community of

Boulevard. Dispersed rural residences are located along Old Highway 80 and on the elevated hillside south of Old Highway 80.

Key Observation Points

Two KOPs are evaluated for the Boulevard Substation Rebuild as follows:

KOP 8: View looking south from Old Highway 80 toward proposed rebuilt Boulevard Substation site (Figure D.3-13A)

KOP 8 is located on Old Highway 80, on the east side of the community of Boulevard, approximately 60 feet north of the Boulevard Substation Rebuild site.

KOP 8 views oriented toward the south are to the rebuilt Boulevard Substation site and the existing Boulevard Substation. The Boulevard Substation would be rebuilt on a parcel located east of the existing site and would be adjacent to Old Highway 80. Adjacent west and south to the expanded Boulevard Substation site would be the proposed ECO 138 kV transmission line.

In addition, views oriented toward the east along Old Highway 80 are of two ECO Substation Project Alternative sites—the ECO Highway 80 138 kV Transmission Route Alternative and the ECO Highway 80 138 kV Underground Alternative. Easterly views along Old Highway 80 would also be toward the Tule Wind 138 kV transmission line and the Tule Wind Gen-Tie Route 2 Overhead and Underground alternative routes.

KOP 8 views oriented west along Old Highway 80 would also be toward the Tule Wind Gen-Tie Route 3 Overhead and Underground alternatives. These alternatives would generally parallel Old Highway 80, either to the north or south of the highway ROW.

Visual Quality: *Class B (Representative) – Class C (Common)*. The existing Boulevard Substation is industrial in character and partially visible from Old Highway 80. Viewed from this KOP, the size and height of the existing substation are similar to other nearby buildings in the community of Boulevard. Other man-made structures near the Boulevard Substation are a wood-pole utility line and a California Department of Transportation (Caltrans) maintenance facility.

I-8 lies approximately 0.3 mile to the north of Old Highway 80. In conjunction with existing trees and shrubs that partially screen the substation site from Old Highway 80, this existing facility generally blends with the built environment and does not attract attention.

The Boulevard Substation Rebuild site is surrounded by rugged, rocky ridges to the south and I-8 and the McCain Valley and several isolated hills to the north. To the north and south, the visual quality of the project area is also influenced by the presence of several rural residences. To the east, the landscape is predominantly natural and representative of the physiographic region transition zone. To the west, the community of Boulevard and mature oak trees dominate the visual quality of the landscape.

Visual Sensitivity: *Medium to High.* The viewer groups associated with KOP 8 are local residents and travelers along Old Highway 80 and nearby I-8. The volume of viewers is low for residents and Old Highway 80 travelers and high for I-8 traffic. Viewer exposure to the proposed ECO and Tule Wind substation and transmission lines would be high since these project sites are adjacent to Highway 80 within a foreground viewing distance. Duration of views would be short term for highway travelers and long term for local residents. The public's concern for increased industrialization is assessed as moderate to high.

KOP 9: View looking northwest from south of Old Highway 80 on Hilltop Trail toward proposed rebuilt Boulevard Substation site (Figure D.3-14A) and view looking north from south of Old Highway 80 on Hilltop Trail toward proposed Tule Wind Project site (Figure D.3-14B)

KOP 9 is south of Old Highway 80, east of the Boulevard Substation and the community of Boulevard. The KOP is situated on a north-facing slope where rural residences are located. Views from KOP 9 are elevated, providing open and panoramic views extending from the northeast to the northwest. Views toward the Boulevard Substation are to the northwest (Figure D.3-14A), and views to the Tule wind turbines and Tule 138 kV transmission line are toward the north and northeast (Figures D.3-14B and D.3-14C).

KOP 9 also provides northeasterly views toward the ECO Highway 80 138 kV Transmission Route Alternative and the ECO Highway 80 138 kV Underground Alternative. Northeasterly view orientations from KOP 9 would also be toward the Tule 138 kV transmission line and the Tule Wind Alternative Gen-Tie Route 2 Aboveground and Underground.

Visual Quality: *Class B – Representative.* The views from KOP 9 are panoramic and within the foreground to middle-ground viewing distances encompass the Boulevard Substation expansion site to the northwest, Highway 80 and I-8 to the north, and dispersed rural residences and structures to the north, northeast, and northwest. McCain Valley lies to the north and northeast within the middle-ground distance zone. The landscape viewed from KOP 9 is predominantly natural in character and described as a broad plain covered with granite boulders and sparse desert shrubs. Vegetation in the area consists primarily of interior live oak woodland, southern mixed chaparral, disturbed southern mixed chaparral, and big sagebrush scrub, which provides minimal coverage over exposed tan soils. Exposed soils and large boulders contribute to a medium-grain soil texture. Grasslands and groupings of mature trees are also scattered through the viewed landscape and along Old Highway 80. Several prominent undeveloped hills and mountains are visible north and northeast of KOP 9. At the present time, industrial features seen from KOP 9 are limited to the existing Boulevard Substation and wood-pole distribution lines. Overall, visual quality is assessed as Class B.

Visual Sensitivity: *Medium to High.* Viewer types associated with KOP 9 are rural residences near Boulevard. Although the volume of viewers is considered low, the duration of views from these residences would be high. Viewer exposure is high from this residential area due to the elevated and panoramic visibility conditions. Views of the Tule wind turbines lie in the middle-ground distance zone. Viewer concerns for changes to the seen environment are considered high, based on the type of land uses, their elevated setting, and expressed public concerns.

D.3.1.3 Tule Wind Project

Wind Turbines and Overhead and Underground 34.5 kV Collector Cable System

Visual Quality

The proposed wind turbines and associated overhead and underground 34.5 kV collector cable systems are situated in a natural, undeveloped desert landscape of eastern San Diego County in the In-Ko-Pah Mountains near the McCain Valley. The topography of the area is gently-to-steeply sloping with elevations ranging between 3,600 and 5,600 feet amsl. Vegetation in the area consists primarily of four major plant communities (interior live oak woodland, southern mixed chaparral, disturbed southern mixed chaparral, and big sagebrush scrub), which provides sparse coverage over exposed tan soils. Exposed soils and large boulders contribute to a medium-grain soil texture, which is particularly evident from the surrounding mountain slopes. McCain Valley Road (unpaved) winds its way through the project area, providing access to the Lark Canyon OHV Area and campgrounds, Carrizo Gorge Overlook, and other recreational amenities.

In the northern extent of the project area, proposed wind turbines and the associated cable collector system would be located within an area bordered by high mountainous terrain to the north, northwest, and the east. The BLM-managed Sawtooth Mountains Wilderness Area is located north of the McCain Valley National Cooperative Land and Wildlife Management Area and features several peaks over 4,600 feet in elevation. Several of the proposed turbines located on the Ewiiapaayp Band of Kumeyaay Indians Reservation would be located east and southeast of the Laguna Mountains. Generally located northwest of the In-Ko-Pah Mountains, the Laguna Mountains include several peaks over 6,200 feet in elevation, including Monument Peak and Wooded Hill. Other peaks in the vicinity of the proposed wind turbine locations include Sombrero Peak (approximately 4,200 feet and located northeast of the In-Ko-Pah Mountains in Anza-Borrego Desert State Park).

Near the Lark Canyon OHV Area and Rough Acres Ranch, proposed wind turbines and the associated cable collector system would be situated in a predominantly natural, combination developed/undeveloped desert landscape. This area is differentiated from proposed turbine locations to the north by a lack of prominent peaks and high mountainous terrain and by an

established presence of recreational (OHV, camping, etc.) users. The vegetation of the area is predominantly low-lying desert scrub communities and a mixture of interior live oak woodland and southern mixed chaparral that has been disturbed by recreational users. Large boulders and recreational trails are also prominent in the area. Large peaks in the area are limited to Mount Tule (approximately 4,600 feet in elevation), located within the southern extent of the In-Ko-Pah Mountains within the BLM-managed Carrizo Gorge Wilderness, approximately 2 miles east of Rough Acres Ranch.

In addition to the natural landscape characteristics, several man-made elements contribute to the visual quality of the proposed wind turbines and collector cable system area. Man-made influences in the area include the existing Kumeyaay wind farm, a 50-megawatt (MW) wind project (25 wind turbines) located west of the McCain Valley National Cooperative and Wildlife Management Area on the Campo Indian Reservation; I-8 (visible from Rough Acres Ranch); and structures located on Rough Acres Ranch (near the southern extent of the proposed wind turbine locations). McCain Valley Road and recreational trails are also prominent features within the proposed wind turbine location area.

Visual Sensitivity

Proposed wind turbines would be visible along portions of I-8, Old Highway 80, Highway 94, Ribbonwood Road, McCain Valley Road, and other smaller roadways located in eastern San Diego County near the community of Boulevard and on the Ewiiapaayp, Campo, La Posta, and Manzanita Indian reservations. Where the wind turbines are located on ridgelines and/or elevated on slopes, the project site would be highly visible within foreground and middle-ground distance zones and may be visible up to 10 to 15 miles away. A number of rural residences are located within 5 miles of the project site, including residents near Boulevard and on the reservations.

Proposed wind turbines would be located in the BLM-managed Lark Canyon OHV Area, an area designated by the BLM for OHV use and consisting of developed campsites, staging areas, and recreational trails. In addition to the Lark Canyon OHV Area, the Cottonwood Campground, several hiking trails, and two scenic overlooks are also located within the BLM-managed McCain Valley National Cooperative Land and Wildlife Management Area.

Other potential viewer types include hikers along trails and other recreational enthusiasts in the McCain Valley National Cooperative Land and Wildlife Management Area. In addition to hiking trails, three campsites, a designated OHV area, and two public scenic overlooks are located within the area. Hikers using the Jewel Valley Road Pathway, Ribbonwood Road Pathway, and the Ribbonwood Trail (pathways and trails identified in the Boulevard Community Trails and Pathway Plan) are also considered potential viewer types.

Potential viewer types in the Cleveland National Forest include hikers along trails, recreational enthusiasts in the Laguna Mountain Recreation Area, and mobile viewers on County Highway S-1, the Sunrise Highway. Where turbines are located on ridgelines, the project site could be visible within the middle-ground to background viewing distance; however, due to intervening landforms and vegetation (mostly trees), the visibility of the project site from Sunrise Highway and established hiking trails (including the Pacific Crest National Scenic Trail) would only be available at higher elevations for short durations.

Key Observation Points

Six KOPs were selected to describe the visual quality and sensitivity of the project area for the Tule Wind Project turbines and overhead and underground 34.5 kV collector systems. These include KOP 9, described previously for the Boulevard Substation site, and KOPs 10, 11, 12, 13, and 16. With the exception of KOP 16, these KOPs also pertain to Tule Wind Project meteorological tower sites.

KOP 10: View looking northeast from Ribbonwood Road (Community of Boulevard) toward proposed and alternative Tule Wind Project sites (Figure D.3-15A)

KOP 10 is located on northbound Ribbonwood Road, approximately 1.5 miles north of I-8 and north of the community of Boulevard. Views from KOP 10 are oriented to the east toward the proposed Tule wind turbines, which would be visible in the middle-ground viewing distance.

KOP 10 also provides westerly views of the Tule Wind Gen-Tie Route 3 Alternative, which would be visible primarily in the foreground viewing distance.

Visual Quality: *Class B – Representative.* Views from KOP 10 are panoramic and long. Easterly oriented views would encompass the Tule wind turbines in the middle-ground viewing distance (the Tule Wind Alternative Gen-Tie Route 3 would also be highly visible to easterly oriented views from KOP 10). From KOP 10, dispersed rural residences and structures are visible to the northwest, north, northeast, and east in the foreground viewing distance (views oriented to the northeast also encompass the McCain Valley), and the existing Kumeyaay wind farm (Campo Indian Reservation) is visible to the northwest in the middle-ground viewing distance. The surrounding landscape viewed from KOP 10 is predominantly natural in character and described as a broad plain covered with granite boulders and sparse desert shrubs. Vegetation in the area consists primarily of southern and northern mixed chaparral and big sagebrush scrub, which provides minimal coverage over exposed tan soils (exposed soils and large boulders contribute to a medium-grain soil texture). Grasslands and grazing land are also evident in the viewed landscape within the McCain Valley. At the present time, industrial features seen from KOP 10 are limited to the existing Kumeyaay wind farm (Campo Indian Reservation) (visible to

northwesterly oriented views) and an existing wood-pole distribution line (visible to southerly facing views). Overall, visual quality is assessed as representative.

Visual Sensitivity: *High.* Viewer types associated with KOP 10 are rural residences located north of I-8 and the community of Boulevard and hikers utilizing the Ribbonwood Road Pathway (Boulevard Community Trails and Pathways Plan). Although the volume of viewers is considered low, the duration of views from residential land uses would be high (the duration of views from the Ribbonwood Road Pathway would be low). Viewer exposure is high from this area due to the panoramic visibility conditions and general lack of intervening landforms. Viewer concerns for changes to the seen environment are considered high, based on the type of land uses and expressed public concern over changes to the visual landscape.

KOP 11: View looking north from McCain Valley Road at I-8 toward proposed Tule Wind 138 kV transmission line and turbine locations (Figure D.3-16A)

KOP 11 is located on northbound McCain Valley Road, approximately 400 feet north of the westbound lanes of I-8. Views from KOP 11 are from a normal to inferior angle, and the surrounding gentle terrain provides for open and long views from west to east. View orientation is to the north and northwest toward the Tule wind turbines and Tule 138 kV transmission line.

KOP 11 also provides northerly and northeasterly views toward the Tule Wind Alternative Gen-Tie Route 2, the Tule Wind Alternative Gen-Tie Route 2 Underground, and the Tule Wind Reduction in Turbines Alternative.

Visual Quality: *Class B – Representative.* The visual quality of KOP 11 is representative of the natural transitional desert landscape terrain and vegetation common in eastern San Diego County. Northerly oriented views feature terrain consisting of gently rolling hills covered with scattered desert shrubs in the foreground to middle-ground viewing distance. The foreground area consists largely of exposed tan soils and sparsely covered terrain. A dirt truck trail is visible east of McCain Valley Road, and several other trails are visible to the north and northeast. The immediate area contains several man-made elements including low-profile fencing along McCain Valley Road, McCain Valley Road itself, the terminus of a distribution line to the east, and two discarded cargo containers off in the distance to the north. Easterly views from KOP 11 consist of a representative, transitional desert landscape characterized by low-lying desert shrubs and gently rolling shrub and boulder-covered hills in the foreground and mountains in the middle-ground. I-8 is a prominent linear feature from easterly and southerly oriented views from KOP 11. Overall, visual quality is assessed as moderate due to the open, long view from this KOP, as well as the primarily natural setting of the landscape and general lack of major utility features.

Visual Sensitivity: *Medium.* Viewers from KOP 11 are primarily public land recreationists including OHV users, campers, and hikers. Viewer volume is low. Viewer exposure is open, and long, unobstructed views are available to the north and northeast. Duration of views would be short term. Public land recreationists' concern for increased industrialization of the views is assessed as moderate.

KOP 12: View looking north from McCain Valley Road at BLM lands entrance toward proposed Tule Wind Project turbines and 138 kV transmission line locations (Figure D.3-17A) and view looking northwest from McCain Valley Road at BLM lands entrance toward proposed Tule Wind Project turbines (Figure D.3-17B)

KOP 12 is just south of the entrance to the BLM-administered McCain Valley National Cooperative Land and Wildlife Management Area and southeast of Rough Acres Ranch. The KOP is situated on McCain Valley Road, which is used primarily by public land recreationists accessing BLM-administered recreation areas including the Lark Canyon OHV Area and Cottonwood Campground. The viewing angle from KOP 11 is normal to slightly inferior, and due to generally flat terrain to the north, west, and south, views are primarily open and panoramic from north to south. Views toward the Tule Wind turbines and Tule Wind 138 kV transmission line are to the north and northwest (views of the 138 kV transmission line would extend to the west, southwest, and south) (Figure D.3-17A).

KOP 12 also provides northwesterly views of the Tule Wind Alternative Collector Substation/Operations and Maintenance (O&M) facility site on Rough Acres Ranch, and northwesterly, westerly, southwesterly, and southerly views of the Tule Wind Alternative Gen-Tie Route 2 and Tule Wind Alternative Gen-Tie Route 2 Underground (Figure D.3-17B). In addition, KOP 12 also provides northwesterly and westerly views of the Tule Wind Alternative Gen-Tie Route 3 and Tule Wind Alternative Gen-Tie Route 3 Underground.

Visual Quality: *Class B – Representative.* The landscape setting is a mixture of natural and disturbed. Views to the north consist of McCain Valley Road entering the McCain National Cooperative Land and Wildlife Management Area, low-lying desert shrub and chaparral vegetation, and exposed tan soils and boulders. Views to the northwest and west features primarily flat terrain consisting of flat grass and desert-shrub-covered grazing lands. The associated structures of Rough Acres Ranch are visually prominent in the northwesterly view orientation from KOP 12. Views to the west and southwest are primarily open and expansive, consisting of flat grasses, low-lying shrubs, and chaparral vegetation. In the westerly middle-ground viewing distance, the terrain gently rises toward the Tecate Divide. The existing Kumeyaay wind farm (Campo Indian Reservation) is located atop the Tecate Divide and is

visually prominent in the westerly view orientation from KOP 12. Several rural residences are visible to the west and southwest in the middle-ground viewing distance. Southerly views from KOP 12 consist of gently rolling desert-shrub and boulder-covered hills and McCain Valley Road. The visual quality of KOP 12 is representative of the transitional desert landscape visible to public land recreationists and, due to the presence of an existing wind farm operation, is assessed as moderate.

Visual Sensitivity: *Medium.* Similar to KOP 11, KOP 12 viewers are primarily public land recreationists. Views from KOP 12 are largely panoramic from the north to the south. Viewer volume is low. Although viewer exposure is moderate due to the panoramic visibility conditions, the duration of views would be short term. Public land recreationists' concern for increased industrialization of the views is assessed as moderate.

KOP 13: View looking west from Lark Canyon OHV staging area toward proposed Tule Wind Project turbine locations (Figure D.3-18A)

KOP 13 is located on McCain Valley Road near the entrance to the Lark Canyon OHV Staging Area. The viewing angle from KOP 13 is normal to slightly inferior, and due to boulder-strewn hills to the north, east, south, and west, the composition of the landscape is somewhat enclosed. View orientation is to the west toward Tule wind turbines. Northerly, northeasterly, and easterly views from KOP 13 would be toward Tule wind turbines and the Tule Wind 138 kV transmission line (views of the transmission line would extend to the southwest). Northwesterly, southwesterly, and southerly views from this KOP would also be toward Tule wind turbines.

KOP 13 also provides northerly and northeasterly views of the 34.5 kV overhead collector cable system. View orientation to the northeast, east, and southeast would also be toward the extended 34.5 kV collector cable system associated with the Tule Wind Alternative Gen-Tie Route 2, Tule Wind Alternative Gen-Tie Route 2 Underground, Tule Wind Alternative Gen-Tie Route 3, and Tule Wind Alternative Gen-Tie Route 3 Underground.

Visual Quality: *Class C – Common.* Viewed from KOP 13, the landscape is a combination developed/undeveloped desert landscape. The vegetation of the area is predominantly low-lying desert scrub communities and a mixture of interior live oak woodland and southern mixed chaparral that has been highly disturbed by recreational users. Westerly views consist of desert-shrub and boulder-covered hills scarred by OHV trails. Views to the south are primarily natural with the exception of McCain Valley Road, which winds its way through the area and provides access to several recreation areas. Views to the north and east are dominated by unblemished boulder-strewn hills and southern mixed chaparral vegetation (McCain Valley Road is the prominent linear feature in northerly and easterly views from KOP 13). The area is marked by a striking contrast between westerly and easterly views: westerly views contain

traces of development and disturbance, while easterly views are primarily natural and undisturbed. However, because landscape disturbance from cultural modification is relatively high due to authorized and unauthorized OHV use in the area, the visual quality is assessed as common (the corresponding scenic quality score for KOP 13 and surrounding lands is included in Appendix 3b).

Visual Sensitivity: *Medium.* Wind turbines would be primarily skylined and highly visible within the foreground viewing distance from KOP 13. Viewer types associated with KOP 13 are public land recreationists utilizing the Lark Canyon OHV Area or other BLM-administered recreation areas within the vicinity. Viewer volume is low, viewer exposure is moderate since wind turbines would be in the foreground viewing distance, and the duration of views would be short term for recreationists. Public land recreationists' concern for increased industrialization of the views is assessed as moderate. The medium sensitivity level rating for this KOP location is consistent with the VRI Summary visual sensitivity rating for the Lark Canyon OHV Area (Appendix 3b, VRI Summary for the Eastern San Diego RMP (RECON 2006)).

KOP 16: View looking northeast from BLM lands toward In-Ko-Pah ACEC and proposed Tule Wind Project turbine locations (Figure D.3-21A)

KOP 16 is located north of McCain Valley Road and northeast of the Lark Canyon OHV Area on BLM lands (KOP 16 would be located approximately 0.60 mile northeast of KOP 13). The viewing angle from KOP 16 is normal to slightly inferior. View orientation is to the northeast toward Tule wind turbines. Northerly, northwesterly, westerly, and southwesterly views from KOP 16 would also be toward Tule wind turbines and the Tule Wind 138 kV transmission line (views of the transmission line would extend to the south).

Visual Quality: *Class A – Exceptional.* Viewed from KOP 16, the terrain varies from flat to rolling boulder-covered hills. Southerly views consist of desert shrub and boulder-covered hills. Views to the north and east are dominated by unblemished boulder-strewn hills and southern mixed-chaparral vegetation. Similar to KOP 13, the area surrounding KOP 16 is marked by a striking contrast between westerly and easterly views: westerly views contain traces of development (Lark Canyon OHV Area, Kumeyaay wind farm) and disturbance, while easterly views are primarily natural and undisturbed. This area of BLM land is located in the McCain Valley West Scenic Quality Rating Unit, which was designated with a scenic quality rating of Class A. Therefore, visual quality is assessed as exceptional (the corresponding scenic quality score for KOP 16 and surrounding lands is included in Appendix 3b). Although KOP 16 is located on BLM lands and the visual quality is assessed as Class A, Tule Wind Project components (i.e., wind turbines in the R-turbine string) as viewed from this location would be located on County of San Diego jurisdictional lands.

Visual Sensitivity: *High.* Wind turbines would be primarily skylined and highly visible within the foreground viewing distance (approximately 0.25 mile away) from KOP 16. Viewer types associated with KOP 16 are public land recreationists, primarily hikers. Viewer volume is low, viewer exposure is moderate because wind turbines would be in the foreground viewing distance, and the duration of views would be short term for recreationists. Public land recreationists' concern for increased industrialization of the views is assessed as moderate to high due to the area's proximity to the In-Ko-Pah ACEC. The high sensitivity level rating for this KOP location is consistent with the VRI Summary visual sensitivity rating for the McCain Valley West Area (Appendix 3b, VRI Summary for the Eastern San Diego RMP (RECON 2006)).

Collector Substation and Operations and Maintenance Facility

Visual Quality

The collector substation and the O&M facility would be constructed adjacent to one another, approximately 2,000 feet south of McCain Valley Road within the BLM-managed McCain Valley National Cooperative Land and Wildlife Management Area. Both sites are characterized by open, undeveloped lands, and vegetation in the area includes low-lying desert scrub, interior live oak woodlands, and southern mixed chaparral. With the exception of McCain Valley Road and various trails, the areas surrounding the collector substation site and the O&M facility site is primarily natural. Wind turbines associated with the existing Kumeyaay wind farm (Campo Indian Reservation) are visible to the west of the collector substation and O&M sites. The visual character of the area is similar to that of the wind turbines and associated collector cable system.

Visual Sensitivity

Similar to the overhead portion of the 34.5 kV collector cable system, views of the collector substation and the O&M facility would be limited to visitors within the McCain Valley National Cooperative Land and Wildlife Management Area.

Key Observation Points

KOP 14 documents the visual quality and sensitivity of the collector station/O&M facility project area.

KOP 14: View looking southwest from Carrizo Overlook toward proposed Tule Wind Project turbines (Figure D.3-19A)

KOP 14 is located approximately 1,000 feet north of McCain Valley Road at the Carrizo Overlook. View orientation is to the southwest toward Tule wind turbines, collector substation site, and 138 kV transmission lines. The viewing angle from KOP 14 is normal. Views oriented to the northwest, west, and south would also be toward the Tule wind turbines, 138 kV transmission line, and 34.5 kV overhead collector cable system.

Visual Quality: *Class A – Exceptional.* The views from KOP 14 are panoramic. Foreground and middle-ground views from this KOP are natural and undisturbed. View orientation to the west encompasses the existing Kumeyaay wind farm (Campo Indian Reservation) in the background distance zone. Areas to the north and northwest are mountainous: Sombrero Peak (approximately 4,200 feet elevation), a prominent peak within the Sombrero Peak Wilderness of Anza-Borrego Desert State Park, is visible to the north in the middle-ground viewing distance (approximately 3.5 miles away). Other prominent ridgelines are visible to the northwest (approximately 5 miles away in the middle-ground viewing distance), and view orientation to the north encompasses the In-Ko-Pah Mountains. Views to the east and southeast are panoramic and encompass Anza-Borrego Desert State Park and Imperial County in the middle-ground and background viewing distances. View orientation to the south consists primarily of rolling, chaparral vegetation-covered hillsides. With the exception of the existing Kumeyaay wind farm, landscape disturbance from cultural modification is relatively limited. Overall, visual quality is exceptional because of the long, panoramic views, the general undisturbed and natural setting, and the lack of cultural modifications (the corresponding scenic quality score for KOP 14 and surrounding lands is included in Appendix 3b).

Visual Sensitivity: *High.* Viewer types associated with KOP 14 are public land recreationists. The volume of viewers is considered low, and the duration of views afforded to recreationists would be low. Viewer exposure is high from this public overlook due to the panoramic visibility conditions and general lack of intervening landforms and vegetation. Views to the Tule wind turbines lie in the foreground distance zone and would be primarily skylined. Viewer concerns for changes to the seen environment are considered high, based on the type of land uses, the designation of the area as a scenic overlook, and expressed public concerns for protection of scenic resources. The high sensitivity level rating for this KOP location is consistent with the VRI Summary visual sensitivity rating for the McCain Valley West Area (Appendix 3b, VRI Summary for the Eastern San Diego RMP (RECON 2006)).

Tule Wind Overhead 138 kV Transmission Line

Visual Quality

The 138 kV North–South Segment from Collector Substation to I-8. On BLM-managed lands north of I-8 within the McCain Valley Cooperative Land and Wildlife Management Area (and along McCain Valley Road), the project area is primarily undeveloped and natural. Although the existing Kumeyaay wind farm, I-8, and Lark Canyon OHV Area would be visible along this segment, the area is primarily characterized by low-lying desert scrub vegetation, exposed tan soils, and granite boulders. Near Rough Acres Ranch the project area becomes increasingly developed, and prominent features in the landscape include existing residential structures, McCain Valley Road (paved), and an existing electrical utility line on the east side of McCain

Valley Road. South of Rough Acres Ranch, the proposed transmission line would traverse the Cal FIRE McCain Valley Camp located west of McCain Valley Road. Agricultural areas, rural residential structures, and I-8 are also located in the general vicinity.

The 138 kV North–South Segment from I-8 to the Rebuilt Boulevard Substation. Along this stretch of the project area, the 138 kV line crosses natural desert landscapes and passes near rural, residential homes south and east of the community of Boulevard. The landscape character of this setting is influenced by a combination of existing transportation facilities (Old Highway 80), natural desert settings, interspersed large boulders and community homes, and ancillary structures. The rural community of Boulevard adds a number of elements along this segment, such as structures, fences, power poles and rural unpaved roads, which contribute to the color and texture elements to the visual environment.

Visual Sensitivity

The 138 kV North–South Segment from Collector Substation to I-8. On BLM-managed lands north of I-8 within the McCain Valley Cooperative Land and Wildlife Management Area (and along McCain Valley Road) the 138 kV line passes through primarily undeveloped natural desert landscape. After exiting the collector substation, the 138 kV line would travel south (crossing McCain Valley Road several times), and along this segment the 138 kV line would be the dominant feature on the landscape. Because the 138 kV line would travel generally adjacent to McCain Valley Road, views of the line along McCain Valley Road would be constant.

Near Rough Acres Ranch, the 138 kV line would continue to travel adjacent McCain Valley Road. In this area the roadway is paved and provides access to Rough Acres Ranch, agricultural operations, residences, and the CAL FIRE McCain Valley Camp. The 138 kV line would be the dominant feature along this segment and would be highly visible to passing motorists. At the southern extent of this segment, the 138 kV line would be highly visible to motorists along I-8 (the line would cross the interstate), but the duration of views from I-8 would be short. Residential views along this segment from an existing rural residence adjacent to McCain Valley Road (within 0.06 mile) and Rough Acres Ranch (at its closest point within 0.07 mile) would be in close proximity.

The 138 kV North–South Segment from I-8 to the Rebuilt Boulevard Substation. South of I-8, the line would travel along McCain Valley Road, cut across natural desert landscape and a rural residential parcel, and then follow Old Highway 80 before interconnecting with the rebuilt Boulevard Substation. Along this segment, viewers primarily consist of rural residences and mobile viewers along Old Highway 80 and I-8. Approximately eight rural residences are estimated to be within 1,000 feet of the proposed transmission line route (Table D.4-5 in Section D.4, Land Use, provides the approximate distance and orientation of existing residences to the line. Residential views would be of long duration.

Key Observation Points

KOPs 9, 10, 11, 12, 13, and 14 describe the visual quality and sensitivity of the Tule Wind 138 kV transmission line project areas, as well as the project areas for the Tule Wind turbines and collector system. Reference should be made to these previous KOP descriptions. In addition, KOP 15 documents the visual quality and viewer sensitivity of landscapes along Old Highway 80 near the turnoff to McCain Valley Road.

KOP 15: View looking west from Old Highway 80 toward proposed and alternative Tule Wind Project 138 kV transmission line locations (Figure D.3-20A)

KOP 15 was selected to describe the visual quality and sensitivity of views from Old Highway 80 near the intersection with McCain Valley Road. The orientation of this view is toward the west along Highway 80. This KOP provides views toward the proposed and alternative Tule Wind Project 138 kV transmission line and also to the ECO Highway 80 138 kV transmission route alternative.

Visual Quality: *Class B – Representative.* The landscape visible from KOP 15 is predominantly natural and similar in character to the landscape described for KOP 8. The views are primarily flat or slightly elevated terrain, exposed soils, and transitional zone desert grasses, shrubs, and chaparral. Scattered interior live oaks and other mature trees are present. Man-made influences are generally absent, except for a wood-pole utility line and Old Highway 80.

Visual Sensitivity: *Medium to High.* Viewers associated with KOP 15 are travelers along Old Highway 80. Viewer groups include local residents, recreationists accessing public BLM lands, and other recreationists passing through the area on the state highway. Viewer volumes are low, and duration of views would be short-term. Viewer exposure is high since the proposed Tule Wind 138 kV transmission line would be adjacent to the highway within the foreground viewing distance (transmission line structures would be located within feet of the KOP location).

D.3.1.4 ESJ Gen-Tie Project

500 kV/230 kV Transmission Line Tie-In and ESJ Phase 1 Wind Turbines

Visual Quality

The ESJ Gen-Tie Project site is situated in a predominantly natural, undisturbed desert landscape in eastern San Diego County. Although the topography of the project site is seemingly concave and flat, the site gently slopes to the southwest. Vegetation is characterized as Sonoran mixed woody scrub and is dominated by creosote bush, ephedra, and jojoba. Low-lying desert scrub vegetation provides a coarse and patchy texture to the site's coverage. Exposed soils and granite

boulders also mark the uneven spatial arrangement of the site. Overall, the project site can be described as a coarse structure of desert vegetation, solid rock outcrops, and arid soils.

The ESJ Gen-Tie Project site would be located immediately south of the proposed ECO Substation; therefore, the surrounding peaks and mountainous terrain identified in the ECO Substation discussion are also applicable to the ESJ Gen-Tie Project site. The isolated Jade Peak (located northeast and adjacent to the ESJ Gen-Tie site) and several peaks within the Jacumba Mountains (located north of the site and north of I-8) and the Jacumba Mountains Wilderness (located 0.5 mile to the east of the site) all contribute to the representative visual quality of the landscape.

In addition to the natural environment, a number of man-made elements contribute to the visual quality of the ESJ Gen-Tie Project site. Man-made influences in the project area are primarily linear features and include the monotone, dark brown international border fence to the south, an existing 40-foot-wide east–west dirt access road across the northern extent of the site, Old Highway 80 and I-8 to the north, and the existing SWPL 500 kV transmission line (also located north of the site).

Visual Sensitivity

Similar to the proposed ECO Substation, the proposed ESJ Gen-Tie Project would primarily been seen from Old Highway 80 and I-8. The project area encompasses a mixture of public and semi-public lands, agricultural uses, rural uses, and roadways. Therefore, in addition to motorists, the ESJ Gen-Tie would also be seen by nearby recreation enthusiasts and residents.

Old Highway 80 and I-8 run perpendicular to the site and provide motorist with intermittent views of ESJ Gen-Tie and associated support structures. At its closest point, the ESJ Gen-Tie would be located approximately 2,500 feet southeast of Old Highway 80. At its closest point, the gen-tie would be located approximately 0.75 mile south of I-8.

Recreational enthusiasts using hiking trails in Jacumba Mountain foothills (approximately 0.5 mile to the east), the Jacumba Mountains Wilderness (located approximately 1.0 mile to the east), and the Table Mountain ACEC (located approximately 1.0 mile to the north) would also be potential viewers of the ESJ Gen-Tie Project site. Middle-ground views of the ESJ Gen-Tie Project site would occur from the Table Mountain ACEC and would be unscreened. Views of the ESJ Gen-Tie Project site from the Jacumba Mountains Wilderness would be limited to elevated locations and trails with unimpeded westward facing views. Several hiking trails are located in the western extent of the Jacumba Mountains Wilderness, approximately 1.0 mile away in Imperial County.

Two residential trailers are also within view of the ESJ Gen-Tie Project site. One trailer is located approximately 0.45 mile north of the northern extent of the proposed gen-tie, and the other trailer is located approximately 0.45 mile west of the proposed 230 kV gen-tie (the 500 kV gen-tie would be located east, adjacent to the 230 kV gen-tie).

Key Observation Points

KOPs 1, 2, 3, 5, 6, and 17 would be within view of the ESJ Phase 1 wind turbines, which is a connected action to the ESJ Gen-Tie Project.

Reference should be made to the descriptions of KOPs 1, 2, 5, and 6 in Sections D.3.1.2 and D.3.1.4. KOPs 1 and 2 (Section D.3.1.2) document the visual quality and sensitivity of the general vicinity of the ESJ Gen-Tie in 500 kV/230 kV transmission lines from I-8 and Old Highway 80, respectively. KOPs 5 and 6 describe the visual quality and visual sensitivity of views from the community of Jacumba.

KOP 3 describes the existing setting from Old Highway 80, near Airport Mesa. KOP 18 describes the existing setting from the Table Mountain ACEC.

KOP 3: View looking east from Old Highway 80 toward proposed ESJ Gen-Tie line site (Figure D.3-8B) and view looking northeast from Old Highway 80 toward proposed ECO Substation site and 138 kV transmission line (Figure D.3-8A).

KOP 3 is the view from eastbound Old Highway 80, oriented to the east and southeast toward the proposed ESJ 500 kV or 230 kV transmission lines, and the ESJ Wind Phase 1 turbines (Figure D.3-8B). Applicant-prepared photographs and simulations for KOP 3 included both views from the shoulder of Old Highway 80 and from approximately 1,000 feet to the southwest of Old Highway 80 at the eastern portion of the Airport Mesa landform (Figures D.3-8B and D.3-8D through D.3-8G). KOP 3 (at the eastern portion of the Airport Mesa landform) would also provide views of the proposed ECO 500 kV/230 kV Substation and ECO 138 kV transmission line to the northeast (Figure D.3-8A and D.3-8C). Although multiple Proposed PROJECT elements would be visible from the Airport Mesa Recreation Management Zone, only the ECO 138 kV transmission line (a 1.5-mile segment of the line) would traverse or be located within the management zone.

The BLM has designated the Airport Mesa Recreation Management Zone as VRM Class III. The 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 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.

Visual Quality: *Class B – Representative.* The visual quality of KOP 3 is the same as previously described for KOP 2.

Visual Sensitivity: *Medium to High.* The visual sensitivity of KOP 3 is also the same as previously described for KOP 2.

KOP 18: View looking southeast from Table Mountain ACEC toward proposed ESJ Gen-Tie, ESJ Wind Phase 1, ECO Substation, and ECO 138 kV transmission line locations (Figure D.3-23A)

KOP 18 is a view from the Table Mountain ACEC located north of the ESJ Gen-Tie and ECO Substation project sites. Viewers at KOP 18 would be afforded views of the ESJ Wind Phase 1 development, the ECO Substation site, the ESJ gen-tie line, and the ECO 138 kV transmission line. This viewpoint was selected to represent the existing landscape visible from the Table Mountain ACEC and the southern end of Anza-Borrego Desert State Park. Although several components of the Proposed PROJECT would be visible from the Table Mountain ACEC, the Proposed PROJECT would not construct and operate components within the ACEC.

Visual Quality: *Class A – Exceptional.* The view from KOP 18 encompasses the northern end of the Sierra de Juarez Mountains in Mexico and the flat desert mesa west of the mountains. Also visible are the existing SWPL 500 kV transmission structures, Old Highway 80, and I-8. The views from Table Mountain are open, elevated, and panoramic, providing extensive visibility to the predominantly natural desert landscape to the south.

The BLM has designated the Table Mountain ACEC as VRM Class II. The Class II Management Objective is as follows:

***VRM Class II.** 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 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.*

Visual Sensitivity: *High.* The visual sensitivity of Anza-Borrego Desert State Park and the Table Mountain ACEC is assessed as high, due to the open, elevated, and panoramic views that are afforded to the ECO Substation and ESJ Gen-Tie project sites, and the protective status of these

federal and state protected areas. Viewer exposure would be moderate. Primary viewers would be recreational enthusiasts. Viewing distances would be middle-ground to background zones. Viewer volumes are low and view durations would be short term. However, public concerns are assessed as high based on scoping comments regarding potential impacts to the state park.

D.3.1.5 Campo, Manzanita, and Jordan Wind Energy Projects

KOPs 19, 20, 21, and 22, describe the visual quality and sensitivity of the project areas for the Campo, Manzanita, and Jordan Wind Energy projects. Reference should be made to previous descriptions for KOP 1, KOP 7, KOP 10, and KOP 14 as these locations are similar to KOP 19 through KOP 22 locations (the visual quality and visual sensitivity ratings would be the same).

KOP 19: View looking east from I-8 toward Campo and Jordan Wind Energy project sites (Figure D.3-24A).

Visual Quality: *Class B – Representative.* The visual quality of KOP 19 is the same as previously described for KOP 1.

Visual Sensitivity: *Medium to High.* The visual sensitivity of KOP 19 is also the same as previously described for KOP 1.

KOP 20: View looking north from Jewel Valley Road toward Campo, Manzanita, Jordan Wind Energy and Tule Wind project sites (Figure D.3-25A).

Visual Quality: *Class B – Representative.* The visual quality of KOP 20 is the same as previously described for KOP 7.

Visual Sensitivity: *Medium to High.* The visual sensitivity of KOP 20 is also the same as previously described for KOP 7.

KOP 21: View looking north from Ribbonwood Road toward Manzanita and Jordan Wind Energy and Tule Wind project sites (Figure D.3-26A).

Visual Quality: *Class B – Representative.* The visual quality of KOP 21 is the same as previously described for KOP 10.

Visual Sensitivity: *High.* The visual sensitivity of KOP 21 is also the same as previously described for KOP 10.

KOP 22: View west from Carrizo Overlook toward Campo, Manzanita, and Jordan Wind Energy and Tule Wind project sites (Figure D.3-27A).

Visual Quality: *Class A – Exceptional.* The visual quality of KOP 22 is the same as previously described for KOP 14.

Visual Sensitivity: *High.* The visual sensitivity of KOP 22 is also the same as previously described for KOP 14.

D.3.2 Applicable Regulations, Plans, and Standards

This section discusses federal, state, and regional environmental regulations, plans, and standards applicable to the Proposed PROJECT, as well as the Campo, Manzanita, and Jordan wind energy projects. In addition to the federal regulations identified below in Table D.3-1, the Campo and Manzanita wind energy projects may be subject to the Bureau of Indian Affairs’ (BIA’s) policies and regulations and tribe-specific policies and plans. The protection and management of visual resources is addressed in various federal, state, and local plans and policies. Applicable plans providing visual resource-related goals, policies, and management directions include the Federal Land Management and Policy Act (FLMPA), BLM’s Eastern San Diego County Resource Management Plan (2008), the County of San Diego General Plan – Mountain Empire Subregional Plan (2010c), and the Caltrans Scenic Highway Program.

**Table D.3-1
Applicable Regulations, Plans, and Standards by Project Component**

Proposed Project	Project Component	Applicable Regulations, Plans, and Standards
ECO Substation Project¹	ECO Substation 500/230/138 kV Substation, SWPL Loop-n, Boulevard Substation	County of San Diego: <ul style="list-style-type: none"> • County of San Diego Existing General Plan • County of San Diego Draft General Plan Update • Mountain Empire Subregional Plan • San Diego County Light Pollution Code • County of San Diego Zoning Ordinance (Sections 6320, 6322, and 6324).
	138 kV Transmission Line	County of San Diego: <ul style="list-style-type: none"> • same as previous BLM: <ul style="list-style-type: none"> • Eastern San Diego County Resource Management Plan (RMP) • Federal Land Management Policy Act.
Tule Wind Project	Wind Turbines and 34.5 kV Overhead and Underground Collector Cable System	BLM: <ul style="list-style-type: none"> • Eastern San Diego County Resource

Table D.3-1 (Continued)

Proposed Project	Project Component	Applicable Regulations, Plans, and Standards
ESJ Gen-Tie Project		Management Plan (RMP) <ul style="list-style-type: none"> • Federal Land Management Policy Act • FAA Form 7460-1 and Advisory Circular 70/7460-1K.
		County of San Diego (turbines R1 through R13): <ul style="list-style-type: none"> • County of San Diego Existing General Plan • County of San Diego Draft General Plan Update • Mountain Empire Subregional Plan • San Diego County Light Pollution Code • County of San Diego Zoning Ordinance (Sections 6320, 6322, and 6324).
	Collector Substation, O&M Facility, Meteorological Towers	With the exception of FAA regulations, same BLM plans as those identified for wind turbines and collector cable system
	138 kV Transmission Line	BLM (7.42-mile segment): <ul style="list-style-type: none"> • Eastern San Diego County Resource Management Plan (RMP) • Federal Land Management Policy Act • FAA Form 7460-1 and Advisory Circular 70/7460-1K. County of San Diego (2-mile segment): <ul style="list-style-type: none"> • County of San Diego Existing General Plan • County of San Diego Draft General Plan Update • Mountain Empire Subregional Plan • San Diego County Light Pollution Code • County of San Diego Zoning Ordinance (Sections 6320, 6322, and 6324).
ESJ Gen-Tie Project	500 kV Gen-Tie Line and 230 kV Gen-Tie Line	County of San Diego: <ul style="list-style-type: none"> • County of San Diego Existing General Plan • County of San Diego Draft General Plan Update • Mountain Empire Subregional Plan • San Diego County Light Pollution Code • County of San Diego Zoning Ordinance (Sections 6320, 6322, and 6324).

¹ Although the CPUC has sole land use jurisdiction over the ECO Substation Project, the project will be analyzed for consistency with County of San Diego plans and policies to assist in determining compatibility with local plans and policies established for the protection of visual resources.

Federal Regulations, Plans, and Standards

BLM Eastern San Diego County Resource Management Plan. As part of the BLM's Eastern San Diego Resource Management Plan (RMP), public lands are typically designated according to VRM Classes, ranging from Class I to Class IV. The BLM plan and policies for public lands in the project area are contained in the Eastern San Diego County RMP. Objectives have been established for each VRM Class and are as follows:

- *Class I:* The objective of this class 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.
- *Class II:* The objective of this class 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.
- *Class III:* The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be 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.
- *Class IV:* The objective of this class is to provide for management activities that require major modifications 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.

Portions of the Proposed PROJECT located on BLM-administered lands have established VRM Classifications (these classifications are identified in the BLM's Eastern San Diego RMP discussed in the following text). The majority of the Tule Wind Project site would be located within the McCain Valley National Cooperative Land and Wildlife Management Area, which has been designated by the BLM as VRM Class IV. South of Rough Acres Ranch and along McCain Valley Road, the proposed 138 kV transmission line would traverse land adjacent to a discontinuous parcel of BLM-administered land designated VRM Class IV. East of the ECO Substation, a 1.5-mile segment of the ECO Substation Project's 138 kV transmission line would traverse the Airport Mesa Resource Management Zone, a BLM-administered area

designated VRM Class III. The ESJ Gen-Tie Project would not traverse or be located on BLM-jurisdictional land.

Goals, objectives, and management actions emphasizing the protection of scenic resources on BLM-administered lands within the Eastern San Diego County Planning Area are included in the Visual Resource Management (BLM 2008). The relevant goals and policies from the Visual Resource Management elements are as follows:

- Visual Resource Management (Management Action) VRM-02: Incorporate design considerations to minimize potential impacts to public lands' visual values into all surface-disturbing activities, regardless of size. Emphasis will be on BLM providing input during the initial planning and design phase to minimize costly redesign and mitigation at a later time.
- Visual Resource Management (Management Action) VRM-03: Evaluate proposed surface-disturbing projects from KOPs for the following factors: distance (between project and KOPs), angle of observation, length of time the proposed project will be in view, relative size or scale, season of use, light conditions, recovery time, spatial relationships, atmospheric conditions, and motion.
- Visual Resource Management (Management Action) VRM-04: Use visual resource design techniques and best management practices (BMPs) to mitigate the potential for short- and long-term visual impacts from other uses and activities.

Federal Land Policy and Management Act

The following sections of the FLPMA (BLM 2001) emphasize the protection of the quality of scenic resources on public land:

Section 102 (a): ~~–~~The public lands [shall] be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values.”

Section 103 (c): Identifies ~~–~~scenic values” as one of the resources for which public lands should be managed.

Section 201 (a): ~~–~~The Secretary shall prepare and maintain on a continuing basis and inventory of all public lands and their resources and other values (including...scenic values).”

Section 505 (a): ~~–~~Each right-of-way shall contain terms and conditions which will... minimize damage to the scenic and esthetic values.”

FLPMA objectives to protect the quality of scenic resources on public land are met through the BLM's VRM system, previously described. The VRM system is implemented through the RMP and the management framework process.

Federal Aviation Administration

The Federal Aviation Administration (FAA) has strict policies related to project features measuring over 200 feet tall. Based on FAA review of the proponent's Notice of Proposed Construction or Alteration form (Form 7460-1), the FAA would make a finding on whether or not the Tule Wind Project would affect the National Airspace System. Because the Tule Wind Project proposed wind turbines meet the height threshold, FAA lighting would be required, and its visual impact was examined in this analysis. Other forms of impact avoidance include markers and paint colors or patterns.

FAA Advisory Circular 70/7460-1K (FAA 2007) requires that all airspace obstructions over 200 feet in height or in close proximity to an airfield have obstruction lighting. The tallest structure proposed on site (wind turbines measured from base to blade tip) would be approximately 492 feet high. Since the Tule Wind Project structures are not below the 200-foot limit, on-site turbines would require obstruction lighting. However, exterior lighting installed on turbines would be restricted and would only include FAA aviation warning lights. The minimum required number of lights would be installed, and the minimum intensity of light would be used to meet FAA standards.

Chapter 13 of FAA Advisory Circular 70/7460-1K (FAA 2007) is dedicated to marking and lighting wind turbine farms (wind turbine farms are defined as wind turbine developments containing three or more turbines of heights over 200 feet aboveground level). As listed in Chapter 13, general standards established for wind turbine farm lighting include:

- Not all wind turbine units within an installation or farm need to be lighted.
- Obstruction lights within a group of wind turbines should have unlighted separations or gaps of not more than ½ statute mile of the integrity of the group appearance is to be maintained. This is especially critical if the arrangement of objects is essentially linear.
- Nighttime wind turbine obstruction lighting should consist of the preferred FAA L-864 aviation red-colored flashing lights (20–40 flashes per minute is the standard flashing range for this lighting type).
- Daytime lighting of wind turbine farms is not required as long as the turbine structures are painted in a bright white color or light off-white color most often found on wind turbines.
- Light fixtures should be placed as high as possible on the turbine nacelle, so as to be visible from 360 degrees.

- (For wind turbine farms in a linear turbine configuration) place a light on each turbine positioned at each end of the line or string of turbines. In the event that the last segment is significantly short, push the lit turbine back toward the starting point to present a well-balanced string of lights. High concentrations of lights should be avoided.

State Regulations, Plans, and Standards

California Department of Transportation: Scenic Highway Program

The California Scenic Highway Program was created in 1963 to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to California highways. The State Scenic Highway system includes both “designated” scenic highways and “eligible” scenic highways. An “eligible” state highway becomes “designated” after a local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives the designation. Within the project area, there are no designated state scenic highways. Both I-8 and SR-94 are eligible state scenic highways.

California State Historic Routes

Old Highway 80 is a designated California State Historic Route. In 2006, the state legislature granted this designation in recognition of the highway’s “outstanding natural, cultural, historic, and scenic qualities. This designation does not influence the “future planning or development of adjacent public and private properties” (Assembly Concurrent Resolution (ACR) 123 (State of California Legislature 2006).

Local Regulations, Plans, and Standards

San Diego County General Plan—Scenic Highway Element

The San Diego County General Plan does not contain a separate element for visual or aesthetic resources; however, the General Plan does address visual quality under the Scenic Highways Element (1986). The purpose of the San Diego County General Plan Scenic Highway Element is to protect and enhance the County’s scenic, historic, and recreational resources within a network of scenic highway corridors. The Scenic Highways Element identifies scenic highways and contains a list of priorities for future designation and protection measures. The list identifies the route’s priority for scenic corridor planning and implementation. Within the project area, I-8, from SR-79 east to the Imperial County line, and SR-94, from SR-125 to I-8, are listed as third priority San Diego County scenic routes.

San Diego County General Plan—Conservation Element

The San Diego County General Plan Conservation Element contains a chapter (Chapter 7) dedicated to astronomical dark skies (County of San Diego 2002). This chapter discusses the importance of maintaining dark skies in the County and establishes policy and action programs designed to limit light pollution and ensure the protection of dark skies, including minimizing the impacts of development on the useful life of the observatories (Astronomical Dark Sky Policy 1 (X-86)) and amending ordinances to control potentially significant adverse effects to Palomar and Mount Laguna observatories (Astronomical Dark Sky Policy 1, Action Program 1.2).

San Diego County Draft General Plan Update

Originally undertaken in 1988, the comprehensive General Plan Update is still being prepared. The current project schedule has the General Plan Update going to the County Board of Supervisors for adoption in late 2010. Although the Draft General Plan Update and updated elements are not yet approved, the existing General Plan Land Use Element was reviewed during preparation of this section. It should be noted that the Draft General Plan Update also contains the draft Boulevard Subregional Planning Area Community Plan, which contains goals and policies specifically related to wind and or renewable energy projects.

The following goals and policies of the San Diego County Draft General Plan Update, Boulevard Subregional Planning Area Community Plan, and Draft Mountain Empire Subregional Plan (County of San Diego 1995) are associated with visual resources and are applicable to the Proposed PROJECT:

San Diego County Draft General Plan Update, Conservation and Open Space Element (County of San Diego 2010)

In addition to designating I-8 (from the El Cajon city limits to the Imperial County line) and Old Highway 80 (from State Route 79 (Pine Valley) to I-8 (Jacumba)) a County-designated scenic highway, the Conservation and Open Space Element contains the following goals and policies that are applicable to the Proposed PROJECT:

- **Goal COS-11: Preservation of Scenic Resources.** Preservation of scenic resources, including vistas of important natural and unique features, where visual impacts of development are minimized.
- **Policy COS-11.1: Protection of Scenic Resources.** Require the protection of scenic highways, corridors, regionally significant scenic vistas, and natural features, including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
- **Policy COS-11.2: Scenic Resource Connections.** Promote the connection of regionally significant natural features, designated historic landmarks, and points of regional historic,

visual, and cultural interest via designated scenic corridors, such as scenic highways and regional trails.

- **Policy COS-11.3: Development Siting and Design.** Require development within visually sensitive areas to minimize visual impacts and to preserve unique or special visual features, particularly in rural areas, through the following:
 - Creative site planning
 - Integration of natural features into the project
 - Appropriate scale, materials, and design to complement the surrounding natural landscape
 - Minimal disturbance of topography
 - Clustering of development so as to preserve a balance of open space vistas, natural features, and community character
 - Creation of contiguous open space networks.
- **Policy COS-11.4: Collaboration with Agencies and Jurisdictions.** Coordinate with adjacent federal and State agencies and local jurisdictions to protect scenic resources and corridors that extend beyond the County's land use authority, but are important to the welfare of County residents.
- **Policy COS-11.5: Collaboration with Private and Public Agencies.** Coordinate with the California Public Utilities Commission, power companies, and other public agencies to avoid siting energy generation, transmission facilities, and other public improvements in locations that impact visually sensitive areas, whenever feasible. Require the design of public improvements within visually sensitive areas to blend into the landscape.
- **Policy COS-11.7: Underground utilities.** Require new development to place utilities underground and encourage "undergrounding" in existing development to maintain viewsheds, reduce hazards associated with hanging lines and utility poles, and to keep pace with current and future technologies.
- **Goal COS-12: Preservation of Ridgelines and Hillsides.** Ridgelines and steep hillsides that are preserved for their character and scenic value.
- **Policy COS-12.2: Development Location on Ridges.** Require development to preserve and enhance the physical features by being located down and away from ridgelines so that structures are not silhouetted against the sky.
- **Goal COS-13: Dark Skies.** Preserved dark skies that contribute to rural character are necessary for the local observatories.

- **Policy COS-13.1: Restrict Light and Glare.** Restrict outdoor light and glare from development projects in Semi-Rural and Rural Lands and designated rural communities to retain the quality of night skies by minimizing light pollution.
- **Policy COS-13.2: Palomar and Mount Laguna,** Minimize, to the maximum extent feasible, the impact of development on the dark skies surrounding Palomar and Mount Laguna observatories to maintain dark skies which are vital to these two world-class observatories by restricting exterior light sources within the impact areas of the observatories.

County of San Diego Draft General Plan Update: Boulevard Planning Area Community Plan (County of San Diego 2010b)

- **Policy LU 1.1.4:** Require commercial and public development along scenic and historic routes to apply design standards that will blend the development in with the terrain and rustic south western nature of the community character, while keeping outdoor lighting to an absolute and well shielded minimum.
- **Goal LU 3.1:** Protection as a Dark Sky Community through preservation of the dark skies in Boulevard to support the continued operation of the San Diego Astronomy Association and Tierra Del Sol Observatories and to continue to attract stargazers, photographers, scientists, and researchers from around the world.
- **Policy LU 3.1.1:** Encourage development to preserve dark skies with reduced lighting and increased shielding requirements.
- **Policy LU 3.1.2:** Encourage increased resources or methods for enforcement for the preservation of dark skies.
- **Policy LU 6.1.2:** Require industrial development to create and maintain adequate buffers to residential areas from incompatible activities, which create heavy traffic, noise, infrasonic vibrations, lighting, odors, dust and unsightly views and impacts to groundwater quality and quantity.

Mountain Empire Subregional Plan

The protection of scenic and visual resources in the Mountain Empire Subregion is acknowledged under the following goals and policies contained within the Mountain Empire Subregional Plan (County of San Diego 2010c):

- **Community Character (Policy 2):** Development proposals within the Rural Village Boundaries should avoid the removal of mature trees.

- Conservation (Environmental Resources, Policy 4): The dark sky is a significant resource for the Subregion and appropriate steps shall be taken to maintain it.
- Scenic Highways Goal: Establish a network of scenic highway corridors within which scenic, historical and recreational resources are protected and enhanced.
- Land Use (Industrial Goal, Policy 6): New industrial development should consider all views into the property from public streets, adjacent properties and residences on nearby hills.
- Land Use (Industrial Goal, Policy 13): Large unbroken expanses of wall shall be avoided. If this is not possible architectural details and/or landscaping shall be utilized to soften straight unbroken facades.

San Diego County Zoning Ordinance

Sections 6320, 6322, and 6324 of the Zoning Ordinance contains performance standards for glare caused by all commercial and industrial uses in residential, commercial, and identified industrial zones. Section 6320 states that that all commercial and industrial operations shall be operated so as to not produce glare that is readily detectable (without instruments) by the average person at or beyond the lot line of the residential lot. Section 6322 (Outdoor Lighting) controls unnecessary outdoor light emissions that produce unwanted illumination of adjacent properties by restricting outdoor lighting usage (required FAA lighting is not discussed). Section 6324 establishes lighting limitations including horizontal cutoff and light trespass. Regarding light trespass the zoning ordinance states that —the illumination of adjacent premises by spill light shall not exceed a value of 0.2 foot candles measured in the horizontal or vertical plane at a point 3 feet above grade level and 5 feet inside the adjacent property” (County of San Diego 2010d).

Section 6951 of the County Zoning Ordinance provides direction for the development of large wind turbine systems. According to the Zoning Ordinance, large wind turbine systems shall be permitted on a parcel of at least five acres and be considered a Major Impact Services and Utilities use type requiring a Major Use Permit approved in accordance with the Use Permit Procedure commencing at Section 7350 of the Zoning Ordinance and the following requirements related to visual resources (County of San Diego 2010d):

Visual. The following measures should be followed whenever possible in order to minimize the visual impact of the project:

1. Removal of existing vegetation should be minimized.
2. Internal roads should be graded for minimal size and disruption.
3. Any accessory buildings should be painted or otherwise visually treated to blend with the surroundings.

4. The turbines and towers should be painted with non-reflective paint to blend with the surroundings.

San Diego County Light Pollution Code

The following discussion is from the County of San Diego's Guidelines for Determining Significance and Report Format and Content Requirements associated with Dark Skies and Glare (County of San Diego 2009):

The Light Pollution Code, also known as the Dark Sky Ordinance, was adopted to minimize light pollution for the enjoyment and use of property and the night environment by the citizens of San Diego County and to protect the Palomar and Mount Laguna observatories from the effects of light pollution that have a detrimental effect on astronomical research by restricting the permitted use of outdoor light fixtures on private property" (Sec. 59.101). Parties involved in the development of LPC included representatives from the San Diego County Department of Planning and Land Use, the Department of Public Works, as well as members of the lighting industry, community planning and sponsor groups, representatives from both of San Diego County's observatories, and San Diego Gas and Electric.

The Light Pollution Code regulates applicants for any permit required by the County for work involving outdoor light fixtures, unless exempt. Exempt fixtures include certain ones existing prior to January 18, 1985, those producing light via fossil fuels, those on or connected with facilities and land owned or operated by the federal government or the State of California, and holiday decorations. Special provisions are made for airports and correctional institutions (Sec. 59.108).

The Light Pollution Code was established to limit the harmful effects of outdoor lighting on the Palomar and Mount Laguna Observatories. The code defines outdoor lighting as outdoor artificial illuminating devices, outdoor fixtures and other similar devices used for flood lighting, general illumination or advertisement. Therefore, the Light Pollution Code does not apply to federally required lighting such as lighting which would be required on wind turbines. The LPC designates all areas within a fifteen (15) mile radius of the Palomar and Mount Laguna Observatories as Zone A and all other areas of the County are designated Zone B. Zone A has more stringent lighting restrictions, including limits on decorative lighting, so that night skies are dark enough for clear viewing through the telescopes at the observatories.

The Mount Laguna Observatory is located on the eastern edge of the Cleveland National Forest near the Anza-Borrego Desert State Park, approximately 4 miles west of the nearest proposed Tule Wind Project turbine and approximately 9 miles northwest of the proposed collector substation and O&M facility. Proposed turbines of the Tule Wind Project and the collector substation/O&M facility would be located in the Mount Laguna Observatory's Zone A and any outdoor lighting proposed by the Tule Wind Project would be subject to regulations placed on development within Zone A.

In addition to the Mount Laguna Observatory (operated by the San Diego State University's Department of Astronomy), the Tierra del Sol Dar-sky Observation site is also located in the general project area. Operated by the San Diego Astronomical Society, the Tierra del Sol Dar-sky Observation site holds public viewing parties and periodic training classes (San Diego Astronomy Association 2010). The site is located approximately 5 miles southwest of the Boulevard Substation Rebuild site.

D.3.3 Environmental Effects

D.3.3.1 Definition and Use of CEQA Significance Criteria /Indicators under NEPA

The criteria used to assess the significance of visual impacts resulting from the Proposed PROJECT are based on federal, state, and local policies and guidelines pertaining to visual resources. Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) identifies four criteria that can lead to a determination of significant visual impact. These criteria are described in the following list with guidelines regarding how they were applied to the Proposed PROJECT (shown in *italics*). The environmental documents prepared for the Sunrise Powerlink Project (CPUC and BLM 2008a and 2008b) were also reviewed to identify significance criteria to assess the visual impacts of the Proposed PROJECT. There are no adopted guidelines for determining the significance of visual impacts under NEPA. The CEQA criteria and guidelines described as follows are used as indicators of impact significance under NEPA.

1. Project construction or the long-term presence of project components would cause a substantial effect on a scenic vista. *Guidelines for this criterion were whether the project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from: a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area.*

2. 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. *This criterion applies only to designated state scenic highways.*
3. 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.

Substantial Visual Degradation Guidelines:

The following significance guidelines should guide the evaluation of whether a significant impact to visual resources will occur as a result of project implementation. A project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it will generally not be considered to have a significant effect on visual resources, absent specific evidence of such an effect:

- a. *The project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines. (Note: Substantial degradation would result from high visual contrasts, project dominance, or view blockage. Visual contrast is measured by changes in scale, texture, form, line, and color).*
 - b. *The project would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.*
4. 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.

Dark Skies Guidelines (County of San Diego 2009):

The following significance guidelines should guide the evaluation of whether a significant impact to dark skies or from glare will occur as a result of project implementation. A project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it will generally not be considered to

have a significant effect on dark skies or from glare, absent specific evidence of such an effect:

- a. The project will install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.*
- b. The project will operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code.*
- c. The project will generate light trespass that exceeds 0.2 foot-candles measured five feet onto the adjacent property.*
- d. The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, that will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.*
- e. The project does not conform to applicable Federal, State or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.*

The following additional guidelines were used as indicators of impact significance, under CEQA and NEPA.

5. Construction of the Proposed Project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources. Guidelines for this criteria included:
 - a. if the Project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning, or*
 - b. if the Project would be inconsistent with the BLM's VRM Classes for public lands within the project area.*

D.3.3.2 Applicant Proposed Measures

ECO Substation Project

Applicant Proposed Measures (APMs) ECO-AES-1 through ECO-AES-4 have been proposed by SDG&E to reduce impacts to visual resources. These measures address the restoration of disturbed areas, require compliance with the landscape plans prepared for the ECO Substation

and Boulevard Substation sites, and address the placement of the riser structure for the Boulevard Substation farther from Old Highway 80 to reduce the overall visibility of the project component. APMs for the ECO Substation Project are included in Section B.3.4, ECO Substation Project Applicant Proposed Measures, of this EIR/EIS. The landscape concept plans prepared by SDG&E for the ECO Substation and Boulevard Substation Rebuild sites are included as an appendix (Appendix 5-Landscape Concept Plans) to this EIR/EIS.

Tule Wind Project

APMs TULE-AES-1 through TULE-AES-11 were proposed by Pacific Wind Development to reduce impacts related to visual resources. These measures address using non-reflective materials, finishes, and color treatments to reduce the visual contrasts of the wind turbines, transmission lines, substation equipment, and fencing; use of minimally required FAA lighting on wind turbines; underground installation of a portion of the collector system; and replacement of ornamental trees and landscaping. APMs for the Tule Wind Project are included in Section B.4.4, Tule Wind Project Applicant Proposed Measures, of this EIR/EIS.

ESJ Gen-Tie Project

Energia Sierra Juarez U.S. Transmission, LLC, has proposed APM ESJ-AES-1 to reduce impacts related to visual resources. APM ESJ-AES-1 addresses construction site screening and measures to keep construction sites clean and orderly. This APM is included in Section B.5.4, ESJ Gen-Tie Project Applicant Proposed Measures, of this EIR/EIS.

Campo, Manzanita, and Jordan Wind Energy Projects

At the time this EIR/EIS was prepared, the project proponents for these three wind energy projects have not developed project-specific APMs.

D.3.3.3 Direct and Indirect Effects

Table D.3-2 lists the impacts identified for the Proposed PROJECT, along with the classifications of impacts under CEQA. Cumulative effects are analyzed in Section F of this EIR/EIS.

Table D.3-2
Visual Resource Impacts

Impact No.	Description	Classification
ECO Substation–Visual Resource Impacts		
ECO-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
ECO-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact

**East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.3 VISUAL RESOURCES**

Table D.3-2 (Continued)

Impact No.	Description	Classification
ECO-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
ECO-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class II
ECO-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II
Tule Wind–Visual Resource Impacts		
Tule-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
Tule-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
Tule-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
Tule-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
Tule-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I
ESJ Gen-Tie–Visual Resource Impacts		
ESJ-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class III (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ESJ-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings	Class II (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	No Impact (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II (ESJ Gen-Tie)
Proposed PROJECT (COMBINED—including Campo, Manzanita, and Jordan Wind Energy)		
VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I

Table D.3-2 (Continued)

Impact No.	Description	Classification
VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: The project would have a substantial adverse effect on a scenic vista.

This impact would apply to long-term effects on a scenic vista resulting from the construction and/or operation of the project. The guidelines for this criterion were whether the project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from a public road, a trail within an adopted County or State trail system, a scenic vista or highway, or a recreational area.

ECO Substation Project

The ECO Substation Project would result in VIS-1 impacts on views from Old Highway 80 and on views from hiking trails and viewpoints within the Table Mountain ACEC and other public lands (e.g., Airport Mesa Recreational Management Zone and Jacumba Mountains Wilderness).

VIS-1 impacts to scenic views along Old Highway 80 would occur where the ECO 138 kV transmission line crosses Old Highway 80, near milepost (MP) 5.8 (Figure D.3-4 for location of Old Highway 80 crossing). The 138 kV line would be parallel to the existing SWPL 500 kV transmission line and would be viewed by highway travelers within a foreground viewing distance (at MP 5.8 the proposed transmission line would be located approximately 0.30 mile to the northwest). Viewed in conjunction with the larger and taller SWPL lattice towers and lines (which have modified and industrialized the character of the landscape), the ECO 138 kV transmission line single pole structures and conductors would be substantially smaller in scale and industrial character and would not create a strong contrast in the landscape (KOP 4, Figures D.3-9A and D.3-9B). In addition, views at the crossing of Old Highway 80 are typical of the natural physiographic desert landscape and do not provide panoramic eastward views toward the desert. Therefore, identified impacts would not be adverse, and under CEQA, impacts would be considered less than significant (Class III).

Scenic vista impacts would occur at hiking trails or viewpoints at Table Mountain ACEC (KOP 18, Figure D.3-23B) and other public lands (e.g., Airport Mesa Recreational Management Zone

and Jacumba Mountains Wilderness) (KOP 3, Old Highway 80, near Airport Mesa, Figure D.3-8C). Impacts to scenic views from the Table Mountain ACEC would primarily result from the visibility of the ECO Substation, SWPL Loop-In, and 138 kV transmission line at distances of approximately 0.5 mile away. The scale of the substation would be openly visible from elevated viewing locations at Table Mountain ACEC; however, visibility of the SWPL Loop-In and 138 kV transmission line would be difficult given the intervening distance and back-screening the desert terrain and vegetation would provide. Similar viewing conditions would also occur from the Airport Mesa and Jacumba Mountains Wilderness public lands. Due to the viewing distance and back-screening that the natural desert would provide, identified impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Scenic vista impacts would also occur at trails and pathways included in the Boulevard Community Trails and Pathways Plan. Between approximate MP 7.6 and MP 12, the 138 kV transmission line would cross the San Diego and Arizona Eastern, Lansing, and Jewel Valley trails. In addition, near MP 12, the proposed transmission line would be located approximately 500 feet north of the Jewel Valley Road Pathway (the pathway is located adjacent to Jewel Valley Road (KOP 7); Figures D.3-12A and D.3-12B, which provide an existing setting view and visual simulation of the proposed ECO 138 kV transmission line from Jewel Valley Road). Impacts to scenic views would result from the visibility of the 138 kV transmission line within a foreground distance zone. Impacts would not, however, occur where the 138 kV transmission line would be located adjacent to the existing SWPL 500 kV (the transmission line would cross the San Diego and Arizona Eastern Trail and the Lansing Trail while located adjacent to the SWPL). Therefore, where a new utility corridor would be established (between MP 9 and the rebuilt Boulevard Substation), the 138 kV transmission line would impact scenic views along trails and pathways (impacts would occur to the Jewel Valley Trail and the Jewel Valley Road Pathway). Identified impacts would be adverse and therefore Mitigation Measures VIS-1a and VIS-1b have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM VIS-1a: Reduce impacts at scenic highway and trail crossings. At highway 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.

MM VIS-1b: Reduce impacts at scenic view areas. 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 feasible.

Tule Wind Project

Impacts to scenic views resulting from the Tule Wind Project would occur where portions of the wind turbine development would be visible from the Carrizo Overlook (KOP 14, Figure D.3-19B), the Ribbonwood Trail and the Ribbonwood Road Pathway (KOP 10, Figure D.3-15B), and where the 138 kV transmission line would cross I-8 and parallel Old Highway 80 into the Boulevard Substation (KOP 15, Figure D.3-20B; and KOP 9, Figure D.3-14D).

The Tule Wind turbines would be visually dominant and skylined from the Carrizo Overlook (KOP 14, Figure D.3-19B). The large scale of the structures, blade movement, and light color would collectively create very strong contrasts within the seen landscape. Although some of the existing Kumeyaay wind farm (Campo Indian Reservation) turbines are currently visible to the southwest at middle-ground to background viewing distances (approximately 5 miles away), the Tule Wind turbines would be substantially closer and, therefore, would appear much larger in scale and be more visually dominant in the landscape. The Tule Wind turbines would be viewed toward the northwest, west, southwest, and south, and due to scale, color, and blade movement, identified impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Scenic views looking east toward the desert from the Carrizo Overlook would not be obstructed by components of the Tule Wind Project.

Tule Wind turbines would also be visually dominant and prominent against the skyline when viewed from the Ribbonwood Trail and the Ribbonwood Road Pathway. The northern terminus of the Ribbonwood Trail is located approximately 0.10 mile southwest of proposed wind turbine E-9, and the Ribbonwood Road Pathway (located along Ribbonwood Road) would be located approximately 2 miles west of the nearest turbine, G-19 (KOP 10, Figure D.3-15B for simulation of wind turbines as viewed from Ribbonwood Road and the Ribbonwood Road Pathway). At the northern terminus of the Ribbonwood Trail, Tule Wind turbines would be visible to the southwest, west, northwest, north-northeast, east, and southeast within foreground distance zones (the nearest turbines would be located approximately 0.10 mile to the northeast). From the Ribbonwood Road Pathway, turbines would be visible to the northwest, north, and northeast within middle-ground distance zone (the nearest turbine would be located approximately 2 miles to the east). Due to scale, color, and blade movement of wind turbines, identified impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

The Tule Wind 138 kV transmission line would create significant impacts to scenic views where the transmission line structures and conductors would cross I-8 and parallel and cross Old Highway 80 into the Boulevard Substation, in the community of Boulevard. The 138 kV structures and lines would create moderate to strong contrasts in line, form, and texture. Viewed

at the highway crossings, the Tule Wind 138 kV transmission line would be substantially taller and more industrial than other man-made features currently viewed. At the present time, a number of distribution lines exist in the area, but no high-voltage power lines are present. Consequently, the 138 kV transmission line would introduce a moderate to strong industrial feature into a landscape characterized by a mixture of natural and rural community elements. Identified impacts would be adverse; therefore Mitigation Measures VIS-1b and VIS-1c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

MM VIS-1c: Avoid potential visibility of transmission structures and related facilities from sensitive viewing locations. Underground portions of the 138 kV transmission line and/or collector system to avoid visual impacts to scenic highways, scenic vistas, or scenic resources.

When the Tule Wind Project is decommissioned, wind turbines and the 138 kV transmission line would be removed from the visual landscape, and areas disturbed by construction and operation of the Tule Wind Project would be restored to their pre-project conditions. Restoring a decommissioned site to pre-project conditions could entail recontouring, grading, seeding, and planting, and perhaps stabilizing disturbed surfaces. Although wind turbines and the 138 kV transmission line would be removed and would no longer impact scenic views afforded from the Carrizo Overlook, the Ribbonwood Trail and the Ribbonwood Road Pathway, I-8, and Old Highway 80, restoration activities would be visible from these locations and would temporarily impact views.

ESJ Gen-Tie Project

Impacts to scenic views resulting from the ESJ Gen-Tie Project would occur where the ESJ gen-tie line and ESJ Phase 1 wind turbines would be visible from the hiking trails or viewpoints within the Table Mountain ACEC (KOP 18, Figures D.3-23A and D.3-23B) and other public lands (e.g., Airport Mesa) (KOP 3, Old Highway 80, near Airport Mesa, Figures D.3-8D through D.3-8G).

When viewed from the Table Mountain ACEC, the visibility of the ESJ Gen-Tie 500 kV or 230 kV gen-tie and associated steel lattice structures/monopoles would be difficult given the intervening distance and backscreening the desert terrain and vegetation would provide (Figure D.3-23B). In addition, views of the ESJ gen-tie line from the Table Mountain ACEC would also be largely blocked by the proposed ECO Substation (Figure D.3-23B for approximate location of ESJ 500 kV line and ECO Substation). Similarly, when viewed from KOP 3, the visibility of gen-tie line and support structures would be reduced due to backscreening provided by the desert terrain and Sierra de Juarez Mountains (Figure D.3-8D through D.3-8G). Therefore, identified

impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Impacts to scenic views from within the Table Mountain ACEC would primarily result from the visibility of the ESJ Phase 1 wind turbines and access roads at middle-ground viewing distances (approximately 4.5 miles away). The scale, color, and movement of the ESJ Phase 1 wind turbines would create strong visual contrasts that would be openly visible and skylined along the ridgeline and slopes of the Sierra de Juarez Mountains.

There are no known mitigation measures that could substantially reduce the scenic vista impacts from within the Table Mountain ACEC that would result from the ESJ Phase 1 wind turbines and access roads. Identified impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Proposed PROJECT

As previously discussed, implementation of the Proposed PROJECT would result in significant impacts to scenic vistas occurring within the project area. Due to the large size, light color, and blade movement, scenic vista impacts attributed to wind turbines viewed from the Table Mountain ACEC, the Carrizo Overlook, and from County trails and pathways, impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Figures D.3-25B, D.3-26B, and D.3-27B provide a conceptual simulation of the Campo, Manzanita, and Jordan wind energy projects as viewed from Jewel Valley Road, Ribbonwood Road, and the Carrizo Overlook. Given their proximity to similar scenic vistas and sensitive viewing areas and their assumed location atop high elevation areas in and around the vicinity of the McCain Valley Area, the Campo, Manzanita, and Jordan wind energy projects would likely result in similar scenic vista impacts to the Carrizo Overlook (Figure D.3-27B) and County trails and pathways (Figure D.3-25B and D.3-26B) as identified for the Tule Wind Project. There is no known mitigation (other than selecting an entirely different location for wind turbines) that would reduce these scenic vista impacts to a level less than significant. In addition to Class I impacts, the Proposed PROJECT would also result in less severe scenic vista impacts (Class II) at transmission line crossings at I-8 and Old Highway 80. Because the Campo, Manzanita, and Jordan wind energy projects are expected to interconnect to the rebuilt Boulevard Substation, these projects would likely result in similar scenic vista impacts at transmission line crossings at I-8 and Old Highway 80.

Impact VIS-2: **The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.**

Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated. Consequently, there are no identifiable state scenic highway visual impacts for the Proposed Project including the Campo, Manzanita, and Jordan wind energy projects.

Impact VIS-3: **The project would substantially degrade the existing visual character or quality of the site and its surroundings.**

Guidelines for this impact include the following:

- The project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines. (Note: Substantial degradation would result from high visual contrasts, project dominance, or view blockage. Visual contrast is measured by changes in scale, texture, form, line, and color).
- The project would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood, community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.

Specific short-term and long-term impacts were considered in assessing whether substantial degradation of existing visual character or quality may result. Impact types evaluated are:

Short-term visibility of construction activities, equipment, and night lighting. Construction activities would result in the visibility of construction vehicles, equipment, materials, and work forces at the project sites. Construction impacts would be temporary; however, the duration of impact may be 4 to 5 years for wind developments and 2 to 3 years for transmission lines and substation facilities.

Long-term visibility of land scars and vegetation clearance in arid and semiarid landscapes. The installation of new structures and construction of new access roads and spur roads would cause disturbances of soils and vegetation as vehicles and equipment access the wind turbine, substation, and transmission line installation areas and equipment and materials are moved. Land scars and vegetation clearance impacts would be substantial in instances where restoration of

sites is limited by shallow top soils and establishment of plant species of the same or similar visual character is limited by arid and semiarid landscape conditions.

Long-term visibility of increased visual contrasts, industrial character, view blockage, or skylining from sensitive viewing locations. The long-term visibility of increased visual contrasts, industrial character, view blockage, or skylining from sensitive viewing locations was estimated based upon the analysis of the 18 KOPs described in the Section D.3-1, Environmental Setting. Each KOP was evaluated in the field using the BLM's contrast rating methodology and simulations prepared by the project applicants where available. From each KOP, the degree of change in line, form, color, and texture of visual elements was estimated, and an overall contrast rating, ranging from low to high, was determined to estimate impact degree or significance under CEQA.

VIS-3 visual degradation impacts associated with the ECO Substation, Tule Wind, and ESJ Gen-Tie projects range from Class I to Class III, as described in the following text. A number of mitigation measures have been recommended to reduce visual impacts to the degree feasible and are referenced according to their application to the various project components and sensitive viewing locations as follows.

ECO Substation Project

ECO Substation 500 kV and 230 kV/138 kV Yards and SWPL Loop-In

Short-term visibility of construction activities. During the construction phase of the ECO Substation and SWPL Loop-In, visual impacts including the visual presence of construction vehicles, equipment, materials, and work forces at the site from construction activities would occur. Construction activities (over an approximately 2-year time frame) would generally occur during daytime hours; however, where nighttime work is necessary, construction night lighting would be required. The visual impacts from construction activities would primarily be to travelers along Old Highway 80 and I-8. Impacts would be of short duration and intermittent. Construction of the substation would also be visible from the Table Mountain ACEC and other nearby public lands (e.g., from the Airport Mesa Recreation Management Zone and Jacumba Mountains Wilderness) where some recreational activities occur during the daytime hours. Although considered short term, due to the anticipated length of construction, the high visibility of construction equipment and personnel, and the general lack of existing nighttime lighting in the area, visual impacts resulting from construction activities at the ECO Substation site would be significant.

Identified impacts would be adverse; therefore, Mitigation Measures VIS-3a, VIS-3b, and VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

SDG&E has proposed APM ECO-AES-4, which includes screening construction staging and storage areas with opaque fencing from close-range residential views. This APM is folded into and superseded by Mitigation Measure VIS-3a, which provides additional detail regarding screening of construction areas.

MM VIS-3a: Reduce visibility of construction activities and equipment. 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, 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. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. The project applicant shall submit final construction plans demonstrating compliance with this measure to the appropriate land use jurisdiction agency for review and approval at least 60 days prior to the start of construction.

MM VIS-3b: Reduce construction night-lighting impacts. The project applicant 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. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. The project applicant shall submit a Construction Lighting Mitigation Plan to the appropriate land use jurisdiction agency for review and approval at least 90 days before the start of construction or before ordering any exterior lighting fixtures or components, whichever comes first. The project applicant 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, so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are 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.

MM VIS-3c: Reduce construction impacts to natural features. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.

Long-term landscape alterations. Landscape alterations from the removal of or damage to natural vegetation cover may result at staging areas, construction yards, the substation construction site, and SWPL Loop-In structure installation sites and access routes. These types of visual changes to the natural landscape can be long term in arid to semiarid environments where precipitation is low and vegetation establishment and growth are slow. Visual contrasts may be evident where vegetation removal or damage results in strong color contrasts between soil and vegetation; and where unnatural, strong line contrasts are created. Landscape alternations and resulting visual contrasts may be visible from nearby public lands and roadways including I-8 and Old Highway 80.

Identified impacts would be adverse; therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

MM VIS-3d: Reduce in-line views of land scars. To minimize extended in-line views of newly graded terrain, access or spur roads will be constructed at appropriate angles from the originating primary travel facilities. Contour grading shall be used where feasible to better blend graded surfaces with existing terrain. The project applicant shall submit final construction plans demonstrating compliance with this measure to the appropriate land use jurisdiction agency for review and approval at least 60 days prior to the start of construction.

MM VIS-3e: 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 ongoing operation, maintenance, or access shall be returned to preconstruction conditions. In those cases where potential public access is opened by construction routes, the project applicant shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and provide litter cleanup until the area is returned to its pre-project state. The project applicant shall submit final construction and restoration plans demonstrating compliance with this measure to the appropriate land use jurisdiction agency for review and approval at least 60 days prior to the start of construction.

MM VIS-3f: Minimize vegetation removal. 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 measure.

Long-term visual contrasts. The long-term visual contrasts of the ECO Substation and SWPL Loop-In transmission line were assessed from KOPs 1, 2, and 3. KOP 1 (Figure D.3-6A) shows representative views of the ECO Substation site from I-8 eastbound while KOPs 2 (Figure D.3-7A) and 3 (Figure D.3-8A) provide typical views of the site from on and near Old Highway 80. Figure D.3-6B, is a visual simulation of the proposed substation, from I-8 eastbound, and Figure D.3-6C shows the comparative long-term visual effects with SDG&E's proposed landscaping plan for the ECO Substation. Figure D.3-7B is a simulation of the proposed substation, from Old Highway 80, eastbound, and Figure D.3-7C shows the comparative long-term visual effects with SDG&E's proposed landscaping plan for the ECO Substation.

The ECO Substation would create strong contrasts in form and scale, given the size of the substation and the slightly elevated viewing positions, and proximity that highway travelers would have to the site. The ECO Substation would be within foreground and middle-ground viewing distances as viewed from KOP 1 (0.5 mile away), KOP 2 (0.25 mile away), and KOP 3 (0.75 mile away). The size and industrial character of the substation are expected to draw the viewers' attention, mainly from eastbound lanes on I-8 (Figures D.3-6B and D.3-6C) and Old Highway 80 (Figures D.3-7B and D.3-7C). During typical midday lighting conditions, the desert background would screen much of the substation. However, during low morning or evening lighting conditions, strong contrasts would be expected. Figures D.3-6B and D.3-7B show the substation site under different lighting conditions, where visibility of the substation equipment would be expected to differ. Moderate visual contrasts in scale and form would be viewed from Table Mountain ACEC and other nearby public lands. The increased viewing distance to the substation (middle-ground distance zone, approximately 1.25 miles away) combined with the

presence of other similar linear and industrial features, including I-8, Old Highway 80 and the SWPL 500 kV transmission line, would reduce the degree of contrast created by the substation to moderate levels (Figure D.3-23B for general location and angle of view toward substation site). However, given the change in visual character that the introduction of additional industrial elements would instigate, long-term visual contrasts resulting from the ECO Substation and SWPL Loop-In project components would be significant.

SDG&E has proposed APM ECO-AES-1, which requires that, in accordance with the ECO Substation Landscaping Plan, all disturbed terrain at the ECO Substation site be restored through recontouring and revegetation. APM ECO-AES-1 is retained as a project-specific APM and is included in Table D.3-6, Mitigation Monitoring, Compliance, and Reporting–ECO Substation, Tule Wind, and ESJ Gen-Tie Projects–Visual Resources. Identified impacts would be adverse; therefore, APM ECO-AES-1 and Mitigation Measures VIS-3g and VIS-3h, have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM VIS-3g: Reduce visual contrast associated with substation and ancillary facilities. The project applicant shall submit to the appropriate land use jurisdiction agency a Surface Treatment Plan describing the application of colors and textures to all new facility structure 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 Surface Treatment Plan shall be submitted to the appropriate land use jurisdiction agency for approval at least 90 days prior to either (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the appropriate land use jurisdiction agency notifies the project applicant that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the project applicant shall prepare and submit for review and approval a revised Surface Treatment Plan. The Surface Treatment Plan shall include:

- Specification and 11” × 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
- Procedures to ensure proper treatment maintenance for the life of the project.

The project applicant 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 on site, until project applicants receive notification of approval of the Surface Treatment Plan by the appropriate land use jurisdiction agency. Within 30 days following the start of commercial operation, the project applicant shall notify the appropriate land use jurisdiction agency that all buildings and structures are ready for inspection.

MM VIS-3h: Screen substations and ancillary facilities. The project applicant shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Screening Plan. The project applicant shall submit the Plan to the appropriate land use jurisdiction agency for review and approval at least 90 days prior to installing the landscape screening. If the appropriate land use jurisdiction agency notifies the project applicant that revisions to the Screening Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the project applicant shall prepare and submit for review and approval a revised Screening Plan. The plan shall include but not necessarily be limited to:

- An 11" × 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 5 years and at maturity
- The project applicant shall complete installation of the screening prior to the start of project operation
- The project applicant shall notify the appropriate land use jurisdiction agency within 7 days after completing installation of the screening that the screening components are ready for inspection.

ECO 138 kV Transmission Line

Short-term visibility of construction activities and long-term landscape alterations. Short-term visibility of construction activities and long-term landscape alteration impacts associated with the 138 kV transmission line would be similar to those anticipated from the SWPL Loop-In. Construction activities would generally occur during daytime hours; however, where nighttime work is necessary, construction night lighting would be required. Construction activity would be visible to travelers on Old Highway 80, I-8, local roads in Jacumba and Boulevard, rural residences in Jacumba and Boulevard, and recreation areas in the vicinity. Construction and operation of the 138 kV transmission line may result in relatively long-term landscape alterations at temporary work areas and along approximately 5.25 miles of newly graded dirt access roads. Identified short-term visibility of construction activities impacts would be adverse; therefore, Mitigation Measures VIS-3a, VIS-3b, and VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Identified long-term landscape alteration impacts would also be adverse, and therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Long-term visual contrasts. The long-term visual contrasts of the ECO 138 kV transmission line were assessed from KOPs 2 through 8 (Figures D.3-7 through D.3-13) and KOP 18 (Figure D.3-23). Significant long-term visual contrasts would occur where the 138 kV transmission line would not parallel other Extra High Voltage (EHV) transmission lines (e.g., SWPL) along the proposed alignment. In these instances, the 138 kV line would introduce a visually prominent, industrial feature into landscapes that are currently natural or a mixture of natural and community elements. New access roads would also create strong color and line contrasts from soil and vegetation disturbances that would last the life of the project. Where the 138 kV line would be seen from sensitive viewing locations within a foreground viewing distance (within 0.5 mile), for example near the community of Boulevard, the resulting visual contrast would be strong as the transmission line pole heights, hardware, and conductors would create a visually prominent industrial feature. KOP 7, south of the community of Boulevard, along Tule Jim Road, is representative of the strong visual contrasts that the height, scale, and industrial character of the 138 kV line would create (Figure D.3-12B). In this location, the visual contrasts of the 138 kV transmission line would be further increased by rebuilding the existing distribution line to a larger pole.

In summary, adverse visual impacts would occur where the 138 kV transmission line would not parallel the existing SWPL and would be visible from sensitive viewing locations within a foreground viewing distance (KOP 7, Figure D.3-12B). In these situations, the 138 kV transmission line would introduce a new industrial utility feature, which would substantially

contrast with the existing visual environment. Although the components used to construct the transmission line would all have non-reflective surfaces (e.g., insulators constructed of gray polymer, conductors made from aluminum-wrapped steel, etc.), there is no mitigation available to reduce the significant visual contrasts of the overhead 138 kV transmission line to a level that would not be adverse. The open visibility conditions along the western end of the alignment and the transmission line's proximity to residents and recreationists would result in largely skylined views of the transmission line structures and conductors. Due to the height and proximity of the transmission line to sensitive viewers, there is no effective screening or landscape plantings that would be effective in reducing visual impacts.

SDG&E has proposed APM ECO-AES-3, which would reduce the project's visibility from Old Highway 80 by extending the underground portion of the new 138 kV transmission line an additional 600 feet to the south and relocating the steel cable riser pole. This APM is retained as a project-specific APM and included in Table D.3-6, Mitigation Monitoring, Compliance, and Reporting—ECO Substation, Tule Wind, and ESJ Gen-Tie Projects Visual Resources. Identified long-term visual contrast impacts would be adverse; therefore, APM ECO-AES-3 and Mitigation Measures VIS-3i, VIS-3j, VIS-3k, VIS-3l have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). (APMs and mitigation measures would reduce the visual contrasts of the 138 kV transmission line from Old Highway 80 and from rural residences within foreground to middle-ground viewing distances to the extent feasible.)

MM VIS-3i: Reduce potential visual contrast of transmission structures. The project applicant will use dulled metal finish transmission structures and non-specular conductors.

MM VIS-3j: Reduce potential transmission conductor visibility and visual contrast. The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans to reduce the degree of visual contrast caused by the new facilities:

- All new conductors and re-conducted spans will be non-specular in design 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 sensitive viewing locations immediately downhill of the structures.

MM VIS-3k: Reduce potential visual contrast from transmission structure spacing. Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.

MM VIS-3l: Reduce potential view blockage and visual contrasts of structures.

Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence where feasible. The project applicant will consult with affected property owners on structure siting to reduce land use and visual impacts.

Where the 138 kV transmission line would produce moderate visual contrast (KOP 8, Figure D.3-13C), identified impacts would be adverse, and therefore, APM ECO-AES-3 and Mitigation Measures VIS-3i, VIS-3j, VIS-3k, VIS-3l have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Visual impacts would not be adverse where the 138 kV transmission line would parallel the larger SWPL 500 kV lattice transmission line. This impact level applies to KOPs 2, 3, 4, 5, 6, and 18 (Figures D.3-7, D.3-8, D.3-9, D.3-10, D.3-11, and D.3-23). KOP 4, Figure D.3-9B is representative of the visual changes that the 138 kV line would create, where viewed next to the larger SWPL 500 kV lattice tower line. In these instances, the scale and form of the 138 kV line would be diminished or dwarfed by the larger existing facility and the resulting long-term visual contrasts would be weak to moderate. In addition, the long-term visual contrasts of access roads would be minimized in these instances, since the ECO 138 kV line would use existing SWPL access roads to the extent feasible. Views of the proposed 138 kV transmission line, in conjunction with the existing SWPL transmission line, would be afforded to motorists and bicyclists on Old Highway 80 (KOP 4, Figure D.3-9B), rural residences in the community of Jacumba (KOP 5 and 6, Figure D.3-10B and Figure D.3-11C), and public land recreationists at the Table Mountain ACEC (KOP 18, Figure D.3-23B). As shown in these figures, the bulk and scale of the existing SWPL transmission line structures dominate the visual landscape, and the presence of existing industrial elements (SWPL) in the area would reduce the overall visual change attributed to the 138 kV transmission line. Therefore, when viewed from KOPs 2, 3, 4, 5, 6, and 18, identified impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Boulevard Substation Rebuild

Short-term visibility of construction activities. Similar to the ECO Substation, construction activities associated with Boulevard Substation would result in short-term visual impacts. Construction activities (which would occur over an approximately 15-month time frame) would generally occur between 7 a.m. and 7 p.m.; however, certain activities requiring continuous operation (e.g., delivery and filling of substation transformers, pouring of foundation) could occur beyond 7 p.m. and would require night lighting. Visual impacts from construction of the Boulevard Substation would primarily be to travelers along Old Highway

80 and to residents in and near the community of Boulevard, and construction would affect views within both foreground and middle-ground viewing distances (up to 1.0 plus miles away). Construction impacts to travelers along Old Highway 80 would be of short duration and intermittent. Intermittent views to the Boulevard Substation site would also occur from I-8, mainly to westbound travelers. Impacts to local residents, however, would be ongoing for the entire construction phase. Identified impacts would be adverse; therefore, Mitigation Measures VIS-3a, VIS-3b, and VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Long-term landscape alterations. Landscape alterations from the removal of or damage to natural vegetation cover would result at the substation rebuild site. These types of visual changes to the natural landscape would be long-term and would also include the removal of three mature live oaks. The substation rebuild would entail extensive grading and landform modifications for the new Boulevard Substation and the removal of the existing Boulevard Substation and site restoration. SDG&E has proposed APM ECO-AES-2, which requires that, in accordance with the Boulevard Substation Landscaping Plan, all disturbed terrain at the Boulevard Substation site be restored through recontouring and revegetation. APM ECO-AES-2 is retained as a project-specific APM and is included in Table D.3-6, Mitigation Monitoring, Compliance, and Reporting—ECO Substation, Tule Wind, and ESJ Gen-Tie Projects—Visual Resources. Identified impacts would be adverse; therefore, APM ECO-AES-2 and Mitigation Measures VIS-3d, VIS-3e, VIS-3f, and VIS-3m have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

MM VIS-3m: Reduce visual impacts resulting from landscaping and native tree removal. In the event that ornamental or native trees within the project area will be removed due to project design and grading, the project applicant shall prepare a Landscape Treatment Plan to be submitted with the Surface Treatment Plan. The Landscape Treatment Plan shall include but is not limited to the following:

- Tree Removal Locations: Indicate the size, type, and location of each tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required.)
- Tree Replacement Plan: The Tree Replacement Plan shall assess the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction.

If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer, or licensed land survey, may be required).

- Photos of the site and/or trees to be removed.
- Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees.

The Landscape Treatment Plan must minimize mature tree loss to the degree feasible. The Landscape Treatment Plan shall be submitted to the appropriate land use jurisdiction agency for approval at least 90 days prior to planned tree removal. If the appropriate land use jurisdiction agency notifies the project applicant that revisions to the plan are needed before the plan can be approved, within 30 days of receiving that notification, the project applicant shall prepare and submit the revised Landscape Treatment Plan for review and approval.

Long-term visual contrasts. The long-term visual contrasts of the Boulevard Substation were evaluated from KOP 8 (Figures D.3-13B and D.3-13C); and KOP 9 (Figure D.3-14D). KOP 8 is from Old Highway 80, and KOP 9 is from the rural residential area southeast of the substation site. Both KOPs are within foreground viewing distances (approximately 75 feet and 800 feet away) of the Boulevard Substation Rebuild site. Viewed from KOP 8 (Old Highway 80), the visual contrast resulting from the Boulevard Substation Rebuild would be moderate due to the slightly inferior viewing angle afforded to mobile viewers who would experience short-term views of the facility. In addition, the scale of the Boulevard Substation Rebuild would not be evident from Highway 80, once SDG&E's proposed landscape and grading plan is implemented (KOP 8, Figure D.3-13C). Therefore, when viewed from Old Highway 80, identified long-term visual contrasts associated with the Boulevard Substation Rebuild would be adverse and APM ECO-AES-2 and Mitigation Measures VIS-3g, VIS-3h, and VIS-3m have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Rural residential land uses located on the hills south, west, and east of the Boulevard Substation Rebuild site would have open, elevated, and foreground views to the proposed substation site. KOP 9 is a typical viewing location, east of the substation site (Figure D.3-14D). Given the close proximity of residential uses to the substation and the elevated views afforded, the Boulevard Substation Rebuild equipment and facility would be openly visible and create very strong

contrasts in scale, form, and color. Foreground views (up to 0.5 mile away) would be dominated by the vertical lines of the facility, and the monotonous color of substation equipment and fencing would tend to be the visual focal point. Therefore, when viewed from residences with an elevated view of the site, identified long-term visual contrasts produced by the Boulevard Substation would be adverse and APM ECO-AES-2 and Mitigation Measures VIS-3g, VIS-3h, and VIS-3m have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Tule Wind Project

Tule Wind Turbines and Meteorological Towers

Short-term visibility of construction activities. During construction of wind turbines, construction vehicles, equipment, materials, and construction workers would be visible to rural residences in the McCain Valley area, recreationists at/within the McCain National Cooperative Land and Wildlife Management Area, and to motorists on I-8 and local roads in Jacumba and Boulevard. Turbine components including nacelles, towers, and blades would be delivered to the project site on large trailers using Ribbonwood Road and McCain Valley Road, and vehicles and equipment would be highly visible to residences in the surrounding area. Activities at the on-site cement batch plant would primarily be visible to recreationists near the Lark Canyon OHV Area. The duration of construction impacts associated with the wind turbines would be approximately 2 years. Construction activities would generally occur during daytime hours (7 a.m. to 7 p.m.) but could involve extended hours to complete certain construction activities. In these instances, night lighting would be required. Although considered short-term impacts, due to the anticipated length of construction; the high visibility (proposed turbine locations are at higher elevations than surrounding rural residences) of construction vehicles, equipment, and personnel; and the scale and extent of the project area, identified impacts would be adverse, and therefore, Mitigation Measures VIS-3a, VIS-3b, and VIS-3c have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). No mitigation is available that would adequately screen construction activities from the numerous inferior viewing locations surrounding the site.

Because construction activities associated with excavation and construction of meteorological tower foundations (as well as installation of towers) would be short term and would require a small number of workers, vehicles, and equipment (and would not occur during nighttime hours), identified short-term visibility of meteorological tower construction activities would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Long-term landscape alterations. The development of temporary work areas around each turbine and the construction of new access roads would result in the removal of existing natural vegetation cover (temporary work areas and new access roads would be cleared and leveled). In arid to semiarid environments where precipitation is low and vegetation establishment and growth are slow, the visual change resulting from the removal of vegetative cover can be relatively long term and would be noticeable where vegetation clearing produces strong contrasts between the soil and natural vegetation.

Approximately 37 miles of new access roads would be constructed by Pacific Wind Development. Many of the new access roads required for personnel movement between turbines would not be visible to recreationists within the McCain National Cooperative Land and Wildlife Management Area (a popular recreation area) or to residences in the McCain Valley area due to intervening landforms that would block/screen these features from view. Access roads would, however, be located at highly visible elevated locations (such as ridgelines and their slopes), and given the numerous sightlines to these access road locations, these features would be visible from numerous off-site (off BLM land) locations. Due to the location of access roads and landscape alterations atop prominent ridgelines and slopes, identified impacts would be adverse, and therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Long-term visual contrasts. The long-term visual contrasts of the Tule Wind Project wind turbines were evaluated from KOP 9 (Figure D.3-14E), KOP 10 (Figure D.3-15B), KOP 11 (Figure D.3-16C), KOP 12 (Figure D.3-17C), KOP 13 (Figure D.3-18B), and KOP 14 (Figure D.3-19B). The referenced figures are simulations of the proposed Tule Wind turbines and represent a number of viewer types, distance zones, and viewing angles that the turbines would be visible to/from. Viewer types represented in these KOPs include rural residences (KOP 9, Community of Boulevard, Figure D.3-14E and KOP 10, rural residences along Ribbonwood Road, Figure D.3-15B), motorists (KOP 11, McCain Valley Road and I-8, Figure D.3-16C), and recreationists (KOPs 12, 13, and 14, near and within the BLM-managed McCain Valley National Cooperative Land and Wildlife Management Area; Figure D.3-17C; Figure D.3-18B; and Figure D.3-19B).

The Tule Wind turbines would cause profoundly strong visual contrasts up to 5 miles away due to the more than 400-foot-tall scale and vertical form of the turbine towers, their light color, and the movement of blades. Where openly seen on ridgelines and/or against tan and green mountain slopes, the visibility of multiple wind turbines would create dominant, large-scale industrial elements in predominantly natural landscapes. Due to their size, color, and movement of turbine blades, the wind turbines would be visually dominant from rural residential, highway, and public

land locations within both foreground and middle-ground viewing distances (Figure D.3-14E and Figure D.3-15B). As shown in these figures, the turbines would become the visual focal point in the seen landscapes and would substantially change the visual character of the existing natural landscapes, which are typified by boulder- and shrub-covered hilltops, exposed tan soils, and desert scrub vegetative cover over valley plains.

Figure D.3-16C depicts views of the proposed wind turbines from McCain Valley Road under cloudy atmospheric conditions. Although the wind turbines would be skylined from this viewing location, the back-screening effects resulting from the cloud cover in the simulation would make the turbines appear less pronounced than when viewed under sunny and clear atmospheric conditions. Still, the vertical form of the turbines would be apparent, and the scale of the structures would strongly contrast with the natural, low-lying vegetative cover included in the foreground viewing distance.

Figure D.3-17C, depicts views of the proposed wind turbines afforded to recreationists accessing the McCain National Cooperative Land and Wildlife Management Area (a BLM sign welcoming visitors to the recreation area is visible near the center of the view). Although existing vegetation and landforms would partially screen views of wind turbines in their entirety, the visible portions of the turbines would be skylined in the foreground viewing distance, and the color, scale, and movement of these structures would create a strong change in the existing visual environment. As shown in Figure D.3-17C, at this viewing distance the individual turbine components (tower, nacelle, and blades) are more distinct than when viewed at greater distances, and the resulting visual contrast with the existing characteristic desert landscape is strong.

Figures D.3-18B and D.3-19B depict views of the proposed wind turbines from the Lark Canyon OHV Area and the Carrizo Overlook. As shown in the figures, the proposed wind turbines would be prominent in the foreground viewing distance at both locations and would dominate the view. From these locations, the proposed turbines would be skylined, the scale of the structures would be large, the movement of the blades would be attention-grabbing, and the visual contrasts with the existing landscape would be very strong. Although existing wind turbines are located in the general vicinity of the project area (the existing Kumeyaay wind farm can be seen in the background of Figure D.3-19B), the proximity and visibility of the proposed turbines would create an overpowering visual change.

Wind turbines would also be visible from KOP 16 (Figure D.3-21B), however, a visual simulation has not been prepared. Due to proximity of the KOP to proposed wind turbines and due to similar location, the resulting strong visual contrast between wind turbines and the natural landscape would be similar to the strong visual contrast visible from KOP 14 (Figure D.3-19B).

Identified long-term visual contrast impacts assessed at each of the previously identified locations and for each of the identified viewer types would be adverse; therefore, APM TULE AES-1 (the selection of uniform turbine components for aesthetic consistency) and Mitigation Measure VIS-3n (APM TULE-AES-2 is folded into and superseded by Mitigation Measure VIS-3n) have been provided. However, the identified impact cannot be mitigated. There is no mitigation available to reduce the severity of the visual impact resulting from the proposed wind turbines to a level that would be less than significant, aside from selecting an entirely different location for the development. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM VIS-3n: Reduce potential visual impacts of wind turbines and ancillary facilities. The project applicant shall submit to the appropriate land use jurisdiction agency a Surface Treatment Plan describing the design and application of colors and textures to all new wind turbine facilities, structure buildings, walls, fences, and components comprising all ancillary facilities including the collector station substation. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast to the degree feasible. The Surface Treatment Plan shall be submitted to the appropriate land use jurisdiction agency for approval at least 90 days prior to either (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the appropriate land use jurisdiction notifies the project applicant that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the project applicant shall prepare and submit for review and approval a revised Surface Treatment Plan.

Tule Collector Cable System, Collector Substation, and O&M Facility

Short-term visibility of construction activities. Construction vehicles, equipment, materials, and work forces associated with construction of the collector cable system, collector substation, and O&M facility would result in short-term visual impacts. Construction activities would generally occur between 7 a.m. and 7 p.m.; however, certain activities that require continuous operation (e.g., delivery and filling of substation transformers, pouring of foundation) could extend activities beyond those hours. Visual impacts from construction activities would primarily be to recreationists within the McCain National Cooperative Land and Wildlife Management Area and would affect views within both foreground and middle-ground viewing distances (up to 5.0 miles away). In addition, construction vehicle activity along Ribbonwood Road and the resulting short-term visual impacts would also be experienced by residents and motorists along Ribbonwood Road. Construction impacts to recreationists and motorists would be of short duration and intermittent. Impacts to local residents would be ongoing for the entire construction

phase, and although short term, identified impacts would be adverse, and therefore, Mitigation Measures VIS-3a, VIS-3b, and VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Long-term landscape alterations. Construction activities including excavation and trenching for the collector cable system and grading for the collector substation/O&M facility site (and associated access roads) would result in the removal of existing natural vegetation cover. Due to the strong contrast between exposed soils and natural vegetation that vegetation removal can produce, identified long-term landscape alterations impacts would be adverse, and therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Long-term visual contrasts. The long-term visual contrasts resulting from the collector cable system, collector substation, and O&M facility were assessed from KOP 10 and KOP 14 (Figures D.3-15 and D.3-19). From KOP 10, these components may be visible from northward-facing views in the middle-ground viewing distance but would be largely screened by existing topography (note: Figure D.3-15B, does not show the view orientation to the north). The collector cable system may be visible from Ribbonwood Road; however, due to viewing distance and intervening topography, the apparent size of support structures would decrease and would not attract the attention of the viewer. From KOP 14 (Figure D.3-19B), the collector cable system may be visible but would not be a dominant feature in the visual landscape. Due to the presence of large, visually dominating wind turbines (which the collector cable system would be located behind when viewed from KOP 14), the visual contrast created by the collector cable system would not be overly strong. However, the introduction of industrial elements to an existing visual environment characterized as overwhelmingly natural would result in significant visual contrasts.

Identified impacts would be adverse; therefore, APM TULE-AES-5 (which would minimize the visual impact of the collector cable system by installing a portion of the system underground) and Mitigation Measures VIS-3i, VIS-3j, VIS-3l have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Due to intervening topography, the collector substation and O&M facility would likely be visible only to recreationists in the immediate vicinity of the site. Views of these facilities would be short term and intermittent for travelers on McCain Valley Road in the vicinity of the Carrizo Overlook (due to intervening landforms and the relatively low-lying projection of proposed

equipment and buildings, the collector substation/O&M facility would not likely be visible from the Carrizo Overlook). Although views of the collector substation and O&M facility would be short term, intermittent, and experienced by a limited number of viewer types, identified impacts would be adverse; therefore, APM TULE-AES-9 (requires that insulators at the collector substation be porcelain and dull gray in color) and Mitigation Measures VIS-3g and VIS-3h (these measures would supersede APMs TULE-AES-6, AES-8, AES-10) have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Tule Wind 138 kV Transmission Line

Short-term visibility of construction activities and long-term visibility land alterations. Short-term visibility of construction activities and long-term landscape alteration impacts associated with the Tule Wind 138 kV transmission line would be similar to those anticipated from the ECO Substation 138 kV transmission line. Construction activities would generally occur during daytime hours; however, where nighttime work is necessary, construction night lighting would be required. Construction activity would be visible to travelers on McCain Valley Road, Ribbonwood Road, I-8, local roads in Boulevard; to rural residences in Boulevard and along Ribbonwood Road; and to recreation areas within the McCain National Cooperative Land and Wildlife Management Area, including the Lark Canyon OHV area. Construction and operation of the 138 kV transmission line would also result in relatively long-term landscape alterations at temporary work areas, pull sites, and along newly constructed access roads. Identified short-term visibility of construction activities impacts would be adverse, and therefore, Mitigation Measures VIS-3a, VIS-3b, and VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Identified long-term visibility land alterations impacts would also be adverse, and therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Long-term visual contrasts. Long-term visual change resulting from the visibility of the Tule Wind 138 kV transmission line was assessed from KOP 9 (Figure D.3-14), KOP 11 (Figure D.3-16), KOP 12 (Figure D.3-17), and KOP 15 (Figure D.3-20).

Long-term visual contrasts would occur where the overhead Tule Wind 138 kV transmission line would introduce an industrial utility feature into landscapes that are currently natural or a mixture of natural and community elements. In settings where the 138 kV line would be within 0.5 mile (foreground viewing distance) of sensitive viewing locations and result in strong visual contrasts, adverse impacts would occur. These instances include roadside views from I-8, McCain Valley Road, and Old Highway 80, where the 138 kV transmission line would establish

a new utility corridor and alter predominantly natural landscape settings. Residential views would be similarly affected near the community of Boulevard. Recreationists' views would also be affected within the BLM's managed Lark Canyon OHV area. KOP 9, an elevated residential viewing location located near the Boulevard Substation Rebuild site, is representative of the combination of natural and community elements that characterize the existing visual landscape in and around the community of Boulevard. Although the steel tangent transmission line poles would be backscreened when viewed from the elevated viewing location of KOP 9, their introduction would increase the industrial character of the area that is nearly void of large-scale industrial elements (Figures D.3-14D and D.3-14E). Similarly, at other locations along the proposed alignment, the Tule Wind transmission line and support structures would be skylined and, due to the absence of existing linear utilities and the size and character of the 138 kV transmission line structures, hardware, and conductors, would create strong visual contrasts (KOP 11, Figure D.3-16B; KOP 12, Figure D.3-17C; and KOP 15, Figure D.3-20B). Therefore, since the 138 kV transmission line would produce strong long-term visual contrasts that would be visible to a variety of viewer types including residents, recreationists, and motorists, identified impacts would be adverse, and Mitigation Measures VIS-1c, VIS-3i, VIS-3j, VIS-3l, and VIS-3m (VIS-3m would supersede APM TULE-AES-11) have been provided. However, the identified impact of the Tule Wind 138 kV transmission line (primarily the segment located adjacent to McCain Valley Road and within the McCain Valley National Cooperate Land and Wildlife Management Area) cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Identified impacts associated with the visibility of the 138 kV transmission line as viewed from Old Highway 80 and rural residences within foreground to middle-ground viewing distances would also be adverse; therefore, Mitigation Measures VIS-1c, VIS-3i, VIS-3j, VIS-3l, and VIS-3m have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

During decommissioning, impacts on visual resources would be similar to those encountered during construction. Impacts would be related to visibility of construction vehicles and personnel, temporary fencing of work/restoration site(s), phased activity over extended periods of time, removal of buried (and aboveground) structures and equipment, and the presence of dismantled equipment (if allowed to remain on site). Visual impacts associated with the dismantling of heavy equipment, support facilities, and lighting would be substantially the same as those in the construction phase. Restoration activities could entail recontouring, grading, seeding and planting, and stabilizing disturbed surfaces. Newly disturbed soils (resulting from recontouring and grading) would create a visual contrast that would be relatively long term in arid to semiarid environments where precipitation is low and vegetation establishment and growth are slow. Generally, visual impacts anticipated during decommissioning would be similar

to the short-term visibility of construction activities and long-term visibility land alterations that would occur and result from construction of the Tule Wind Project.

ESJ Gen-Tie Project

Short-term visibility of construction activities and long-term landscape alterations. Construction of the ESJ Gen-Tie Project, which is anticipated to take approximately 6 months, would result in short-term visual impacts. Construction activities would occur during the hours allowed by the County of San Diego noise ordinance (7 a.m. to 7 p.m.) and nighttime construction and the use of night lighting is not anticipated. The visual impacts from the ESJ Gen-Tie construction would primarily be to travelers along Old Highway 80 and I-8. These impacts would be of short duration, and intermittent. Construction of the gen-tie would also be visible from the Table Mountain ACEC and other nearby public lands (e.g., within the Airport Mesa Recreation Management Zone and Jacumba Mountains Wilderness). Although considered short term, due to the high visibility of construction equipment and personnel, visual impacts resulting from construction activities at the ESJ Gen-Tie project site would be significant. Also, construction of the ESJ gen-tie line may result in relatively long-term landscape alterations at the temporary stringing area and along the newly graded site access road and gen-tie tower access road. These impacts would also be significant.

Identified short-term visibility of construction activities impacts would be adverse, and therefore, Mitigation Measures VIS-3a (this measure would supersede APM ESJ-AES-1), VIS-3b, and VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Identified long-term landscape alterations impacts associated with construction activities would also be adverse, and therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

The ESJ Gen-Tie Project would connect the ESJ Phase 1 Wind Project in Mexico to the SDG&E proposed ECO Substation. Since the ESJ Phase 1 Wind Project would be visible from numerous viewpoints in the project area (including the community of Jacumba, the Airport Mesa Recreation Management Area, Jacumba Mountains Wilderness, Table Mountain ACEC, I-8, Old Highway 80, and local roads in Jacumba), the visual impacts associated with construction and operation of the project are assessed as follows.

The short-term visibility of construction activities and long-term landscape alterations resulting from construction of the ESJ Phase 1 Wind Project in Mexico would be significant. Due to location and visibility conditions, construction vehicles, equipment, and workers would be highly visible to viewers located in the United States in and around the community of Jacumba.

Construction activities and the intrusion of vehicles, equipment, and workers on the visual landscape would persist for a duration of between 4 and 5 years. Construction work is anticipated to occur primarily during the day; however, certain activities may occur during the night and would require night lighting. Identified night-lighting impacts would likely be adverse, and implementation of mitigation similar in content to Mitigation Measure VIS-3b could be provided to mitigate this impact. Under CEQA, the impact would be significant but could be mitigated to a level that is considered less than significant (Class II). However, impacts associated with the short-term visibility of construction vehicles, equipment, and personnel, as well as the long-term landscape alterations impacts associated with the construction of new turbine access roads and installation of a turbine tower and ancillary equipment would be adverse, and mitigation similar in content to VIS-3d, VIS-3e, and VIS-3f could be provided. However, the identified impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Due to the physical scale of wind turbines and the extent of the project area (primarily on slopes and ridgelines that are highly visible), the project site could not be adequately screened from the views by numerous viewer types in and around Jacumba. Also, due to the miles of access and spur roads that would be required, the ESJ Phase 1 Wind Project would produce unknown miles of new land disturbances as a result of extensive grading and vegetation removal. Due to the open visibility conditions available to multiple viewer types in the Jacumba area and due to the project's location on mountain slopes and ridgelines, the resulting landscape alterations would be highly visible.

Long-term visual contrasts. Long-term visual change associated with both the 500 kV and the 230 kV ESJ gen-tie options were assessed from KOP 1 (Figure D.3-6), KOP 3 (Figure D.3-8), and KOP 18 (Figure D.3-23). Visual simulations generated for the ESJ gen-tie options (from KOP 3) considered the use of steel lattice structures and monopole structures. Views of the ESJ Gen-Tie would be afforded to motorists on Old Highway 80 and I-8 and to recreationists at nearby public lands (e.g., Airport Mesa Recreation Management Zone, Jacumba Mountains Wilderness, and Table Mountain ACEC).

From the Table Mountain ACEC views of the ESJ Gen-Tie (both the 500 and 230 kV options) Project would be back-screened by the Jacumba Mountains and the visibility of project components would not be overly strong. Figure D.3-23B is a visual simulation of the ESJ Gen-Tie Project from public trails within the Table Mountain ACEC, approximately 1.25 miles northwest of the project site. As shown in the figure, the steel lattice structures supporting the gen-tie do not appear as dominant features in the visual landscape, and due to the back-screening effect of the Sierra de Juarez Mountains, the lattice structures almost blend in with the surrounding environment. While the structures are noticeable at this distance, they are not visually overpowering. Figure D.3-8D depicts the ESJ 500 kV option (steel lattice structures) as viewed from the east of the Airport Mesa landform. Although the gen-tie line and lattice

structures are more pronounced when viewed from this closer KOP location, a similar back-screening effect reduces the resulting visual contrast and makes the steel lattice structures appear dull. Use of monopole support structures would slightly increase the visibility of the project due to continuous and solid organization of the gen-tie structure (Figure D.3-8E). Figure D.3-8F depicts the 230 kV gen-tie (steel lattice structures) as viewed from Old Highway 80 (Figure D.3-8G, depicts the 230 kV gen-tie with monopole structures). While the gen-tie line and both the steel lattice and monopole structures would be noticeable from KOP 3, the steel lattice structure would be less pronounced than the monopole and would tend to disperse into the background setting. Although the 500 kV and 230 kV option would both be backscreened and the color of the support structures would not result in an overly strong visual contrast, the vertical form of support structures and linear gen-tie line would be highly noticeable and would further industrialize the natural character of the project area. Therefore, the resulting visual contrast would be significant. Identified impacts would be adverse, and therefore, Mitigation Measures VIS-3i, VIS-3j, and VIS-3l have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Similar to the Tule Wind Project, the long-term visual contrasts resulting from the ESJ Phase 1 Wind Project would be significant and visually dominant from sensitive viewing locations up to 5 miles from the wind turbines.

The long-term visual change associated with the ESJ Phase 1 Wind Project was assessed from KOP 1 (Figure D.3-6), KOP 2 (Figure D.3-7), KOP 3 (Figure D.3-8), KOP 6 (Figure D.3-11), and KOP 18 (Figure D.3-23). These KOPs represent views afforded to several viewer types including motorists and bicyclists (KOPs 1, 2, and 3), rural residents (KOP 6), and recreationists (KOP 18).

Figure D.3-6D, is a simulation of the ESJ Wind Phase 1 Wind Project as viewed from the eastbound lanes of I-8. As shown in the figure, several skylined wind turbines would be highly visible to passing motorists due to their location atop the Sierra de Juárez Mountains (the project applicant proposes to install between 500 and 625 wind turbines in the 2.0 to 2.5 MW range along the western side of the Sierra de Juárez Mountains). Although simulations of the ESJ Wind Phase I Project were not prepared from KOPs 2 and 3, the wind turbines would be visible from these locations (the viewer would merely have to turn east to see the turbines) due to the bulk and scale of the structures and the open visibility conditions available to viewers at these locations. Figure D.3-11D, is a simulation of the wind project as seen from the residential neighborhood near the Jacumba Reservoirs and Hill Street. As seen in the figure, the vertical form of multiple wind turbines would make these components highly visible, and although several of the wind turbines would be backscreened, the proposed neutral white finishing color

would make these structures immediately recognizable even at background viewing distances (wind turbines would be located approximately 6 miles away from KOP 6). Lastly, Figure D.3-23B, depicts the ESJ Phase 1 Wind Project as seen from the Table Mountain ACEC. From this location, the wind turbine color would be clearly evident and the blade movement would be attention grabbing. Due to the scale of these structures and their location atop a prominent ridgeline, identified impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Proposed PROJECT

The overall visual impacts resulting from the Proposed PROJECT including the Campo, Manzanita, and Jordan wind energy projects would be substantial within this part of eastern San Diego County. The introduction of numerous industrial elements including three substations (East County, Boulevard, and Tule collector substation), approximately 25 miles of overhead 138 kV, 230 kV and/or 500 kV transmission lines supported on over 400 structures, and hundreds (including the ESJ Phase 1 Wind Project) of wind turbines would transform the visual environment of eastern San Diego County. Affected viewers would include motorists and travelers along I-8 and Old-Highway 80; residents in the communities of Boulevard and Jacumba, dispersed rural residential areas along local roads, and recreationists visiting public lands in the area. Changes to visual settings would vary, depending on the quality and character of existing views, viewing conditions, and distances to the Proposed PROJECT components. Overall, many views would be transformed from predominantly natural or mixed natural and community settings to landscapes with strong industrial character. In combination with the ESJ Phase 1 Wind Project, construction activities could last up to 5 years and would stretch from the San Diego/Imperial County border up through the McCain Valley. Construction activities throughout the project area would be visible to numerous viewer types (residents, recreationists, motorists, bicyclists) at various viewing distances (foreground, middle-ground, background). The visual intrusion produced by construction activities would be visually dominant during the construction phase. The miles of access roads required for the Proposed PROJECT, as well as the cumulative earthwork necessary for individual site preparation and development (Section B, Project Description, for approximate earthwork quantities of the ECO Substation, Tule Wind, and ESJ Gen-Tie Projects), would alter the primarily natural landscape at and around project component sites. While some visual impacts experienced during construction (visual impacts associated with construction night lighting, for instance) could be reduced to less than significant with mitigation (Class II); others including short-term visibility of vehicles, equipment, and workers would remain significant (Class I) due to the geographical extent of construction activities and due to the numerous viewer types impacted. For the same reasons, VIS-3, long-term landscape alteration impacts, would remain significant (Class I). The mitigation measures

introduced for the individual projects (and individual components) could not effectively screen the project components so as to minimize the resulting visual change. The rural communities of Boulevard and Jacumba would become increasingly more industrial and components of the Proposed PROJECT (specifically, wind turbines) would be highly visible from numerous sightlines throughout the area. Therefore, identified long-term visual contrasts impacts would be adverse and mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

The vertical form of Campo, Manzanita, and Jordan wind energy project turbines would make these components dominant features in the visual landscape and wind turbines would be expected to result in strong visual contrasts (Figure D.3-24B, D.3-25B, D.3-26B, and D.3-27B for conceptual simulations of turbine locations). In addition, turbines are anticipated to be located atop high ridgelines and would likely be visible to a variety of viewer types in the project study area. The visual contrast impacts associated with the operation of these projects are expected to be similar to those previously identified for the Tule Wind Project.

Impact VIS-4: The Project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area. Impact VIS-4 pertains to long-term effects to nighttime views that would last the life of the project.

ECO Substation Project

Nighttime lighting associated with operation of the ECO Substation Project would be installed primarily for security and safety reasons. SDG&E proposes to install 50 300-watt tungsten quartz lamps near major electrical equipment at the ECO Substation to allow for nighttime emergency repair and routine maintenance access. In addition, 14 100-watt yellow floodlights would be installed near substation gates and building entrances (these lights would be on permanently). A similar lighting scheme is anticipated for the rebuilt Boulevard Substation, and permanent lighting (including nighttime lighting) would not be used for the 138 kV transmission line. All nighttime lighting at the ECO Substation and rebuilt Boulevard Substation would be directed downward and would use non-glare fixtures to minimize the glare onto surrounding properties (two residential trailers are located approximately 0.5 mile to the north and west of the ECO Substation site, respectively, and several residences are located adjacent to and in the general vicinity of the Boulevard Substation Rebuild site). Landscape plantings to be incorporated around the perimeters of substations would reduce light trespass; however, nighttime lighting would remain visible at surrounding residences (lighting would also be visible to motorists on I-8 and Old Highway 80). Since nighttime lighting would be used during the life of the substations, lighting would become a constant source of annoyance for nearby residences (and motorists) and

could affect nighttime views in the immediate area. Therefore, the long-term effects to nighttime views resulting from nighttime lighting associated with components of the ECO Substation Project would be significant.

Identified impacts would be adverse; therefore, Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

MM VIS-4a Reduce long-term night-lighting impacts from substations and ancillary facilities. The project applicant 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. The Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et al.) and Sections 6322 and 6324 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. The project applicant shall submit a Lighting Mitigation Plan to the appropriate land use jurisdiction agency for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. The project applicant shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the appropriate land use jurisdiction 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 are 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.

Tule Wind Project

Similar to the ECO Substation Project, nighttime lighting at project facilities would be installed primarily for security and safety reasons. Permanent lighting to be installed at the collector

substation and O&M facility would be the minimum intensity to meet security and operational needs. All lights would be shielded and directed downward to avoid unnecessary illumination of the area. Pursuant to FAA Regulations (Advisory Circular 70/7460-1K, Obstruction Marking and Lighting), nighttime obstruction lighting would be required to provide night conspicuity and to assist pilots in identifying and avoiding wind turbines. Per FAA lighting standards, flashing red or white lights may be used to light wind turbines (obstruction lighting would not be installed on all wind turbines). Although residences would not be located immediately adjacent to the collector substation and O&M facility, nighttime lighting at these facilities would be visible to residences in the general area due to the general lack of existing nighttime lighting in the area. Lighting would also be visible to recreationists in the general project area and to motorists on I-8 and local roadways in the Boulevard area. Also, although obstruction lighting would be required for the proposed wind turbines (per FAA regulations), the height of the turbines and the repetitive flashing of obstruction lighting would make these lights a strong and highly visible, constant source of annoyance for residents in the McCain Valley and Boulevard areas, and nighttime views for these residents would be affected. Therefore, the long-term effects to nighttime views resulting from the Tule Wind Project would be significant. Identified impacts associated with night lighting at the O&M facility would be adverse, and therefore, Mitigation Measure VIS-4a (this measure would supersede APM TULE-AES-7) has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Identified impacts associated with nighttime wind turbine obstruction lighting would be adverse, and therefore, Mitigation Measure VIS-4b (this measure would supersede APM TULE-AES-3) has been provided. However, the identified impact cannot be mitigated. There is no mitigation available that would further reduce the visual intrusion of FAA-required lighting on project area residential properties. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

MM VIS-4b Incorporate Obstacle Collision Avoidance System (OCAS) onto Tule Wind Project wind turbines. The project applicant shall install the OCAS lighting system on all proposed wind turbines in order to minimize nighttime lighting impacts attributed to the operation of FAA-required obstruction lighting. As the OCAS and other Audio Visual Warning Systems (AVWS) have been approved by the FAA and are considered to be suitable alternatives to the marking and lighting requirements as recommended in FAA Advisory Circular (AC) 70/7460-1K, installation of this system would be compatible with FAA requirements.

When the Tule Wind Project is decommissioned, all project components would be removed and areas disturbed by construction and operation of the project would be restored to pre-

project conditions. Removal of wind turbines and project facilities would reduce glare occurring in the project area, and dismantling of wind turbines would also entail the removal of the OCAS installed on wind turbines. Therefore, instances of project nighttime lighting would no longer occur.

ESJ Gen-Tie Project

Energia Sierra Juarez U.S. Transmission, LLC, is not proposing the use of nighttime lighting for the ESJ Gen-Tie Project. As such, the ESJ Gen-Tie Project would not generate a new source of light that would adversely affect nighttime views in the area, and no impact (No Impact) would occur.

Although the ESJ Gen-Tie Project would not result in a new source of nighttime lighting, the ESJ Phase 1 Wind Project would produce nighttime lighting impacts similar to the Tule Wind Project and would affect nighttime views in the area. While residences in Jacumba would not be located immediately adjacent to the wind farm development, the obstruction lighting anticipated to be installed on proposed turbines would be highly visible due to a lack of intervening landforms and the generally open visibility conditions. Due to the wind farm location on the western slopes of the Sierra de Juarez Mountains, obstruction lighting may also be visible to residents in Jacumba and surrounding communities. While the effects of nighttime lighting associated with the ESJ Phase 1 Wind Project would diminish with distance (the community of Jacumba would be located approximately 4 miles west of the project site), the project would be adding nighttime lighting to the project area that would affect nighttime views. Therefore, identified impacts associated with nighttime lighting of ESJ Phase 1 wind turbines would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Proposed PROJECT

While some of the nighttime lighting impacts associated with operation of the Proposed PROJECT including the Campo, Manzanita, and Jordan wind energy projects could be reduced through the implementation of a Light Mitigation Plan (Mitigation Measure VIS-4a) at substation and ancillary facilities, the impacts associated with the installation and operation of FAA-required lighting atop wind turbines would result in substantial impacts to nighttime views. The introduction of additional obstruction lighting (obstruction lighting is currently installed atop existing Kumeyaay wind farm turbines) to the existing dark sky environment around the Boulevard community would further affect nighttime views in the area and would result in a constant source of annoyance for area residents during the life of the project. Obstruction lights would operate nightly, as required by the FAA, and could not be further reduced in number so as to render the resulting visual impact less than significant. Even with implementation of the

OCAS (Mitigation Measure VIS-4b), illumination of nighttime skies could not be entirely avoided. Due to the numerous residences that would have unobstructed views of the wind turbines and associated lighting, the impact would be far-reaching. Plus, with the addition of between 500 and 625 turbines as proposed by the project applicant of the ESJ Phase 1 Wind Project, residents in the project area would be subjected to red-flashing and other forms of obstruction lighting in their western-, northern-, and eastern-facing nighttime views. Therefore, identified impacts would be significant and Mitigation Measure VIS-4a has been provided for the ECO and Tule Wind projects, and Mitigation Measure VIS-4b has been provided solely for the Tule Wind Project. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact VIS-5: Construction of the Proposed PROJECT or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.

Appendix 6, Visual Resource Consistency Tables, lists the applicable visual resource regulations, plans, and standards by project and by project component. Most jurisdictional agencies implement plans, policies, and regulations to minimize the potential visual impacts resulting from development projects. If any of the components of the ECO Substation, Tule Wind, or ESJ Gen-Tie projects conflicted with one of these standards, it would negate the specific jurisdictional agency's attempt to reduce or avoid unnecessary visual impacts. By complying with applicable land use plans, policies, and regulations, the ECO Substation, Tule Wind, and ESJ Gen-Tie projects would meet each jurisdiction's respective goals for minimizing potential visual impacts of development projects. Appendix 6 provides a consistency analysis between the ECO Substation, Tule Wind, and ESJ Gen-Tie projects and applicable plans and policies.

ECO Substation Project

As demonstrated in Appendix 6, Visual Resource Consistency Tables, the proposed ECO Substation Project would not be consistent with all local visual resource plans, policies, and regulations relevant to the project area. Specifically, the ECO Substation Project was determined to be inconsistent with Policies COS-11.1 and COS-11.2 of the County of San Diego Draft General Plan Update Conservation and Open Space Element. Policies COS-11.1 and COS-11.2 require the protection of scenic highways, and under the County Draft General Plan Update, both I-8 and Old Highway 80 would be considered County-designated scenic highways. Visual impacts to these transportation facilities would be similar to the visual contrast impacts identified in the VIS-3 ECO Substation Project impact analysis for KOPs 1, 2, and 8 (Section D.3.3.3). However, because the County of San Diego Draft General Plan Update is in draft form and has

not been formally adopted, no impact determination is made with regard to the Draft General Plan Update (the Draft General Plan Update also includes the Boulevard Subregional Planning Area Community Plan).

With implementation of mitigation identified in Section D.3.3.3, the ECO Substation Project was determined to be consistent with visual resource policies and goals identified in the following plans, General Plan elements, and local regulations:

- BLM Eastern San Diego County Resource Management Plan
- County of San Diego Existing General Plan–Conservation Element
- County of San Diego Zoning Ordinance (Sections 6320, 6322, and 6324)
- County of San Diego Light Pollution Code (Dark Skies Ordinance).

With the exception of the Scenic Highway Goal, the ECO Substation Project was determined to be consistent with all relevant visual resource policies and goals established in the Mountain Empire Subregional Plan. Because the ECO Substation would be openly visible from I-8 (a County-designated third-priority scenic route) and because even with the implementation of mitigation identified in Section D.3.3.3 (VIS-3 impact analysis for the ECO Substation Project), the substation could not be better blended in with the existing landscaping to the extent that the resulting visual impact would be considered less than significant, the ECO Substation Project was determined to be inconsistent with the identified Scenic Highway goal.

Although the ECO Substation Project was determined to be inconsistent with the Scenic Highway Goal of the Mountain Empire Subregional Plan and while implementation of mitigation would be required in order for the ECO Substation Project to be consistent with other local plans, goals, and policies related to the protection of visual resources, the County of San Diego has no land use jurisdiction over the ECO Substation Project. Therefore, local visual resource plans and policies are not applicable to the project and no impacts (No Impact) would result from inconsistencies between the project and local visual resource plans and policies. However, as identified in Appendix 6, Visual Resource Consistency Tables, with implementation of mitigation, the ECO Substation Project was determined to be consistent with the visual resource policies identified in the BLM Eastern San Diego County RMP. Therefore, identified impacts would be adverse, and mitigation has been provided that would mitigate this impact (Appendix 6, Visual Resource Consistency Tables, for applicable visual resource mitigation measures). Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Tule Wind Project

As demonstrated in Appendix 6 (Table 7-2), Visual Resource Consistency Tables, the proposed Tule Wind Project would not be consistent with all applicable plans, policies, and regulations relevant to the project area. Components of the Tule Wind Project located on County jurisdictional lands were determined to be inconsistent with visual resource goals and policies established in the plans and regulations identified in the following (the specific policy/section with which project components would be inconsistent is also identified as follows):

- County of San Diego Draft General Plan Update – Conservation and Open Space Element (Policies COS-11.1 and COS-11.2) (County of San Diego 2010)
- County of San Diego Existing General Plan – Mountain Empire Subregional Plan (Scenic Highway Goal)
- County of San Diego Zoning Ordinance (Section 6324) (County of San Diego 2010d).

Although project components under the County’s jurisdiction were determined to be inconsistent with policies and goals included in the County of San Diego Draft General Plan Update (specifically policies and goals contained with the Conservation and Open Space Element and Boulevard Subregional Planning Area Community Plan), the General Plan Update is in draft form and has not been formally adopted by the County. Therefore, no impact determination has been made with regard to inconsistencies between project components under the County’s jurisdiction and draft visual resource plans and policies.

As identified in Appendix 6, Visual Resource Consistency Tables, the construction and operation of large wind turbines openly visible from I-8 would conflict with the Scenic Highway Goal of the Mountain Empire Subregional Plan (I-8 is a County-designated third-priority scenic route, and development of wind turbines along the corridor would not protect or enhance existing scenic resources). Lastly, while nighttime lighting at the collector substation and O&M facility would be consistent (with implementation of Mitigation Measure VIS-4a) with Section 6324 of the County Zoning Ordinance, operation of the OCAS and resulting light trespass could likely extend beyond the spill light thresholds identified by the County and would not be consistent with Section 6324.

Identified impacts are assessed as adverse, and implementations of Mitigation Measures VIS-4a and VIS-4b have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

ESJ Gen-Tie Project

As demonstrated in Appendix 6, Visual Resource Consistency Tables, the proposed ESJ Gen-Tie Project would be consistent with all applicable plans, policies, and regulations relevant to the project area. With implementation of mitigation measures (as discussed in Appendix 6), the ESJ Gen-Tie Project was determined to be consistent with the following visual resource plans and regulations:

- County of San Diego Draft General Plan Update – Conservation and Open Space Element (County of San Diego 2010)
- Mountain Empire Subregional Plan (2010c)
- County of San Diego Zoning Ordinance (2010d).

Therefore, identified impacts would be adverse, and mitigation has been provided (Appendix 6 Visual Resource Consistency Tables for applicable mitigation measures) that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Proposed PROJECT

As identified in Appendix 6, the Tule Wind Project would not be consistent with all local policies and regulations relevant to the project area guiding the protection of visual resources (see previous discussion for individual projects). Although project-specific information has not been developed, the Jordan wind energy project would be located on County jurisdictional lands and may result in similar consistency determinations with respect to local plans and policies as previously identified for the Tule Wind Project. Because the Campo and Manzanita wind turbines would be located on tribal lands, these components would not be subject to local plans and policies. Therefore, because the Proposed PROJECT including the Campo, Manzanita, and Jordan wind energy projects would not be consistent with all local plans, policies, and regulations, identified impacts would be adverse. Mitigation has been provided; however, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

D.3.4 ECO Substation Project Alternatives

Table D.3-3 summarizes the visual resources impacts and classification of impacts under CEQA that have been identified for the ECO Substation Project alternatives.

Table D.3-3
Visual Resource Impacts Identified for ECO Substation Project Alternatives

Impact No.	Description	Classification
ECO Substation Alternative Site		
ECO-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
ECO-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ECO-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
ECO-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class II
ECO-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II
ECO Partial Underground 138 kV Transmission Route Alternative		
ECO-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class III
ECO-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ECO-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
ECO-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class II
ECO-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II
ECO Highway 80 138 kV Transmission Route Alternative		
ECO-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
ECO-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ECO-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
ECO-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class II
ECO-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II
ECO Highway 80 Underground 138 kV Transmission Route Alternative		
ECO-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class III
ECO-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ECO-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
ECO-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class II

Table D.3-3 (Continued)

Impact No.	Description	Classification
ECO-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II

D.3.4.1 ECO Substation Alternative Site

This alternative would not affect the impact conclusions resulting from implementation of the proposed Tule Wind and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Section D.3.1.2 describes the visual quality of component sites, the visual sensitivity of potentially affected viewers, and KOPs selected to analyze impacts associated with the proposed ECO Substation Project. Because this alternative would only shift the proposed ECO Substation site 700 feet to the east, the visual quality and viewer sensitivity conclusions would be the same as described in Section D.3.1.2 for locations afforded views of the ECO Substation Alternative Site (KOPs 1, 2, 3, and 18).

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Shifting the substation site 700 feet to the east would neither increase nor decrease the scenic vistas impacts discussed in Section D.3.3.3 for the proposed ECO Substation Project. Similar to the proposed ECO Substation Project, the shifted substation site would be openly visible from the Table Mountain ACEC (KOP 18, Figure D.3-23B, the shifted ECO Substation and ESJ Gen-Tie would be located approximately 700 feet east of the identified proposed locations) and other public lands in the area; however, due to intervening distance and backscreening of desert terrain and vegetation, the resulting visual contrast would not be overpowering. Similar to the proposed 138 kV transmission line, the 138 kV transmission line associated with the ECO Substation Alternative Site would be visible from the Jewel Valley Trail and the Jewel Valley Road Pathway within a foreground viewing distance and would therefore result in significant scenic vista impacts. Therefore, similar to the proposed ECO Substation Project, identified impacts would be adverse, and Mitigation Measures VIS-1a and VIS-1b have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed ECO Substation Project and all project alternatives, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative

Impact VIS-3: The long-term visual contrasts of the ECO Substation Alternative Site and SWP Loop-In transmission line was assessed from KOP 2. KOP 2 (Figure D.3-7A) shows representative views of the ECO Substation alternative site as viewed from Old Highway 80. Figure D.3-7D, is a visual simulation of the ECO Substation alternative site from Old Highway 80, eastbound; and Figure D.3-7E, shows the comparative long-term visual effects of SDG&E's proposed landscaping plan for the ECO Substation alternative site.

Shifting the ECO Substation site 700 feet to the east would neither increase nor decrease the severity of the anticipated visual change discussed in Section D.3.3.3 for the proposed ECO Substation Project. Rather, this alternative would shift the impacts (short-term visibility of construction activities, long-term land alterations, and long-term visual contrasts) 700 feet to the east (Figures D.3-7D and D.3-7E). Therefore, similar to the proposed ECO Substation Project, identified short-term visibility of construction activities and long-term landscape alteration impacts associated with all project components would be adverse, and therefore, Mitigation Measures VIS-3a through VIS-3f (and Mitigation Measure VIS-3m for the Boulevard Substation) have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Similar to the proposed ECO Substation Project, identified long-term visual contrasts associated with the ECO Substation, 138 kV transmission line (Figure D.3-12C for visual simulation of ECO Substation Alternative Site 138 kV transmission line as viewed from KOP 7), and the Boulevard Substation Rebuild would be adverse. Therefore, mitigation measures have been provided for the ECO Substation (APM ECO-AES-1 and Mitigation Measures VIS-3g and VIS-3h), 138 kV transmission line (APM ECO-AES-3 and Mitigation Measures VIS-3i through VIS-3l), and the Boulevard Substation (APM ECO-AES-2 and Mitigation Measures VIS-3g and VIS-3h). However, the identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the Proposed PROJECT, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impact VIS-4: Similar to the proposed ECO Substation Project, the ECO Substation Alternative Site would install and operate nighttime lighting for security and safety reasons (a similar lighting scheme of 50 300-watt tungsten-quartz lights near substation equipment and 14 100-watt yellow floodlights near building entrances and gates is anticipated under this alternative). Shifting the substation (and thus shifting nighttime lighting fixtures farther away from the

nearest affected residences) would not substantially decrease the severity of nighttime lighting impacts discussed in Section D.3.3.3. Similar to the proposed ECO Substation Project, identified impacts would be adverse, and Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Impact VIS-5: Similar to the proposed ECO Substation Project, the ECO Substation Alternative Site would not be consistent with all applicable local land use plans, policies, or regulations established to protect visual resources. Relocating the substation site 700 feet to the east would not result in substantial changes to the consistency determinations identified for the proposed ECO Substation Project in Section D.3.3.3 and in Appendix 6, Visual Resource Consistency Tables. Similar to the proposed ECO Substation Project, with implementation of mitigation this alternative would be consistent with the applicable visual resource policies and goals contained in the Eastern San Diego County RMP. Therefore, identified impacts would be adverse, and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

D.3.4.2 ECO Partial Underground 138 kV Transmission Route Alternative

This alternative would not affect the impact conclusions resulting from implementation of the proposed Tule Wind and ESJ Gen-Tie Projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

With the exception of the undergrounding of the proposed 138 kV transmission line between MP 9 and the rebuilt Boulevard Substation, components of this alternative would be the same as those identified for the ECO Substation Project presented in Section B of this EIR/EIS. Under this alternative, from MP 9 to the rebuilt Boulevard Substation, the proposed 138 kV transmission line would be installed underground (instead of on overhead transmission poles) along the same route as the proposed ECO Substation Project. Therefore, the existing visual quality and viewer sensitivity conditions would be the same as described in Section D.3.1.2 for the proposed ECO Substation Project.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Undergrounding the 138 kV transmission line between MP 9 and the rebuilt Boulevard Substation would not affect the scenic vista impacts identified near MP 5.8 (Old Highway 80 crossing) of the proposed transmission line and those associated with visibility of the ECO Substation site and 138 kV transmission line from the Table Mountain ACEC and other public lands in the project area. However, because the transmission line would be installed

underground between MP 9 and the rebuilt Boulevard Substation, scenic vista impacts to the Jewel Valley Trail and the Jewel Valley Road Pathway would be substantially reduced. Scenic vista impacts under this alternative would be less than those anticipated under the proposed ECO Substation Project. Under this alternative, identified impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed ECO Substation Project, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative.

Impact VIS-3: The short- and long-term visual contrasts resulting from the ECO Partial Underground 138 kV Transmission Route Alternative were assessed primarily from KOP 7. KOP 7 (Figure D.3-12D) provides a view orientation to the north toward the ECO Partial Underground Alternative alignment from Jewel Valley Road toward Tule Jim Lane, within the unincorporated community of Boulevard.

Undergrounding the transmission line between MP 9 and the rebuilt Boulevard Substation would substantially reduce or avoid some of the significant impacts to residential views described in Section D.3.3.3 for the proposed 138 kV transmission line (KOP 7, Figure D.3-12B; and Figure D.3-12D, for comparison of the anticipated visual change resulting from the proposed ECO Substation Project and the ECO Partial Underground Proposed 138 kV Transmission Route Alternative). As discussed in Section D.3.3.3, significant VIS-3 impacts would occur where the proposed transmission line is not located adjacent to existing SWPL transmission line. This alternative would effectively avoid or minimize the visual contrasts anticipated from the introduction of a relatively large-scale, highly visible transmission line to a natural, rural residential area by undergrounding a significant segment of the line (KOP 7, Figure D.3-12D). This alternative would also underground the existing distribution line located adjacent to Tule Jim Lane and seen in Figure D.3-12D. Therefore, because existing contrasts from structures would be removed, the visual contrasts resulting from undergrounding the 138 kV transmission line and the existing distribution line would be beneficial (Class IV) as viewed from KOP 7. Overall, VIS-3 short-term visibility of construction activities would be slightly greater under this alternative (as a result of underground activities). Identified impacts would be adverse, and therefore, Mitigation Measures VIS-3a through VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Similarly, long-term landscape alteration of visual impacts would be greater under this alternative (due to undergrounding). Identified impacts would be adverse, and therefore, Mitigation Measures VIS-3d through VIS-3f (and Mitigation Measure VIS-3m for the Boulevard Substation) have been provided and would mitigate this

impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

VIS-3 long-term visual impacts associated with the transmission line would be significantly reduced under this alternative due to partial undergrounding of the component. However, identified long-term visual contrasts associated with all project components would still be adverse, and therefore, mitigation measures have been provided for the ECO Substation (APM ECO-AES-1 and Mitigation Measures VIS-3g and VIS-3h), 138 kV transmission line (APM ECO-AES-3 and Mitigation Measures VIS-3i through VIS-3l), and the Boulevard Substation (APM ECO-AES-2 and Mitigation Measures VIS-3g and VIS-3h). While the long-term visual contrasts resulting from the 138 kV transmission line could be mitigated, the visual contrasts associated with the ECO Substation and Boulevard Substation cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the Proposed ECO Substation Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impact VIS-4: The ECO Partial Undergrounding Alternative would have the same overall visual effects as described for the proposed ECO Substation Project. Partial undergrounding of the transmission line near the Boulevard community would not change or alter visual impacts described under VIS-4 for the proposed ECO Substation Project. Therefore, this alternative would neither increase nor decrease potential impacts associated with nighttime lighting as discussed in Section D.3.3.3 for the proposed ECO Substation Project. Identified impacts would be adverse, and Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Impact VIS-5: Similar to the proposed ECO Substation Project, the ECO Partial Underground 138 kV Transmission Route Alternative would not be consistent with all applicable local land use plans, policies, or regulations established to protect visual resources. Undergrounding the transmission line between MP 9 and the rebuilt Boulevard Substation would not result in substantial changes to the consistency determinations identified for the proposed ECO Substation Project in Section D.3.3.3 and in Appendix 6, Visual Resource Consistency Tables. Similar to the proposed ECO Substation Project, with implementation of mitigation, this alternative would be consistent with the applicable visual resource policies and goals contained in the Eastern San Diego County RMP. Therefore, identified impacts would be adverse, and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

D.3.4.3 ECO Highway 80 138 kV Transmission Route Alternative

This alternative would not affect the impact conclusions resulting from implementation of the proposed Tule Wind and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

With the exception of the Old Highway 80 138 kV transmission line route alternative, the existing visual setting adjacent to proposed project components of this alternative would be the same as those identified for the proposed ECO Substation Project in Section D.3.1.2. From the intersection of the SWPL transmission line and Old Highway 80 (approximately 1.5 miles northwest of Jacumba), this alternative would expand and use an existing utility ROW and replace an existing distribution line with a 138 kV transmission line, with the distribution under built for approximately 4.8 miles, generally along Old Highway 80 to the rebuilt Boulevard substation. Therefore, the existing visual quality and viewer sensitivity conclusions for locations afforded views of the ECO Highway 80 138 kV Transmission Route Alternative (KOP 17) would be the same as described in Section D.3.1.2.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Compared to the proposed 138 kV transmission line, this alternative would slightly increase visual impacts to scenic vistas by siting over 4 miles of the transmission line adjacent to Old Highway 80 (KOP 17, Figure D.3-22B). While views afforded to motorists along the affected segment of Old Highway 80 are typical of the natural physiographic desert landscape, the visibility conditions along several segments of the roadway are open and provide panoramic views of the surrounding landscape. While this alternative transmission line alignment would not impact recreationists along the Jewel Valley Trail or Jewel Valley Road Pathway, Old Highway 80 is assumed to receive more use than the identified trail and pathway, and thus, increased scenic vista impacts are assumed. Therefore, because this alternative would site a significant portion of the transmission line adjacent to Old Highway 80 and since the transmission line would introduce a visually prominent industrial utility feature that would be viewed at a close foreground distance, impacts to scenic vistas would occur. Identified impacts would be adverse, and therefore, Mitigation Measures VIS-1a and VIS-1b have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed ECO

Substation Project, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative.

Impact VIS-3: Short- and long-term visual contrasts resulting from the ECO Highway 80 138 kV Transmission Route Alternative were assessed from KOP 9 and KOP 17. KOP 9 (Figures D.3-14F and D.3-14G) provide view orientations to the northwest and northeast toward the ECO Highway 80 138 kV Transmission Route Alternative alignment adjacent to Old Highway 80 near the Boulevard Substation. The view from KOP 17 (Figure D.3-22B) is oriented to the north–northeast toward the ECO Old Highway 80 Route Alternative near approximate MP 5.8 of the 138 kV transmission line.

The visual character and quality impacts associated with this alternative would be greater than those identified for the proposed transmission line discussed in Section D.3.3.3. By locating the transmission line along Old Highway 80, a shorter overall segment of the transmission line would be located adjacent to the existing SWPL (visual impacts associated with segments of the transmission line adjacent to SWPL were assessed as Class III in Section D.3.3.3.). Whereas the proposed 138 kV transmission line would establish a new large-scale transmission line where similar high voltage lines do not exist over an approximate 4.3-mile distance, this alternative would establish a new large-scale transmission line over an approximate 4.8-mile distance. In addition, compared with the proposed transmission line, this alternative would be located in closer proximity to (and would be visible to) a greater number of residences and to travelers along Old Highway 80 (see Figures D.3-14F and D.3-14G for proximity of alternative alignment to Old Highway 80). This alternative would also require taller structures and more lines than the proposed project, since the existing distribution line would be underbuilt on the alternative 138 kV structures. However, the VIS-3 short-term construction and long-term landscape alteration impacts under this alternative would be similar to those of the proposed ECO Substation Project. Identified impacts would be adverse; therefore, Mitigation Measures VIS-3a through VIS-3f (and VIS-3m for the Boulevard Substation) have been provided and would mitigate the impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Compared to the proposed transmission line, the long-term visual contrasts associated with the 138 kV transmission line would be greater under this alternative due to its location adjacent to Old Highway 80. In addition, the Old Highway 80 Alternative Route would locate a slightly longer segment (4.8 miles as compared to 4.3 miles) of the transmission line in a new 138 kV transmission corridor (a new 138 kV utility corridor would be established where the transmission line deviates from the alignment of the 500 kV SWPL). However, similar to the proposed ECO Substation Project, identified long-term visual contrasts associated with the ECO Substation, 138 kV transmission line, and the Boulevard Substation Rebuild would be adverse; therefore, mitigation measures have been provided for the ECO Substation (APM ECO-AES-1 and

Mitigation Measures VIS-3g and VIS-3h), 138 kV transmission line (APM ECO-AES-3 and Mitigation Measures VIS-3i through VIS-3l), and the Boulevard Substation (APM ECO-AES-2 and Mitigation Measures VIS-3g and VIS-3h). However, the identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the Proposed ECO Substation Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impact VIS-4: The Old Highway 80 Alternative would have the same overall light and glare visual impacts as described for the proposed ECO Substation Project. The alternative of routing the 138 kV transmission line for approximately 4.8 miles along Old Highway 80 would not change or alter visual impacts described under VIS-4 for the proposed ECO Substation Project. Therefore, this alternative would neither increase nor decrease potential impacts associated with nighttime lighting. Identified impacts would be adverse, and Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Impact VIS-5: Similar to the proposed ECO Substation Project, the ECO Highway 80 138 kV Transmission Route Alternative would not be consistent with all applicable land use plans, policies, or regulations. Rerouting the transmission line would result in similar consistency determinations as previously identified in Section D.3.3.3 (and in Appendix 6, Visual Resource Consistency Tables) for the proposed ECO Substation Project. Similar to the proposed ECO Substation Project, with implementation of mitigation this alternative would be consistent with the applicable visual resource policies and goals contained in the Eastern San Diego County RMP. Therefore, identified impacts would be adverse and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

D.3.4.4 ECO Highway 80 Underground 138 kV Transmission Route Alternative

This alternative would not affect the impact conclusions resulting from implementation of the proposed Tule Wind and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

With the exception of transmission line undergrounding, the environmental setting adjacent to the affected segment of Old Highway 80 associated with this alternative would be the same as previously identified for the ECO Highway 80 138 kV Transmission Route Alternative in Section D.3.4.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Undergrounding the 138 kV transmission line along Old Highway 80 would reduce the anticipated scenic vista impacts identified for the proposed ECO Substation transmission line in Section D.3.3.3. This alternative would not install visible project components adjacent to Old Highway 80 and would avoid obstructing scenic views from the Jewel Valley Trail and Jewel Valley Road Pathways; therefore, the project transmission poles, hardware, and lines would not adversely affect panoramic views. However, this alternative would result in some adverse land scars (due to underground activities) that would be visible from scenic vistas along Old Highway 80 and the Jewel Valley Trail and Jewel Valley Road Pathways. Scenic vista impacts associated with the 138 kV transmission line would, however, be greatly reduced under this alternative. Identified impacts would not be adverse. Under CEQA, impacts would be considered less than significant (Class III).

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed ECO Substation Project and all other project alternatives, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative.

Impact VIS-3: Similar to the ECO Highway 80 Transmission Route Alternative, KOPs 9 and 17 were used to assess the short- and long-term visual contrasts resulting from the ECO Highway 80 Underground 138 kV Transmission Route Alternative.

Undergrounding the 138 kV transmission line near and parallel to Old Highway 80 between approximately MP 5.8 and the rebuilt Boulevard Substation would avoid the visual impacts caused by the overhead 138 kV structures, hardware, and lines that are described in Section D.3.3.3 for the proposed 138 kV transmission line. As discussed in Section D.3.3.3, significant impacts would occur where the proposed transmission line is not located adjacent to SWPL and a new transmission corridor is created. This alternative would effectively avoid the visual contrasts anticipated from introduction of a relatively large-scale transmission to a natural, largely rural residential area by undergrounding the portion of the alternative transmission line where it would not be located adjacent to an existing high-voltage transmission line. In addition, this alternative includes provisions to underground an existing distribution line (KOP 17, Figure D.3-22B; the existing overhead distribution line visible in the figure would be placed underground alongside the ECO Substation Project 138 kV transmission line) and would result in beneficial visual resource impacts as viewed from KOP 17 and the surrounding area. However, due to the closer proximity of a number of residences to this transmission alternative, the short-term visibility of construction activity impacts would be greater than proposed 138 kV transmission line impacts. Identified impacts would be adverse, and therefore, Mitigation Measures VIS-3a through VIS-3c

would be provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

VIS-3 long-term landscape alterations would likely be greater than those of the proposed ECO Substation Project. The alternative 138 kV transmission line would be undergrounded in generally the same ROW as the existing distribution line, which crosses moderate to steep slopes in some areas and the area characterized by numerous rock boulders and desert shrub vegetation. Reclaiming and restoring these slopes would be challenging given the shallow soil, low moisture, and soil nutrient conditions. Identified impacts would be adverse, and therefore, Mitigation Measures VIS-3d through VIS-3f (and VIS-3m for the Boulevard Substation) have been provided and would mitigate landscape alterations associated with the entire alternative project. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

VIS-3 long-term visual impacts associated with the transmission line (including the potential for glare) would be significantly reduced through undergrounding and implementation of Mitigation Measures VIS-3i through VIS-3l. This alternative effectively avoids the visual effects resulting from installation of an overhead line along this stretch of Old Highway 80 and further provides visual benefits by undergrounding the existing distribution line. Overall, identified long-term visual contrasts associated with all the ECO project components would still be adverse, and therefore, mitigation measures have been provided for the ECO Substation (APM ECO-AES-1 and Mitigation Measures VIS-3g and VIS-3h), 138 kV transmission line (APM ECO-AES-3 and Mitigation Measures VIS-3i through VIS-3l), and the Boulevard Substation (APM ECO-AES-2 and Mitigation Measures VIS-3g and VIS-3h). While the long-term visual contrasts resulting from the 138 kV transmission line could be mitigated, the visual contrasts associated with the ECO Substation and Boulevard Substation cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the proposed ECO Substation Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impact VIS-4: The Old Highway 80 Undergrounding Alternative would have the same overall light and glare visual effects as described for proposed ECO Substation Project. The undergrounding of the 138 kV transmission line and existing distribution line along the highway would not change or alter visual impacts described under VIS-4 for the proposed ECO Substation Project. Therefore, this alternative would neither increase nor decrease potential impacts associated with nighttime lighting. Identified impact would not be adverse. Under CEQA, impacts would be considered less than significant (Class II) with implementation of Mitigation Measure VIS-4a.

Impact VIS-5: Similar to the proposed ECO Substation Project, the ECO Highway 80 Underground 138 kV Transmission Route Alternative would not be consistent with all applicable land use plans, policies, or regulations. Rerouting and placing an approximate 4.8-mile segment of the transmission line would reduce the overall visibility of the project; however, this alternative would result in similar consistency determinations previously identified in Section D.3.3.3 (and in Appendix 6, Visual Resources Consistency Tables) for the proposed ECO Substation Project. Similar to the proposed ECO Substation Project, with implementation of mitigation, this alternative would be consistent with the applicable visual resource policies and goals contained in the Eastern San Diego County RMP. Therefore, identified impacts would be adverse, and mitigation has been provided that would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

D.3.5 Tule Wind Project Alternatives

Table D.3-4 summarizes the visual resources impacts and classification of impacts under CEQA that have been identified for the Tule Wind Project alternatives.

Table D.3-4
Visual Resources Impacts Identified for Tule Wind Project Alternatives

Impact No.	Description	Classification
Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
TULE-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
TULE-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
TULE-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
TULE-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I
Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
TULE-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
TULE-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
TULE-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
TULE-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I

Table D.3-4 (Continued)

Impact No.	Description	Classification
Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
TULE-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
TULE-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
TULE-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
TULE-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I
Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch		
TULE-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
TULE-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
TULE-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
TULE-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
TULE-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I
Tule Wind Alternative 5, Reduction in Turbines		
TULE VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class I
TULE-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
TULE-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class I
TULE-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Class I
TULE-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class I

D.3.5.1 Tule Wind Alternative 1, Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch

This alternative would not affect the impact conclusions resulting from implementation of the proposed ECO Substation and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Under this alternative, the Tule Wind Project's collector substation and O&M facility would be relocated from BLM-administered land in the McCain National Cooperative Land and Wildlife Management Area to County of San Diego jurisdictional land on Rough Acres Ranch. Proposed turbines would be in the same location as identified in the proposed Tule Wind Project. The alternate collector substation/O&M facility site on Rough Acres Ranch would result in a shorter overall 138 kV transmission line route and a longer overall 34.5 kV overhead cable collector system. The visual quality and viewer sensitivity conclusions associated with this alternative would be the same as described in Section D.3.1.3 for locations afforded views of the Tule Wind Alternative Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch (KOPs 11 and 12). In addition, since this alternative would not result in the removal of wind turbines, the visual quality and viewer sensitivity conclusions made in Section D.3.1.3 for KOPs 14, 13, 15, and 16 would also describe the existing visual setting associated with this alternative.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Although the collector substation/O&M facility would be located on Rough Acres Ranch, this alternative would essentially remove the proposed 138 kV transmission line (and associated structures) from the visual landscape within the McCain National Cooperative Land and Wildlife Management and install a second 34.5 kV overhead collector cable system in its place. In the vicinity of the Carrizo Overlook the second 34.5 kV collector cable system would follow a similar route as the proposed transmission line and would actually be located closer to the scenic viewpoint. In addition, according to information provided by the project applicant, collector cable system poles and transmission poles would be constructed of similar materials and would be similar in height (the collector system poles would be between 60 and 80 feet tall and the transmission poles would be approximately 74.5 feet tall). Because wind turbines would still result in significant scenic vista impacts as viewed from the Carrizo Overlook and from the Ribbonwood Trail and Ribbonwood Road Pathway, overall impacts to scenic vistas would be similar to those identified for the proposed Tule Wind Project. Identified impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Similar to the proposed Tule Wind Project, when this alternative project is decommissioned, wind turbines and the 138 kV transmission line would be removed from the visual landscape and areas disturbed by construction and operation of the Tule Wind Project would be restored to their pre-project conditions. Restoring the project site to pre-project conditions could entail recontouring, grading, seeding and planting, and perhaps stabilizing disturbed surfaces. Although wind turbines and the 138 kV transmission line would be removed and would no longer impact

scenic views afforded from the Carrizo Overlook, the Ribbonwood Trail and the Ribbonwood Road Pathway, I-8, and Old Highway 80, restoration activities would be visible from these locations and would temporarily impact views.

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed Tule Wind Project and all other project alternatives, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative.

Impact VIS-3: The short- and long-term visual contrasts resulting from the Tule Wind Alternative Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch were assessed from KOP 11 and KOP 12. KOP 11 (Figure D.3-16B) provides a view orientation to the north, toward the proposed Tule Wind 138 kV gen-tie line along McCain Valley Road (Gen-Tie Route 2 would follow the same alignment as the proposed Tule Wind Project along this segment), and KOP 12 (Figure D.3-17D) provides a view orientation to the west, toward the alternative collector substation/O&M facility location on Rough Acres Ranch. KOP 12 is situated along McCain Valley Road near the entrance to the McCain National Cooperative Land and Wildlife Management Area.

Impacts associated with degradation of the existing visual character and quality of project component sites would be reduced under this alternative. Under this alternative, the collector substation/O&M facility would be located on a disturbed site on Rough Acres Ranch, and due to existing development surrounding the alternate site (KOP 12 Figure D.3-17D), the resulting visual contrast would be less pronounced than if the collector substation/O&M facility were sited on primarily natural BLM-administered land (as proposed in Section B for the Tule Wind Project). However, locating the collector substation/O&M facility and rerouting the 138 kV transmission line off BLM-administered land would not substantially affect the short-term visibility of construction activities. In addition, this alternative would still construct wind turbines that would result in significant short-term visibility of construction activities impacts. Therefore, similar to the proposed Tule Wind Project, identified impacts would be adverse, and Mitigation Measures VIS-3a through VIS-3c have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Since the alternate collector substation/O&M facility site on Rough Acres Ranch is already disturbed, long-term landscape alteration impacts would be slightly reduced. Overall, however, impacts would be similar to the proposed Tule Wind Project. Identified impacts would be adverse, and therefore, Mitigation Measures VIS-3d, VIS-3e, and VIS-3f have been provided. However, because of the numerous access roads that would be constructed and visible from numerous viewing angle, the identified impact cannot be mitigated. Under CEQA, impacts

would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Although moving the 138 kV transmission line would reduce the severity of visual change occurring within the McCain National Cooperative Land and Wildlife Management Area (the transmission line would no longer be visible to viewers at KOPs 13 and 14), the second collector cable system proposed under this alternative would be highly visible, and the vertical form and linear elements of the system would result in moderate visual contrasts with the surrounding natural environment. In addition, the transmission line would remain visible to rural residential viewers and motorists along McCain Valley Road (KOP 11, Figure D.3-16B) and motorists along Old Highway 80 (KOP 15, Figure D.3-20C). Similar to the proposed Tule Wind Project, identified long-term visual contrasts associated with the Tule Wind turbines, collector substation and O&M facility, collection cable system, and the 138 kV transmission line would be adverse; therefore, mitigation measures have been provided for the wind turbines (APM TULE-AES-1 Mitigation Measure VIS-3n), collector substation and O&M facility (APM TULE-AES-9 and Mitigation Measures VIS-3g and VIS-3h), collection cable system (APM TULE-AES-5), and the 138 kV transmission line (Mitigation Measures VIS-1c, VIS-3i, VIS-j, VIS-3l, and VIS-3m). However, overall identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the proposed Tule Wind Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impacts associated with decommissioning of this alternative would be similar to the decommissioning impacts identified in Section D.3.3.3 for the proposed Tule Wind Project. Generally, visual impacts anticipated during decommissioning would be similar to the short-term visibility of construction activities and long-term visibility land alterations that would occur and result from construction of this alternative, and similar mitigation would be implemented to minimize visual contrasts.

Impact VIS-4: A similar lighting scheme (as identified in Section D.3.3.3 for the proposed collector substation and O&M facility) is anticipated for the collector substation and O&M facility at the alternate Rough Acres Ranch site. Since residences would generally be located closer to the alternative collector substation/O&M facility site, the potential for nighttime lighting at these facilities to affect nighttime views of residents in the area would be slightly greater than if the facilities were located on BLM-administered land. Similar to the proposed Tule Wind Project, identified impacts would be adverse, and therefore, Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Since this alternative would not reduce the amount of proposed turbines, nighttime lighting impacts associated with turbine obstruction lighting would be similar to those identified in Section D.3.3.3 for the proposed Tule Wind Project. Similar to the proposed Tule Wind Project, identified impacts would be adverse, and therefore, and Mitigation Measure VIS-4b have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

When this alternative project is decommissioned, all project components would be removed and areas disturbed by construction and operation of the project would be restored to pre-project conditions. Removal of wind turbines and project facilities would reduce glare occurring in the project area, and dismantling of wind turbines would also entail the removal of the OCAS installed on wind turbines. Therefore, instances of OCAS-triggered nighttime lighting would no longer occur.

Impact VIS-5: Similar to the proposed Tule Wind Project, this alternative would not be consistent with all applicable local visual resource plans, policies, and regulations relevant to the project area: specifically, the County of San Diego Draft General Plan Update – Conservation and Open Space Element (Policy COS-11.1 and COS-11.2); the County of San Diego Existing General Plan Conservation Element (Scenic Highway Goal); and the County of San Diego Zoning Ordinance (Section 6324). While this alternative was determined to be consistent (with implementation of mitigation) with all other local visual resources plans and policies, similar to the proposed Tule Wind Project, identified impacts would be adverse, and mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

D.3.5.2 Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch

This alternative would not affect the impact conclusions resulting from implementation of the proposed ECO Substation and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Section D.3.5.1 describes the environmental setting associated with relocation of the collector substation and O&M facility to Rough Acres Ranch, and the subsequent shortened 138 kV transmission line route and extended collector cable system. Because this alternative would only underground the alternate 138 kV transmission line, the existing environmental setting would be the same as described in Section D.3.5.1. This project was, however, analyzed from KOP 9 and KOP 15, since undergrounding the gen-tie line would decrease the overall visibility of the Tule Wind Project as viewed from these locations. Therefore, the visual quality and viewer sensitivity

conclusions made in Section D.3.1.3 for KOPs 9 and 15 would also describe the existing visual setting associated with this alternative.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Impacts to scenic vistas under this alternative would be reduced when compared with those identified in Section D.3.3.3 for the proposed Tule Wind Project. In Section D.3.3.3, impacts were identified for the proposed transmission line at the I-8 and Old Highway 80 crossings. Under this alternative, scenic vista impacts associated with the alternative gen-tie at proposed I-8 and Old Highway 80 crossings would be avoided by undergrounding the transmission and removing support poles from the scenic landscape visible from these facilities (KOP 9, Figure D.3-14G, for approximate underground gen-tie alignment as viewed from south of the Boulevard Substation Rebuild site). This alternative would not, however, reduce the severity of scenic vista impacts anticipated to occur at the Carrizo Overlook, Ribbonwood Trail, or Ribbonwood Road Pathway. In addition, the second 34.5 kV collector cable system to be installed under this alternative could potentially be visible from the Carrizo Overlook and could obstruct scenic views. Therefore, overall scenic vista impacts would be adverse, and Mitigation Measure VIS-1b has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would remove wind turbines from the visual landscape, and areas disturbed by construction and operation of the Tule Wind Project would be restored to their pre-project conditions. Restoring a decommissioned site to pre-project conditions could entail recontouring, grading, seeding and planting, and perhaps stabilizing disturbed surfaces. Although wind turbines would be removed and would no longer impact scenic views afforded from the Carrizo Overlook, the Ribbonwood Trail and the Ribbonwood Road Pathway, I-8, and Old Highway 80, restoration activities would be visible from these locations and would temporarily impact scenic views.

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed Tule Wind Project and all other project alternatives, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative.

Impact VIS-3: Similar to the Tule Wind Alternative Gen-Tie Route 2 with Collector Substation/O&M Facility on Rough Acres Ranch, KOP 12 was used to assess the potential visual contrasts resulting from this underground alternative. In addition, KOP 9 (Figure D.3-14G) and KOP 15 (Figure D.3-20C) provide an approximate view of the underground gen-tie alignment

associated with the Tule Wind Alternative Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch from the elevated rural residential area east of the Boulevard Substation and from Old Highway 80 near the Boulevard Substation Rebuild site.

Impacts associated with short-term visibility of construction activities would be greater under this alternative due to the closer proximity of the collector substation and O&M facility to existing residences and due to undergrounding activities associated with the 138 kV transmission line. While short-term impacts at the collector substation and O&M facility and along the alternative transmission line alignment could be mitigated, impacts associated with wind turbine construction could not. Similar to the proposed Tule Wind Project, identified impacts would be adverse; therefore, Mitigation Measures VIS-3a through VIS-3c have been provided. However, the identified impact cannot be mitigated. Under CEQA, the impact would be significant and cannot be mitigated to a level that is less than significant (Class I).

Undergrounding activities along McCain Valley Road and Old Highway 80 (over an approximate 3.8-mile distance) would result in greater long-term landscape alteration impacts (due to trenching and the establishment or permanent access roads) compared with those anticipated for the proposed overhead gen-tie line. While long-term landscape alterations associated with the alternative transmission line could be mitigated, the impacts resulting from wind turbine and access road construction could not. Identified impacts would be adverse, and Mitigation Measures VIS-3d, VIS 3e, and VIS-3f have been provided. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

VIS-3 long-term visual contrasts associated with degradation of the existing visual character and quality of project component sites would be reduced under this alternative. Under this alternative the collector substation and O&M facility would be located on an already disturbed site at Rough Acres Ranch, and the transmission line would be placed underground (thereby avoiding the introduction of a highly visible, industrial element to the existing visual landscape) (KOP 12, Figure D.3-17D; KOP 9, Figure D.3-14G; and KOP 15, Figure D.3-20C). As shown in Figure D.3-17D, the alternative collector substation and O&M facility would be located on an environmentally disturbed site (the site has been previously developed) and, as shown on Figures D.3-14G and D.3-20C, undergrounding the gen-tie line would result in reduced visual impacts because gen-tie structures would not be visible from these viewing locations. Although additional collector cable system poles would be required under this alternative, viewer types afforded views of extended cable collector poles would be recreationists that would have short-term, intermittent views of these structures. Compared with the overhead transmission line of which residents along McCain Valley Road and Old Highway 80 would be afforded long-term views, the visual contrasts resulting from the extended cable collector system would be less severe. While the visual contrasts associated with wind turbines would clearly be noticeable from

surrounding communities, the long-term visual contrasts associated with the underground transmission line would be greatly reduced under this alternative. Identified long-term visual contrasts associated with the Tule Wind turbines, collector substation and O&M facility, and collection cable system would be adverse, and therefore, mitigation measures have been provided for the wind turbines (APM TULE-AES-1 Mitigation Measure VIS-3n), collector substation and O&M facility (APM TULE-AES-9 and Mitigation Measures VIS-3g and VIS-3h), and collection cable system (APM TULE-AES-5), and the 138 kV transmission line (Mitigation Measure VIS-3m). However, overall identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the proposed Tule Wind Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impacts associated with decommissioning of this alternative would be similar to impacts identified in Section D.3.3.3 for the proposed Tule Wind Project. Generally, visual impacts anticipated during decommissioning would be similar to the short-term visibility of construction activities and long-term visibility land alterations that would occur and result from construction of this alternative, and similar mitigation would be implemented to minimize visual contrasts.

Impact VIS-4: A similar lighting scheme (as identified in Section D.3.3.3 for the proposed collector substation and O&M facility) is anticipated for the collector substation and O&M facility at the alternate Rough Acres Ranch site. Since residences would generally be located closer to the alternative collector substation/O&M facility site, the potential for nighttime lighting at these facilities to affect nighttime views of residents in the area would be slightly greater than if the facilities were located on BLM-administered land. Similar to the proposed Tule Wind Project, identified impacts would be adverse, and therefore, Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Since this alternative would not reduce the amount of proposed turbines, nighttime lighting impacts associated with turbine lighting would be similar to those identified in Section D.3.3.3 for the proposed Tule Wind Project under this alternative. Similar to the proposed Tule Wind Project, identified impacts would be adverse, and therefore, Mitigation Measure VIS-4b has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Removal of wind turbines and project facilities during decommissioning would reduce glare occurring in the project area, and dismantling of wind turbines would also entail removal of the OCAS installed on wind turbines. Therefore, instances of OCAS-triggered nighttime lighting would no longer occur once the project is decommissioned and wind turbines are dismantled.

Impact VIS-5: Similar to the proposed Tule Wind Project, this alternative would not be consistent with all applicable local visual resource plans, policies, and regulations relevant to the project area: specifically, the County of San Diego Draft General Plan Update – Conservation and Open Space Element (Policy COS-11.1 and COS-11.2); the County of San Diego Existing General Plan Conservation Element (Scenic Highway Goal); and the County of San Diego Zoning Ordinance (Section 6324). While this alternative was determined to be consistent (with implementation of mitigation) with all other local visual resources plans and policies, similar to the proposed Tule Wind Project, identified impacts would be adverse and mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

D.3.5.3 Tule Wind Alternative 3, Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch

This alternative would not affect the impact conclusions resulting from implementation of the proposed ECO Substation and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Under this alternative the Tule Wind Project's collector substation and O&M facility would be relocated from BLM-administered land in the McCain National Cooperative Land and Wildlife Management Area to County of San Diego jurisdictional land on Rough Acres Ranch. Proposed turbines would be located in the same location as identified in the proposed Tule Wind Project. The relocation of the collector substation and O&M facility to Rough Acres Ranch would result in a shorter proposed 138 kV transmission line route (approximately 5.4 miles) and a longer overhead cable collector system. The visual quality and viewer sensitivity conclusions associated with this alternative would be the same as described in Section D.3.1.3 for locations afforded views of the Tule Wind Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch (KOPs 10 and 12). In addition, since this alternative would not result in the removal of wind turbines, the visual quality and viewer sensitivity conclusions made in Section D.3.1.3 for KOPs 14, 13, 15, and 16 would also describe the existing visual setting associated with this alternative.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Impacts to scenic vistas under this alternative would be similar when compared with those identified in Section D.3.3.3 for the proposed Tule Wind Project Scenic vista impacts were identified for the proposed gen-tie line at the I-8 and Old Highway 80 crossings. Under this alternative, scenic vista impacts associated with I-8 and Old Highway 80 would still occur albeit

at different locations than those identified for the proposed overhead transmission line. This alternative would not, however, reduce the severity of scenic vista impacts anticipated to occur at the Carrizo Overlook, Ribbonwood Trail, or Ribbonwood Road Pathway. In addition, the second 34.5 kV collector cable system to be installed under this alternative could potentially be visible from the Carrizo Overlook. Overall, scenic vista impacts would be similar to those identified in Section D.3.3.3 for the proposed Tule Wind Project. Identified impacts would be adverse, and Mitigation Measures VIS-1a through VIS-1b has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Restoring a decommissioned site to pre-project conditions could entail recontouring, grading, seeding and planting, and perhaps stabilizing disturbed surfaces. Although wind turbines and the 138 kV transmission line would be removed and would no longer impact scenic views afforded from the Carrizo Overlook, the Ribbonwood Trail and the Ribbonwood Road Pathway, I-8, and Old Highway 80, restoration activities would be visible from these locations and would temporarily impact views.

Impact VIS-2: Although Old Highway 80 and I-8 are classified as eligible state scenic highways, neither has been officially designated; therefore, similar to the proposed Tule Wind Project and all other project alternatives, no impacts (No Impact) to scenic resources within a state scenic highway would occur under this alternative.

Impact VIS-3: The short- and long-term visual contrasts resulting from the Tule Wind Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility on Rough Acres Ranch were assessed from KOPs 10, 12, and 15. KOP 10 (Figure D.3-15C) provides a view orientation to the northeast, toward proposed Tule wind turbines and Alternative Gen-Tie Route 3 from Ribbonwood Road. KOP 12 (Figure D.3-17D) was previously discussed for the Tule Wind Gen-Tie 2 alternatives. KOP 15 (Figure D.3-20D) provides a view orientation to the west along Old Highway 80 toward Alternative Gen-Tie Route 3.

VIS-3 impacts associated with short-term visibility of construction activities would be greater under this alternative due to the closer proximity of the collector substation, O&M facility, and transmission alignment to existing residences along Ribbonwood Road and Old Highway 80. In addition, construction of the alternative transmission line along Ribbonwood Road and Old Highway 80 could potentially result in the removal of existing native oaks, which would result in significant and permanent changes to the existing visual character of the Boulevard area immediately adjacent to these roadways. While short-term impacts at the collector substation and O&M facility and along the alternative transmission line alignment could be mitigated, impacts associated with wind turbine construction could not. Similar to the proposed Tule Wind Project identified impacts would be adverse, and therefore, Mitigation Measures VIS-3a through VIS-3c

have been provided. However, the identified impact cannot be mitigated. Under CEQA the impact would be significant and cannot be mitigated to a level that is less than significant (Class I).

VIS-3 impacts associated with long-term landscape alterations would be substantially greater under this alternative, compared with the proposed project. Whereas the proposed transmission line would primarily follow existing roadways (e.g., McCain Valley Road and Old Highway 80), this alternative would cut across Rough Acres Ranch and County of San Diego jurisdictional land over an approximate 2-mile distance prior to turning south and travelling adjacent to Ribbonwood Road. In addition, this alternative could result in the removal of native oaks along the alternative alignment adjacent to Ribbonwood Road and Old Highway 80. While long-term landscape alterations associated with the alternative gen-tie line could be mitigated, the impacts resulting from wind turbine and access road construction could not. Identified impacts would be adverse, and Mitigation Measures VIS-3d, VIS 3e, and VIS-3f have been provided. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

VIS-3 long-term visual contrasts associated with degradation of the existing visual character and quality of project component sites would be greater under this alternative compared with the Proposed Tule Wind Project. Although the collector substation and O&M facility would be located on an already disturbed site at Rough Acres Ranch, (resulting in reduced visual contrasts on a project component basis - KOP 12, Figure D.3-17D), under this alternative the highly visible alternate gen-tie line would traverse a largely natural area of which surrounding residences are afforded panoramic and long views (KOP 10, Figure D.3-15C). Residents located along Ribbonwood Road and Old Highway 80 would have permanent views of the transmission line and associated structures silhouetted against the sky, and the presence of the transmission would further increase the industrial character of the rural residential areas. This alternative route would result in strong visual contrasts and in long-term impacts to the community character of Boulevard because numerous 75-foot-tall gen-tie poles would be erected along Old Highway 80 and would replace the existing mature oak trees through the eastern part of the community (KOP 15, Figure D.3-20D, mature oak trees are generally located along the alternative gen-tie alignment east of Ribbonwood Road and along Old Highway 80). Identified long-term visual contrasts associated with the Tule Wind turbines, collector substation and O&M facility, collection cable system, and the 138 kV transmission line would be adverse, and therefore mitigation measures have been provided for the wind turbines (APM TULE-AES-1 and Mitigation Measure VIS-3n); collector substation and O&M facility (APM TULE-AES-9 and Mitigation Measures VIS-3g and VIS-3h); collection cable system (APM TULE-AES-5); and the 138 kV Transmission Line (Mitigation Measures VIS-1c, VIS-3i, VIS-j, VIS-3l, and VIS-3m). However, overall identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be

mitigated to a level that is considered less than significant (Class I). Therefore, similar to the proposed Tule Wind Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impacts associated with decommissioning of this alternative would be similar to impacts identified in Section D.3.3.3 for the proposed Tule Wind Project. Generally, visual impacts anticipated during decommissioning would be similar to the short-term visibility of construction activities and long-term visibility land alterations that would occur and result from construction of this alternative, and similar mitigation would be implemented to minimize visual contrasts.

Impact VIS-4: A similar lighting scheme (as identified in Section D.3.3.3 for the proposed collector substation and O&M facility) is anticipated for the collector substation and O&M facility at the alternate Rough Acres Ranch site. Since residences would generally be located closer to the alternative collector substation/O&M facility site, the potential for nighttime lighting at these facilities to affect nighttime views of residents in the area would be slightly greater than if the facilities were located on BLM-administered land. Similar to the proposed Tule Wind Project, identified impacts would be adverse, and therefore, Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Similar to the proposed Tule Wind Project, identified wind turbine nighttime lighting impacts would be adverse, and therefore, Mitigation Measure VIS-4b has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

When this alternative project is decommissioned all project components would be removed and areas disturbed by construction and operation of the project would be restored to pre-project conditions. Removal of wind turbines and project facilities would reduce glare occurring in the project area, and dismantling of wind turbines would also entail the removal of the OCAS installed on wind turbines. Therefore, instances of OCAS triggered nighttime lighting would no longer occur.

Impact VIS-5: Similar to the proposed Tule Wind Project, this alternative would not be consistent with all applicable local visual resource plans, policies, and regulations relevant to the project area: specifically, the County of San Diego Draft General Plan Update – Conservation and Open Space Element (Policy COS-11.1 and COS-11.2); the County of San Diego Existing General Plan Conservation Element (Scenic Highway Goal); and the County of San Diego Zoning Ordinance (Section 6324). While this alternative was determined to be consistent (with implementation of mitigation) with all other local visual resources plans and policies, similar to the proposed Tule Wind Project, identified impacts would be adverse and mitigation has been

provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

D.3.5.4 Tule Wind Alternative 4, Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch

This alternative would not affect the impact conclusions resulting from implementation of the proposed ECO Substation and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Section D.3.5.3 describes the existing environmental setting associated with the Tule Wind Alternative Gen-Tie Route 3 with Collector Substation/O&M Facility of Rough Acres Ranch. Because this alternative would only underground the 138 kV transmission line, the existing environmental setting would be the same as described in Section D.3.5.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Impacts to scenic vistas under this alternative would be reduced when compared with those identified in Section D.3.3.3 for the proposed Tule Wind Project. Undergrounding the gen-tie line would avoid scenic vista impacts at I-8 and Old Highway 80, but it would not avoid or reduce impacts anticipated at the Carrizo Overlook, Ribbonwood Trail, or Ribbonwood Road Pathway. Undergrounding the transmission line along Ribbonwood Road would, however, avoid scenic vista impacts associated with the visibility of the overhead transmission line along the Ribbonwood Road Pathway. In addition, the second 34.5 kV collector cable system to be installed under this alternative could potentially be visible from the Carrizo Overlook. Similar to the proposed Tule Wind Project, overall scenic vista impacts would be adverse, and therefore, Mitigation Measures VIS-1a and VIS-1b have been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning activities would remove wind turbines from the visual landscape and areas disturbed by construction and operation of the Tule Wind Project would be restored to their pre-project conditions. Restoring a decommissioned site to pre-project conditions could entail recontouring, grading, seeding and planting, and perhaps stabilizing disturbed surfaces. Although wind turbines would be removed and would no longer impact scenic views afforded from the Carrizo Overlook, the Ribbonwood Trail and the Ribbonwood Road Pathway, I-8, and Old Highway 80, restoration activities would be visible from these locations and would temporarily impact scenic views.

Impact VIS-2: Similar to the proposed Tule Wind Project and all project alternatives, no impacts (No Impact) to state scenic highways would occur under this alternative.

Impact VIS-3: The short- and long-term visual contrasts resulting from the Tule Alternative Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch were assessed from KOPs 10, 12, and 15 (the same locations as that are used for the Gen-Tie Route 3 overhead alternative).

Impacts associated with short-term visibility of construction activities would be greater under this alternative due to the closer proximity of the collector substation and O&M facility to existing residences and due to undergrounding activities associated with the 138 kV transmission line. This alternative could also result in the removal of native oak trees along Ribbonwood Road and Old Highway 80. While short-term impacts at the collector substation and O&M facility and along the alternative transmission line alignment could be mitigated, impacts associated with wind turbine construction could not. Similar to the proposed Tule Wind Project, identified impacts would be adverse, and therefore, Mitigation Measures VIS-3a through VIS-3c have been provided. However, the identified impact cannot be mitigated. Under CEQA, the impact would be significant and cannot be mitigated to a level that is less than significant (Class I).

Similarly, the long-term landscape alterations resulting from this alternative would be greater than those identified for the proposed Tule Wind Project in Section D.3.3.3. The potential for long-term land scars would be greater due to undergrounding activities and due to the potential removal of native oak trees along Ribbonwood Road and Old Highway 80. While long-term landscape alterations associated with the collector substation and O&M facility could be mitigated, the impacts resulting from wind turbine and access road construction could not. Identified impacts would be adverse and Mitigation Measures VIS-3d, VIS 3e, and VIS-3f have been provided. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Compared with the proposed Tule Wind Project, VIS-3 long-term visual contrasts would be slightly greater under this alternative, primarily due to the potential removal of native oaks along Ribbonwood Road and Old Highway 80. Although undergrounding the gen-tie line would reduce the visual impacts normally associated with large-scale gen-tie lines (under this alternative gen-tie structures would not be visible from KOP 10, 12, and 15), the removal of native oaks would be noticeable to various viewer types (including residents and motorists) in the Boulevard area and would effectively change the character of the community by transforming the visual approach. Identified long-term visual contrasts associated with the Tule Wind turbines, collector substation and O&M facility, collection cable system, and the 138 kV transmission line would be adverse, and therefore, mitigation measures have been provided for the wind turbines (APM TULE-AES-1 and Mitigation Measure VIS-3n), collector substation and O&M facility (APM

TULE-AES-9 and Mitigation Measures VIS-3g and VIS-3h), collection cable system (APM TULE-AES-5), and the 138 kV Transmission Line (Mitigation Measures VIS-1c, VIS-3i, VIS-j, VIS-3l, and VIS-3m). However, overall identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the proposed Tule Wind Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

Impacts associated with decommissioning of this alternative would be similar to impacts identified in Section D.3.3.3 for the proposed Tule Wind Project. Generally, visual impacts anticipated during decommissioning would be similar to the short-term visibility of construction activities and long-term visibility land alterations that would occur and result from construction of this alternative, and similar mitigation would be implemented to minimize visual contrasts.

Impact VIS-4: A similar lighting scheme (as identified in Section D.3.3.3 for the proposed collector substation and O&M facility) is anticipated for the collector substation and O&M facility at the alternate Rough Acres Ranch site. Since residences would be located closer to the alternative collector substation/O&M facility site, the potential for nighttime lighting to affect the nighttime views of residents in the area would be slightly greater than compared with the proposed Tule Wind Project. Overall VIS-4 impacts would be similar to those identified in Section D.3.5.1 for the Tule Wind Alternative Gen-Tie Route 3 Underground with Collector Substation/O&M Facility on Rough Acres Ranch. Identified impacts associated with the collector substation and O&M facility would be adverse, and therefore, Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Identified impacts associated with wind turbines would be adverse, and therefore, Mitigation Measure VIS-4b has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Removal of wind turbines and project facilities during decommissioning would reduce glare occurring in the project area, and dismantling of wind turbines would also entail the removal of the OCAS installed on wind turbines. Therefore, instances of OCAS-triggered nighttime lighting would no longer occur once the Project is decommissioned and wind turbines are dismantled.

Impact VIS-5: Similar to the proposed Tule Wind Project, this alternative would not be consistent with all applicable local visual resource plans, policies, and regulations relevant to the project area: specifically, the County of San Diego Draft General Plan Update – Conservation and Open Space Element (Policy COS-11.1 and COS-11.2); the County of San Diego Existing General Plan Conservation Element (Scenic Highway Goal); and the County of San Diego

Zoning Ordinance (Section 6324). While this alternative was determined to be consistent (with implementation of mitigation) with all other local visual resources plans and policies, similar to the proposed Tule Wind Project, identified impacts would be adverse and mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

D.3.5.5 Tule Wind Alternative 5, Reduction in Turbines

This alternative would not affect the impact conclusions resulting from implementation of the proposed ECO Substation and ESJ Gen-Tie projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Under this alternative the environmental setting would be the same as described in Section B, Project Description, of this EIR/EIS with the exception that this alternative would remove 62 of the proposed 134 turbines. As proposed, the project would erect 11 turbines on County of San Diego jurisdictional land adjacent to the BLM In-Ko-Pah ACEC and 51 turbines adjacent to wilderness areas on the western side of the project site. Under this alternative, these turbines would be removed. Therefore, with the exception of removed turbines, the environmental setting for this alternative would be similar to that identified for the proposed Tule Wind Project in Section D.3.1.3.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: The removal of 62 turbines would not substantially alter the severity of scenic vista impacts identified in Section D.3.3.3 for the proposed Tule Wind Project. This alternative would result in similar visual impacts at the Carrizo Overlook, at the proposed I-8 and Old Highway 80 gen-tie line crossings, and along the Ribbonwood Trail and Ribbonwood Road Pathway. Overall scenic vista impacts would be adverse, and therefore, Mitigation Measure VIS-1a, VIS-1b, and VIS-1c have been provided. However, the identified impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Decommissioning of this project alternative could entail recontouring, grading, seeding and planting, and perhaps stabilizing disturbed surfaces. Although wind turbines and the 138 kV transmission line would be removed and would no longer impact scenic views afforded from the Carrizo Overlook, the Ribbonwood Trail and the Ribbonwood Road Pathway, I-8, and Old Highway 80, scenic views would be temporarily impacted by restoration activities visible from these locations.

Impact VIS-2: Similar to the proposed Tule Wind Project and all project alternatives, this alternative would not result in visual impacts to state scenic highways. Therefore, no impact (No Impact) would occur.

Impact VIS-3: The severity of the overall visual contrasts associated this alternative would be reduced when compared with the proposed Tule Wind Project. The Tule Wind Reduction in Wind Turbines Alternatives would remove 62 of the proposed 134 wind turbines from the project. KOP 16 is oriented to the northeast, towards R-string turbines located on County lands bordered on the north and east by the BLM In-Ko-Pah ACEC. Under the Tule Wind Reduction in Turbines Alternative this area would remain undeveloped (KOP 16, Figure D.3-21C). Fewer overall wind turbines would result in reduced short-term visibility of construction activity impacts (due to an overall shorter construction schedule). However, because of the anticipated impacts attributed to wind turbines, identified impacts would be adverse. Mitigation Measures VIS-3a through VIS-3c have been provided as a result. However, the identified impact cannot be mitigated, and under CEQA, the impact would be significant and cannot be mitigated to a level that is less than significant (Class I). Long-term landscape alteration impacts are anticipated to be reduced because of fewer overall access roads, a shorter underground collector cable system, and less grading for wind turbine foundations, etc. However, because of the anticipated impacts attributed to wind turbines, identified impacts would be adverse, and Mitigation Measures VIS-3d, VIS 3e, and VIS-3f have been provided. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Although fewer wind turbines are proposed under this alternative, similar to the proposed Tule Wind Project long-term visual contrast impacts would be significant due to the high-visibility of wind turbines and the numerous access roads that would be required to access wind turbines. Therefore, identified long-term visual contrasts associated with the Tule Wind turbines, collector substation and O&M facility, collection cable system, and the 138 kV transmission line would be adverse, and mitigation measures have been provided for the wind turbines (APM TULE-AES-1 and Mitigation Measure VIS-3n), collector substation and O&M facility (APM TULE-AES-9 and Mitigation Measures VIS-3g and VIS-3h), collection cable system (APM TULE-AES-5), and the 138 kV transmission line (Mitigation Measures VIS-1c, VIS-3i, VIS-j, VIS-3l, and VIS-3m). However, overall identified long-term visual contrast impacts cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Therefore, similar to the proposed Tule Wind Project, overall VIS-3 impacts would be significant and unmitigable (Class I) under this alternative.

During decommissioning, impacts on visual resources would be similar to those encountered during construction. Impacts would be related to visibility of construction vehicles and personnel, temporary fencing of work/restoration site(s), phased activity over extended periods of time, removal of buried (and aboveground) structures and equipment, and the presence of

dismantled equipment (if allowed to remain on site). Visual impacts associated with the dismantling of heavy equipment, support facilities, and lighting would be substantially the same as those in the construction phase. Restoration activities could entail recontouring, grading, seeding and planting, and stabilizing disturbed surfaces. Newly disturbed soils (resulting from recontouring and grading) would create a visual contrast that would be relatively long-term in arid to semiarid environments where precipitation is low and vegetation establishment and growth are slow. Generally, visual impacts anticipated during decommissioning would be similar to the short-term visibility of construction activities and long-term visibility land alterations that would occur and result from construction of this alternative project.

Impact VIS-4: Similar to the proposed Tule Wind Project and all project alternatives, nighttime lighting would be installed at the collector substation and O&M facility under this alternative, and potential impacts would be reduced to less than significant (Class II) with implementation of Mitigation Measure VIS-4a. Although the visual impacts associated with turbine obstruction lighting would be reduced under this alternative (due to an overall reduction in the number of wind turbines), overall identified impacts would be adverse and therefore Mitigation Measure VIS-4b has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I). Regarding the collector substation and O&M facility identified impacts would be adverse, and Mitigation Measure VIS-4a has been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II).

Removal of wind turbines and project facilities during decommissioning would reduce glare occurring in the project area and dismantling of wind turbines would also entail the removal of the OCAS installed on wind turbines. Therefore, instances of OCAS-triggered nighttime lighting would no longer occur once the project is decommissioned and wind turbines are dismantled.

Impact VIS-5: Similar to the proposed Tule Wind Project, this alternative would not be consistent with all applicable local visual resource plans, policies, and regulations relevant to the project area: specifically, the County of San Diego Draft General Plan Update – Conservation and Open Space Element (Policy COS-11.1 and COS-11.2); the County of San Diego Existing General Plan Conservation Element (Scenic Highway Goal); and the County of San Diego Zoning Ordinance (Section 6324). While this alternative was determined to be consistent (with implementation of mitigation) with all other local visual resources plans and policies, similar to the proposed Tule Wind Project, identified impacts would be adverse, and mitigation has been provided. However, the identified impact cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

D.3.6 ESJ Gen-Tie Project Alternatives

Table D.3-5 summarizes the visual resource impacts and classification of the impacts under CEQA that have been identified for the ESJ Gen-Tie Project alternatives.

Table D.3-5
Visual Resources Impacts Identified for ESJ Gen-Tie Project Alternatives

Impact No.	Description	Classification
ESJ 230 kV Gen-Tie Underground Alternative		
ESJ-VIS-1	The project would have a substantial adverse effect on a scenic vista.	No Impact (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ESJ-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class II (ESJ Gen-Tie), ESJ Phase 1 Wind (Class I)
ESJ-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	No Impact (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	No Impact (ESJ Gen-Tie)
ESJ Gen-Tie Overhead Alternative Alignment		
ESJ-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Class III (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ESJ-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class II (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	No Impact (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Class II (ESJ Gen-Tie)

Table D.3.-5 (Continued)

Impact No.	Description	Classification
ESJ Gen-Tie Underground Alternative Alignment		
ESJ-VIS-1	The project would have a substantial adverse effect on a scenic vista.	No Impact (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-2	The project would substantially damage scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact
ESJ-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	Class II (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	No Impact (ESJ Gen-Tie), Class I (ESJ Phase 1 Wind)
ESJ-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	No Impact (ESJ Gen-Tie)

D.3.6.1 ESJ 230 kV Gen-Tie Underground Alternative

This alternative would not affect the impact conclusions resulting from implementation of the proposed ECO Substation and Tule Wind projects discussed in Section D.3.3.3.

Environmental Setting/Affected Environment

Section D.3.1 describes the existing environmental setting for the proposed ESJ Gen-Tie site. Since this alternative would merely underground the gen-tie line, the environmental setting would be the same as identified in Section D.3.1.4 for the proposed ESJ Gen-Tie Project.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impact VIS-1: Although undergrounding the gen-tie line would remove a highly visible industrial element from the visual landscape and would avoid all scenic vista impacts associated with the proposed ESJ Gen-Tie Project, the ESJ Phase 1 Wind Project would not be altered and would result in scenic vista impacts at hiking trails and viewpoints at the Table Mountain ACEC. Therefore, similar to the proposed ESJ Gen-Tie Project (including the ESJ Wind Phase 1 Development in Mexico) and as discussed in Section D.3.3.3, scenic vista impacts would be adverse and cannot be mitigated. Under CEQA, impacts would be considered significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact VIS-2: Similar to the proposed ESJ Gen-Tie Project and all project alternatives, this alternative would not result in impacts to a state scenic highway (No Impact).

Impact VIS-3: Short-term construction visibility impacts under this alternative would be similar to those associated with the proposed ESJ Gen-Tie Project (this alternative would be located in the same location as the proposed ESJ 230 kV overhead gen-tie option). Identified impacts would be adverse and therefore Mitigation Measures VIS-3a through VIS-3c have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is less than significant (Class II). Long-term landscape alteration impacts would be greater due to undergrounding (i.e., trenching) associated with this alternative. Similar to the proposed ESJ Gen-Tie Project, identified impacts would be adverse, and therefore, Mitigation Measures VIS-3d through VIS-3f have been provided and would mitigate this impact. Under CEQA, impacts would be significant but can be mitigated to a level that is considered less than significant (Class II). Because the 230 kV gen-tie would be installed underground, long-term visual contrasts would not be adverse. Under CEQA, impacts would be less than significant (Class III).

Similar VIS-3 impacts discussed in Section D.3.3.3 for the ESJ Phase 1 Wind Project would also occur under this alternative. Identified impacts would be significant and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact VIS-4: The project applicant does not propose to install nighttime lighting atop gen-tie structures; therefore, undergrounding the gen-tie would result in the same VIS-4 impacts as the proposed ESJ Gen-Tie Project (No Impact). However, because the ESJ Phase 1 Wind Project would likely be required to install obstruction lighting on wind turbines, nighttime lighting impacts would be similar to those identified previously for the Tule Wind Project. Identified impacts would be significant and cannot be mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class I).

Impact VIS-5: This alternative would be consistent with all applicable visual resources plans, policies, and regulations relevant to the project area. Undergrounding the 230 kV gen-tie line would not produce glare and therefore mitigation would not be required to ensure consistency with County of San Diego Zoning Ordinance Section 6320. In addition this alternative would not construct gen-tie structures or other components would produce visual impacts and would not include lighting that would result in impacts to the existing dark sky environment. Therefore, since the project would be consistent with all applicable plans and policies guiding the protection of visual resources, no impacts (No Impact) would occur.

D.3.6.2 ESJ Gen-Tie Overhead Alternative Alignment

This alternative would not affect the impact conclusions resulting from implementation of the proposed Tule Wind Project as discussed in Section D.3.3.3. This alternative assumes the implementation of the ECO Substation Alternative Site and that the visual resource impacts identified in Section D.3.4.1 (ECO Substation Alternative Site) would occur.

Environmental Setting/Affected Environment

Section D.3.1 and KOPs 1, 3, 5, 6, and 18 describe the existing visual setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. This alternative would shift the project approximately 700 feet to the east to interconnect to the ECO Substation Alternative Site. The existing visual setting would be the same as described in Section D.3.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impacts VIS-1 through VIS-5 would be similar under this alternative to those identified in Section D.3.3.3 for the proposed ESJ Gen-Tie Project. In addition, similar visual impacts would occur as a result of the ESJ Phase 1 Wind Project.

D.3.6.3 ESJ Gen-Tie Underground Alternative Alignment

This alternative would not affect the impact conclusions resulting from implementation of the proposed Tule Wind Project as discussed in Section D.3.3.3. This alternative assumes the implementation of the ECO Substation Alternative Site and that the visual resource impacts identified in Section D.3.4.1 (ECO Substation Alternative Site) would occur.

Environmental Setting/Affected Environment

Section D.3.1 and KOPs 1,3,5,6, and 18 describe the existing visual setting associated with the ESJ Gen-Tie Project, which considers both a 500 kV gen-tie and a 230 kV gen-tie option. This alternative would shift the gen-tie line approximately 700 feet to the east (to interconnect to the ECO Substation Alternative Site) and would underground the 230 kV gen-tie option. The existing visual setting would be the same as described in Section D.3.1.

Environmental Impacts/Environmental Effects

Direct and Indirect (Note: cumulative effects are addressed in Section F of this EIR/EIS)

Impacts VIS-1 through VIS-5 would be similar under this alternative to those identified in Section D.3.6.1 for the ESJ 230 kV Gen-Tie Underground Alternative. In addition, similar visual impacts would also occur as a result of the ESJ Phase 1 Wind Project.

D.3.7 No Project/No Action Alternatives

D.3.7.1 No Project Alternative 1—No ECO Substation, Tule Wind, ESJ Gen-Tie, Campo, Manzanita, or Jordan Wind Energy Projects

Environmental Impacts/Environmental Effects

Impacts VIS-1 through VIS-5: Under the No Project Alternative 1, the ECO Substation, Tule Wind, and ESJ Gen-Tie, as well as the Campo, Manzanita, and Jordan wind energy projects, would not be built and the existing conditions would remain at these sites.

Visual resource impacts resulting from the Proposed PROJECT would not occur.

D.3.7.2 No Project Alternative 2—No ECO Substation Project

Environmental Impacts/Environmental Effects

Impacts VIS-1 through VIS-5: Under the No Project Alternative 2, the ECO Substation Project would not be built, and the Tule Wind and ESJ Gen-Tie projects would be constructed. Under the No Project Alternative 2, SDG&E would likely upgrade an existing substation or construct an entirely new substation to interconnect planned renewable energy generation in southeastern San Diego County. Visual resource impacts resulting from other interconnection upgrades and transmission options could be similar to those identified for the ECO Substation Project and would vary depending on location of facility upgrades and new transmission options.

The Tule Wind and ESJ Gen-Tie projects would be constructed and would interconnect with an existing substation or with a new substation expected to be proposed by SDG&E. Impacts associated with the Tule Wind and ESJ Gen-Tie projects would be expected to be similar to those described in Section D.3.3.3 but could vary depending on the point of interconnection and the resulting gen-tie route and length of the Tule Wind and ESJ Gen-Tie projects.

D.3.7.3 No Project Alternative 3–No Tule Wind Project

Environmental Impacts/Environmental Effects

Impacts VIS-1 through VIS-5: Under the No Project Alternative 3, the Tule Wind Project would not be built, and the existing conditions on the project site would remain. The construction activities would be reduced when compared with the Proposed PROJECT. However, despite a reduction in construction activities, temporary construction impacts (Impact VIS-3, short-term visibility of construction activities) would still be considered significant and unmitigated (Class I) as a result of the visual presence of construction workers, equipment, and vehicles in the project area and nighttime construction associated with the ECO Substation portion of the project. Also, VIS-1, VIS-2, VIS-3 (long term), VIS-4, and VIS-5 impacts associated with the ECO Substation and ESJ Gen-Tie Projects would occur. The ESJ Phase 1 Wind Project would also be constructed and would result in significant visual impacts in the project area.

D.3.7.4 No Project Alternative 4–No ESJ Gen-Tie Project

Environmental Impacts/Environmental Effects

Impacts VIS-1 through VIS-5: Under the No Project Alternative 4, the ESJ Gen-Tie Project would not be built, and the existing conditions on the project site would remain. Construction-related impacts associated with the proposed ECO Substation and Tule Wind projects would also occur under this alternative. If the proposed ESJ Gen-Tie Project were not constructed, it is likely that an alternative gen-tie would be constructed. The impacts associated with this gen-tie would be expected to be similar to those described in Section D.3.3.3 but could vary depending on length of gen-tie line and the location pursued. Therefore, similar visual impacts as identified in Section D.3.3.3 for the Proposed PROJECT would likely occur under the No Project Alternative 4 (No ESJ Gen-Tie Project).

D.3.8 Mitigation Monitoring, Compliance, and Reporting

Table D.3-6 presents the mitigation monitoring, compliance, and reporting program for visual resources for the ECO Substation, Tule Wind, and ESJ Gen-Tie projects. Section D.3.9 provides residual effects.

The proposed Campo, Manzanita, and Jordan wind energy projects would require preparation of a mitigation monitoring, compliance, and reporting program following project-specific environmental review and evaluation under all applicable environmental regulations once sufficient project-level information has been developed.

Table D.3-6
Mitigation Monitoring, Compliance, and Reporting—ECO Substation, Tule Wind, and ESJ
Gen-Tie Projects—Visual Resources

ECO Substation Project	
Mitigation Measure	VIS-1a. Reduce impacts at scenic highway and trail crossings. At highway 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.
Location	Where the transmission line would establish a new transmission corridor and be located within 0.5 mile of a County trail or pathway.
Monitoring/Reporting Action	CPUC to review construction plans before the start of construction and to verify that structures are placed at the maximum feasible distance from the Jewel Valley Trail and the Jewel Valley Road Pathway.
Effectiveness Criteria	Visual impacts to identified trails and pathways are minimized and transmission line structures are placed the maximum feasible distance from these facilities.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify compliance with plans during construction.
Mitigation Measure	VIS-1b. Reduce impacts at scenic view areas. In scenic view areas (the Jewel Valley Trail and the Jewel Valley Road Pathway) transmission line structures would be placed to avoid sensitive features and/or allow conductors to clearly span the features, within limits of standard design where feasible.
Location	Transmission line structures and lines visible from the Jewel Valley Trail and the Jewel Valley Road Pathway.
Monitoring/Reporting Action	CPUC to review construction plans before the start of construction and to verify that structures are placed to avoid sensitive features
Effectiveness Criteria	Structures are sited to avoid sensitive features and visual impacts as scenic view areas are reduced.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify compliance with plans during construction.
Mitigation Measure	VIS-3a. Reduce visibility of construction activities and equipment. 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. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. 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 CPUC for review and approval at least 60 days before the start of construction.
Location	All construction areas.
Monitoring/Reporting Action	CPUC and BLM to verify in the field during construction and following construction
Effectiveness Criteria	Project construction sites, construction yards, and staging areas will be screened during construction, and all construction areas will appear in their original or improved condition following construction.

Table D.3-6 (Continued)

Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to confirm implementation during and following construction.
Mitigation Measure	<p>VIS-3b. Reduce construction night-lighting impacts. SDG&E shall design and install all lighting at construction and storage yards and at 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. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before 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 CPUC and BLM. The Plan shall include but is not necessarily limited to the following:</p> <ul style="list-style-type: none"> • Lighting shall be designed so that 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 are 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	All static project construction sites associated with the proposed ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review and approve the Construction Lighting Mitigation Plan before 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 and BLM
Timing	SDG&E shall submit a Construction Lighting Mitigation Plan to the CPUC and BLM for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. CPUC and BLM to review and approve plan before the start of construction and confirm implementation of plan during construction.
Mitigation Measure	<p>VIS-3c. Reduce construction impacts to natural features. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.</p>
Location	At all construction work areas of the proposed ECO Substation Project transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM monitors to ensure compliance with restrictions regarding paint and discoloring agents.
Effectiveness Criteria	No paint or permanent discoloring agents are detected and reported by CPUC monitors.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to monitor for compliance during construction.

Table D.3-6 (Continued)

Mitigation Measure	VIS-3d. 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 feasible 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 for review and approval at least 60 days prior to the start of construction.
Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the proposed ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review construction plans before the start of construction and verify compliance during construction.
Effectiveness Criteria	In-line views of land scars from grading will be minimized.
Responsible Agency	CPUC and BLM.
Timing	CPUC and BLM to review construction plans before the start of construction and verify compliance during construction.
Mitigation Measure	VIS-3e. 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 ongoing operation, maintenance, or access shall be returned to preconstruction 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 shall patrol construction routes to prevent vandalized access and litter cleanup until all areas where vegetation was removed are returned to pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction.
Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the propose ECO Substation Project and transmission line corridors.
Monitoring/Reporting Action	CPUC and BLM to review construction and restoration plans before the start of construction and to 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 and BLM
Timing	SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction. CPUC and BLM to review construction and restoration plans before the start of construction and to verify implementation following construction.
Mitigation Measure	VIS-3f. Minimize vegetation removal. 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 measure.
Location	All project component sites where surface disturbance is proposed for the Proposed ECO Substation Project and transmission line corridors
Monitoring/Reporting Action	CPUC and BLM to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction
Effectiveness Criteria	The occurrence of vegetation removal will be minimized and the resulting visual contrast will be minimal.

Table D.3-6 (Continued)

Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction.
Mitigation Measure	<p>VIS-3g. Reduce visual contrast associated with substation and ancillary facilities. SDG&E shall submit to the CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structure 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 the CPUC for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the 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-inch 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 • Procedures 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 on site, until SDG&E receives notification of approval of the Surface Treatment Plan by the CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the CPUC that all buildings and structures are ready for inspection.</p>
Location	Applies to all permanent ancillary facilities (including substations) associated with the proposed ECO Substation Project.
Monitoring/Reporting Action	CPUC to review Surface Treatment Plan before the start of construction and to 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
Timing	CPUC to review Surface Treatment Plan before the start of construction and to verify implementation following construction.
Mitigation Measure	<p>VIS-3h. Screen substations and ancillary facilities. SDG&E shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities 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 CPUC for review and approval at least 90 days before installing the landscape screening. If the 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-inch 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 5 years and at maturity

Table D.3-6 (Continued)

	<ul style="list-style-type: none"> • The project applicant shall complete installation of the screening before the start of project operation • The project applicant shall notify the CPUC within 7 days after completing installation of the screening that the screening components are ready for inspection.
Location	Applies to all permanent ancillary facilities (including substations) associated with the proposed ECO Substation Project
Monitoring/Reporting Action	CPUC to review Screening Plan before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized, and facilities will be adequately screened and will blend with the landscape to the extent feasible.
Responsible Agency	CPUC
Timing	CPUC to review Screening Plan before the start of construction and verify implementation following construction.
Mitigation Measure	VIS-3i. Reduce potential visual contrast of transmission structures. SDG&E will use dulled-metal-finish transmission structures and non-specular conductors.
Location	At all substation facilities and along the transmission line alignment (ECO Substation Project and transmission line corridors)
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before the start of construction and to verify implementation of components during construction.
Effectiveness Criteria	The occurrence of visual contrast from transmission structures will be minimized, and structures will blend with the landscape to the extent feasible.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before the start of construction and to verify implementation of components during construction.
Mitigation Measure	VIS-3j. Reduce potential transmission conductor visibility and visual contrast. The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans to reduce the degree of visual contrast caused by the new facilities: <ul style="list-style-type: none"> • All new conductors and re-conducted spans to be non-specular 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 sensitive viewing locations immediately downhill of the structures
Location	All transmission line structures
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that conductors are non-specular and that access roads do not directly approach existing or proposed towers in a straight line from sensitive viewing locations
Effectiveness Criteria	The visibility of conductors will be minimized, and the visual impacts of access roads on sensitive viewing locations will be minimized.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans before the start of construction and verify implementation of design measures following construction
Mitigation Measure	VIS-3k. Reduce potential visual contrast from transmission structure spacing. Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.

Table D.3-6 (Continued)

Location	All transmission line structures associated with the proposed ECO Substation Project and project alternatives
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that spacing of structures matches existing transmission structures
Effectiveness Criteria	The occurrence of visual contrasts from transmission structures will be minimized.
Responsible Agency	CPUC and BLM
Timing	CPUC and BLM to review construction plans before the start of construction and to verify implementation of design measures following construction
Mitigation Measure	VIS-3I. Reduce potential view blockage and visual contrasts of structures. Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence, where feasible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts.
Location	All transmission line structures
Monitoring/Reporting Action	CPUC and BLM to review construction plans to ensure that structures are not planned directly in front of residents or in direct line of sight from residences.
Effectiveness Criteria	The occurrence of view blockage from transmission structures will be minimized.
Responsible Agency	CPUC and BLM
Timing	SDG&E to consult with affected property owners on structure siting to reduce land use and visual impacts before obtaining Permit to Construct
Mitigation Measure	MM VIS-3m: Reduce visual impacts resulting from landscaping and native tree removal. In the event that ornamental or native trees within the project area will be removed due to project design and grading, the project applicant shall prepare a Landscape Treatment Plan to be submitted with the Surface Treatment Plan. The Landscape Treatment Plan shall include but is not limited to the following: <ul style="list-style-type: none"> • Tree Removal Locations: Indicate the size, type, and location of each tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required.) • Tree Replacement Plan: The Tree Replacement Plan shall assess the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction. If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required). • Photos of the site and/or trees to be removed. • Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees. <p>The Landscape Treatment Plan must minimize mature tree loss to the degree feasible. The Landscape Treatment Plan shall be submitted to the CPUC for approval at least 90 days prior to planned tree removal. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the SDG&E shall prepare and submit the revised Landscape Treatment Plan for review and approval.</p>

Table D.3-6 (Continued)

Location	At the Boulevard Substation Rebuild site.
Monitoring/Reporting Action	CPUC to review Landscape Treatment Plan in conjunction with the Surface Treatment Plan before start of construction and to verify implementation following construction
Effectiveness Criteria	Visual impacts resulting from landscaping and native tree removal would be reduced.
Responsible Agency	CPUC
Timing	The Landscape Treatment Plan shall be submitted to the CPUC by SDG&E for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. CPUC to review the Landscape Treatment Plan before start of construction and to verify implementation following construction.
Mitigation Measure	<p>VIS-4a. Reduce long-term night-lighting impacts from substations and ancillary facilities. 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. The Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days before 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 are 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	At substations and ancillary facilities included in the proposed ECO Substation Project
Monitoring/Reporting Action	CPUC to review Lighting Mitigation Plan before the start of construction and verify implementation following construction
Effectiveness Criteria	Light bulbs and reflectors at substations would not be visible from public viewing areas, and night lighting would not cause reflected glare and illumination beyond the facility boundary and into the nighttime sky.
Responsible Agency	CPUC
Timing	CPUC to review Lighting Mitigation Plan before the start of construction and to verify implementation following construction.
APM	ECO-AES-1. To reduce potential visual contrast and integrate the ECO Substation's appearance with the desert landscape setting, when project construction has been completed, all disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation in accordance with the Landscaping Plan included as Appendix 5: Landscape Concept Plans.
Location	At the ECO Substation
Monitoring/Reporting Action	CPUC to review and approve East County Substation Landscape Concept Plan

Table D.3-6 (Continued)

Effectiveness Criteria	All disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation.
Responsible Agency	CPUC
Timing	CPUC to review East County Substation Landscape Concept Plan before issuance of notice to proceed; CPUC to ensure recontouring and revegetation after construction
APM	ECO-AES-2. When project construction has been completed, all disturbed terrain at the Boulevard Substation site will be restored through recontouring, revegetation, and landscaping in accordance with the Boulevard Substation Landscape Concept Plan included as Appendix 5: Landscape Concept Plans. To provide screening and thus reduce potential project visibility, the Boulevard Substation Landscape Concept Plan includes larger shrubs and trees that will partially screen views of the substation from Old Highway 80 and from adjacent residential properties.
Location	At the rebuilt Boulevard Substation
Monitoring/Reporting Action	CPUC to review Boulevard Landscape Plan
Effectiveness Criteria	All disturbed terrain at the Boulevard Substation Rebuild site will be restored through recontouring and revegetation.
Responsible Agency	CPUC
Timing	CPUC to review the Boulevard Substation Landscape Concept Plan before issuance of notice to proceed; CPUC to ensure recontouring and revegetation after construction
APM	ECO-AES-3. To reduce the project's potential visibility from Old Highway 80, the underground portion of the new 138 kV transmission line will be extended an additional distance of approximately 600 feet to the south, and the steel cable riser pole will be relocated to replace structure SP-2.
Location	At the underground portion of the 138 kV transmission line before entering the Boulevard Substation Rebuild site (proposed ECO Substation Project).
Monitoring/Reporting Action	CPUC to review construction plans to verify that transmission line has been extended and that the steel cable riser pole is relocated
Effectiveness Criteria	Visibility of transmission cable riser pole from Old Highway 80 is reduced, and the new 138 kV transmission line is extended.
Responsible Agency	CPUC
Timing	CPUC to review construction plans before the start of construction and to verify implementation during construction
Tule Wind Project	
Mitigation Measure	VIS-1a. Reduce impacts at scenic highway and trail crossings. At highway 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.
Location	Where the gen-tie line would cross I-8 or parallel Old Highway 80
Monitoring/Reporting Action	County of San Diego to review construction plans before the start of construction and to verify that structures are placed at the maximum feasible distance at I-8 and Old Highway 80 locations.
Effectiveness Criteria	Visual impacts at I-8 and along Old Highway 80 are minimized and gen-tie structures are placed the maximum feasible distance from proposed crossings of these facilities.
Responsible Agency	County of San Diego
Timing	County of San Diego to review construction plans before the start of construction and to verify compliance with plans during construction

Table D.3-6 (Continued)

Mitigation Measure	VIS-1b. Reduce impacts at scenic view areas. In scenic view areas, as designated by the BLM and County of San Diego structures would be placed to avoid sensitive features and/or allow conductors to clearly span the features, within limits of standard design where feasible.
Location	Gen-tie and cable collector system structures and lines visible from the Carrizo Overlook and at the I-8 and Old Highway 80 crossings
Monitoring/Reporting Action	BLM and County of San Diego to review construction plans before the start of construction and to verify that structures are placed to avoid sensitive features
Effectiveness Criteria	Structures are sited to avoid sensitive features and visual impacts as scenic view areas are reduced.
Responsible Agency	BLM and County of San Diego
Timing	BLM and County of San Diego to review construction plans before the start of construction and to verify that structures are placed to avoid sensitive features
Mitigation Measure	VIS-1c. Avoid potential visibility of transmission structures and related facilities from sensitive viewing locations. Underground portions of the 138 kV transmission line and/or collector system to avoid visual impacts to scenic highways, scenic vistas, or scenic resources
Location	For the proposed Tule Wind Project and the Gen-Tie Route 2 Overhead Alternative, the 138 kV transmission line would be placed underground along McCain Valley Road, approximately 0.5 mile north of I-8, south and west into the rebuilt Boulevard Substation site along the proposed (and alternative) alignment.
Monitoring/Reporting Action	County of San Diego
Effectiveness Criteria	The gen-tie line would be undergrounded from north of I-8 into the rebuilt Boulevard Substation.
Responsible Agency	County of San Diego (undergrounding), CPUC (interconnection to rebuilt Boulevard Substation)
Timing	County of San Diego and CPUC to review gen-tie undergrounding plans before initiation of construction
Mitigation Measure	VIS-3a. Reduce visibility of construction activities and equipment. Construction sites and all staging and material and equipment storage areas including storage sites for excavated materials shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, 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. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. Pacific Wind Development shall submit final construction plans demonstrating compliance with this measure to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians for review and approval at least 60 days before the start of construction.
Location	At all project components of the proposed Tule Wind Project and all project alternatives
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to verify in the field during construction and following construction.
Effectiveness Criteria	Project construction sites, construction yards, and staging areas will be screened during construction, and all construction areas will appear in their original or improved condition following construction.

Table D.3-6 (Continued)

Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	Pacific Wind Development shall submit final construction plans demonstrating compliance with this measure to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) for review and approval at least 60 days before the start of construction; BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to confirm implementation during and following construction.
Mitigation Measure	<p>VIS-3b. Reduce construction night-lighting impacts. Pacific Wind Development 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. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. Pacific Wind Development shall submit a Construction Lighting Mitigation Plan to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. Pacific Wind Development shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed). 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 are 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	All static project construction sites associated with the proposed Tule Wind Project and all project alternatives
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review and approve the Construction Lighting Mitigation Plan before 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	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	Pacific Wind Development shall submit a Construction Lighting Mitigation Plan to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first; BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction

Table D.3-6 (Continued)

	where the construction activities are being completed) to review and approve the Construction Lighting Mitigation Plan before construction and to monitor implementation in the field during construction.
Mitigation Measure	VIS-3c. Reduce construction impacts to natural features. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
Location	At all construction work areas
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) monitors to ensure compliance with restrictions regarding paint and discoloring agents.
Effectiveness Criteria	No paint or permanent discoloring agents are detected and reported by BLM, County of San Diego, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) monitors.
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to monitor for compliance during construction
Mitigation Measure	VIS-3d. 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 feasible to better blend graded surfaces with existing terrain. Pacific Wind Development shall submit final construction plans demonstrating compliance with this measure to the appropriate land use jurisdiction agency for review and approval at least 60 days before the start of construction.
Location	All grading sites for access roads, spur roads, and ancillary facilities associated with the proposed Tule Wind Project
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction plans before the start of construction and to verify compliance during construction
Effectiveness Criteria	In-line views of land scars from grading will be minimized.
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction plans before the start of construction and verify compliance during construction
Mitigation Measure	VIS-3e. 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 ongoing operation, maintenance, or access shall be returned to preconstruction conditions. In those cases where potential public access is opened by construction routes, Pacific Wind Development shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter cleanup until all vegetation removed returns to its pre-project state. Pacific Wind Development shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) for review and approval at least 60 days before the start of construction.

Table D.3-6 (Continued)

Location	All grading sites for access roads, spur roads, and ancillary facilities
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction and restoration plans before the start of construction and to 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	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	Pacific Wind Development shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) for review and approval at least 60 days before the start of construction. BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction and restoration plans before the start of construction and verify implementation following construction.
Mitigation Measure	VIS-3f. Minimize vegetation removal. Only the minimum amount of vegetation necessary for 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 measure.
Location	All project component sites where surface disturbance is proposed
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction and restoration plans before start of construction and to verify minimal vegetation removal during construction.
Effectiveness Criteria	The occurrence of vegetation removal will be minimized, and the resulting visual contrast will be minimal.
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction and restoration plans before start of construction and to verify minimal vegetation removal during construction
Mitigation Measure	VIS-3g. Reduce visual contrast associated with substation and ancillary facilities. Pacific Wind Development shall submit to the BLM a Surface Treatment Plan describing the application of colors and textures to all new facility structure 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 Surface Treatment Plan shall be submitted to the BLM for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the BLM notifies Pacific Wind Development that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, Pacific Wind Development shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include: <ul style="list-style-type: none"> • Specification and 11" × 17" color simulations at life-size scale of the treatment proposed for use on project structures. including structures treated during manufacture

Table D.3-6 (Continued)

	<ul style="list-style-type: none"> • 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 • Procedures to ensure proper treatment maintenance for the life of the project. <p>Pacific Wind Development shall not specify to vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated onsite, until Pacific Wind Development receives notification of approval of the Surface Treatment Plan by the BLM. Within 30 days following the start of commercial operation, Pacific Wind Development shall notify the BLM that all buildings and structures are ready for inspection.</p>
Location	Applies to all permanent ancillary facilities including substations
Monitoring/Reporting Action	BLM to review Surface Treatment Plan before start of construction and to 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	BLM
Timing	The Surface Treatment Plan shall be submitted to the BLM for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first; BLM to review Surface Treatment Plan before start of construction and verify implementation following construction.
Mitigation Measure	<p>VIS-3h. Screen substations and ancillary facilities. Pacific Wind Development shall provide a Screening Plan for screening vegetation, walls, and fences that reduce visibility of ancillary facilities and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. Pacific Wind Development shall submit the Plan to the BLM for review and approval at least 90 days before installing the landscape screening. If the BLM notifies Pacific Wind Development that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, Pacific Wind Development 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 5 years and at maturity • Pacific Wind Development to complete installation of the screening before the start of project operation • Pacific Wind Development shall notify the BLM within 7 days after completing installation of the screening that the screening components are ready for inspection.
Location	Applies to all permanent ancillary facilities including substations
Monitoring/Reporting Action	BLM to review Screening Plan before the start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized, and facilities will be adequately screened and will blend with the landscape to the extent feasible.
Responsible Agency	BLM

Table D.3-6 (Continued)

Timing	The project applicant shall submit the Screening Plan to the BLM for review and approval at least 90 days before installing the landscape screening; BLM to review Screening Plan before the start of construction and to verify implementation following construction.
Mitigation Measure	VIS-3i. Reduce potential visual contrast of transmission structures. Pacific Wind Development will use dulled-metal-finish transmission structures and non-specular conductors.
Location	At all transmission line structures
Monitoring/Reporting Action	BLM and San Diego County to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before start of construction and to verify implementation of components during construction
Effectiveness Criteria	The occurrence of visual contrast from transmission structures will be minimized, and structures will blend with the landscape to the extent feasible.
Responsible Agency	BLM and San Diego County
Timing	Pacific Wind Development to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before start of construction and to verify implementation of components during construction.
Mitigation Measure	VIS-3j. Reduce potential transmission conductor visibility and visual contrast. The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans to reduce the degree of visual contrast caused by the new facilities: <ul style="list-style-type: none"> • All new conductors and re-conducted spans are to be non-specular in design 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 sensitive viewing locations immediately downhill of the structures.
Location	All transmission line structures associated with the proposed Tule Wind Project and project alternatives
Monitoring/Reporting Action	BLM and San Diego County to review construction plans to ensure that conductors are non-specular and that access roads do not directly approach existing or proposed towers in a straight line from sensitive viewing locations
Effectiveness Criteria	The visibility of conductors will be minimized, and the visual impacts of access roads on sensitive viewing locations will be minimized.
Responsible Agency	BLM and San Diego County
Timing	BLM and San Diego County to review construction plans before start of construction and to verify implementation of design measures following construction
Mitigation Measure	VIS-3l. Reduce potential view blockage and visual contrasts of structures. Transmission line structures will not be installed directly in front of residences or in direct line of sight from a residence, where feasible. Pacific Wind Development will consult with affected property owners on structure siting to reduce land use and visual impacts.
Location	All transmission line structures
Monitoring/Reporting Action	BLM and San Diego County to review construction plans to ensure that structures are not planned directly in front of residents or in direct line of sight from residences
Effectiveness Criteria	The occurrence of view blockage from transmission structures will be minimized.
Responsible Agency	BLM and San Diego County
Timing	Pacific Wind Development to consult with affected property owners on structure siting to reduce land use and visual impacts before obtaining a ROW grant.

Table D.3-6 (Continued)

Mitigation Measure	<p>MM VIS-3m: Reduce visual impacts resulting from landscaping and native tree removal. In the event that ornamental or native trees within the project area will be removed due to project design and grading, the project applicant shall prepare a Landscape Treatment Plan to be submitted with the Surface Treatment Plan. The Landscape Treatment Plan shall include but is not limited to the following:</p> <ul style="list-style-type: none"> • Tree Removal Locations: Indicate the size, type, and location of each tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required.) • Tree Replacement Plan: The Tree Replacement Plan shall assess the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction. If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required). • Photos of the site and/or trees to be removed. • Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees. <p>The Landscape Treatment Plan must minimize mature tree loss to the degree feasible. The Landscape Treatment Plan shall be submitted to the appropriate land use jurisdiction agency for approval at least 90 days prior to planned tree removal. If BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians notifies the Pacific Wind Development that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, Pacific Wind Development shall prepare and submit the revised Landscape Treatment Plan for review and approval.</p>
Location	Throughout the project site where ornamental or native trees would be removed by construction activities (proposed Tule Wind Project)
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are being completed, to review Landscape Treatment Plan in conjunction with the Surface Treatment Plan before start of construction and to verify implementation following construction
Effectiveness Criteria	Visual impacts resulting from landscaping and native tree removal would be reduced.
Responsible Agency	BLM/San Diego County/CSLC/BIA/Ewiiapaayp Band of Kumeyaay Indians
Timing	The Landscape Treatment Plan shall be submitted to the BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are to occur, by Pacific Wind Development for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. BLM, San Diego County, CSLC, BIA, and/or the Ewiiapaayp Band of Kumeyaay Indians, depending on the jurisdiction where the construction activities are to occur, are to review the Landscape Treatment Plan before start of construction and to verify implementation following construction.
Mitigation Measure	<p>VIS-3n. Reduce potential visual impacts of wind turbines and ancillary facilities. Pacific Wind Development shall submit to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the</p>

Table D.3-6 (Continued)

	<p>construction activities are being completed) a Surface Treatment Plan describing the design and application of colors and textures to all new wind turbine facilities, structure buildings, walls, fences, and components comprising all ancillary facilities including the collector station substation. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast to the degree feasible. The Treatment Plan shall be submitted to the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) notifies Pacific Wind Development that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, Pacific Wind Development shall prepare and submit for review and approval a revised Plan.</p>
Location	All turbines and permanent ancillary facilities
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review Surface Treatment Plan before start of construction and to verify implementation following construction
Effectiveness Criteria	The occurrence of visual contrast from turbines ancillary facilities will be minimized to the extent feasible.
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review Surface Treatment Plan before start of construction and to verify implementation following construction.
Mitigation Measure	<p>VIS-4a. Reduce long-term night-lighting impacts from substations and ancillary facilities. Pacific Wind Development 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. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. Pacific Wind Development shall submit a Lighting Mitigation Plan to the BLM for review and approval at least 90 days before ordering any permanent exterior lighting fixtures or components. Pacific Wind Development shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the BLM. 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 are 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	At substations and ancillary facilities
Monitoring/Reporting Action	BLM to review Lighting Mitigation Plan before start of construction and to verify implementation following construction

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects
D.3 VISUAL RESOURCES

Table D.3-6 (Continued)

Effectiveness Criteria	Light bulbs and reflectors at substations would not be visible from public viewing areas, and night lighting would not cause reflected glare and illumination beyond the facility boundary and into the nighttime sky.
Responsible Agency	BLM
Timing	BLM to review Lighting Mitigation Plan before start of construction and to verify implementation following construction.
Mitigation Measure	VIS-4b. Incorporate Obstacle Collision Avoidance System (OCAS) onto Tule Wind Project wind turbines. The project applicant shall install the OCAS lighting system on all proposed wind turbines in order to minimize nighttime lighting impacts attributed to the operation of FAA required obstruction lighting. As the OCAS and other Audio Visual Warning Systems (AVWS) have been approved by the FAA and are considered to be suitable alternatives to the marking and lighting requirements as recommended in FAA Advisory Circular (AC) 70/7460-1K, installation of this system would be compatible with FAA requirements.
Location	All wind turbines
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians to review OCAS incorporation proposal before start of construction and to verify implementation following construction.
Effectiveness Criteria	Lighting nighttime impacts are minimized and OCAS lighting is normally off unless approaching plane is detected.
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	Documentation OCAS incorporation to be submitted by Pacific Wind Development prior to granting of MUP.
APM	TULE-AES-1. Wind turbines, nacelles, and rotors that are locally uniform and that conform to the high standards of industrial design would be used to present a trim, uncluttered appearance.
Location	All turbines
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review construction plans to ensure that turbine locations are sited in a trim, uncluttered layout
Effectiveness Criteria	Turbine components are locally uniform and presented in a trim, uncluttered appearance.
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	Before obtaining a ROW grant and Major Use Permit
APM	TULE-AES-5. To minimize the collector cable system's visual impacts, a portion of the system would be installed underground.
Location	Cable collector system
Monitoring/Reporting Action	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review and approve construction plans to underground portion of the collector cable system
Effectiveness Criteria	Visual impacts of the collector cable system are minimized
Responsible Agency	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians
Timing	BLM, San Diego County, CSLC, BIA, and Ewiiapaayp Band of Kumeyaay Indians (depending on the jurisdiction where the construction activities are being completed) to review and approve construction plans to underground portion of the collector cable system

Table D.3-6 (Continued)

APM	TULE-AES-9. Dull gray porcelain insulators would be installed at the collector substation to reduce insulator visibility.
Location	At the collector substation
Monitoring/Reporting Action	BLM to review construction plans to ensure that dull gray porcelain insulators will be installed at the collector substation.
Effectiveness Criteria	Visibility of insulators reduced due to utilization of dull gray porcelain materials
Responsible Agency	BLM
Timing	BLM to review construction plans before construction and to verify installation after construction
Energia Sierra Juarez U.S. Transmission, LLC, ESJ Gen-Tie Project	
Mitigation Measure	VIS-3a. Reduce visibility of construction activities and equipment. Construction sites and staging and material and equipment storage areas, including storage sites for excavated materials, 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 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 during holidays and periods of heavy recreational use shall be avoided. Energia Sierra Juarez U.S. Transmission, LLC, shall submit final construction plans demonstrating compliance with this measure to the County of San Diego for review and approval at least 60 days before the start of construction.
Location	At all project components
Monitoring/Reporting Action	County of San Diego to verify in the field during construction and following construction
Effectiveness Criteria	Project construction sites and staging areas will be screened during construction, and all construction areas will appear in their original or improved condition following construction.
Responsible Agency	County of San Diego
Timing	Energia Sierra Juarez U.S. Transmission, LLC, shall submit final construction plans demonstrating compliance with this measure to the County of San Diego for review and approval at least 60 days before the start of construction. County of San Diego is to confirm implementation during and following construction.
Mitigation Measure	VIS-3b. Reduce construction night-lighting impacts. Energia Sierra Juarez U.S. Transmission, LLC, shall design and install all lighting at construction and storage yards and staging areas 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. Energia Sierra Juarez U.S. Transmission, LLC, shall submit a Construction Lighting Mitigation Plan to the County of San Diego for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. Energia Sierra Juarez U.S. Transmission, LLC, shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the County of San Diego. The Plan shall include but is not necessarily limited to the following: <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 are shielded to prevent light trespass outside the project boundary • All lighting shall be of minimum necessary brightness consistent with worker safety.

Table D.3-6 (Continued)

	<ul style="list-style-type: none"> • High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.
Location	All static construction sites
Monitoring/Reporting Action	County of San Diego to review and approve the Construction Lighting Mitigation Plan before 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	County of San Diego
Timing	Energia Sierra Juarez U.S. Transmission, LLC, shall submit a Construction Lighting Mitigation Plan to the County of San Diego for review and approval at least 90 days before the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. County of San Diego to review and approve plan before the start of construction and to confirm implementation of plan during construction
Mitigation Measure	VIS-3c. Reduce construction impacts to natural features. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits.
Location	At all construction work areas
Monitoring/Reporting Action	County of San Diego monitors to ensure compliance with restrictions regarding paint and discoloring agents.
Effectiveness Criteria	No paint or permanent discoloring agents are detected and reported by County of San Diego monitors.
Responsible Agency	County of San Diego
Timing	County of San Diego to monitor for compliance during construction.
Mitigation Measure	VIS-3d. 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 feasible to better blend graded surfaces with existing terrain. Energia Sierra Juarez U.S. Transmission, LLC, shall submit final construction plans demonstrating compliance with this measure to the County of San Diego for review and approval at least 60 days before the start of construction.
Location	All grading sites for access roads, spur roads, and gen-tie structures
Monitoring/Reporting Action	County of San Diego to review construction plans before start of construction and to verify compliance during construction
Effectiveness Criteria	In-line views of land scars from grading will be minimized.
Responsible Agency	County of San Diego
Timing	Energia Sierra Juarez U.S. Transmission, LLC, shall submit final construction plans demonstrating compliance with this measure to the County of San Diego for review and approval at least 60 days before the start of construction. County of San Diego is to review construction plans before start of construction and to verify compliance during construction.
Mitigation Measure	VIS-3e. 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 ongoing operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, Energia Sierra Juarez U.S. Transmission, LLC, shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter cleanup until

Table D.3-6 (Continued)

	all vegetation removed returns to its pre-project state. Energia Sierra Juarez U.S. Transmission, LLC, shall submit final construction and restoration plans demonstrating compliance with this measure to the County of San Diego for review and approval at least 60 days before the start of construction.
Location	All grading sites for access roads, spur roads, and gen-tie structures
Monitoring/Reporting Action	County of San Diego to review construction and restoration plans before start of construction and to 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	County of San Diego
Timing	Energia Sierra Juarez U.S. Transmission, LLC, shall submit final construction and restoration plans demonstrating compliance with this measure to the County of San Diego for review and approval at least 60 days before the start of construction. County of San Diego is to review construction and restoration plans before start of construction and to verify implementation following construction.
Mitigation Measure	VIS-3f Minimize vegetation removal. 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 measure.
Location	All construction sites where surface disturbance is proposed
Monitoring/Reporting Action	County of San Diego to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction
Effectiveness Criteria	The occurrence of vegetation removal will be minimized, and the resulting visual contrast will be minimal.
Responsible Agency	County of San Diego
Timing	County of San Diego to review construction and restoration plans before the start of construction and to verify minimal vegetation removal during construction.
Mitigation Measure	VIS-3i Reduce potential visual contrast of transmission structures. Energia Sierra Juarez U.S. Transmission, LLC, will use dulled-metal-finish transmission structures and non-specular conductors.
Location	At all gen-tie structures
Monitoring/Reporting Action	County of San Diego to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are included in plans before start of construction and to verify implementation of components during construction
Effectiveness Criteria	The occurrence of visual contrast from transmission structures will be minimized, and structures will blend with the landscape to the extent feasible.
Responsible Agency	County of San Diego
Timing	Energia Sierra Juarez U.S. Transmission, LLC, to review construction plans to ensure that dulled-metal-finish transmission structures and non-specular conductors are identified before start of construction and to verify implementation of components during construction
Mitigation Measure	VIS-3j Reduce potential transmission conductor visibility and visual contrast. The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans, to reduce the degree of visual contrast caused by the new facilities: <ul style="list-style-type: none"> • All new conductors and re-conducted spans are to be non-specular in design to reduce conductor visibility and visual contrast. • No new access roads shall be constructed such that they directly approach existing or

Table D.3-6 (Continued)

	proposed towers in a straight line from sensitive viewing locations immediately downhill of the structures.
Location	All gen-tie structures
Monitoring/Reporting Action	County of San Diego to review construction plans to ensure that conductors are non-specular and that access roads do not directly approach existing or proposed towers in a straight line from sensitive viewing locations
Effectiveness Criteria	The visibility of conductors will be minimized, and the visual impacts of access roads on sensitive viewing locations will be minimized.
Responsible Agency	County of San Diego
Timing	County of San Diego to review construction plans before the start of construction and to verify implementation of design measures following construction
Mitigation Measure	VIS-3I. Reduce potential view blockage and visual contrasts of structures. Transmission line structures will not be installed directly in front of residences or in direct line of sight from a residence, where feasible. Energia Sierra Juarez U.S. Transmission, LLC, will consult with affected property owners on structure siting to reduce land use and visual impacts.
Location	All gen-tie structures
Monitoring/Reporting Action	County of San Diego to review construction plans to ensure that structures are not planned directly in front of residents or in direct line of sight from residences
Effectiveness Criteria	The occurrence of view blockage from transmission structures will be minimized.
Responsible Agency	County of San Diego
Timing	Energia Sierra Juarez U.S. Transmission, LLC, to consult with affected property owners on structure siting to reduce land use and visual impacts before obtaining a Grading Permit.

D.3.9 Residual Effects

Implementation of the mitigation measures presented in Section D.3.8 would not mitigate the impacts in Table D.3-7 and Table D.3-8 and under CEQA, the impacts would be residually significant and cannot be mitigated to a level that is less than significant.

Table D.3-7
Significant and Unmitigable Impacts – ECO Substation Project

ECO Substation – Class I Impacts		
Impact No.	Description	Status after Mitigation
ECO-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Between MP 9 and the rebuilt Boulevard Substation, the proposed 138 kV transmission line would significantly impact scenic views from the Jewel Valley Trail and the Jewel Valley Road Pathway. Mitigation Measures VIS-1a and VIS-1b would not reduce the impact to below a level of significance. Other than undergrounding the transmission line along the identified segment, the impact could not be reduced to below a level of significance.

Table D.3-7 (Continued)

ECO Substation – Class I Impacts		
ECO-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	The introduction of numerous industrial elements at proposed substation sites and a new transmission corridor between MP 9 and the rebuilt Boulevard Substation (in which 138 kV transmission structures would be located) would create significant visual contrasts in the project area. There is no feasible mitigation that could effectively screen views of these project components or reduce the visibility of facilities such that the visual contrast would be reduced to a level that is less than significant.

ECO-VIS-1. Feasible alternatives are available to reduce this impact to below a level of significance. The ECO Partial Underground 138 kV Transmission Route Alternative would underground the 138 kV transmission line between MP 9 and the rebuilt Boulevard Substation. Under this alternative, transmission structures and an overhead transmission line would not be located within the Jewel Valley Trail and Jewel Valley Road Pathway corridors and scenic views from these County hiking facilities would not be obstructed.

ECO-VIS-3. Feasible alternatives are not available to reduce the visual contrasts associated with the 138 kV transmission line. Both the ECO Partial Underground 138 kV Transmission Route Alternative and the ECO Highway 80 Underground 138 kV Transmission Route Alternative would reduce visual contrast by installing the segment of the line not parallel to the existing 500 kV SWPL underground. Therefore, neither of these alternatives would require a new overhead transmission utility corridor and neither would install large, industrial transmission line structures aboveground outside of the existing SWPL ROW. Under both alternatives, VIS-3 138 kV transmission line visual contrasts would be reduced to less than significant (Class II) levels.

There is no feasible or physical alternative to effectively reduce the visual contrast associated with development of the ECO Substation or the rebuilt Boulevard Substation. Both facilities would be highly visible to a variety of viewer types including residents, motorists, and recreationists and the visibility of these facilities could not be better screened or blended in with the existing surrounding landscape so as to render the visual contrast less than significant. Given the change in character that the introduction of additional industrial elements at the ECO Substation would instigate, there is no feasible mitigation to further reduce this impact. Given the close proximity of residential uses to substation and the elevated views afforded, the Boulevard Substation Rebuild equipment and facility would be openly visible and create very strong contrasts in scale, form, and color. Similarly, there is no feasible mitigation to reduce this anticipated impact to a level that is below a level of significance under CEQA.

**Table D.3-8
Significant and Unmitigable Impacts – Tule Wind Project**

Tule Wind – Class I Impacts		
Impact No.	Description	Status after Mitigation
TULE-VIS-1	The project would have a substantial adverse effect on a scenic vista.	Wind turbines would be located in the foreground viewing distance from the Carrizo Overlook and would be highly visible from the Ribbonwood Trail and Ribbonwood Road Pathway. There is no feasible mitigation that could screen views of wind turbines or better blend the wind turbines into the existing environment such that scenic views from these locations would not be obstructed or degraded.
TULE-VIS-3	The project would substantially degrade the existing visual character or quality of the site and its surroundings.	The Tule wind turbines would cause profoundly strong visual contrasts up to 5 miles away due to the more than 400-foot-tall scale and vertical form of the turbine towers, their light color, and the movement of blades.
TULE-VIS-4	The project would create a substantial new source of light or glare that would adversely affect day or nighttime views in the area.	Obstruction lighting would be required for the proposed wind turbines (per FAA regulations). Although the implementation of Mitigation Measure VIS-4b would minimize nighttime lighting impacts by incorporating the OCAS on proposed wind turbines, the potential for nighttime lighting would not be avoided entirely and lighting would be a source of annoyance for residents in the McCain Valley and Boulevard areas, and nighttime views for these residents would be affected.
TULE-VIS-5	Construction of the project or the presence of project components would result in an inconsistency with federal, state, or local regulations, plans, and standards applicable to the protection of visual resources.	Inconsistency with the Scenic Highway Goal of the Mountain Empire Subregional Plan stems from the project's overall visibility from I-8 and the inconsistency with Zoning Ordinance Section 6324 relates to the inability to ensure that light trespass resulting from nighttime wind turbine lighting would not spill over into adjacent residential properties.

TULE-VIS-1. Feasible alternatives are not available to reduce visual contrasts caused by the installation of wind turbines in the project area. Due to their large size and striking color, wind turbines could not be effectively screened from the views afforded to visitors at the Carrizo Gorge or recreationist's utilizing the Ribbonwood Trail and Ribbonwood Road Pathway. Turbines would be highly visible in the project area and would dominate the visual landscape. Therefore, there is no feasible mitigation that could reduce anticipated scenic vista impacts to a level that is less than significant.

TULE-VIS-3. Feasible alternatives are not available to reduce visual contrasts caused by the installation of wind turbines in the project area. The Tule wind turbines would create profoundly

strong visual contrasts up to 5 miles away due to the more than 400-foot-tall scale and vertical form of the turbine towers, their light color, and the movement of blades. Where openly seen on ridgelines and/or against tan and green mountain slopes, the visibility of multiple wind turbines would create dominant, large-scale industrial elements in predominantly natural landscapes. Due to their size, color, and movement of turbine blades, the wind turbines would be visually dominant from rural residential, highway, and public land locations within both foreground and middle-ground viewing distances.

TULE-VIS-4. Feasible alternatives are not available to substantially reduce the nighttime lighting impacts caused by the installation of wind turbines in the project area. Although the implementation of Mitigation Measure VIS-4b would minimize nighttime lighting impacts by incorporating the OCAS on proposed wind turbines, the potential for nighttime lighting would not be avoided entirely and lighting would be a source of annoyance for residents in the McCain Valley and Boulevard areas, and nighttime views for these residents would be affected. Because turbine lighting would be required per federal government standards, there is no feasible mitigation available which could further reduce the anticipated nighttime lighting impacts.

TULE-VIS-5. Feasible alternatives are not available to substantially reduce the visual impacts caused by the installation of wind turbines in the project area. Because the identified inconsistencies with plans and policies applicable to the project area stem from the inability to ensure that light trespass resulting from the OCAS incorporated on proposed wind turbines would not spill over into adjacent residential properties, there is no feasible mitigation. Because obstruction lighting is required to be installed by the FAA, there is no feasible mitigation that could be implemented to better protect surrounding residents from obstruction lighting (or OCAS lighting) spillover.

The size of Campo, Manzanita, and Jordan wind energy project wind turbines and the general open visibility conditions in the project study area would make these project features visible from the Carrizo Overlook and from County trails and pathways. Due to size, light-color, and blade movement, scenic vista impacts attributed to these wind turbines as viewed from the Carrizo Overlook and from County trails and pathways are anticipated to be similar to those identified for the Tule Wind Project. In addition, due to typical wind turbine characteristics including (but not limited to) size, form, color, blade movement, and FAA required night lighting, impacts associated with visual contrast, night lighting, and consistency with local visual resource plans and policies resulting from these projects are anticipated to be similar to those identified for the Tule Wind Project. Therefore, the Campo, Manzanita, and Jordan wind energy projects are anticipated to yield residual effects as they relate to scenic vista, visual contrast, nighttime lighting, and local policy consistency impacts.

D.3.10 References

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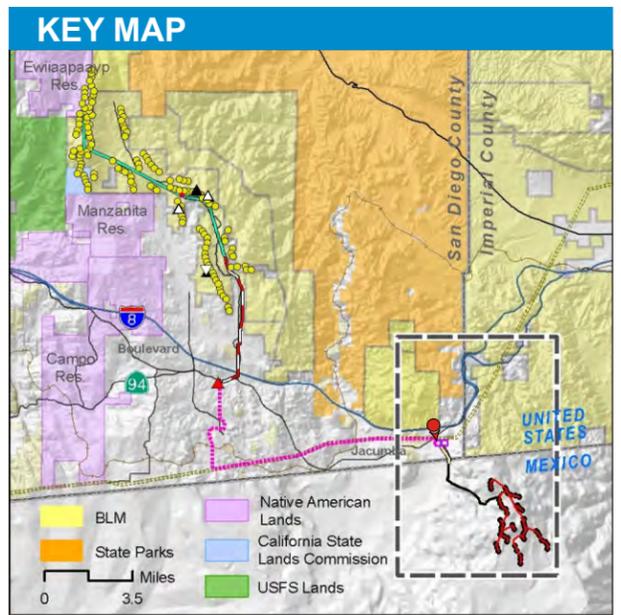
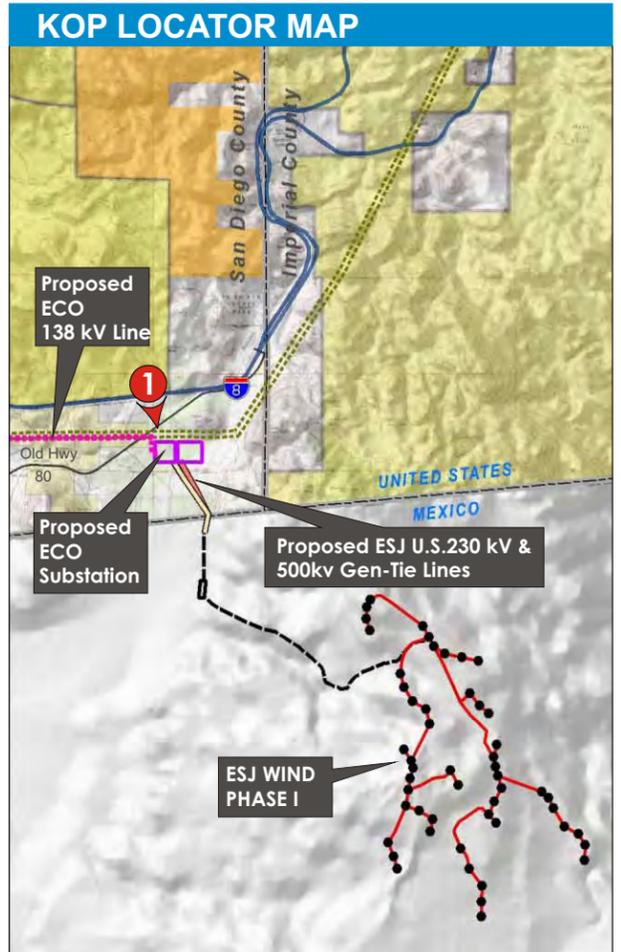
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View Point West. 2010. GIS data.

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KOP 1—EXISTING SETTING (ES)
View looking southeast from Eastbound I-8 toward proposed ECO Substation Site and ESJ Gen-Tie Line and Wind Phase I Site

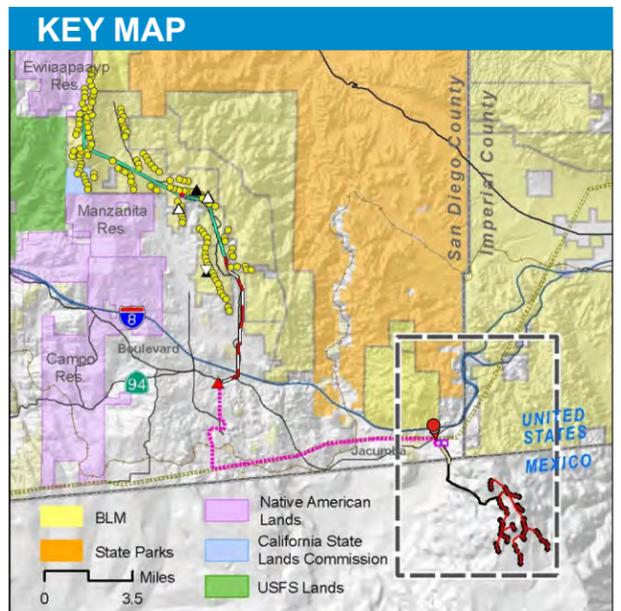
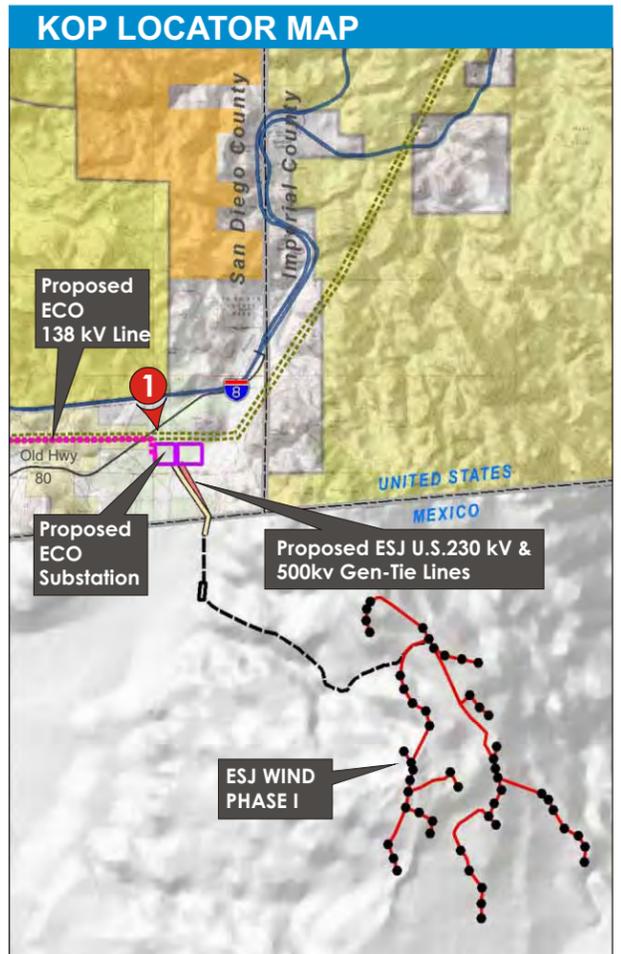
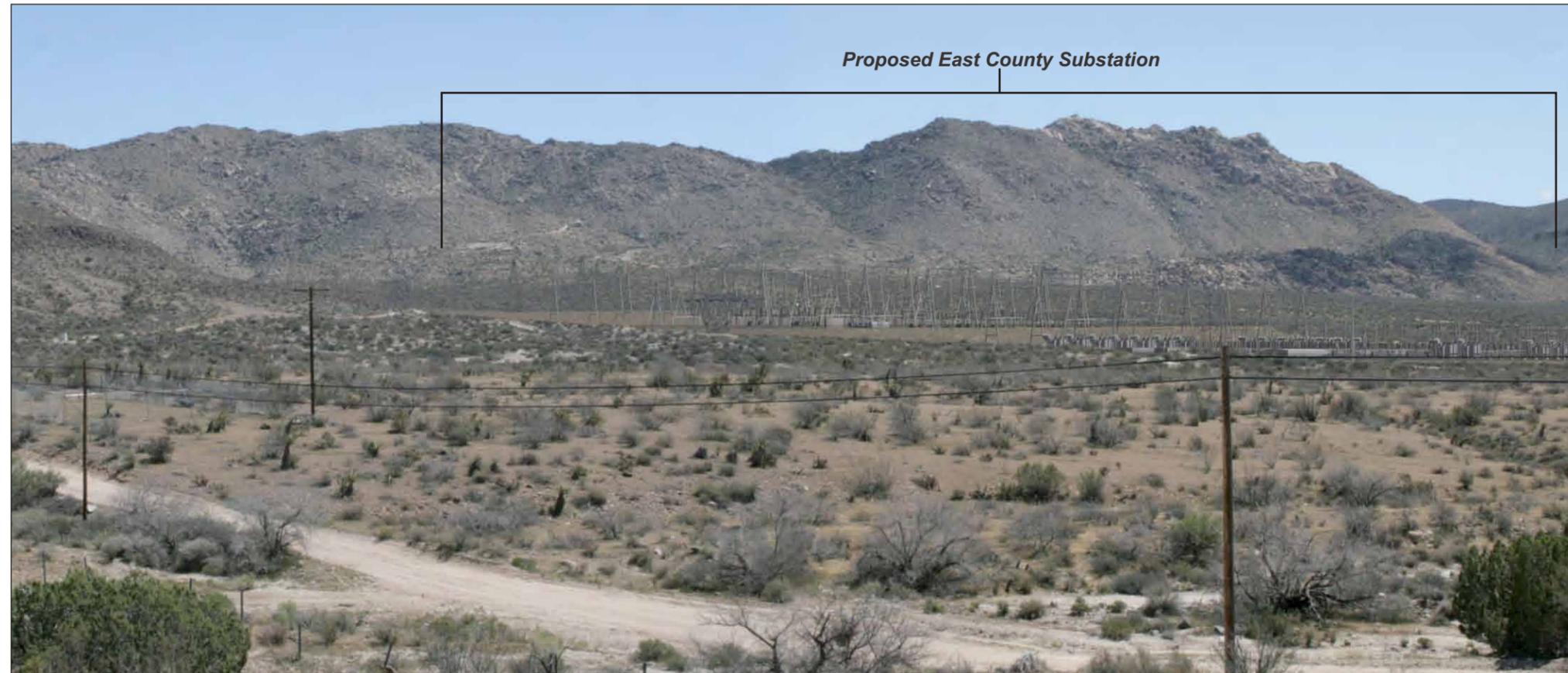
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B—Representative	Medium to High <ul style="list-style-type: none"> • Viewer Groups—Motorists I-8 • Viewer Volume—High • Public Concern Level—Moderate 	Foreground to Middleground

FIGURE D.3-6A
KOP 1—Existing Setting (ES)

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KOP 1–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS1)
View looking southeast from Eastbound I-8 toward proposed ECO Substation

PHOTO DESCRIPTION

ECO Substation and SWPL Loop-In Visual Contrasts

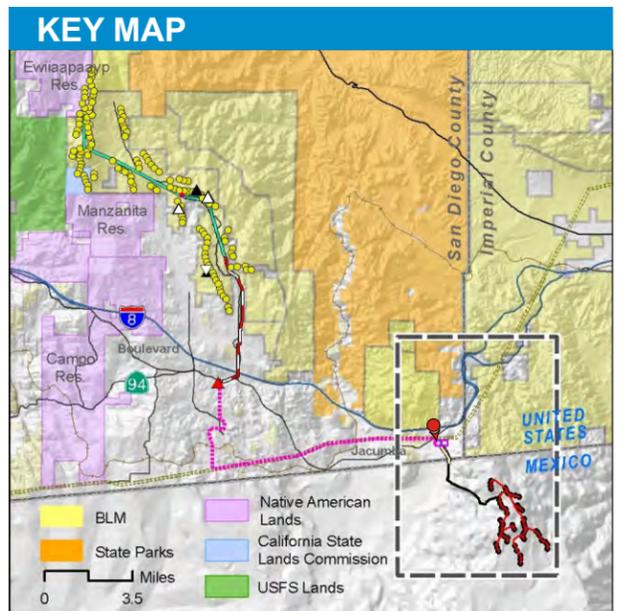
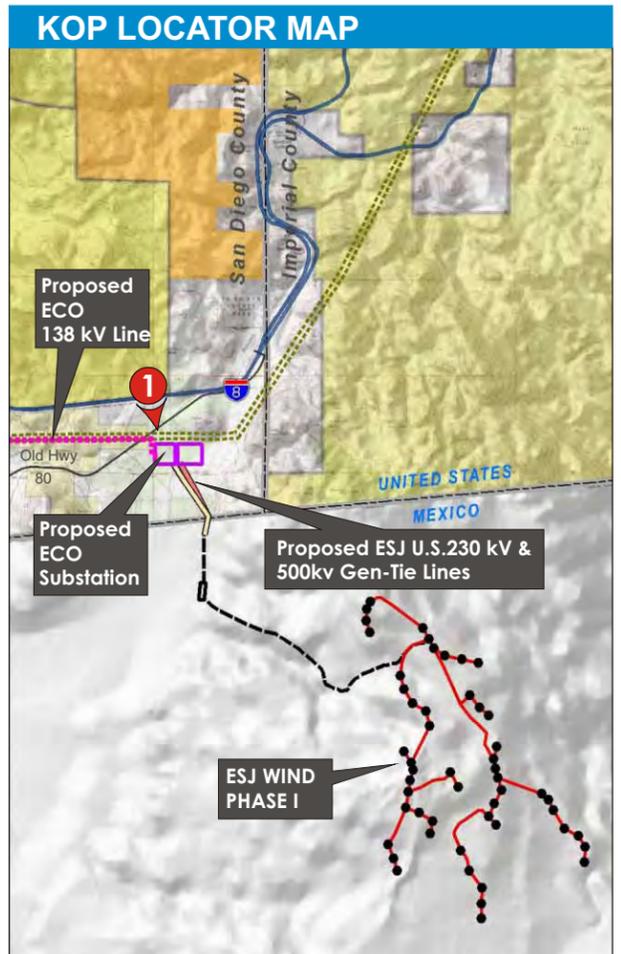
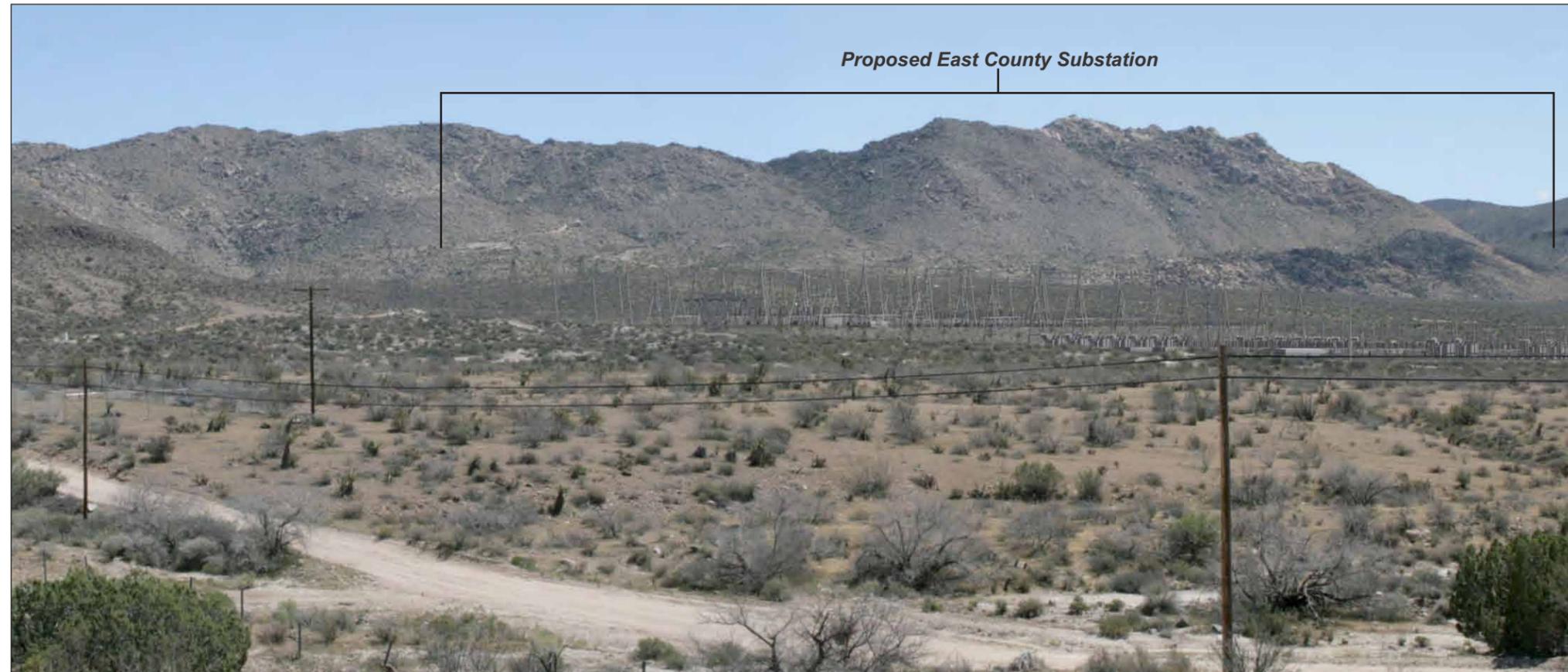
- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

NOTE:
This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation 138 kV Transmission Line, ESJ Gen-Tie, ESJ Wind Turbines.

Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under sunny weather conditions.

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KOP 1–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS2)
 View looking southeast from eastbound I-8 toward Proposed ECO Substation (with Landscape Plan)

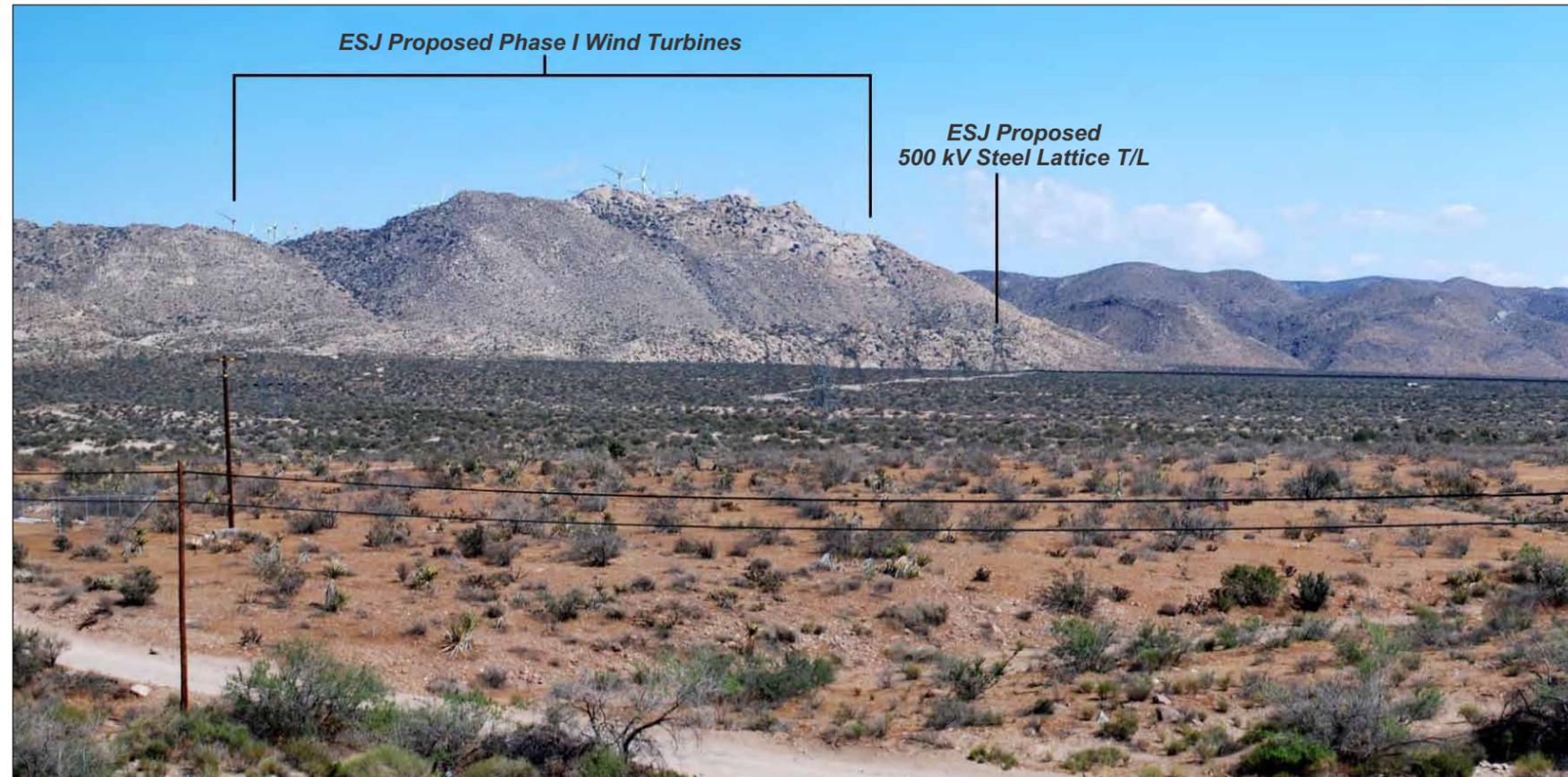
PHOTO DESCRIPTION

ECO Substation (w/ Landscape Plan) and SWPL Loop-In Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

NOTE:
 This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation 138 kV Transmission Line, ESJ Gen-Tie, ESJ Wind Turbines.
 Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under sunny weather conditions.

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KOP 1—VISUAL SIMULATION OF PROPOSED ESJ GEN-TIE PROJECT (VS3)
 View looking east from Old Highway 80 toward Proposed ESJ 500 kV Gen-Tie Line (Steel Lattice Structures)

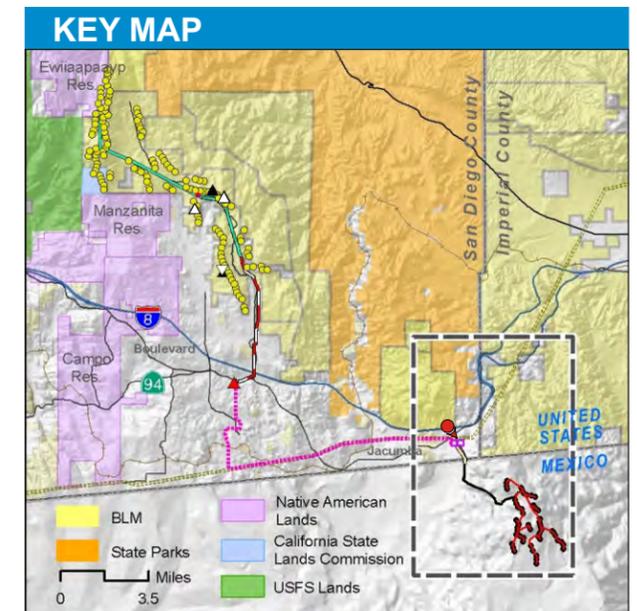
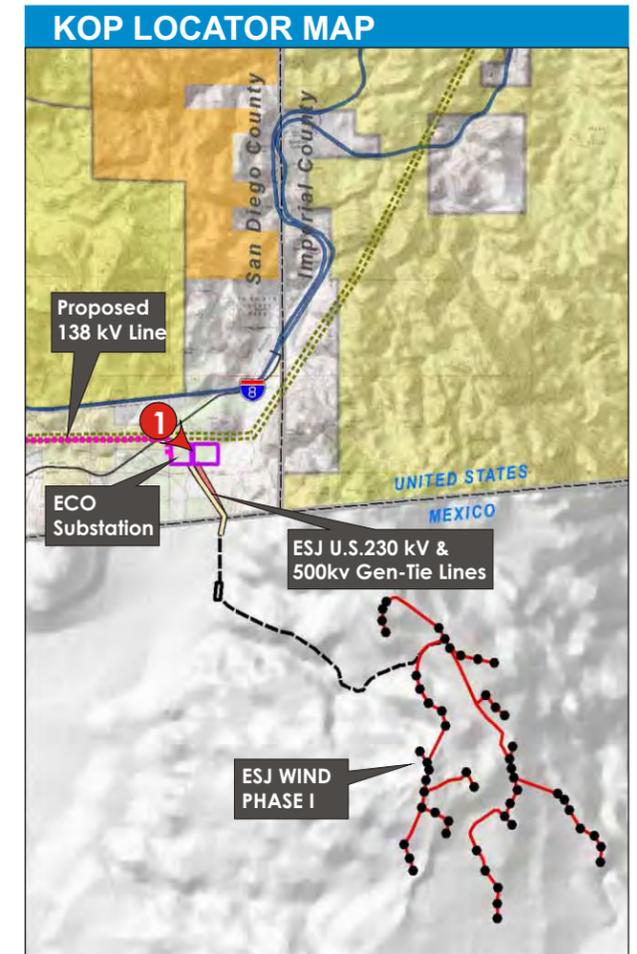


PHOTO DESCRIPTION

ESJ Gen-Tie Line Visual Contrasts

- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

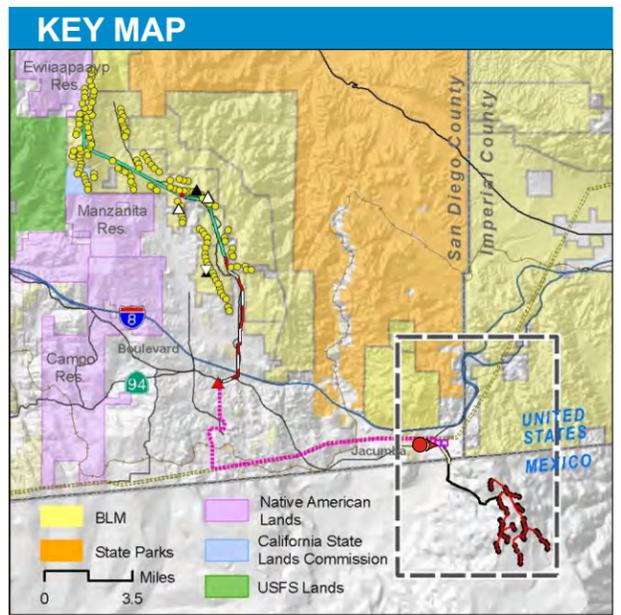
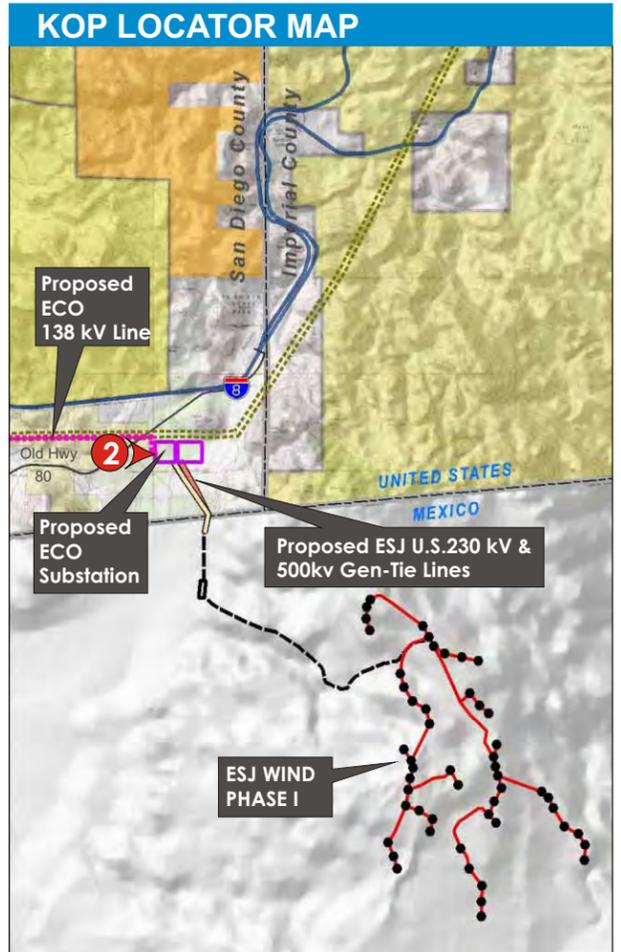
ESJ Wind Turbines Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Moderate
- Impact Class—Class I

NOTE:

This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation 138 kV Transmission Line.

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KOP 2–EXISTING SETTING (ES)
View looking east from Old Highway 80 toward Proposed ECO Substation Site and 138 kV Transmission Line

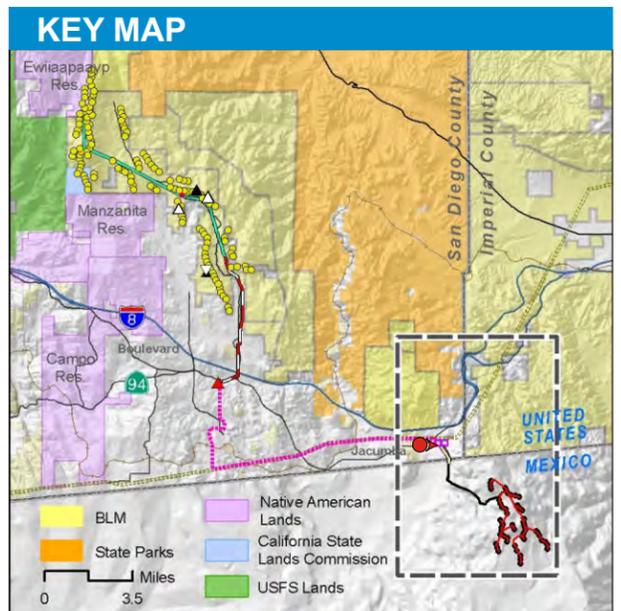
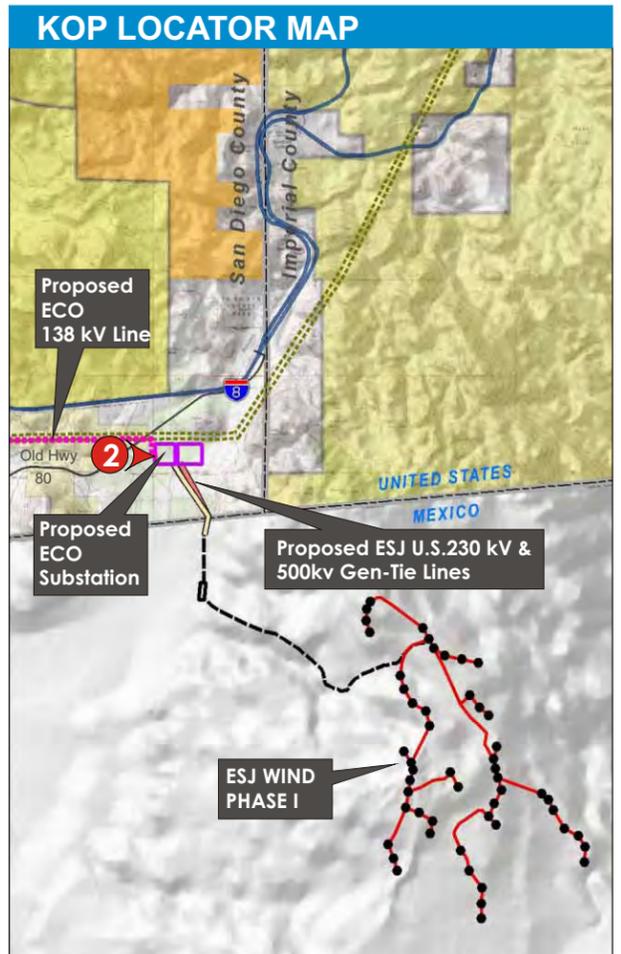
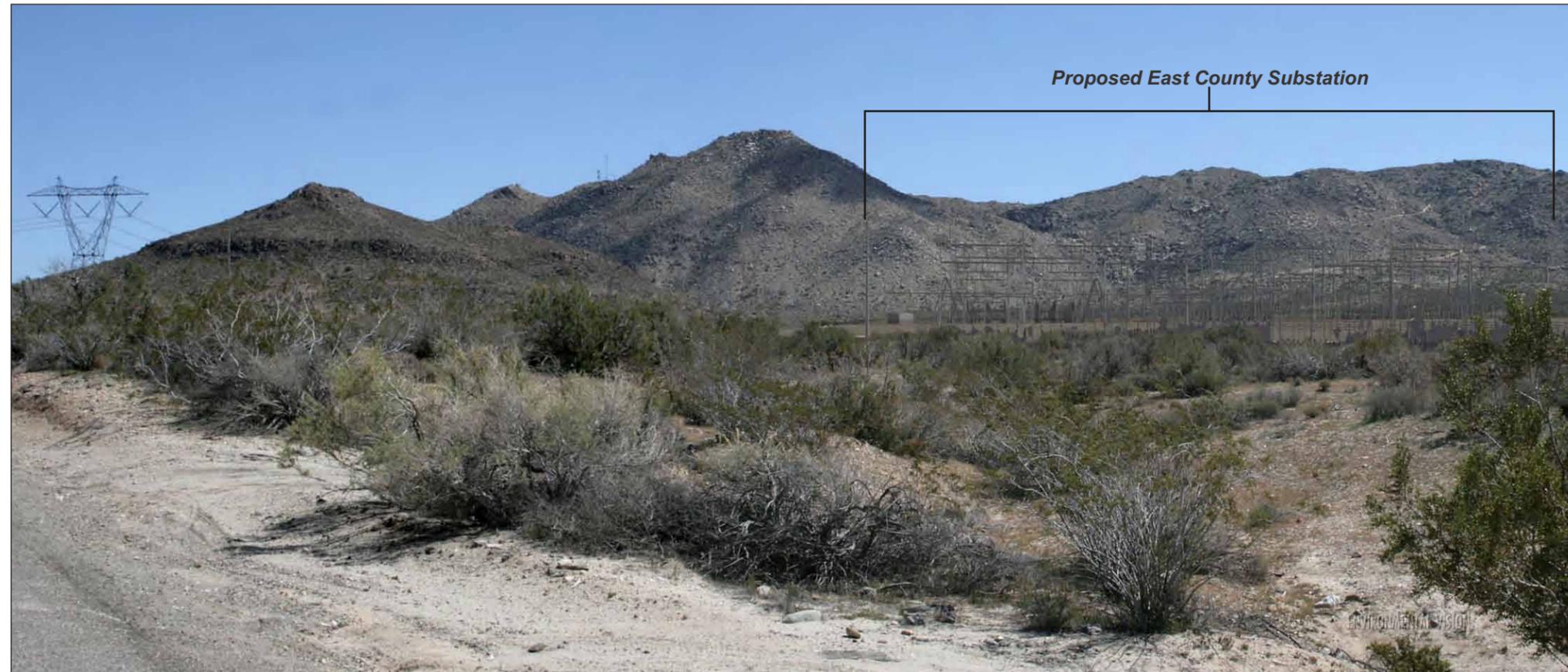
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
<p>Class B–Representative</p>	<p>Medium to High</p> <ul style="list-style-type: none"> • Viewer Groups–Residents, Bicyclists and Motorists (Old Highway 80) • Viewer Volume–Moderate • Public Concern Level–Moderate to High 	<p>Foreground to Middleground</p>

FIGURE D.3-7A
KOP 2–Existing Setting (ES)

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KOP 2–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS1)
View looking east from Old Highway 80 toward Proposed ECO Substation and 138 kV Transmission Line

PHOTO DESCRIPTION

ECO Substation and SWPL Loop-In Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

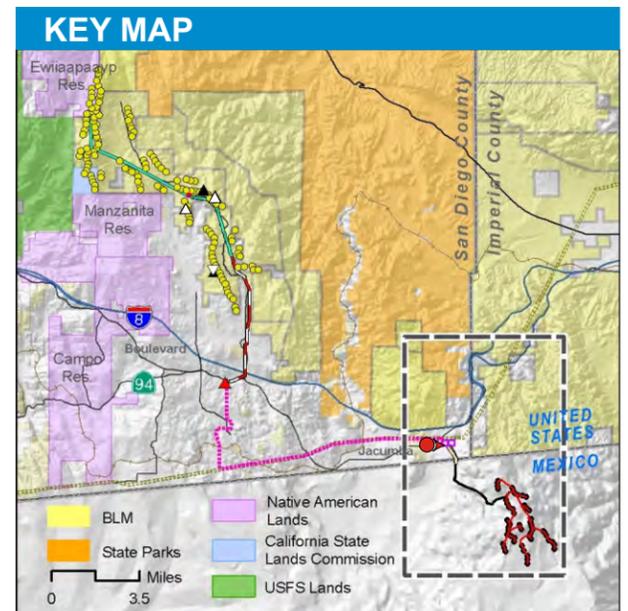
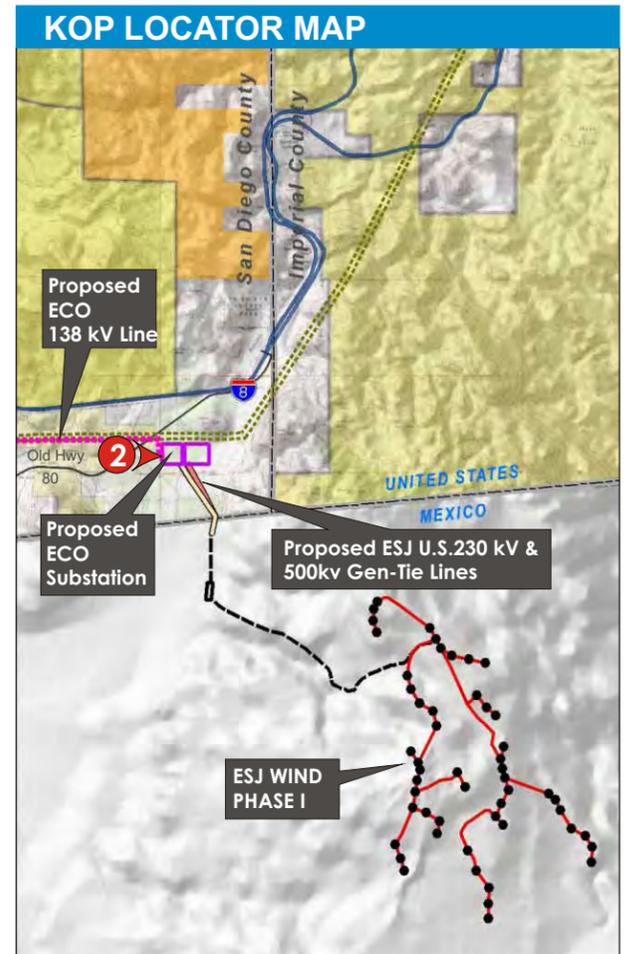
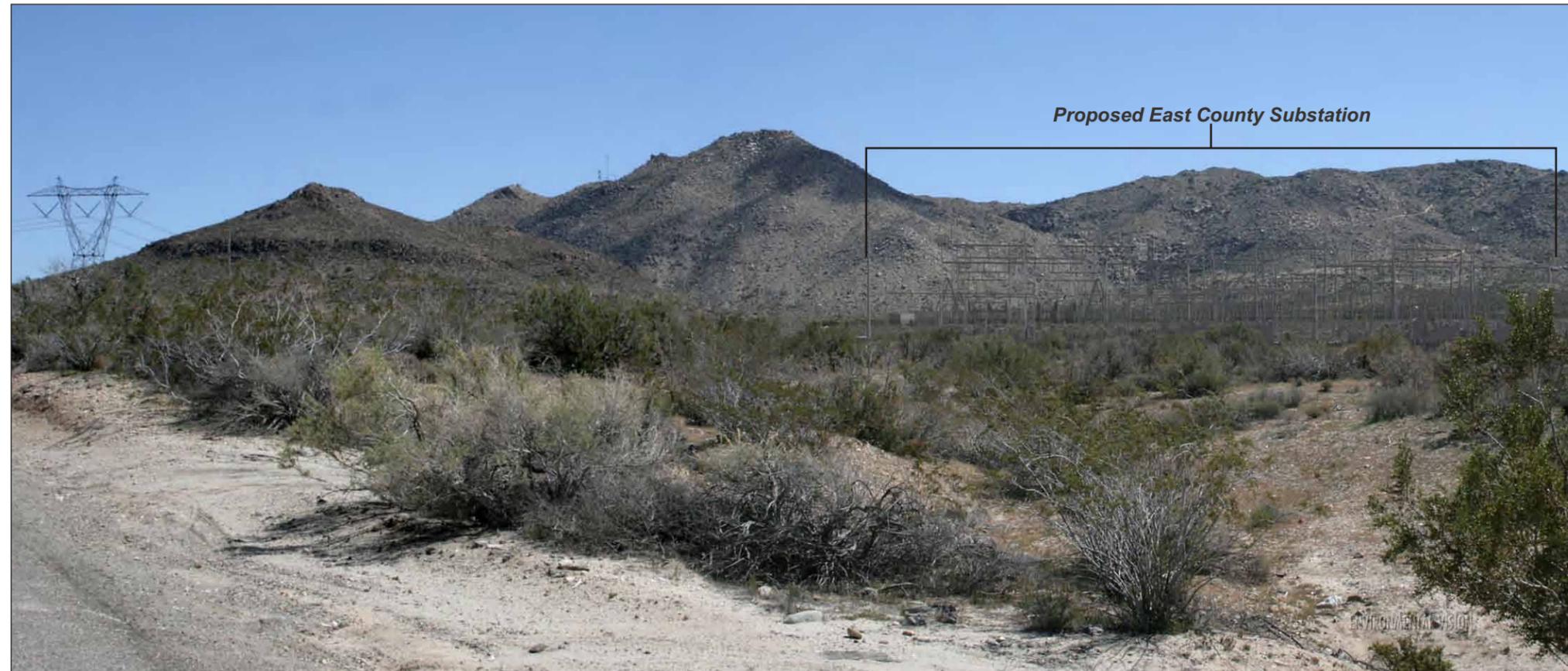
ECO 138 kV Transmission Line Visual Contrast

- Structure Form–Weak-Moderate
- Structure Line–Weak-Moderate
- Structure Color–Weak
- Structure Texture–Weak
- Impact Class–Class III

NOTE:
Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under sunny weather conditions.

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KOP 2–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS2)
 View looking east from Old Highway 80 toward Proposed ECO Substation (with Landscape Plan) and 138 kV Transmission Line

PHOTO DESCRIPTION

ECO Substation and SWPL Loop-In Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

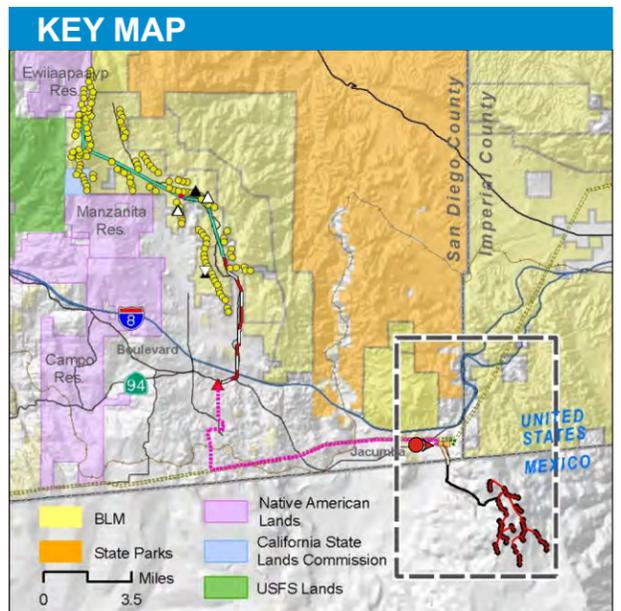
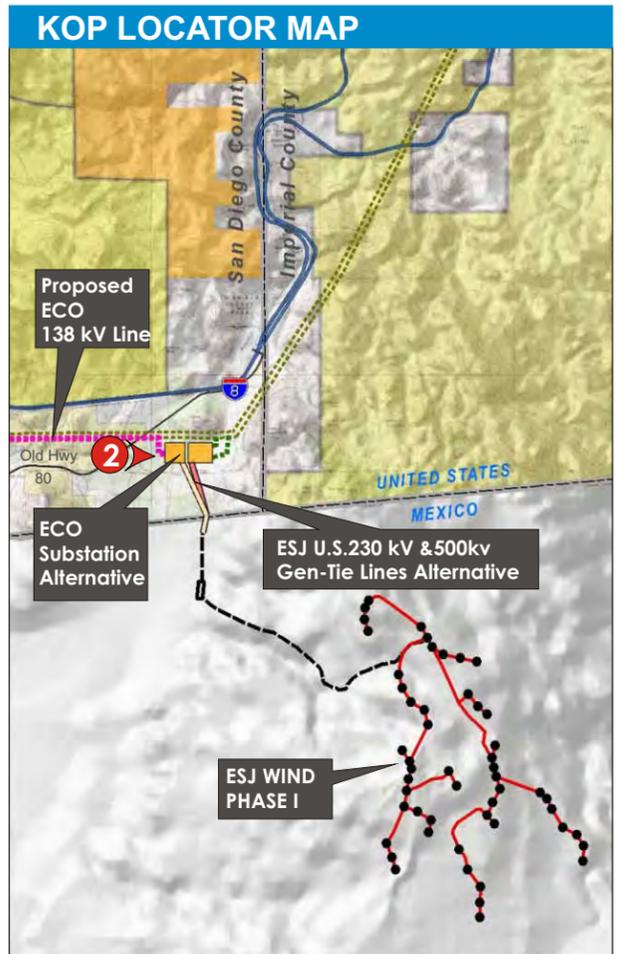
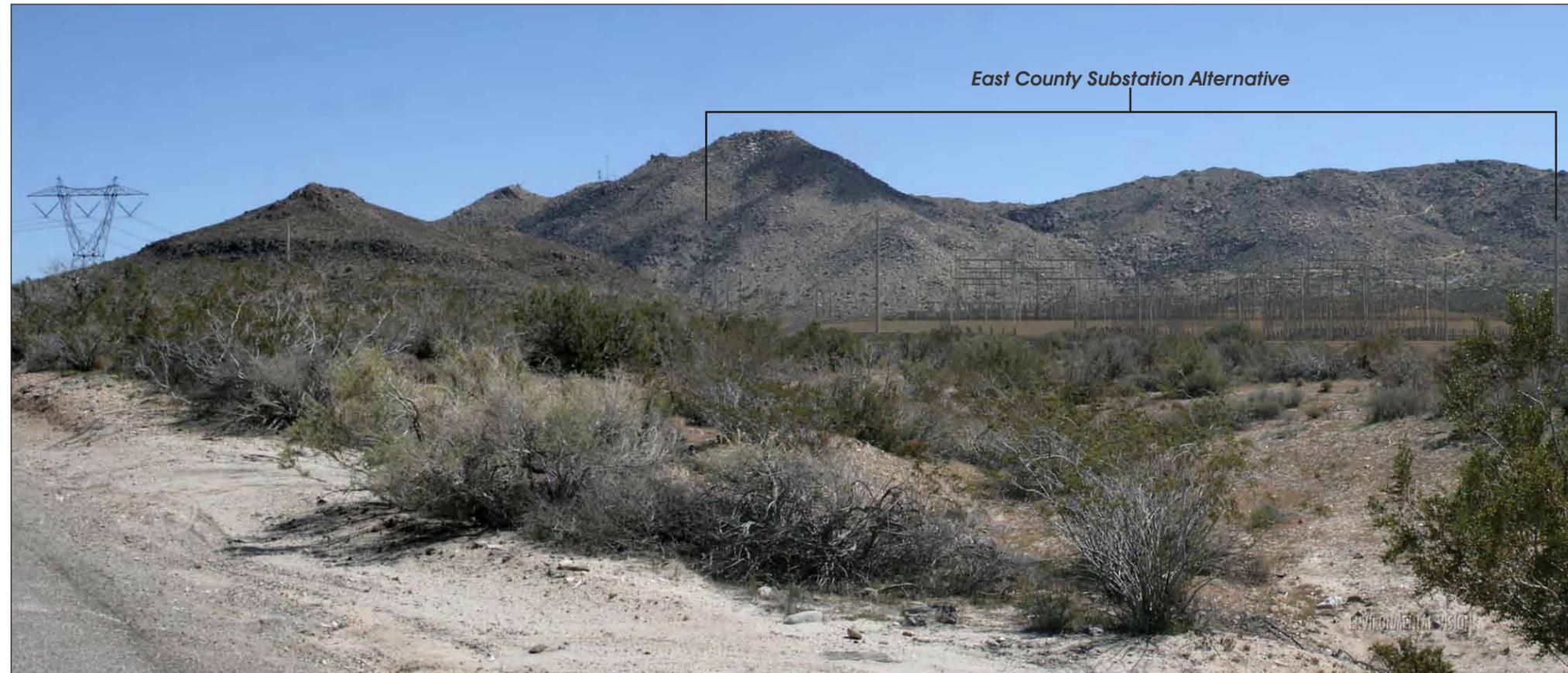
ECO 138 kV Transmission Line Visual Contrast

- Structure Form–Weak-Moderate
- Structure Line–Weak-Moderate
- Structure Color–Weak
- Structure Texture–Weak
- Impact Class–Class III

NOTE:
 Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under sunny weather conditions.

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KOP 2–VISUAL SIMULATION OF ECO SUBSTATION ALTERNATIVE PROJECT (AVS1)
View looking east from Old Highway 80 toward Proposed ECO Substation Site Alternative and 138 kV Transmission Line

PHOTO DESCRIPTION

ECO Substation Site Alternative and SWPL Loop-In Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

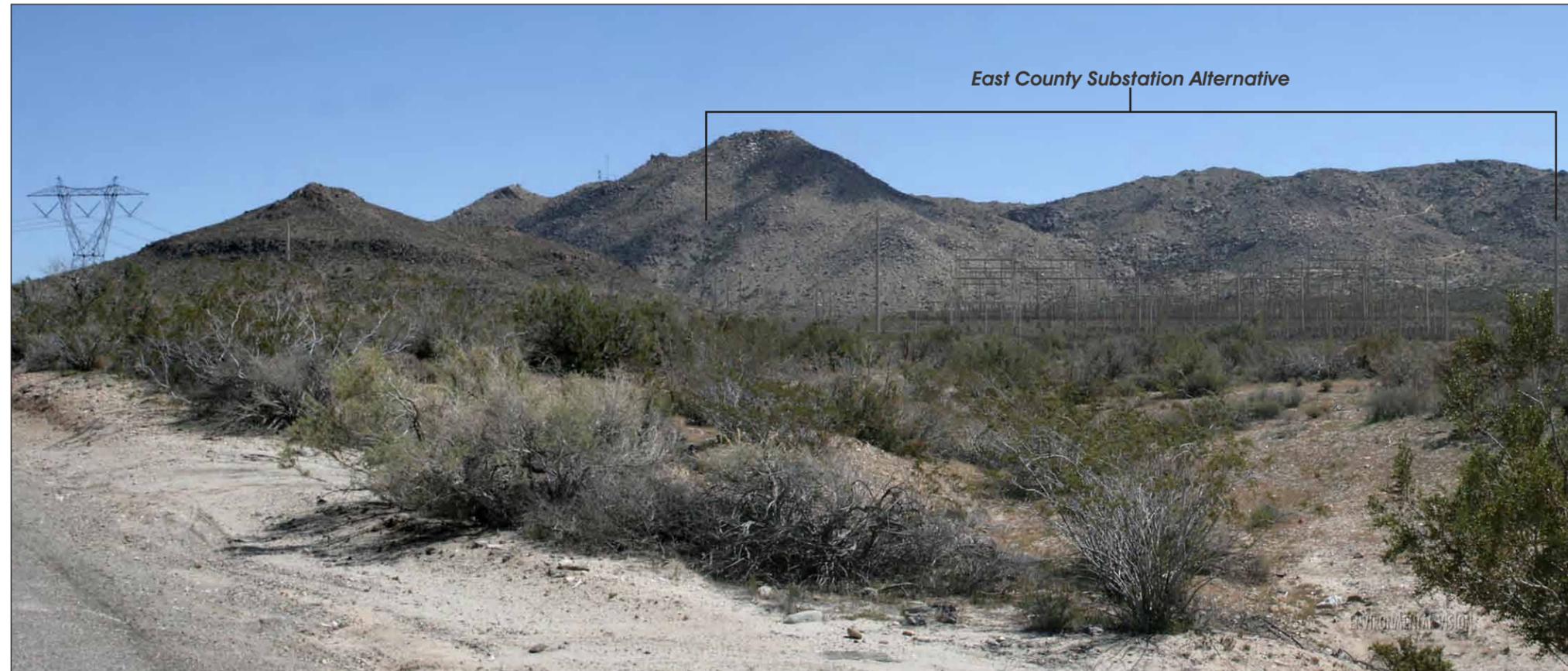
ECO 138 kV Transmission Line Visual Contrast

- Structure Form–Weak-Moderate
- Structure Line–Weak-Moderate
- Structure Color–Weak
- Structure Texture–Weak
- Impact Class–Class III

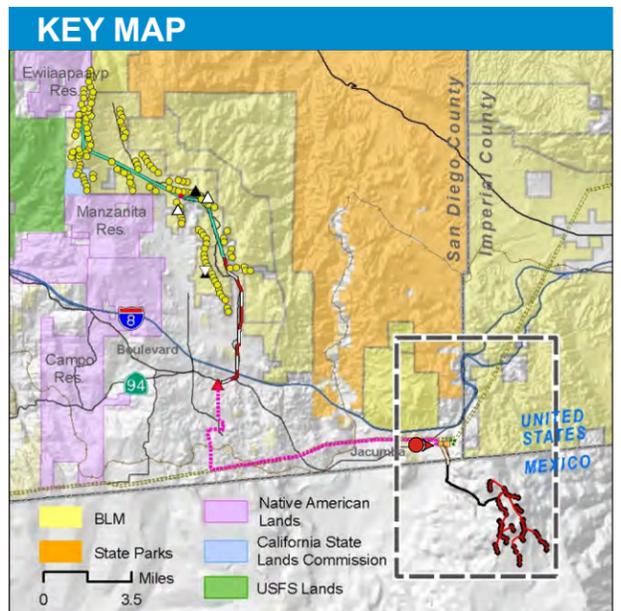
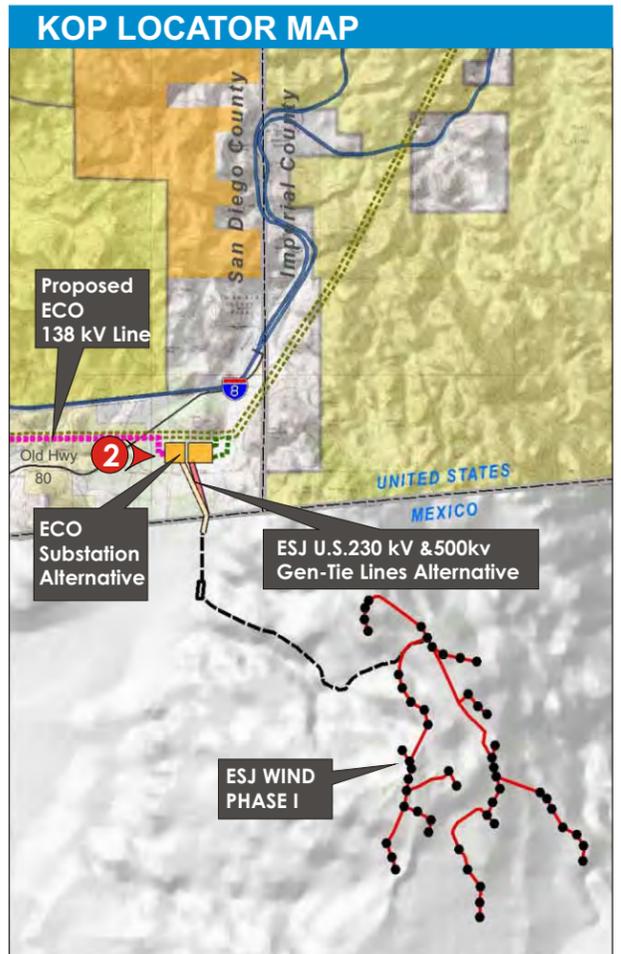
NOTE:
Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under sunny weather conditions.

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East County Substation Alternative



KOP 2–VISUAL SIMULATION OF ECO SUBSTATION ALTERNATIVE PROJECT (AVS2)
View looking east from Old Highway 80 toward Proposed ECO Substation Site Alternative (with Landscape Plan) and 138 kV Transmission Line

PHOTO DESCRIPTION

ECO Substation Site Alternative and SWPL Loop-In Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

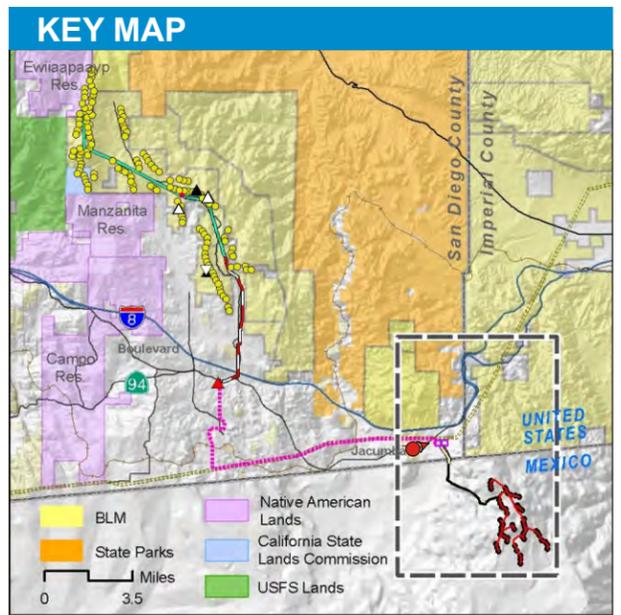
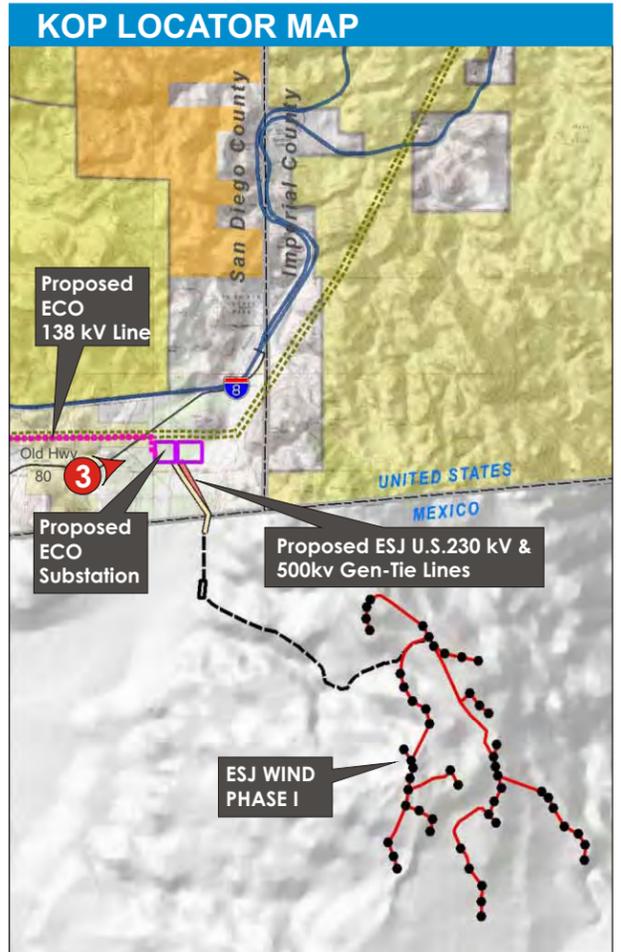
ECO 138 kV Transmission Line Visual Contrast

- Structure Form–Weak-Moderate
- Structure Line–Weak-Moderate
- Structure Color–Weak
- Structure Texture–Weak
- Impact Class–Class III

NOTE:

Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under sunny weather conditions.

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KOP 3—EXISTING SETTING (ES1)
 View looking northeast from Old Highway 80 toward Proposed ECO Substation Site and 138 kV Transmission Line

PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
<p>Class B—Representative</p>	<p>Medium to High</p> <ul style="list-style-type: none"> • Viewer Groups—Residents, Recreationists (bicyclists and hikers) and Motorists (Old Highway 80) • Viewer Volume—Moderate • Public Concern Level—Moderate to High 	<p>Foreground to Middleground</p>

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KOP 3—EXISTING SETTING (ES2)
View looking east from Old Highway 80 toward Proposed ESJ Gen-Tie Line Site

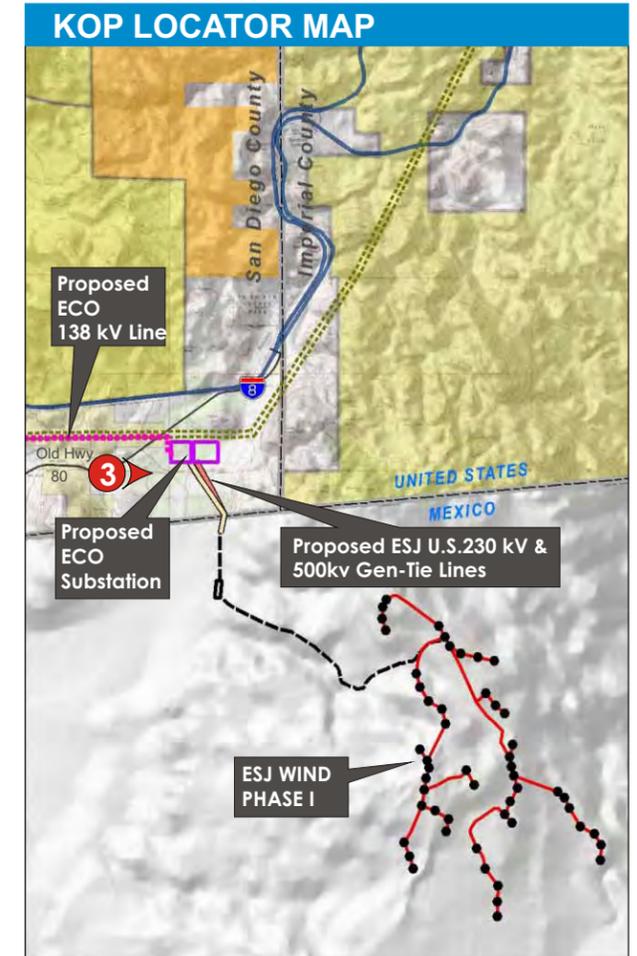
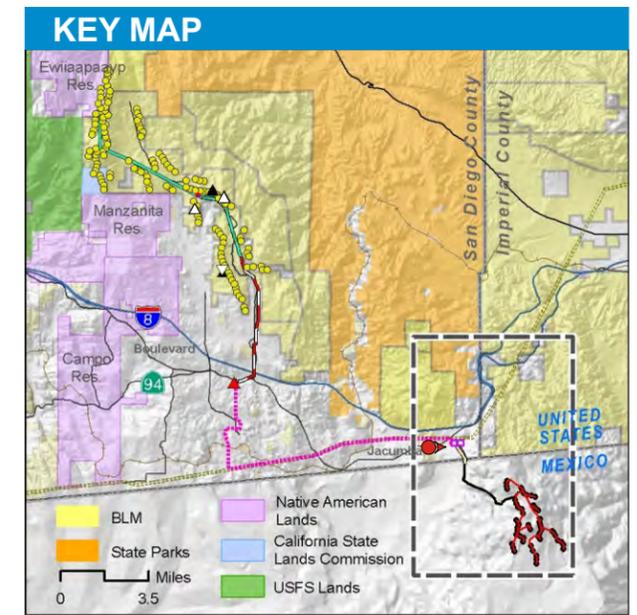


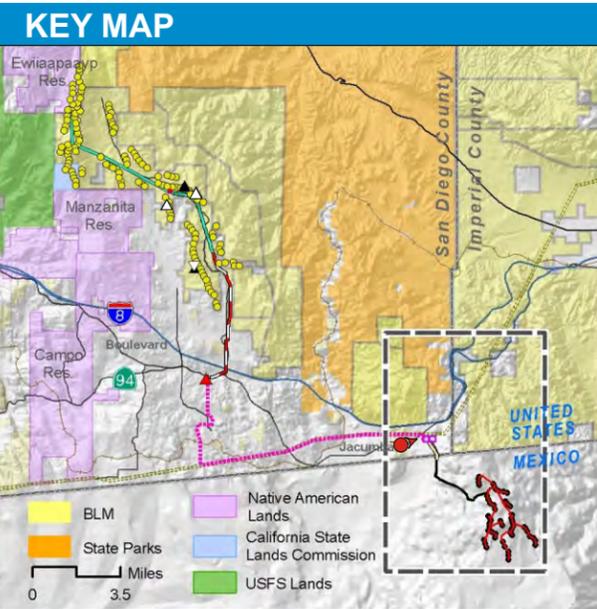
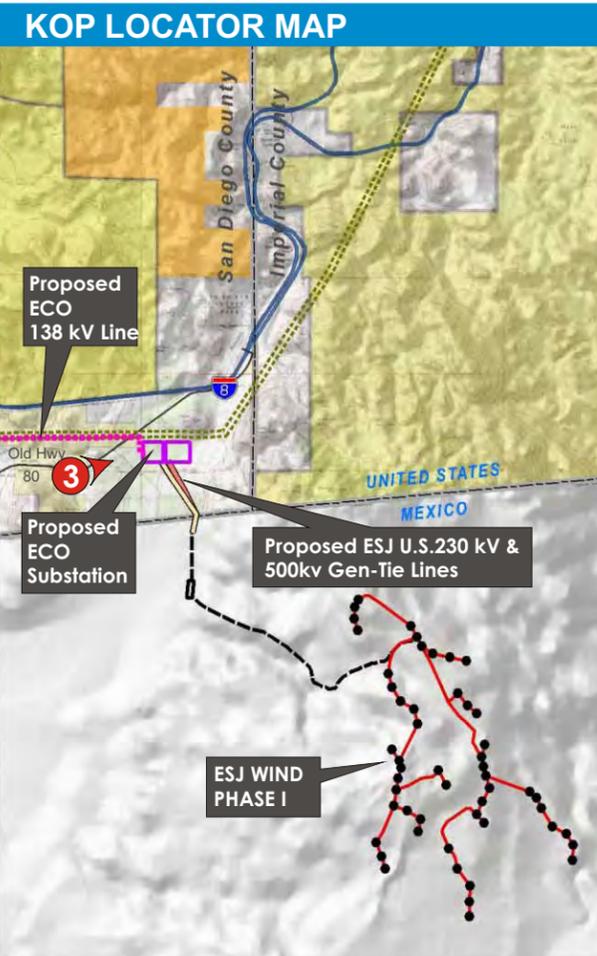
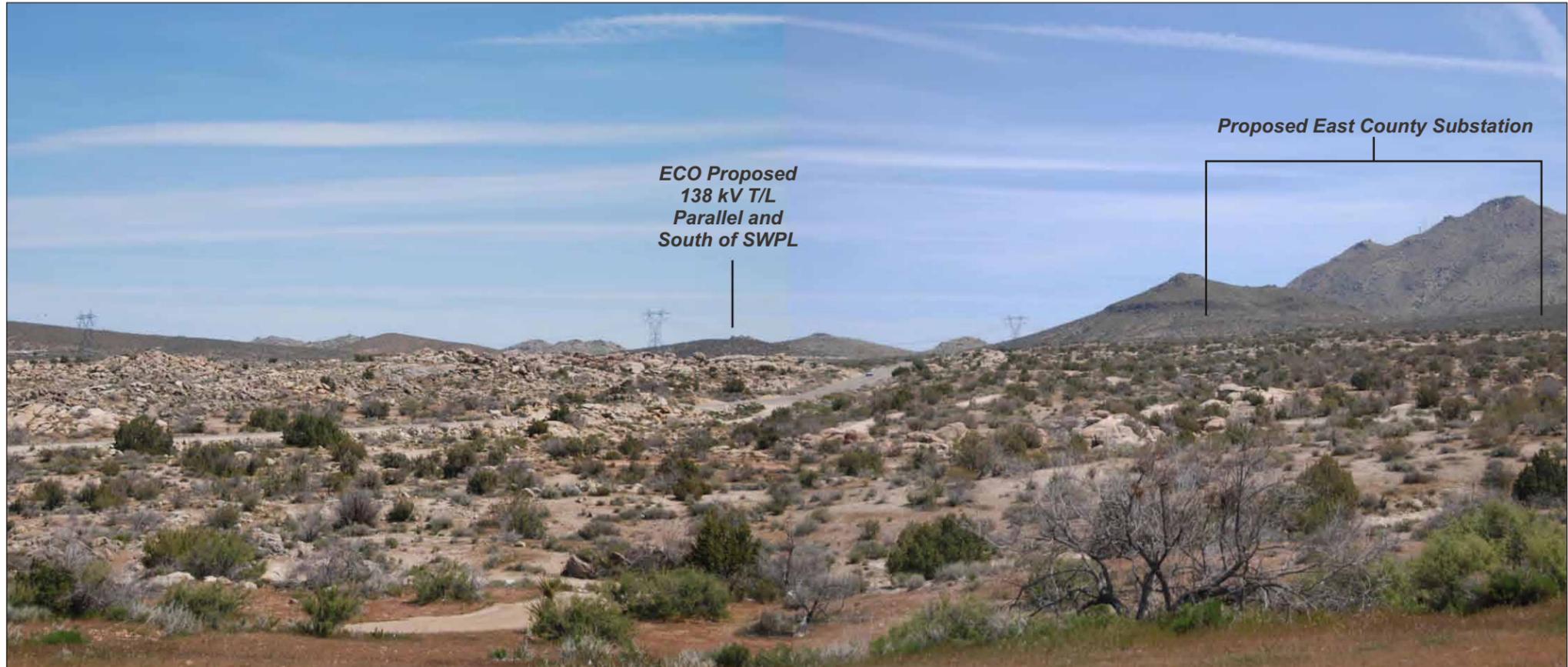
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
<p>Class B—Representative</p>	<p>Medium to High</p> <ul style="list-style-type: none"> • Viewer Groups—Residents, Recreationists (bicyclists and hikers) and Motorists (Old Highway 80) • Viewer Volume—Moderate • Public Concern Level—Moderate to High 	<p>Foreground to Middleground</p>



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KOP 3—PROPOSED ECO SUBSTATION PROJECT COMPONENTS LOCATIONS
View looking northeast from Old Highway 80 toward Proposed ECO Substation Site and 138 kV Transmission Line

PHOTO DESCRIPTION

ECO Substation and SWPL Loop-In Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

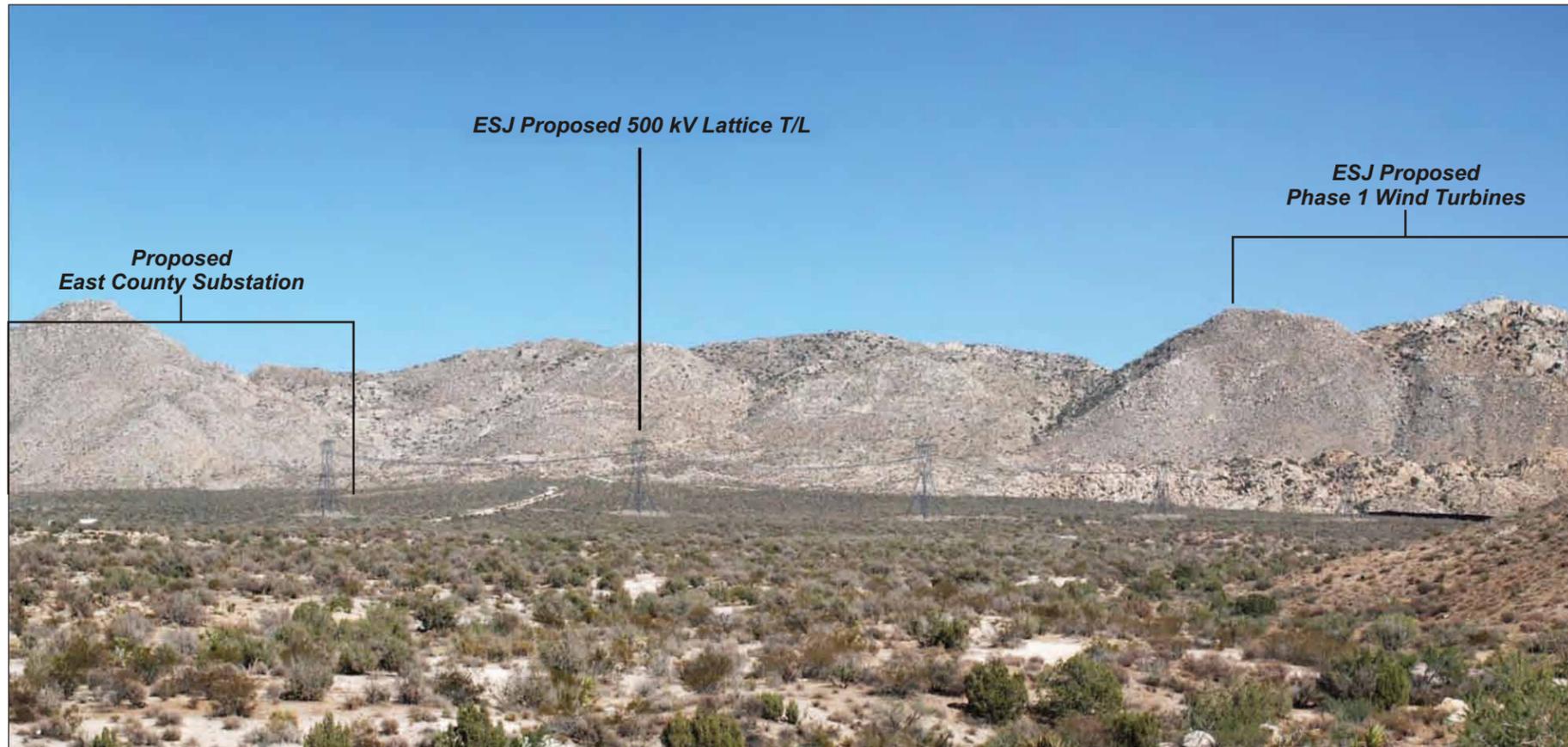
ECO 138 kV Transmission Line Visual Contrasts

- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Weak
- Structure Texture—Weak
- Impact Class—Class III

NOTE:
This view does not show the following elements which would contribute to PROJECT visual changes: ECO Substation and SWPL Loop-In, ECO 138 kV Transmission Line, ESJ Gen-Tie.

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KOP 3—VISUAL SIMULATION OF PROPOSED ESJ GEN-TIE PROJECT (VS1)
 View looking east from Old Highway 80 toward Proposed ESJ 500 kV Gen-Tie Line (Steel Lattice Structures)

PHOTO DESCRIPTION

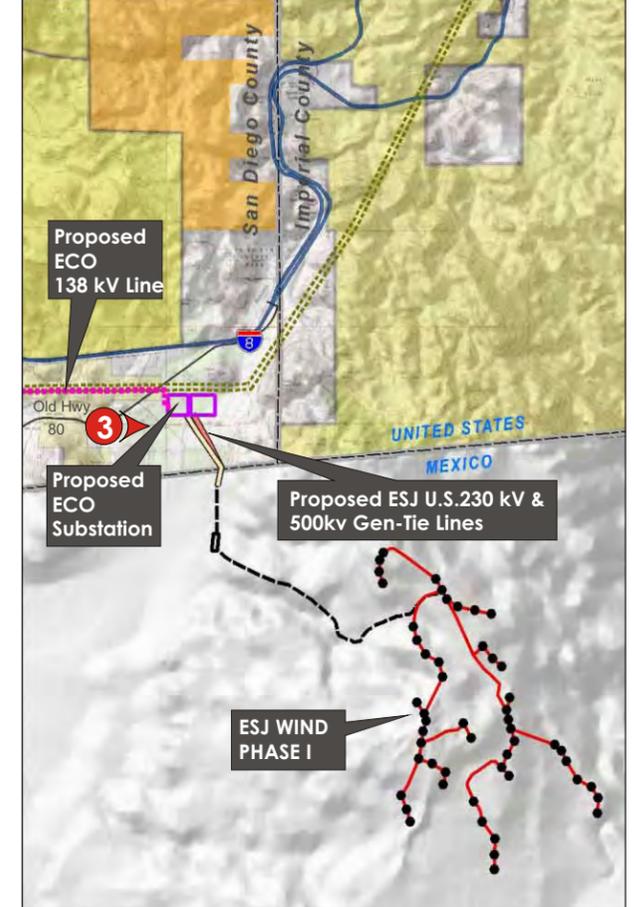
ESJ 500 kV Gen-Tie (Steel Lattice Structures)
Visual Contrasts

- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

NOTE:

This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation and SWPL Loop-In, ESJ Wind Turbines.

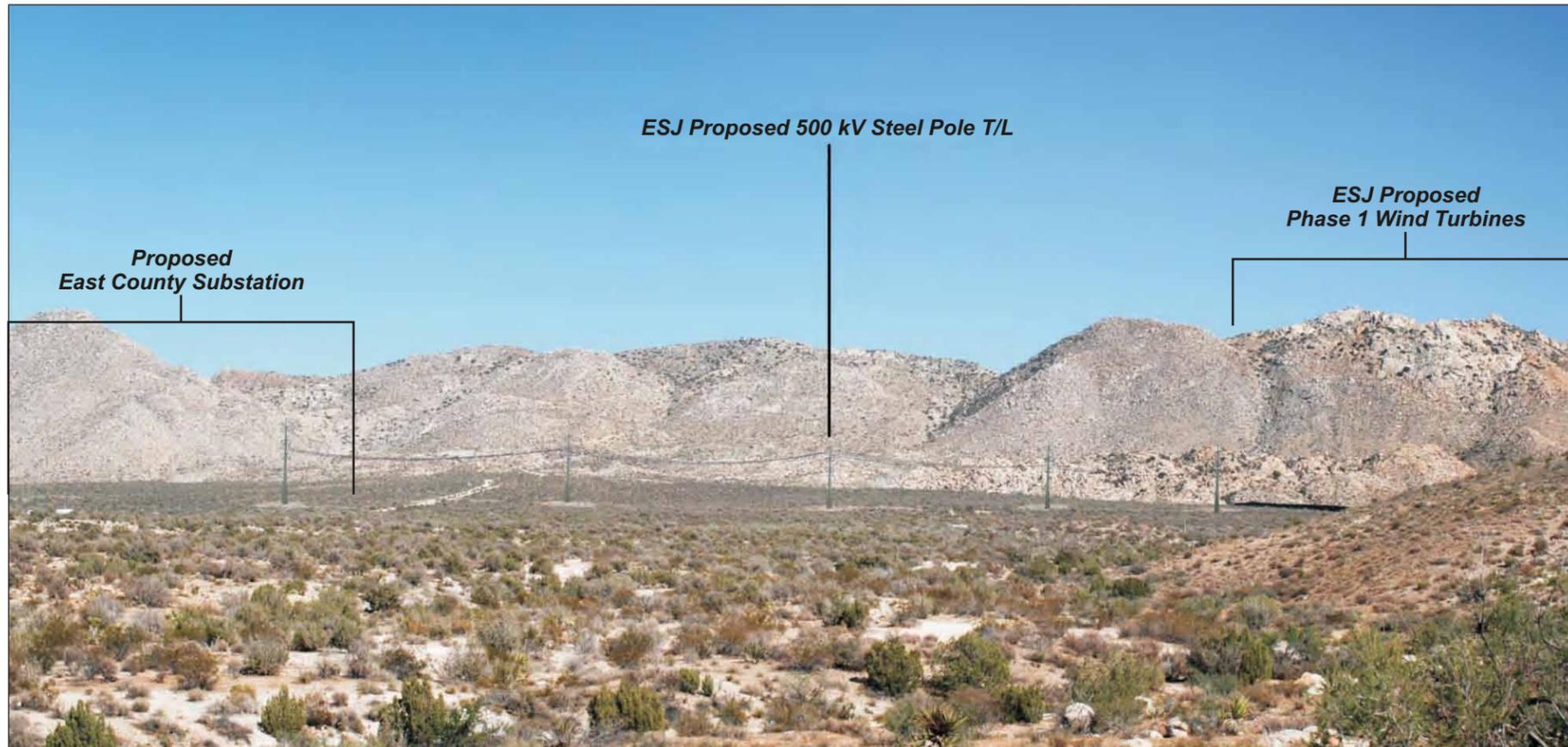
KOP LOCATOR MAP



KEY MAP



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KOP 3–VISUAL SIMULATION OF PROPOSED ESJ GEN-TIE PROJECT (VS2)
 View looking east from Old Highway 80 toward Proposed ESJ 500 kV Gen-Tie Line (Monopole Structures)

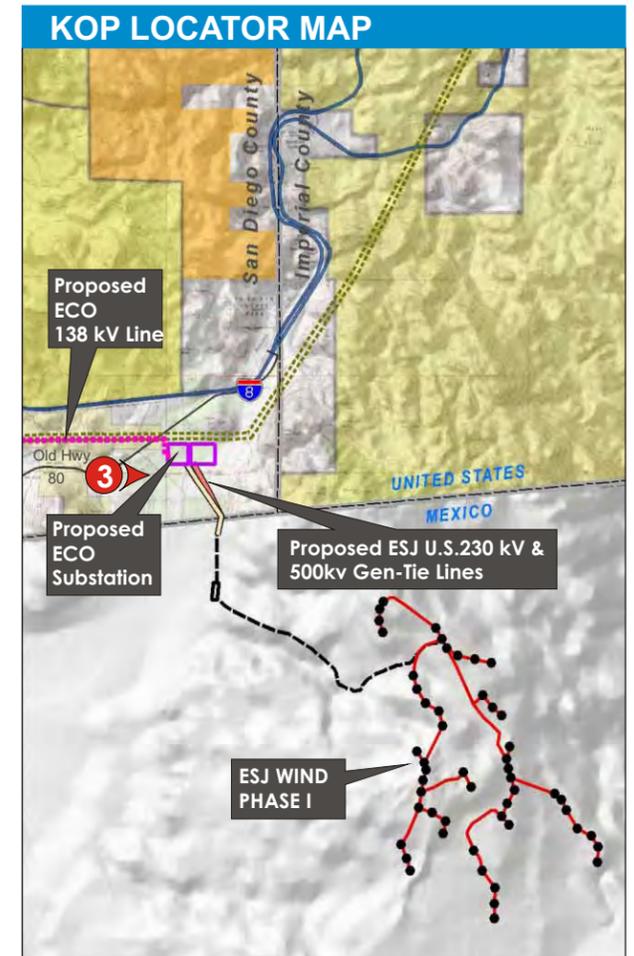
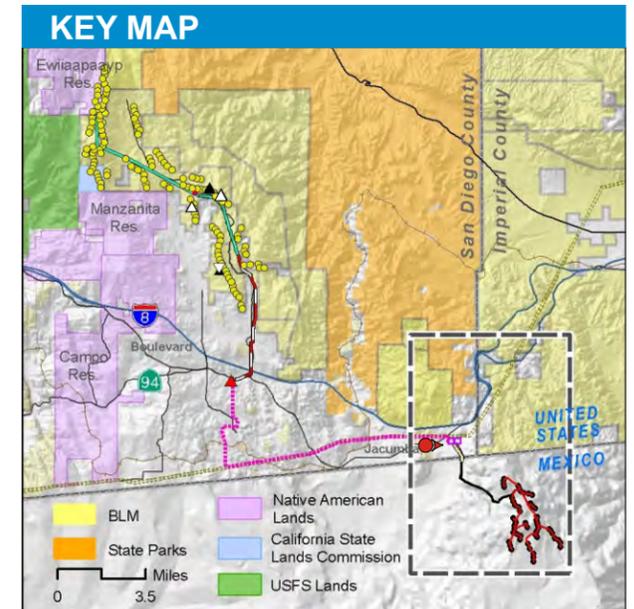


PHOTO DESCRIPTION

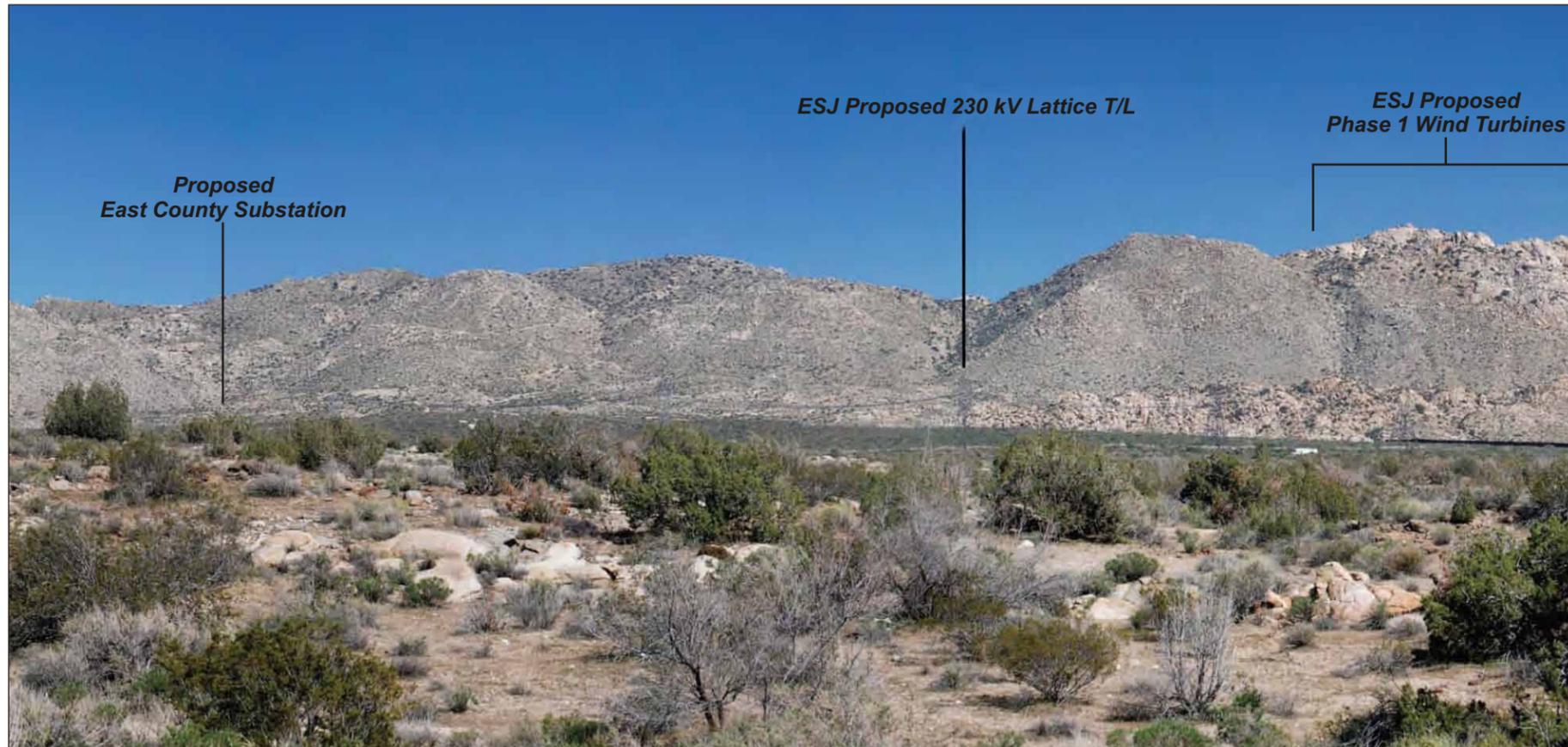
ESJ 500 kV Gen-Tie (Monopole Structures)
Visual Contrasts

- Structure Form–Moderate
- Structure Line–Moderate
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class II

NOTE:
 This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation and SWPL Loop-In, ESJ Wind Turbines.



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KOP 3—VISUAL SIMULATION OF PROPOSED ESJ GEN-TIE PROJECT (VS3)
 View looking east from Old Highway 80 toward Proposed ESJ 230 kV Gen-Tie Line (Steel Lattice Structures)

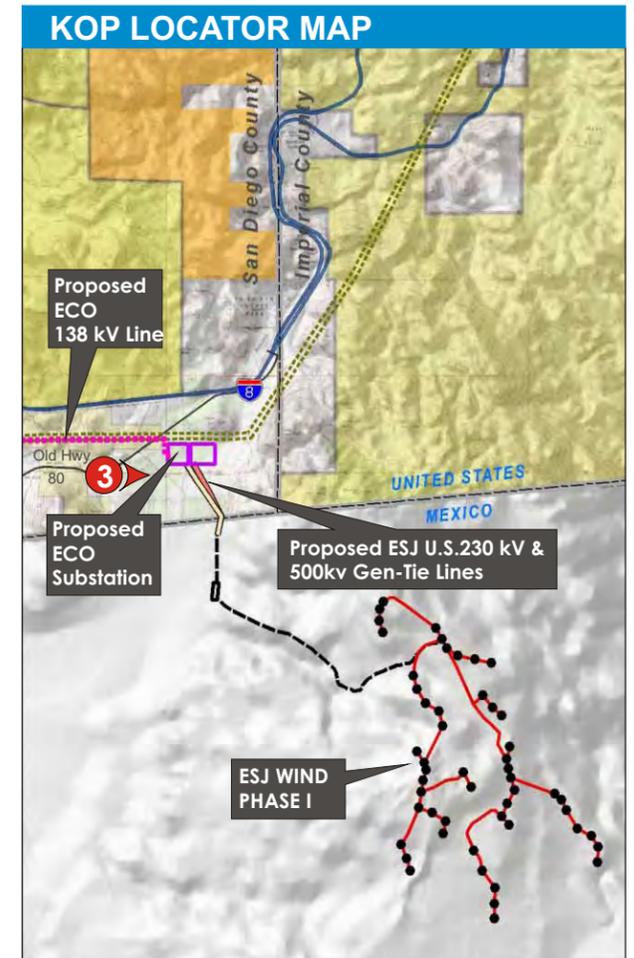


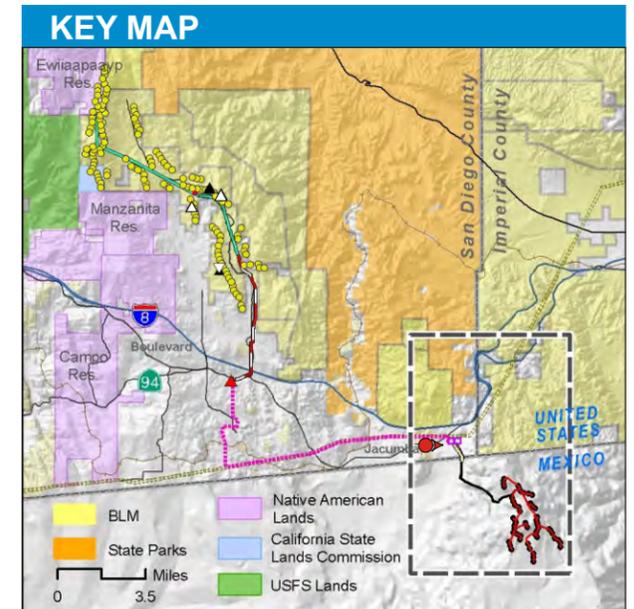
PHOTO DESCRIPTION

ESJ 230 kV Gen-Tie (Steel Lattice Structures)
Visual Contrasts

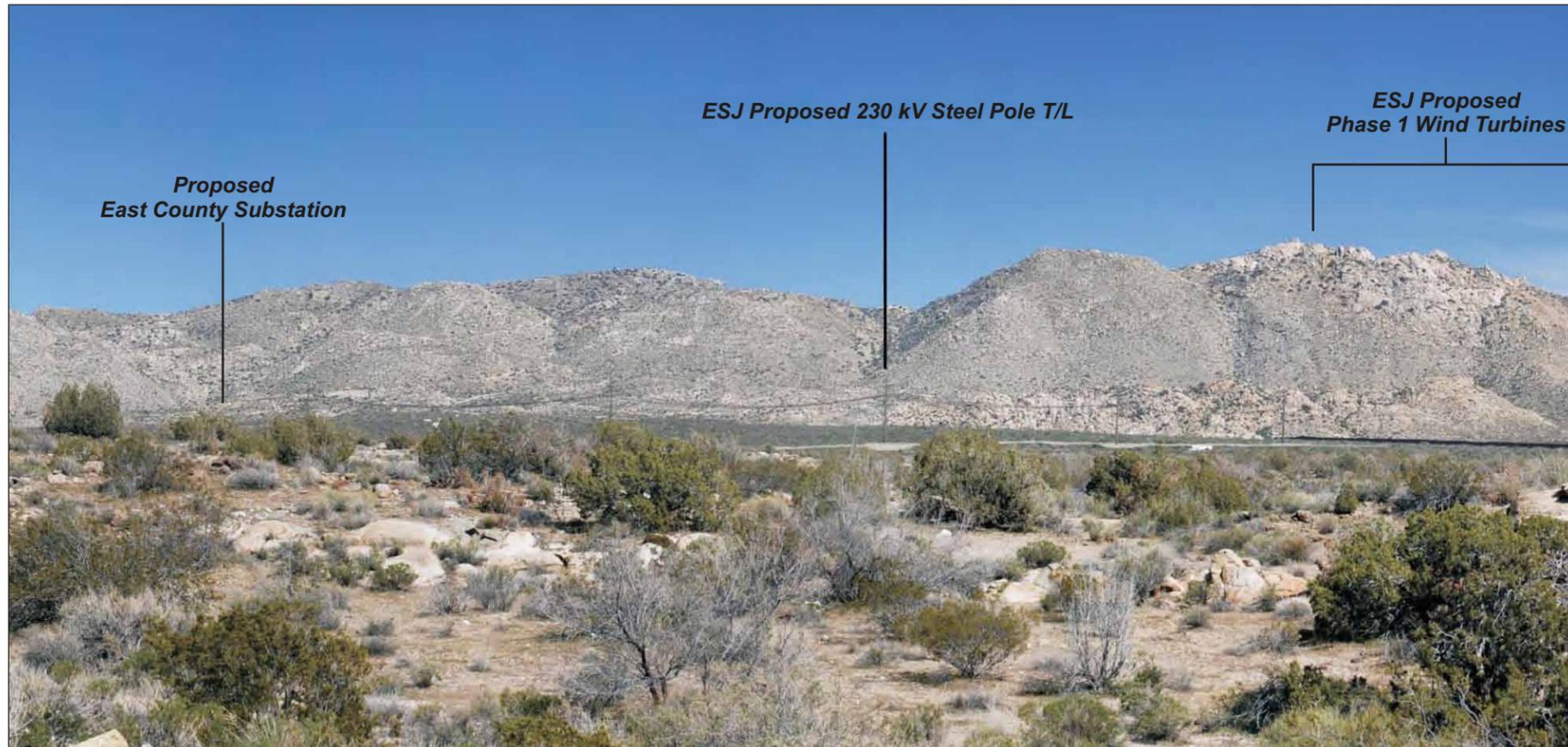
- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

NOTE:

This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation and SWPL Loop-In, ESJ Wind Turbines.



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KOP 3–VISUAL SIMULATION OF PROPOSED ESJ GEN-TIE PROJECT (VS4)
 View looking east View East from Old Highway 80 toward Proposed ESJ 230 kV Gen-Tie Line (Monopole Structures)

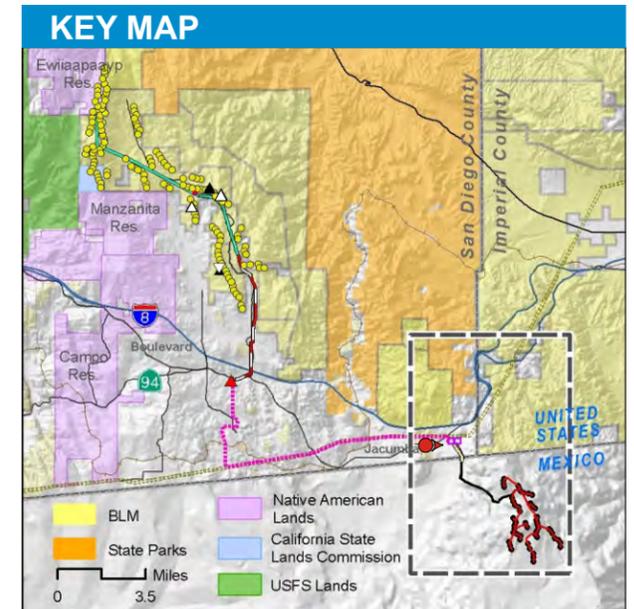
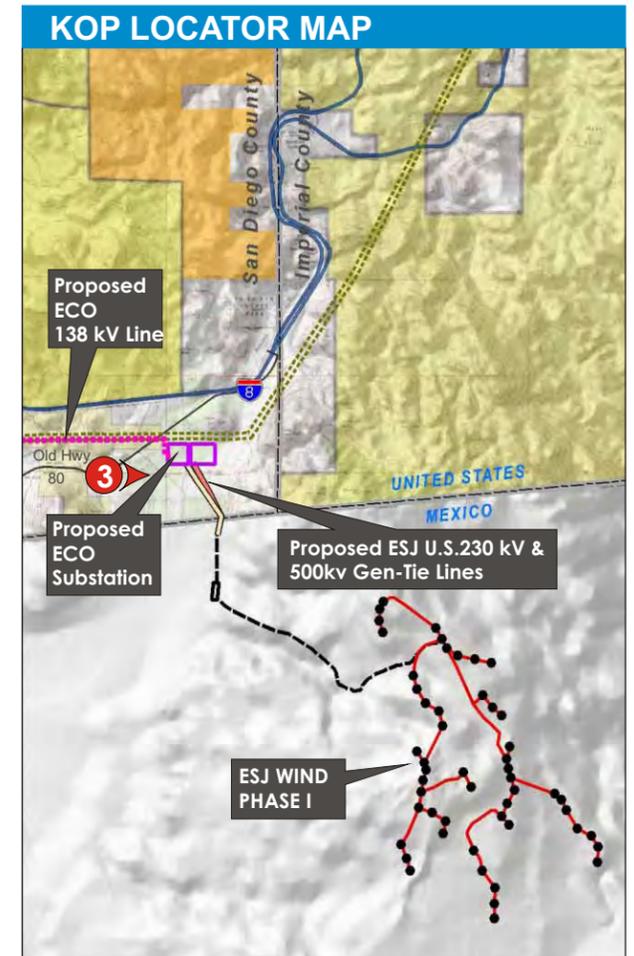
PHOTO DESCRIPTION

ESJ 230 kV Gen-Tie (Monopole Structures) Visual Contrasts

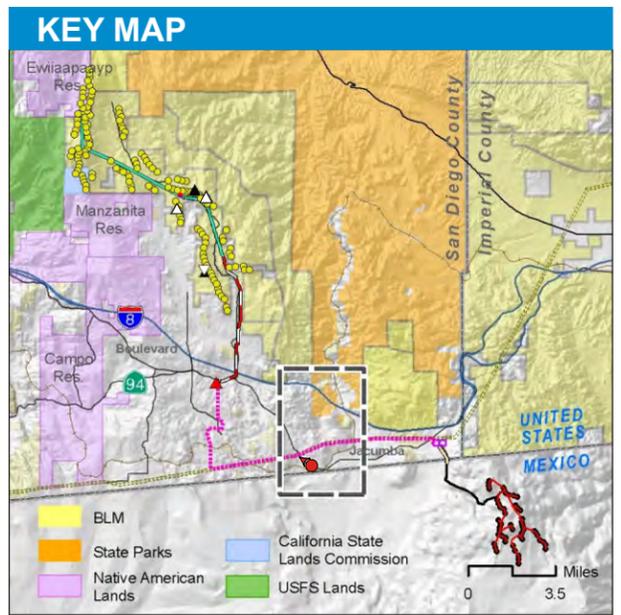
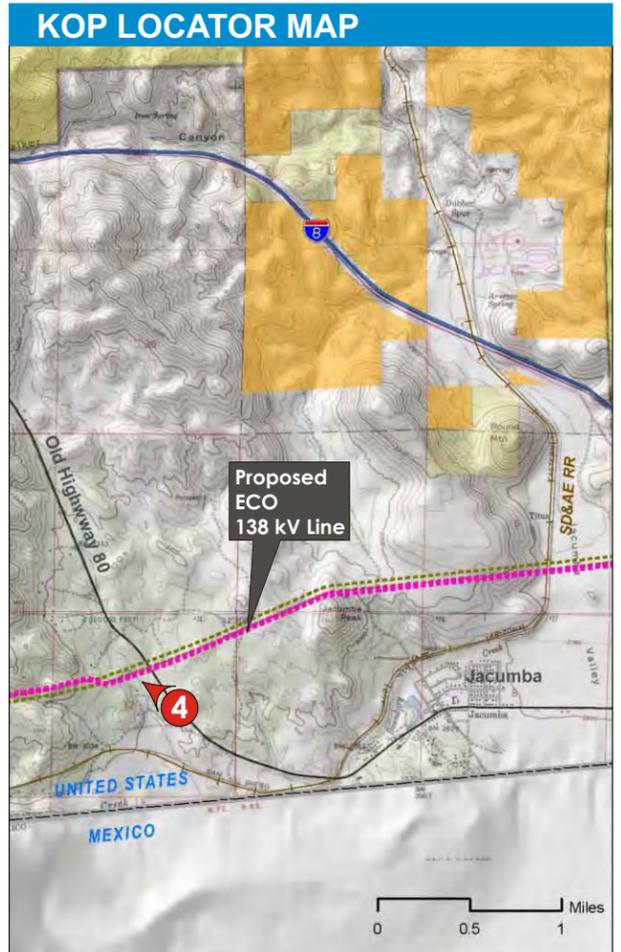
- Structure Form–Moderate
- Structure Line–Moderate
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class II

NOTE:

This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation and SWPL Loop-In, ESJ Wind Turbines.



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KOP 4—EXISTING SETTING (ES)
View looking northwest from Old Highway 80 toward Proposed ECO 138 kV Transmission Line Site

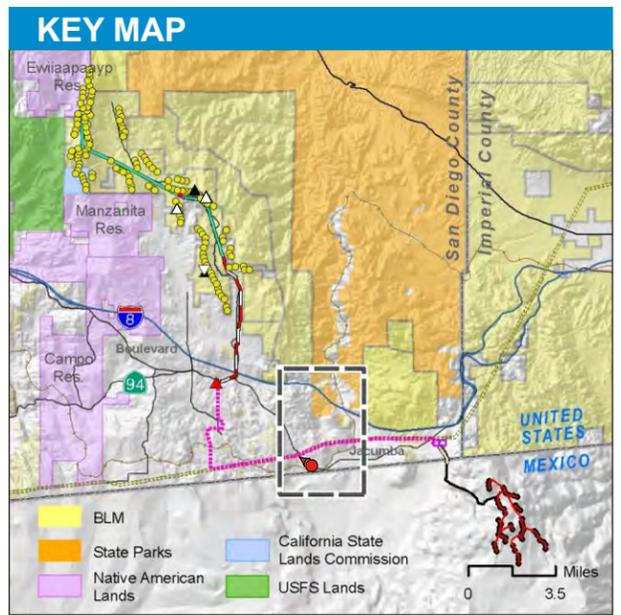
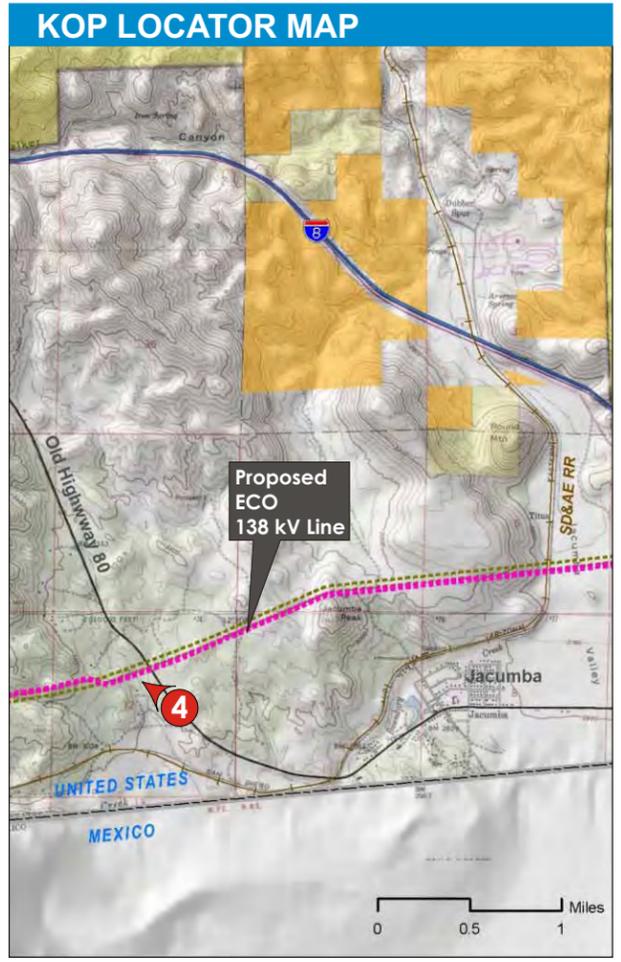
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
<p>Class B—Representative</p>	<p>Medium to High</p> <ul style="list-style-type: none"> • Viewer Groups—Recreationists (bicyclists) and Motorists (Old Highway 80) • Viewer Volume—Low • Public Concern Level—High to Moderate 	<p>Foreground to Middleground</p>

FIGURE D.3-9A
KOP 4—Existing Setting (ES)

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KOP 4–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS)
 View looking northwest from Old Highway 80 toward Proposed ECO 138 kV Transmission Line

PHOTO DESCRIPTION

ECO 138 kV Transmission Line Visual Contrasts

- Structure Form–Weak-Moderate
- Structure Line–Weak-Moderate
- Structure Color–Weak
- Structure Texture–Weak
- Impact Class–Class III

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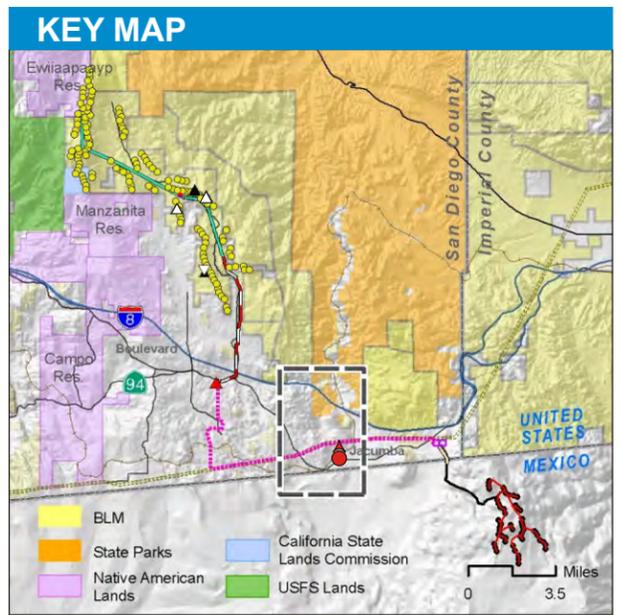
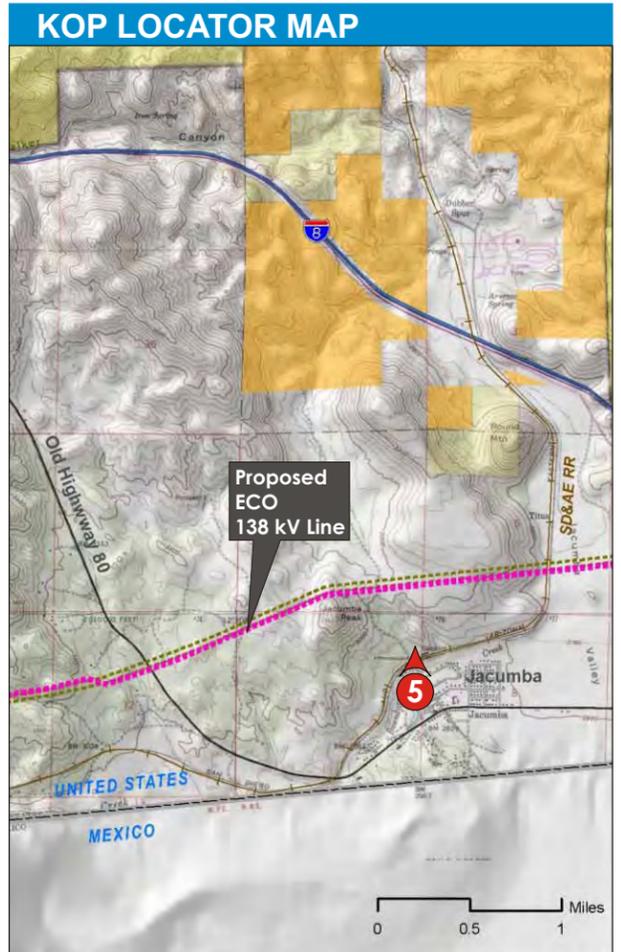
SOURCE: Environmental Vision 2009

6168-01

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects - EIR/EIS

FIGURE D.3-9B
KOP 4–Visual Simulation of Proposed ECO Substation Project (VS)

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KOP 5—EXISTING SETTING (ES)
View looking north from Railroad Street (Community of Jacumba) toward Proposed ECO 138 kV Transmission Line Site

PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B/C—Representative/Common	Medium to High <ul style="list-style-type: none"> • Viewer Groups—Residents, Recreationists (bicyclists) and Motorists (Old Highway 80) • Viewer Volume—Low • Public Concern Level—Moderate to High 	Foreground to Middleground

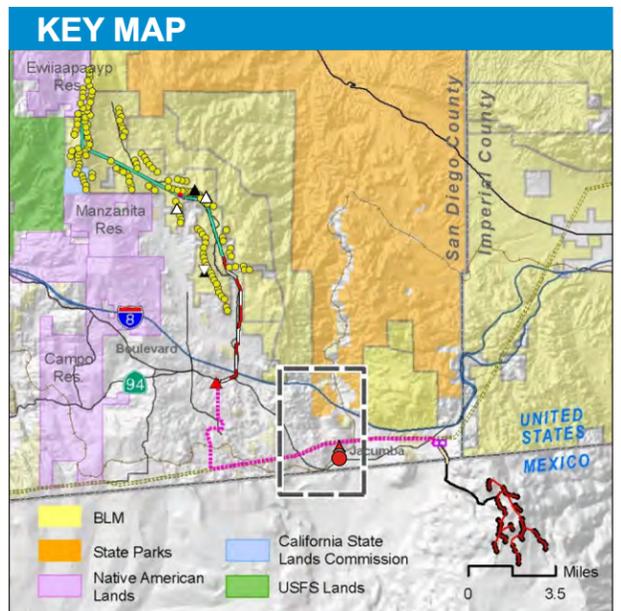
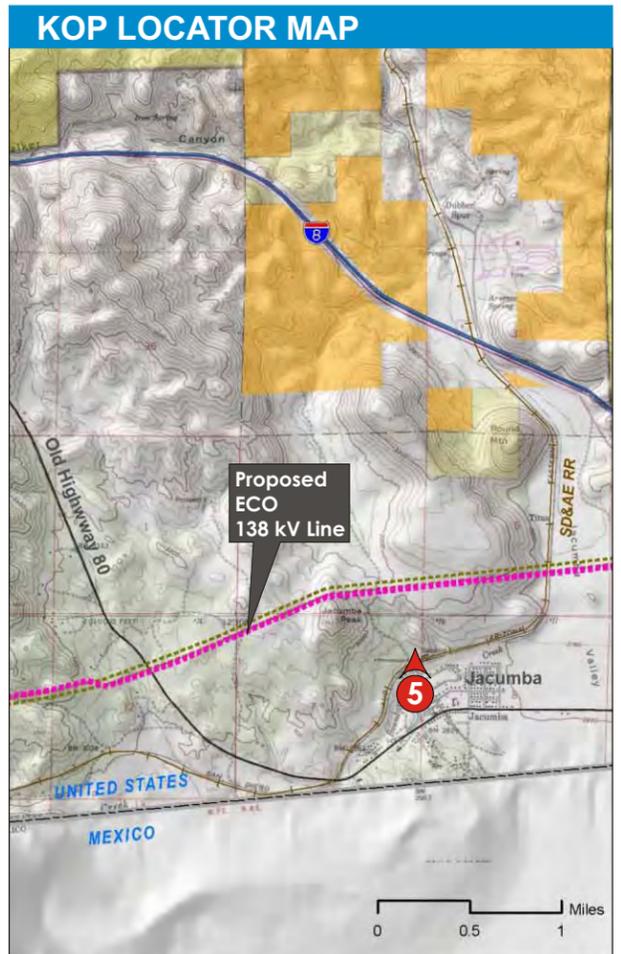
FIGURE D.3-10A
KOP 5—Existing Setting (ES)

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ECO Proposed 138 kV T/L



KOP 5–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS)
View looking north from Railroad Street (Community of Jacumba) toward Proposed ECO 138 kV Transmission Line

PHOTO DESCRIPTION

ECO 138 kV Transmission Line Visual Contrasts

- Structure Form–Weak-Moderate
- Structure Line–Weak-Moderate
- Structure Color–Weak
- Structure Texture–Weak
- Impact Class–Class III

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KOP 6—EXISTING SETTING (ES1)

View looking northeast from Hill Street (Community of Jacumba) toward Proposed ECO 138 kV Transmission Line Site

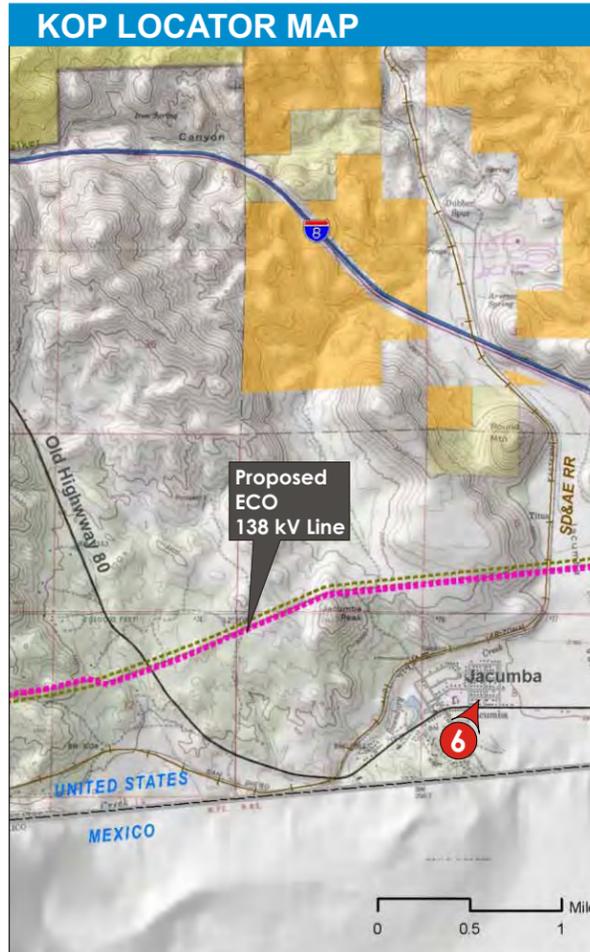


PHOTO DESCRIPTION

Scenic Quality

Class B—Representative

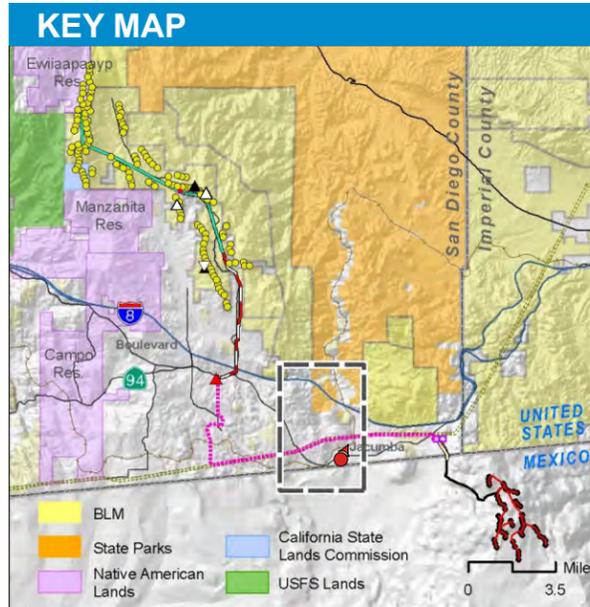
Visual Sensitivity

Medium to High

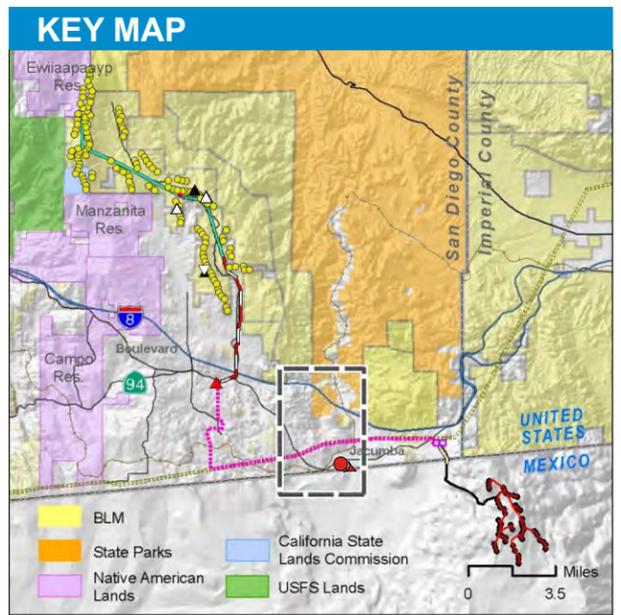
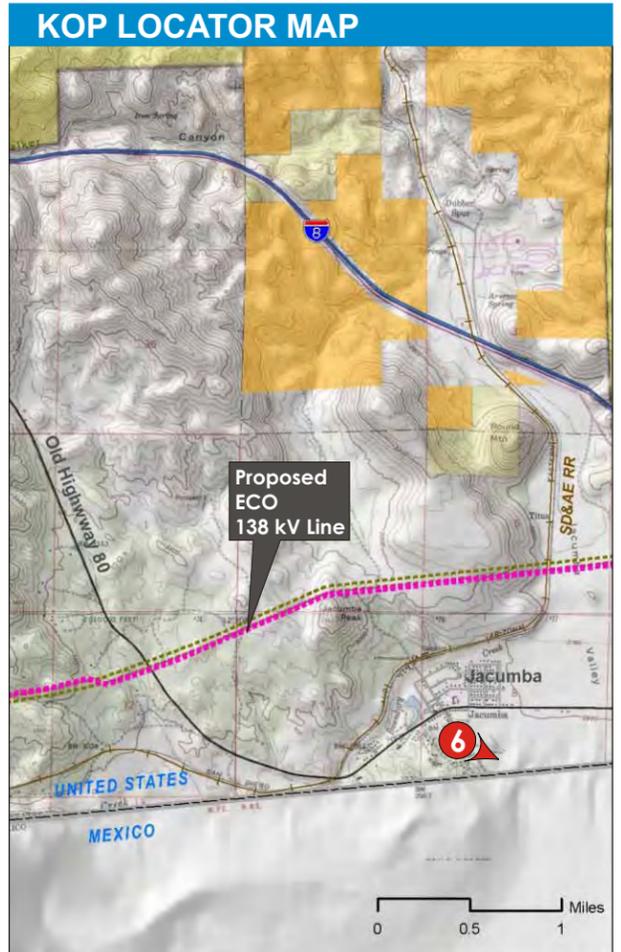
- Viewer Groups—Residents
- Viewer Volume—Low
- Public Concern Level—High

Viewing Distance Zone

Middleground



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KOP 6—EXISTING SETTING (ES2)
View looking southeast from Hill Street (Community of Jacumba) toward Proposed ESJ Wind Phase 1 Development Site

PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
<p>Class B—Representative</p>	<p>Medium to High</p> <ul style="list-style-type: none"> • Viewer Groups—Residents • Viewer Volume—Low • Public Concern Level—High 	<p>Middleground to Background</p>

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Existing SWPL
500 kV T/L

ECO Proposed
138 kV T/L
Parallel and South
of SWPL

KOP 6—PROPOSED ECO SUBSTATION PROJECT COMPONENT LOCATION
View looking northeast from Hill Street (Community of Jacumba) toward Proposed ECO 138 kV Transmission Line

KOP LOCATOR MAP

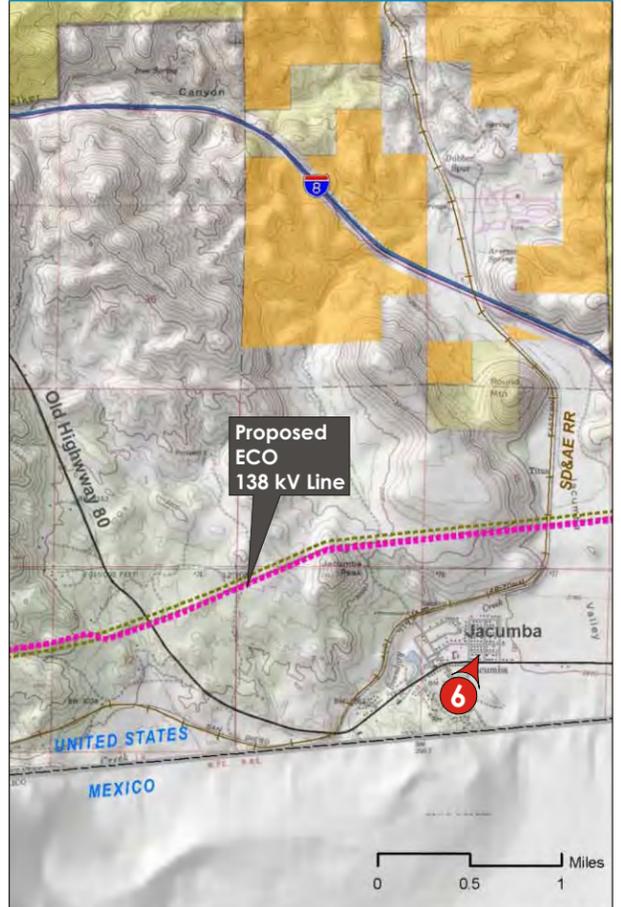


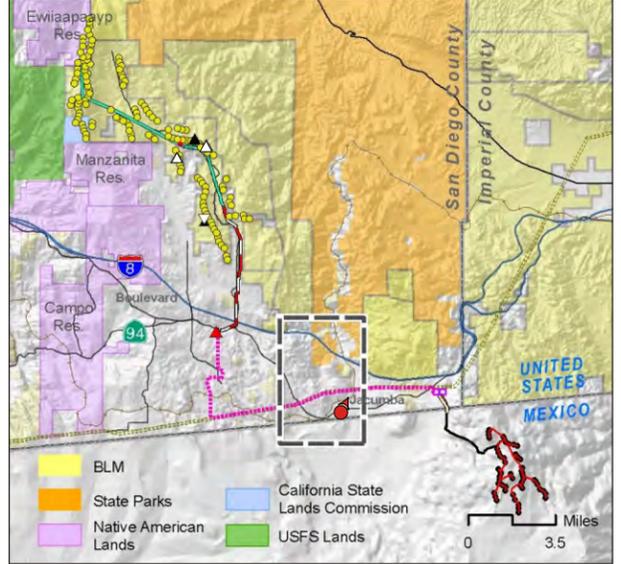
PHOTO DESCRIPTION

ECO 138 kV Transmission Line Visual Contrasts

- Structure Form—Weak
- Structure Line—Moderate
- Structure Color—Weak
- Structure Texture—Weak
- Impact Class—Class III

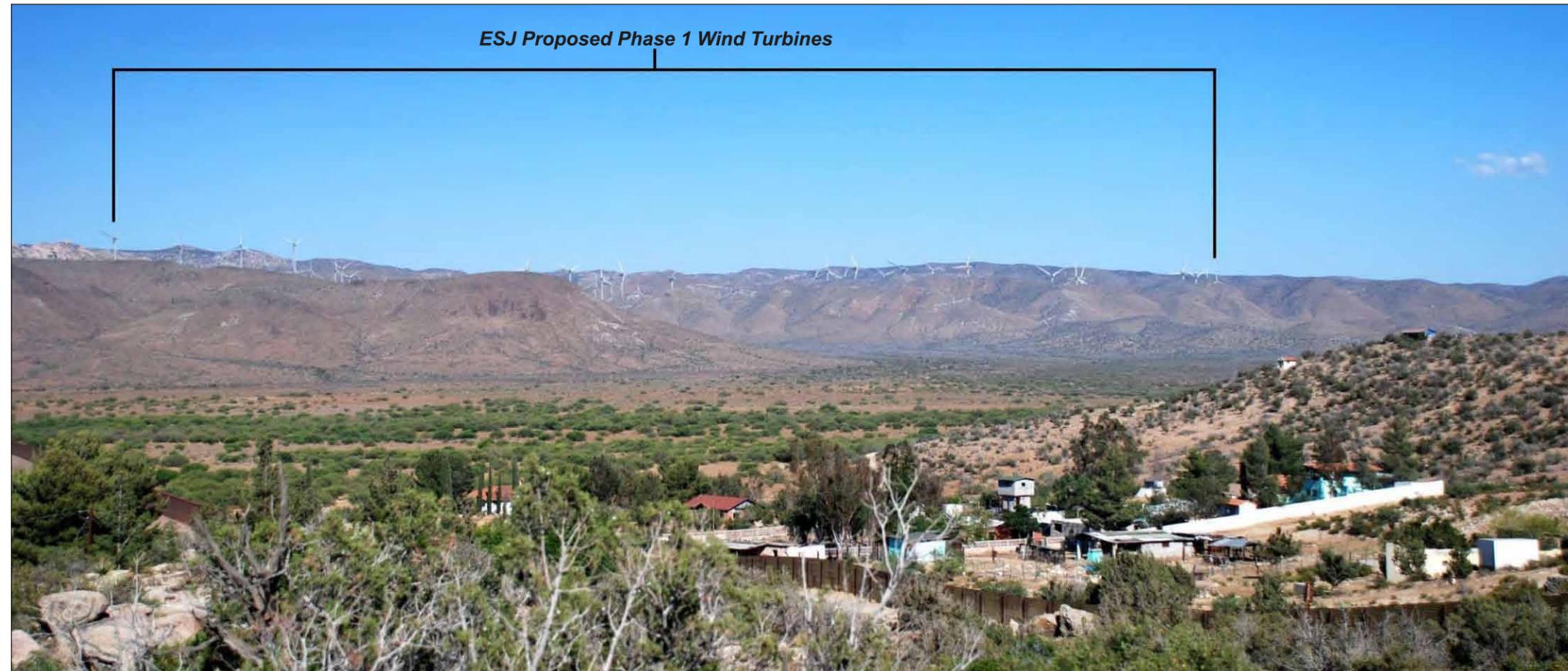
NOTE:
This view does not show the following elements which would contribute to PROJECT visual changes: ECO 138 kV Transmission Line.

KEY MAP

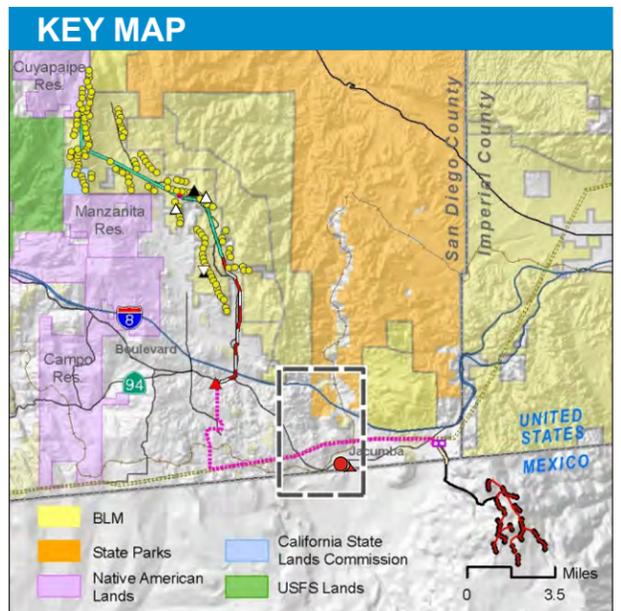
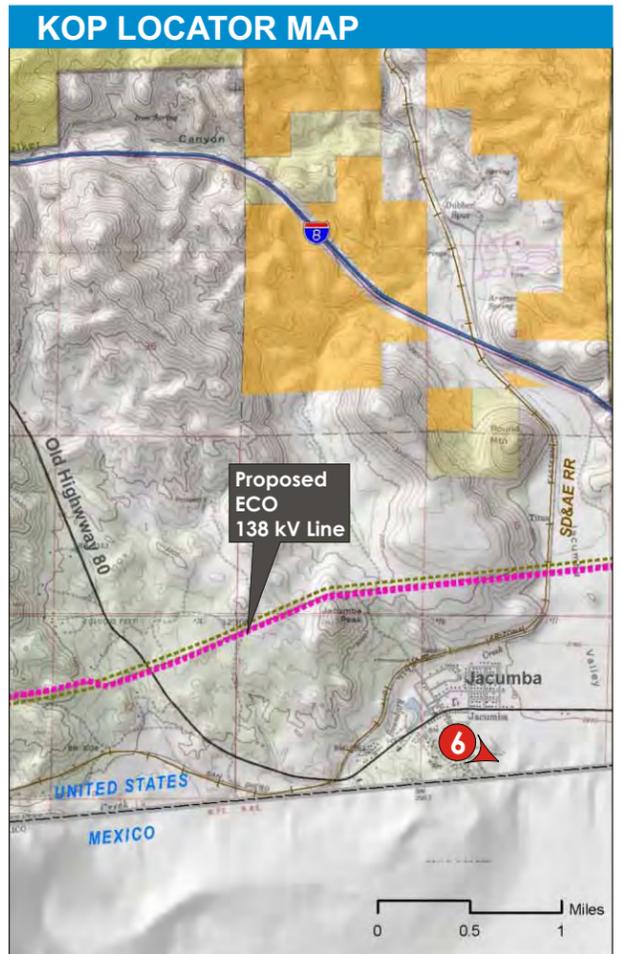


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ESJ Proposed Phase 1 Wind Turbines



KOP 6—VISUAL SIMULATION OF PROPOSED ESJ GEN-TIE PROJECT (VS)
View looking southeast from Hill Street (Community of Jacumba) toward Proposed ESJ Wind Phase 1 Development

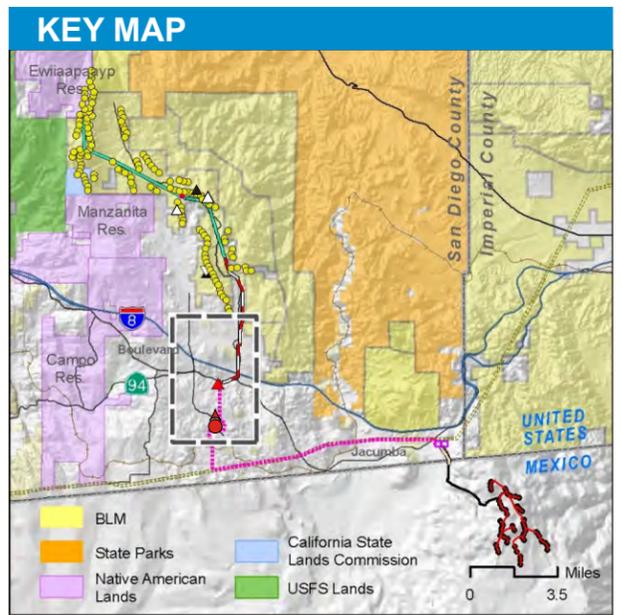
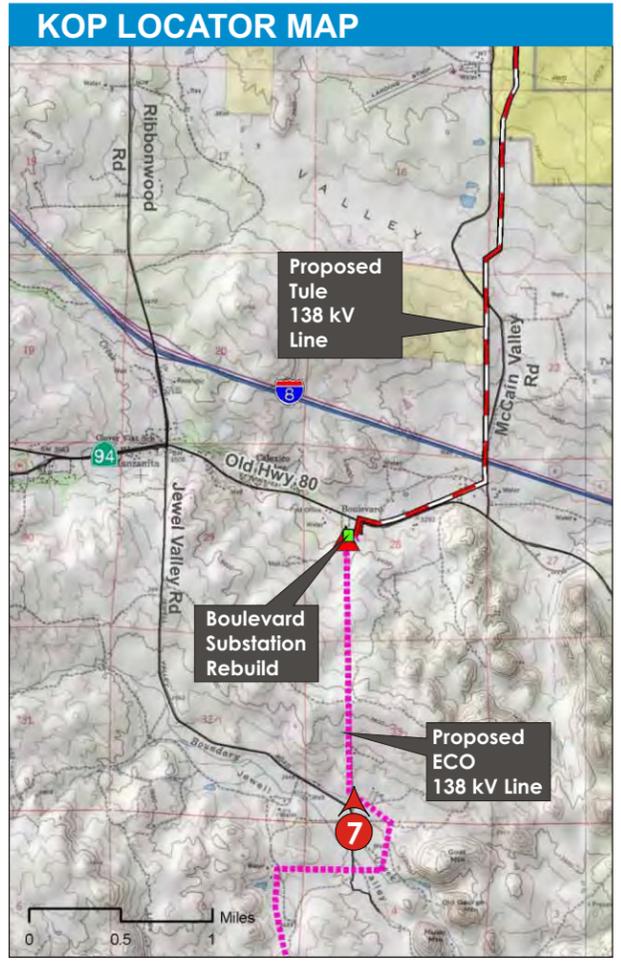
PHOTO DESCRIPTION

ESJ Wind Turbines Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Weak
- Impact Class—Class I

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KOP 7—EXISTING SETTING (ES)
View looking north to Tule Jim Road from Jewel Valley Road (Community of Boulevard) toward Proposed ECO 138 kV Transmission Line Site

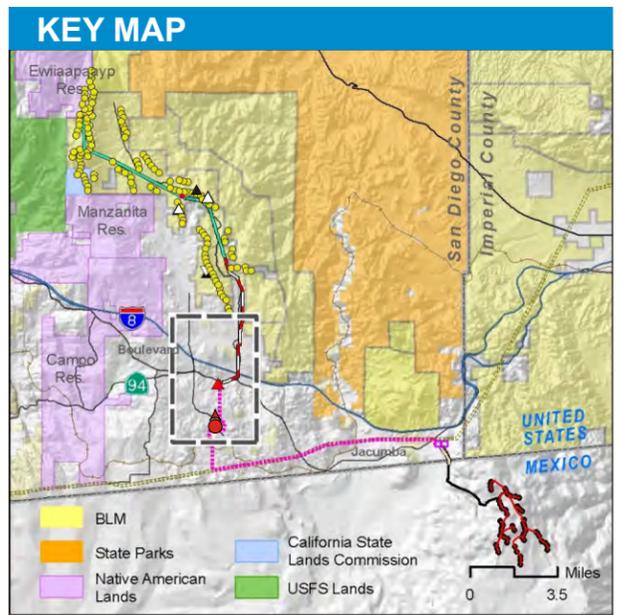
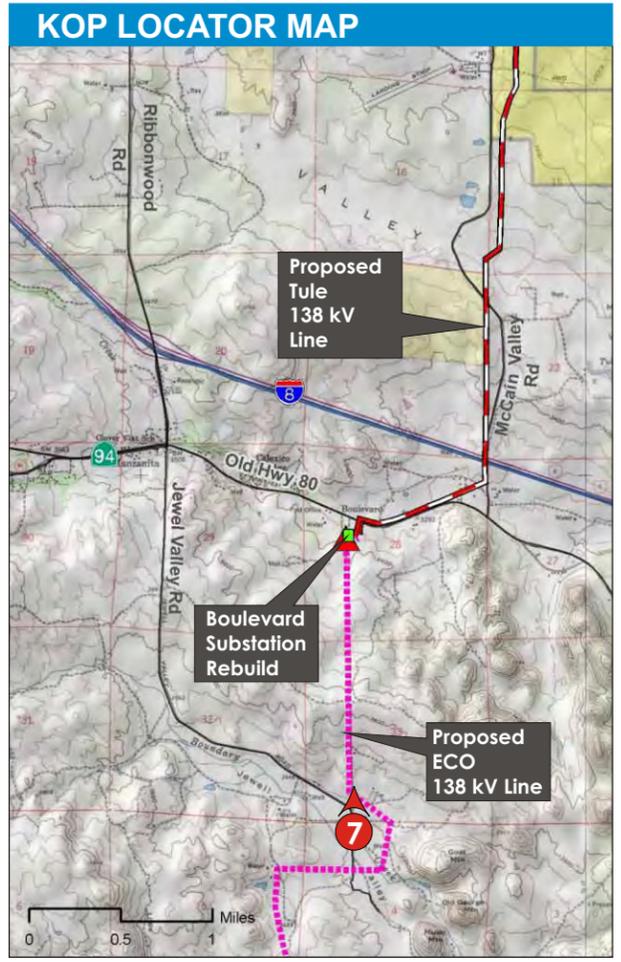
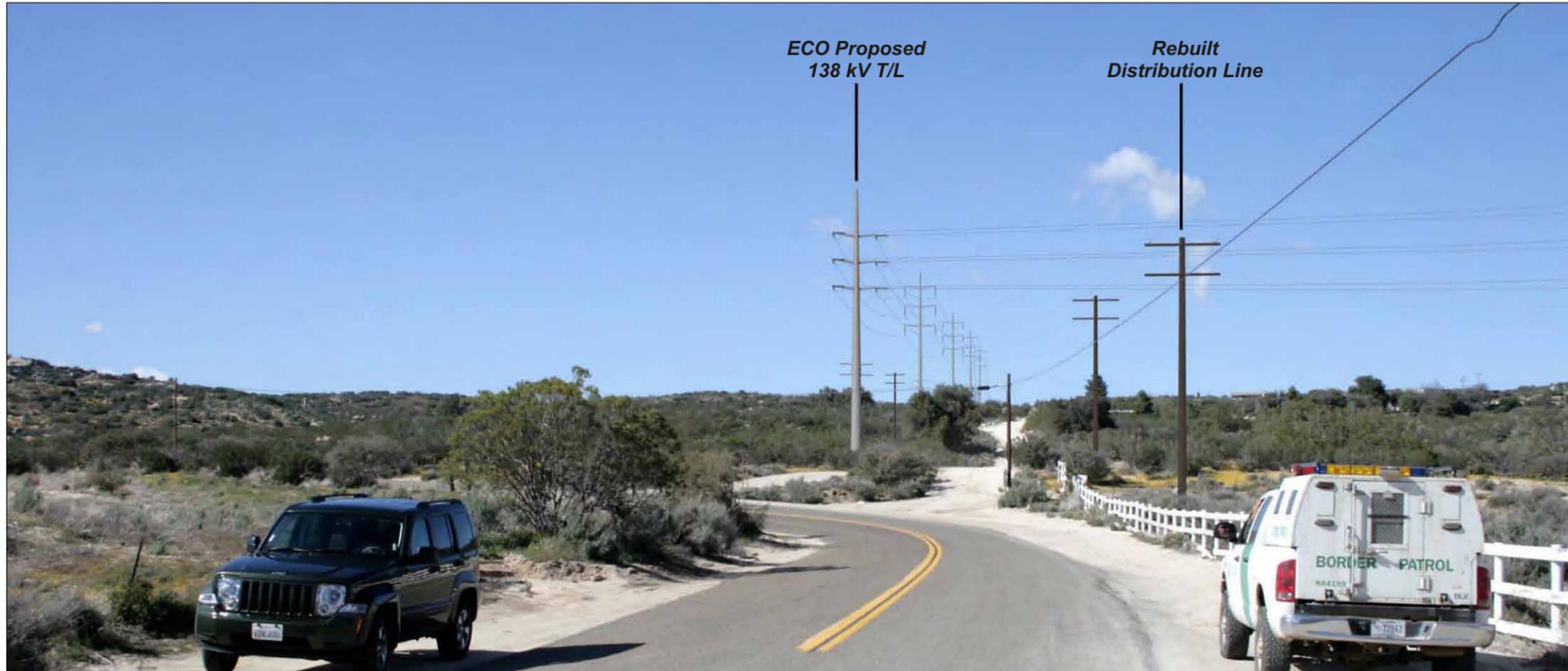
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B—Representative	Medium to High <ul style="list-style-type: none"> • Viewer Groups—Residents and Recreationists (hikers) • Viewer Volume—Low • Public Concern Level—High 	Foreground

FIGURE D.3-12A
KOP 7—Existing Setting (ES)

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KOP 7—VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS)
 View looking north to Tule Jim Road from Jewel Valley Road (Community of Boulevard) toward Proposed ECO 138 kV Transmission Line

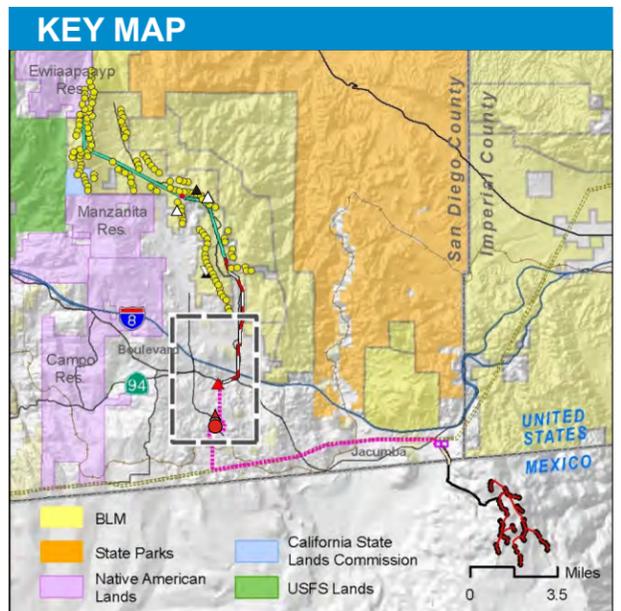
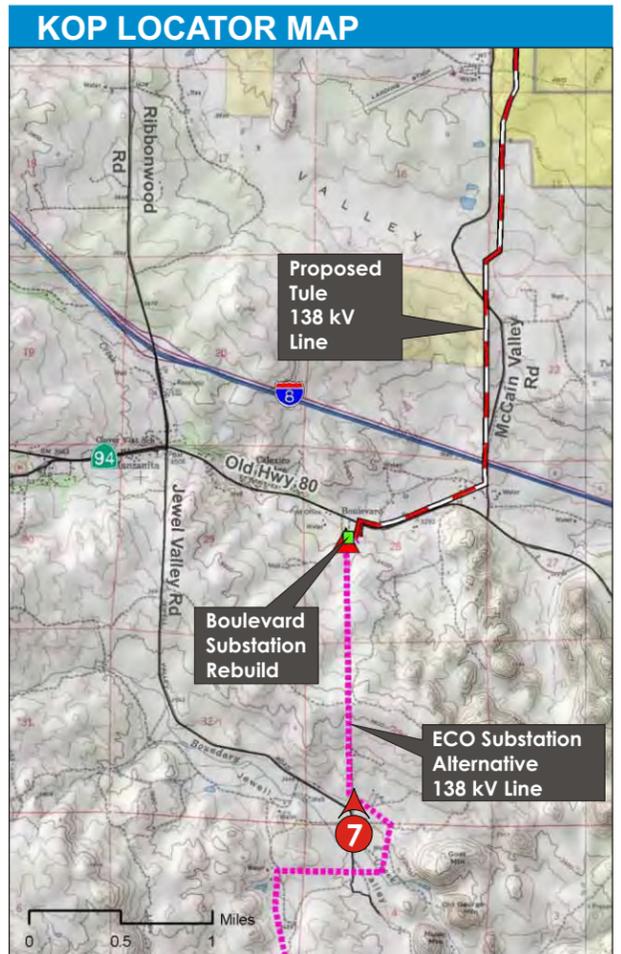
PHOTO DESCRIPTION

ECO 138 kV Transmission Line Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

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KOP 7—VISUAL SIMULATION OF ECO SUBSTATION ALTERNATIVE PROJECT (AVS)
 View looking north to Tule Jim Road from Jewel Valley Road (Community of Boulevard) toward ECO Substation Alternative 138 kV Transmission Line

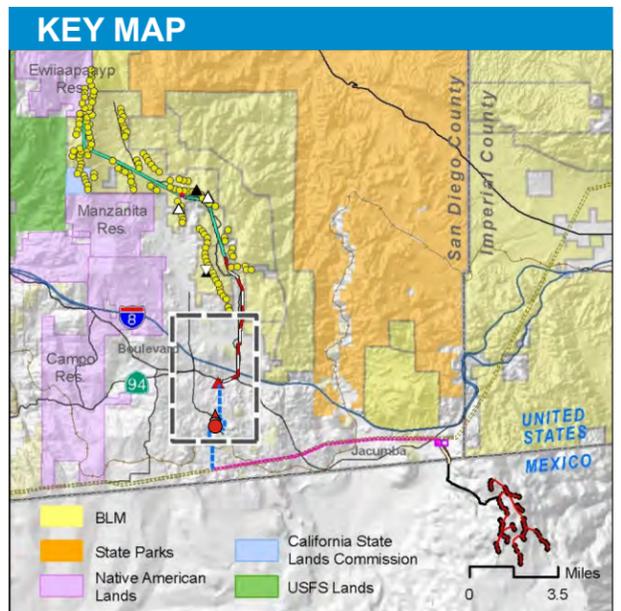
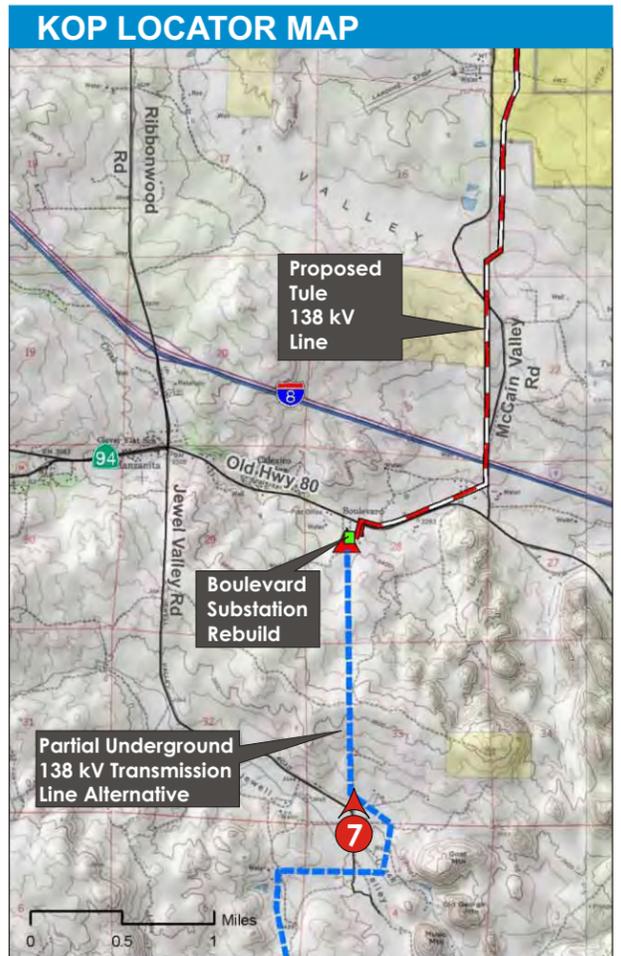
PHOTO DESCRIPTION

ECO Substation Alternative 138 kV Transmission Line Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

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KOP 7-ECO SUBSTATION ALTERNATIVE PROJECT COMPONENTS LOCATIONS

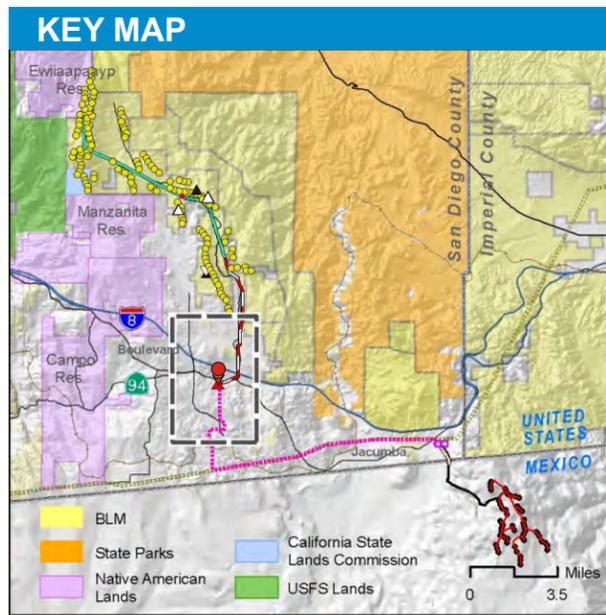
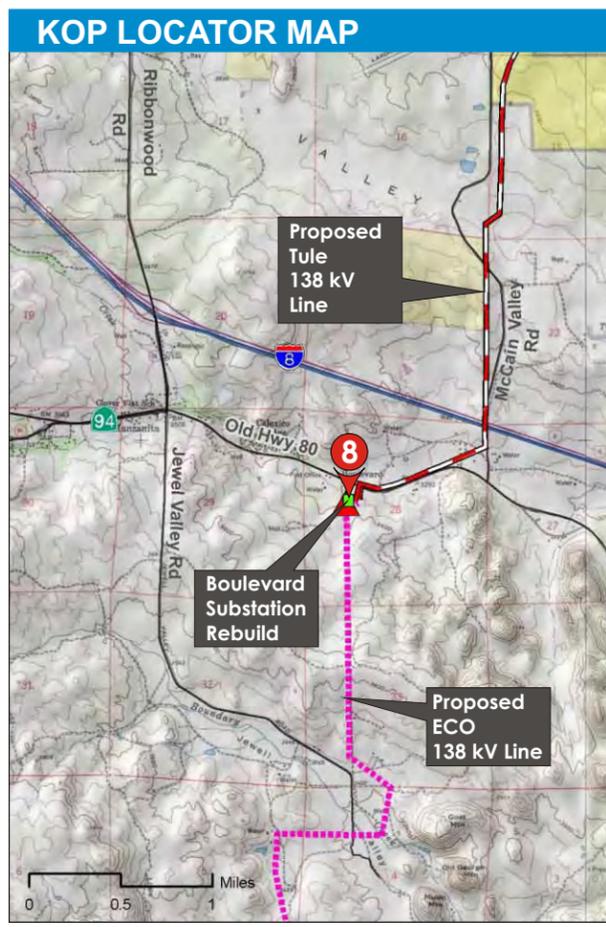
View looking north to Tule Jim Road from Jewel Valley Road (Community of Boulevard) toward ECO Partial Underground 138 kV Transmission Route Alternative

PHOTO DESCRIPTION

ECO Partial Underground 138 kV Transmission Route Alternative Visual Contrasts

- Structure Form-Weak
- Vegetation Line-Moderate
- Vegetation Color-Moderate
- Vegetation Texture-Moderate
- Impact Class-Class IV

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KOP 8—EXISTING SETTING (ES)
View looking south from Old Highway 80 toward Proposed Rebuilt Boulevard Substation Site

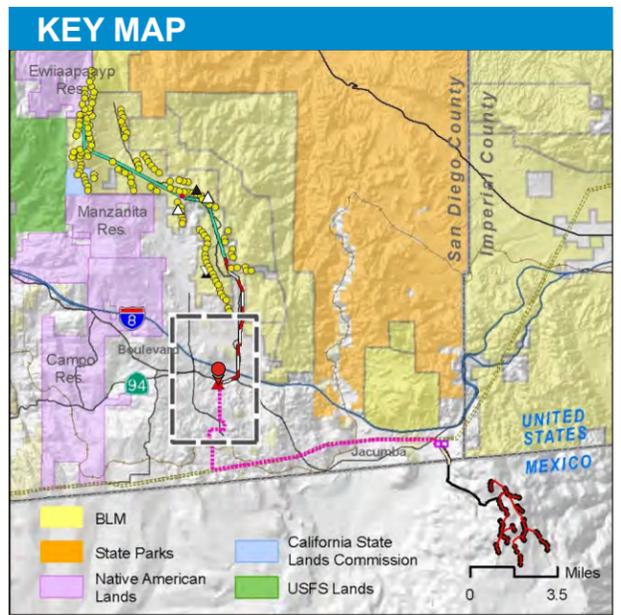
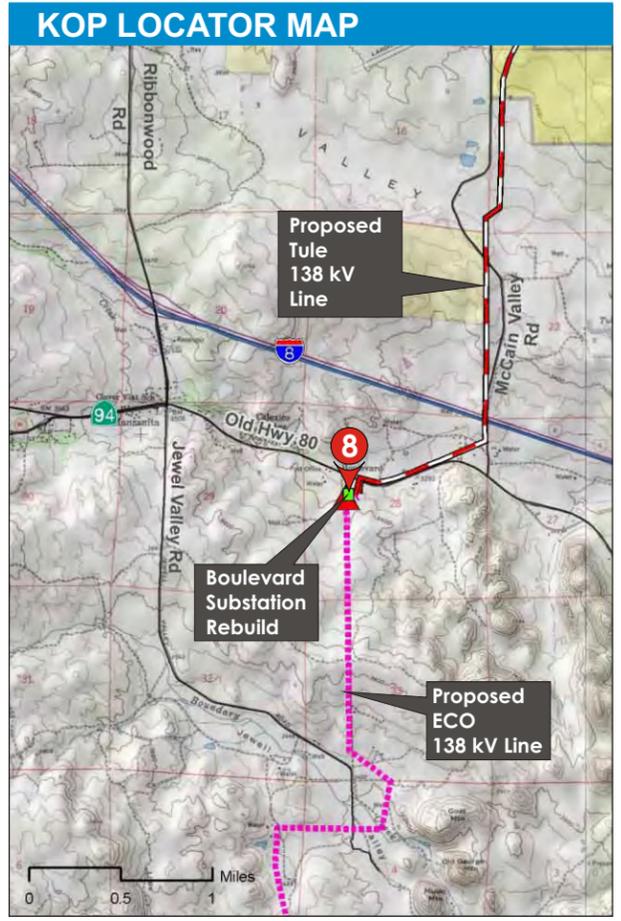
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B/C—Representative/Common	Medium to High <ul style="list-style-type: none"> • Viewer Groups—Residents, Motorists (Old Highway 80), and Recreationists (bicyclists) • Viewer Volume—Low • Public Concern Level—Moderate to High 	Foreground

FIGURE D.3-13A
KOP 8—Existing Setting (ES)

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KOP 8–VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS1)
View looking south from Old Highway 80 toward Proposed Rebuilt Boulevard Substation

PHOTO DESCRIPTION

ECO Boulevard Substation Rebuild Visual Contrasts

- Structure Form–Strong
- Structure Line–Moderate
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class II

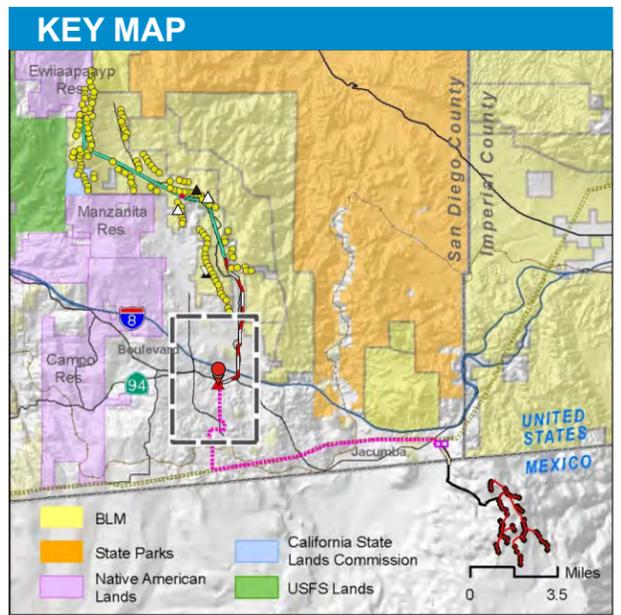
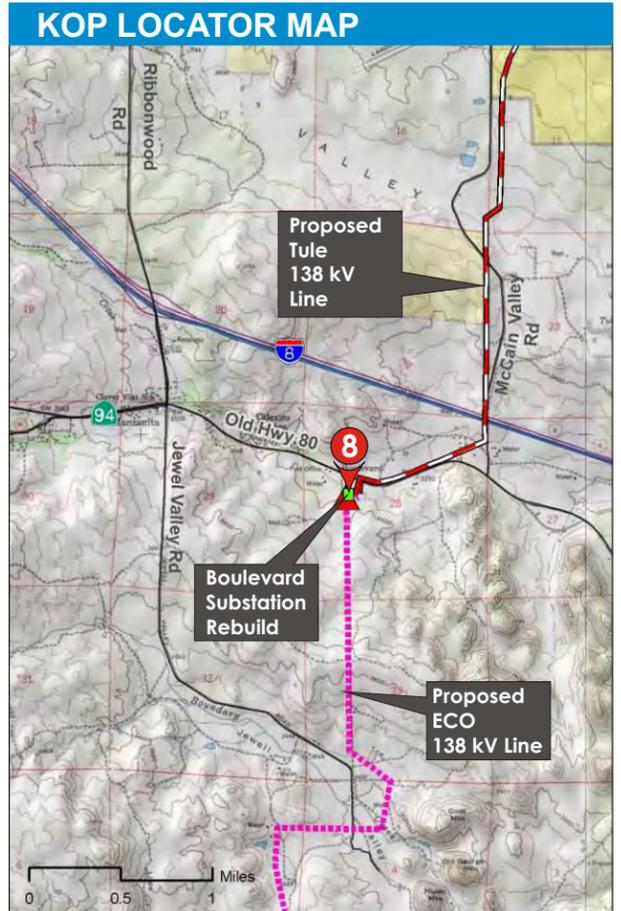
ECO 138 kV Transmission Line Visual Contrasts

- Structure Form–Moderate-Strong
- Structure Line–Weak-Moderate
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class II

NOTE:
This simulation does not show the following elements which would contribute to PROJECT visual changes: Tule Wind 138 kV Transmission Line.

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KOP 8—VISUAL SIMULATION OF PROPOSED ECO SUBSTATION PROJECT (VS2)
View looking south from Old Highway 80 toward Proposed Rebuilt Boulevard Substation (with Landscape Plan and ECO APM-AES-3)

PHOTO DESCRIPTION

ECO Boulevard Substation Rebuild (w/Landscape Plan and ECO APM-AES-3) Visual Contrasts

- Structure Form—Strong
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

ECO 138 kV Transmission Line Visual Contrasts

- Structure Form—Moderate-Strong
- Structure Line—Weak-Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

NOTE:

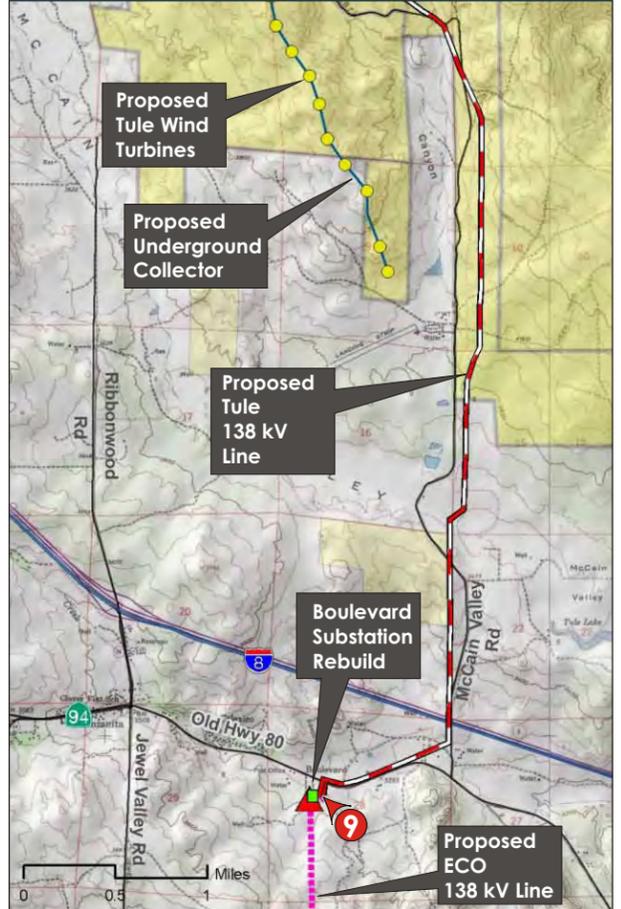
This simulation does not show the following elements which would contribute to PROJECT visual changes: Tule Wind 138 kV Transmission Line.

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KOP 9—EXISTING SETTING (ES1)
 View looking northwest from South of Old Highway 80 on Hilltop Trail toward Proposed Rebuilt Boulevard Substation Site

KOP LOCATOR MAP



KEY MAP

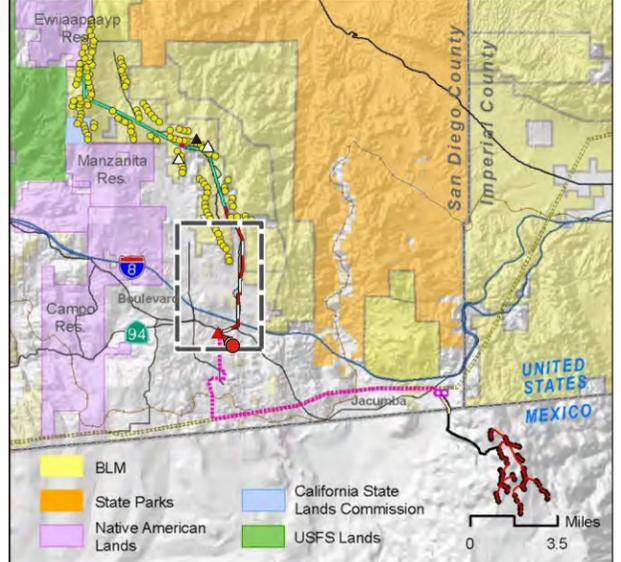


PHOTO DESCRIPTION

Scenic Quality

Class B—Representative

Visual Sensitivity

Medium to High

- Viewer Groups—Residents
- Viewer Volume—Low
- Public Concern Level—High

Viewing Distance Zone

Foreground to Middleground

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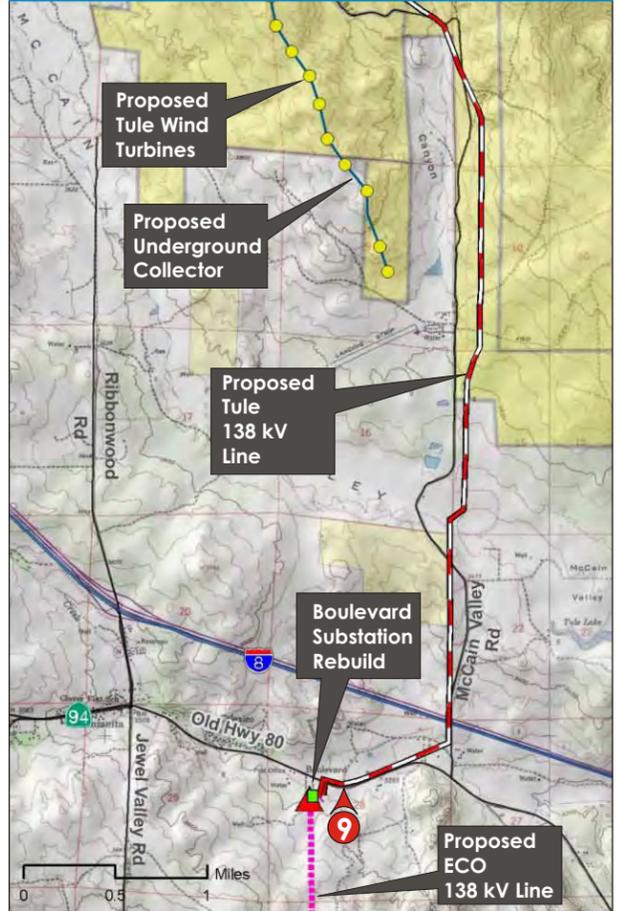


KOP 9—EXISTING SETTING (ES2)
 View looking north from South of Old Highway 80 on Hilltop Trail toward Proposed Tule Wind Project Site

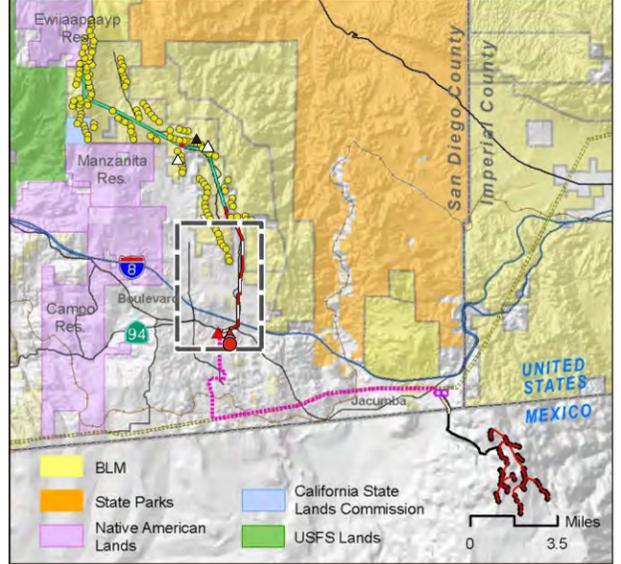
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B—Representative	Medium to High <ul style="list-style-type: none"> • Viewer Groups—Residents • Viewer Volume—Low • Public Concern Level—High 	Foreground to Middleground

KOP LOCATOR MAP



KEY MAP



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KOP 9—EXISTING SETTING (ES3)
 View looking northeast from South of Old Highway 80 on Hilltop Trail toward Proposed Tule Wind Project Site

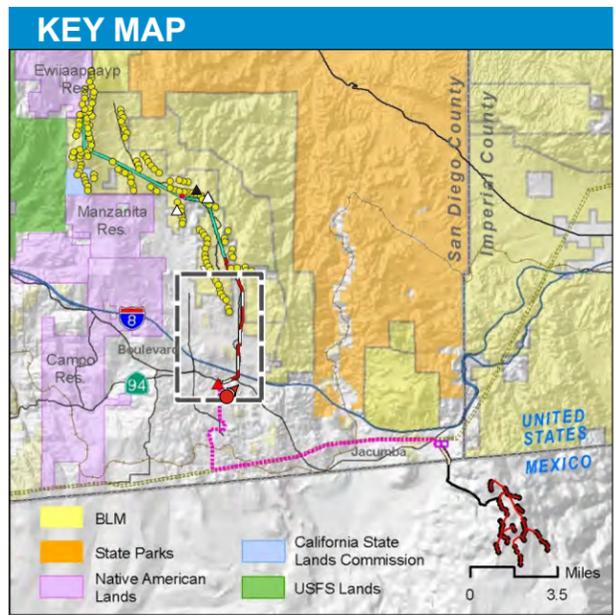
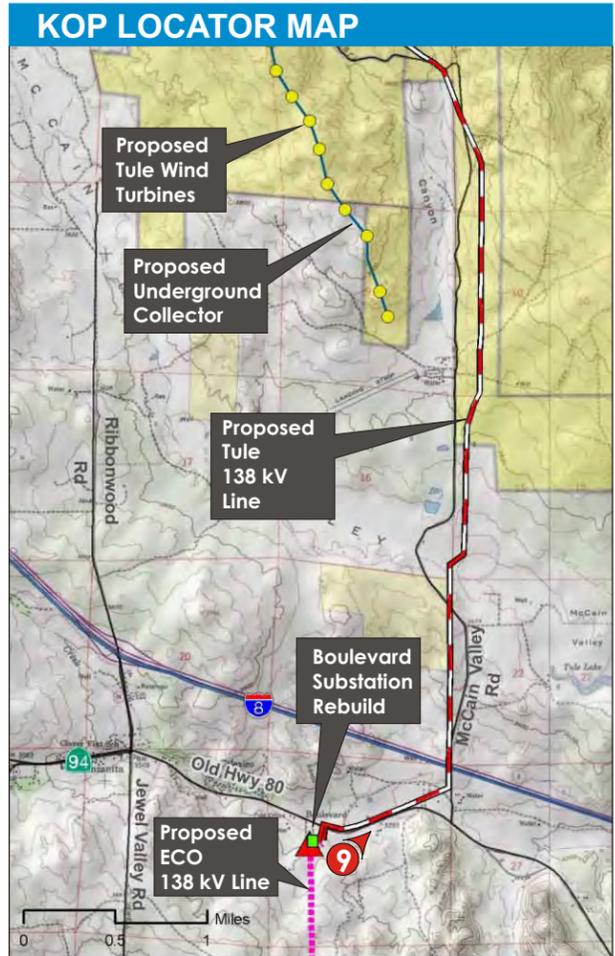


PHOTO DESCRIPTION

Scenic Quality

Class B—Representative

Visual Sensitivity

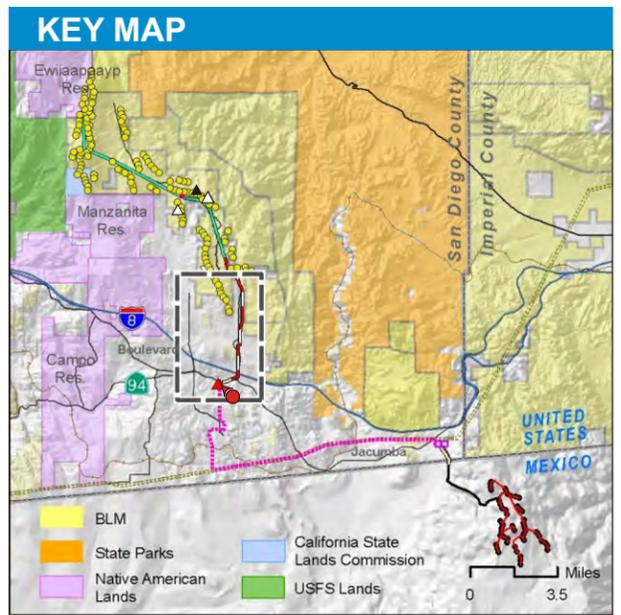
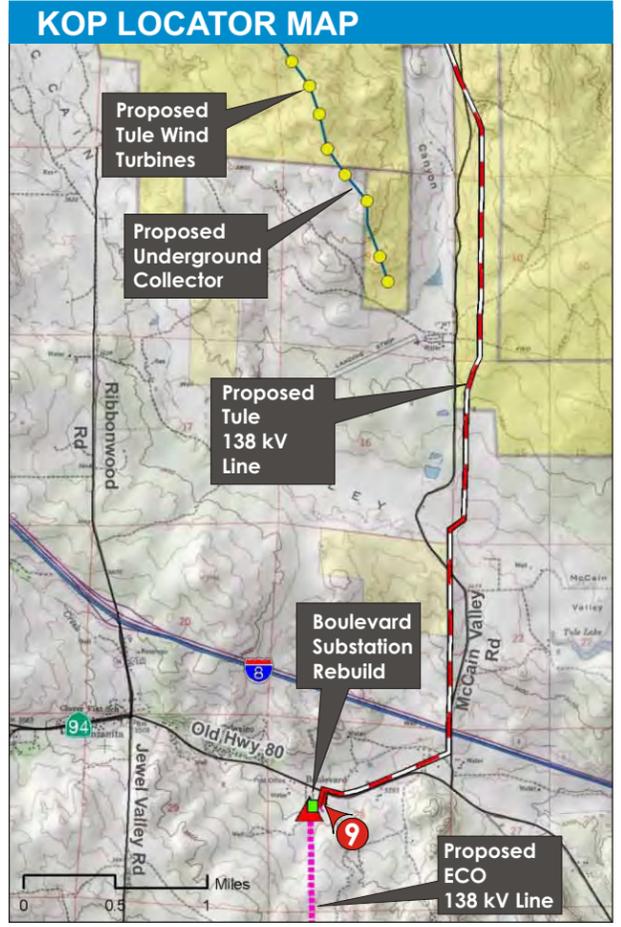
- Medium to High
- Viewer Groups—Residents
 - Viewer Volume—Low
 - Public Concern Level—High

Viewing Distance Zone

Foreground to Middleground

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KOP 9—PROPOSED ECO SUBSTATION PROJECT COMPONENT LOCATION
 View looking northwest from South of Old Highway 80 on Hilltop Trail toward Proposed Rebuilt Boulevard Substation

PHOTO DESCRIPTION

ECO Boulevard Substation Rebuild Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Strong
- Impact Class—Class I

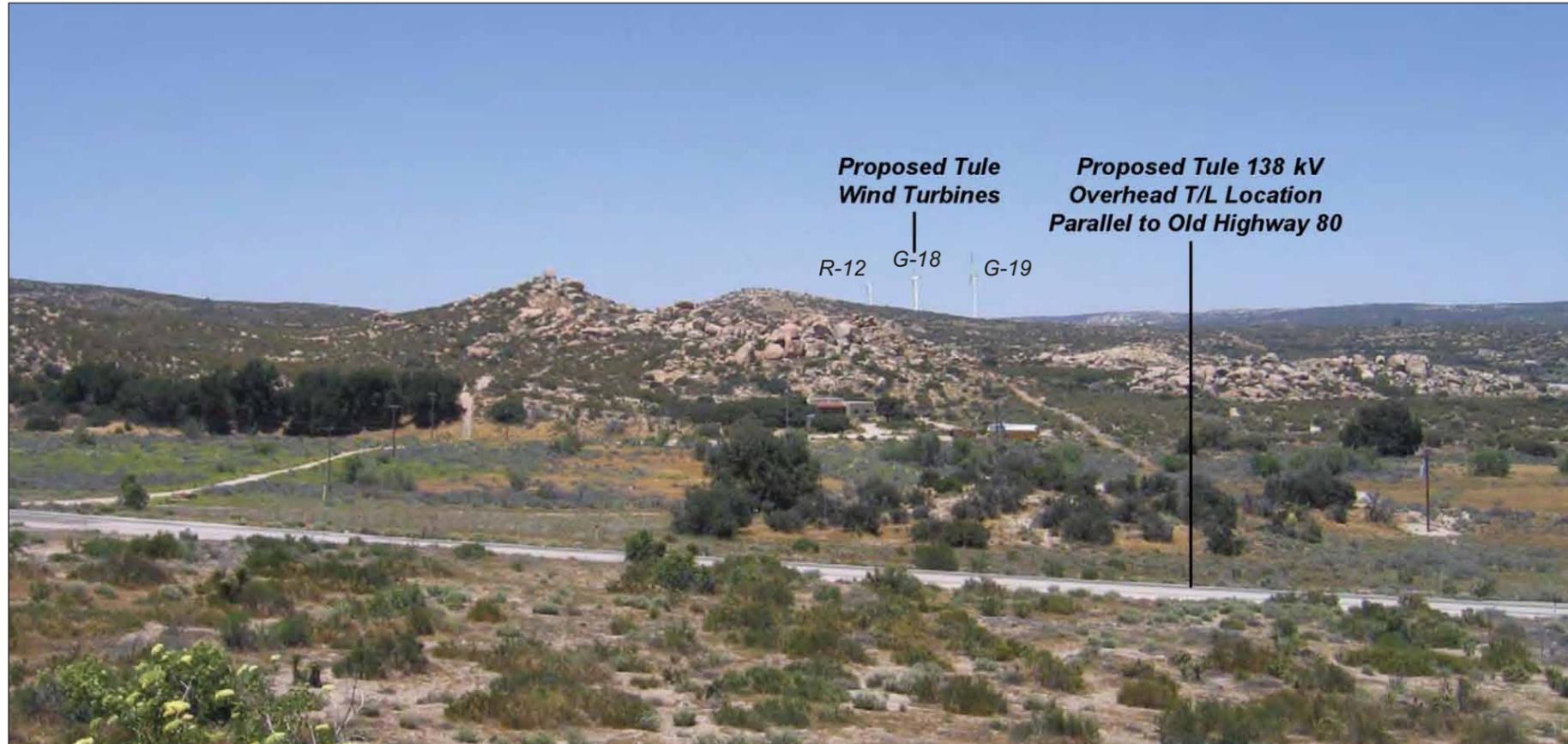
Tule Wind 138 kV Transmission Line Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

NOTE:
 This view does not show the following elements which would contribute to PROJECT visual changes: Boulevard Substation Rebuild, Tule Wind 138 kV Transmission Line.

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KOP 9—VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS)
 View looking north from South of Old Highway 80 on Hilltop Trail toward Proposed Tule Wind Project Site

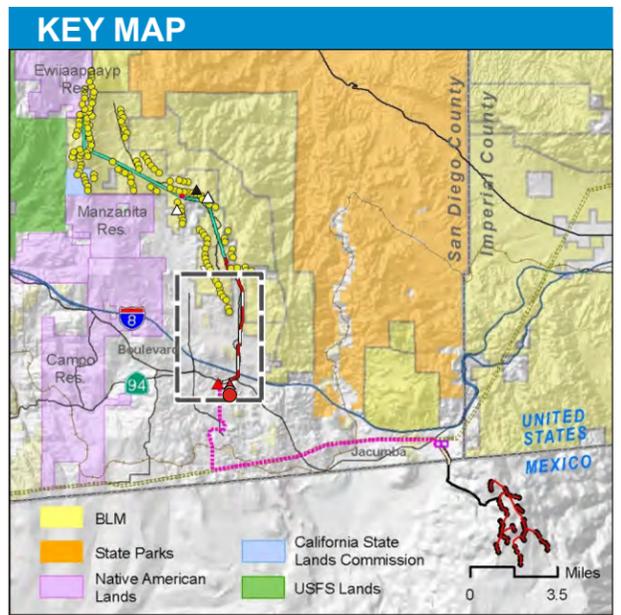
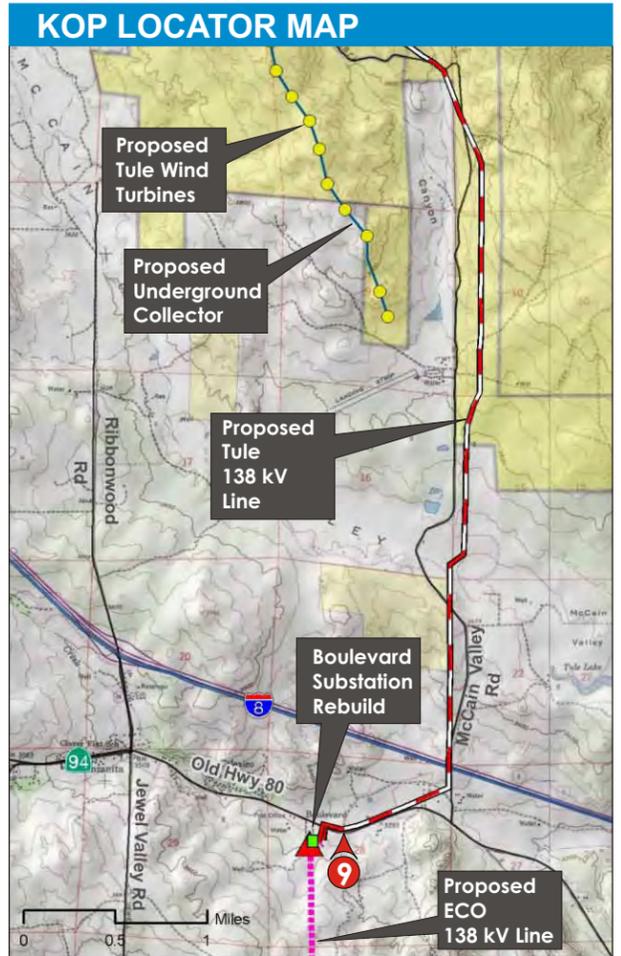


PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Strong
- Impact Class—Class I

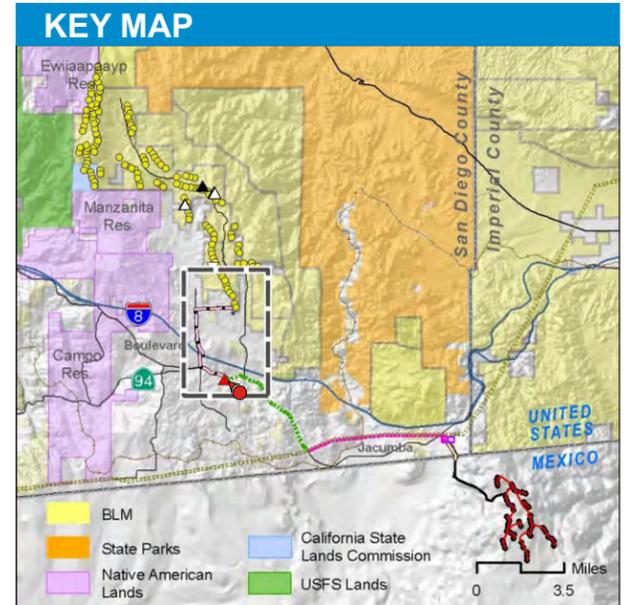
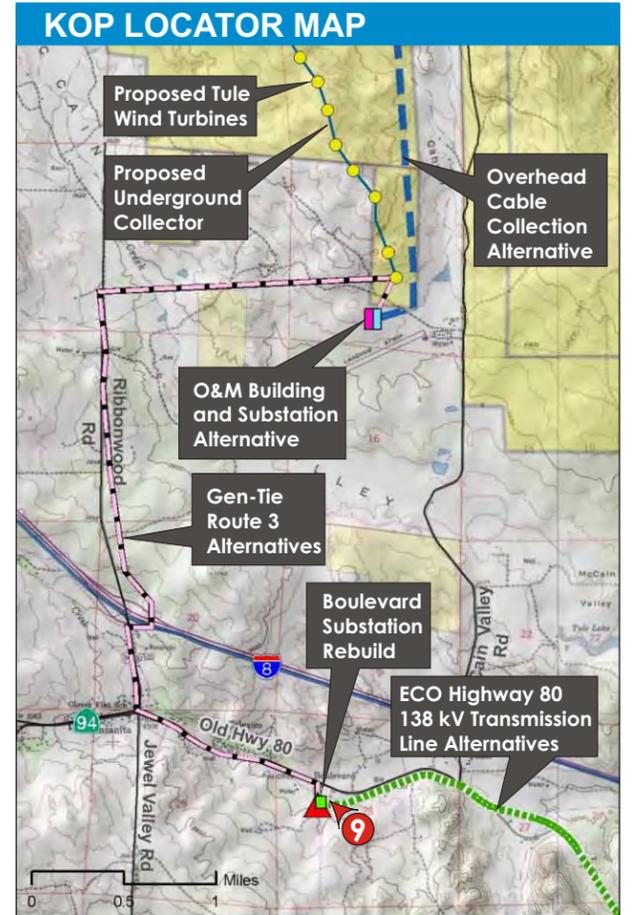
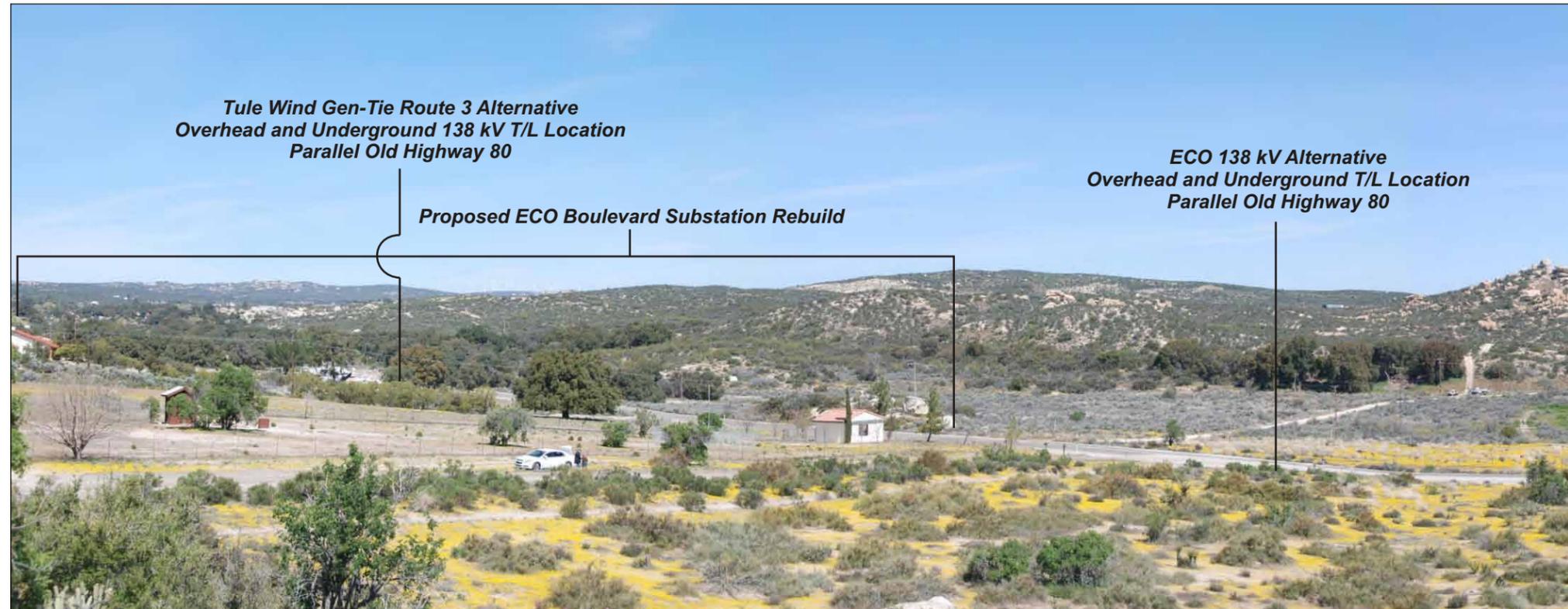
Tule Wind 138 kV Transmission Line Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

NOTE:
 This simulation does not show the following elements which would contribute to PROJECT visual changes: Tule Wind 138 kV Transmission Line.

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KOP 9– ECO SUBSTATION ALTERNATIVE PROJECT COMPONENTS LOCATIONS
View looking northwest from South of Old Highway 80 on Hilltop Trail toward Proposed Rebuilt Boulevard Substation

PHOTO DESCRIPTION

ECO Boulevard Substation Rebuild Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Strong
- Structure Texture–Strong
- Impact Class–Class I

Tule Wind Gen-Tie Route 3 Underground 138 kV Transmission Line Visual Contrasts

- Structure Form–Weak
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class II

ECO Highway 80 Alternative 138 kV Underground Transmission Line Visual Contrasts

- Structure Form–Weak
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class II

Tule Wind Gen-Tie Route 3 Overhead 138 kV Transmission Line Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

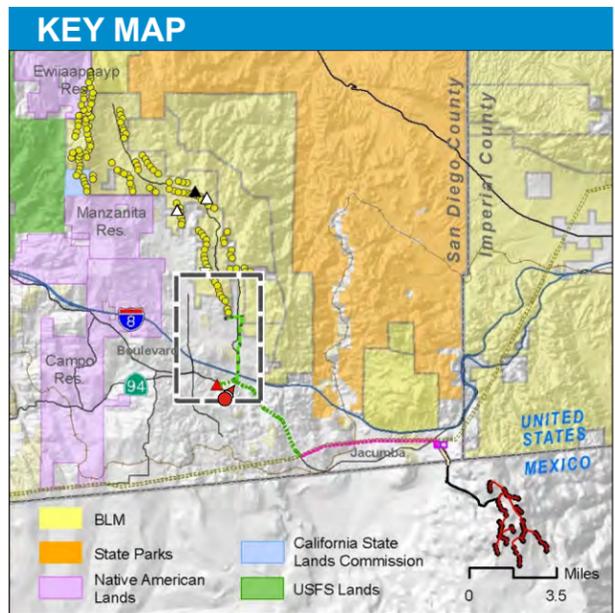
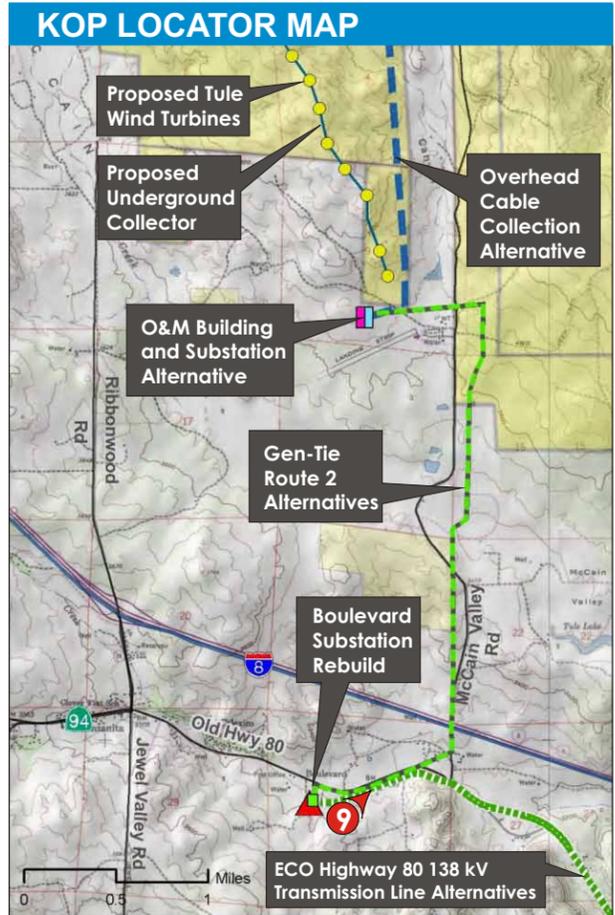
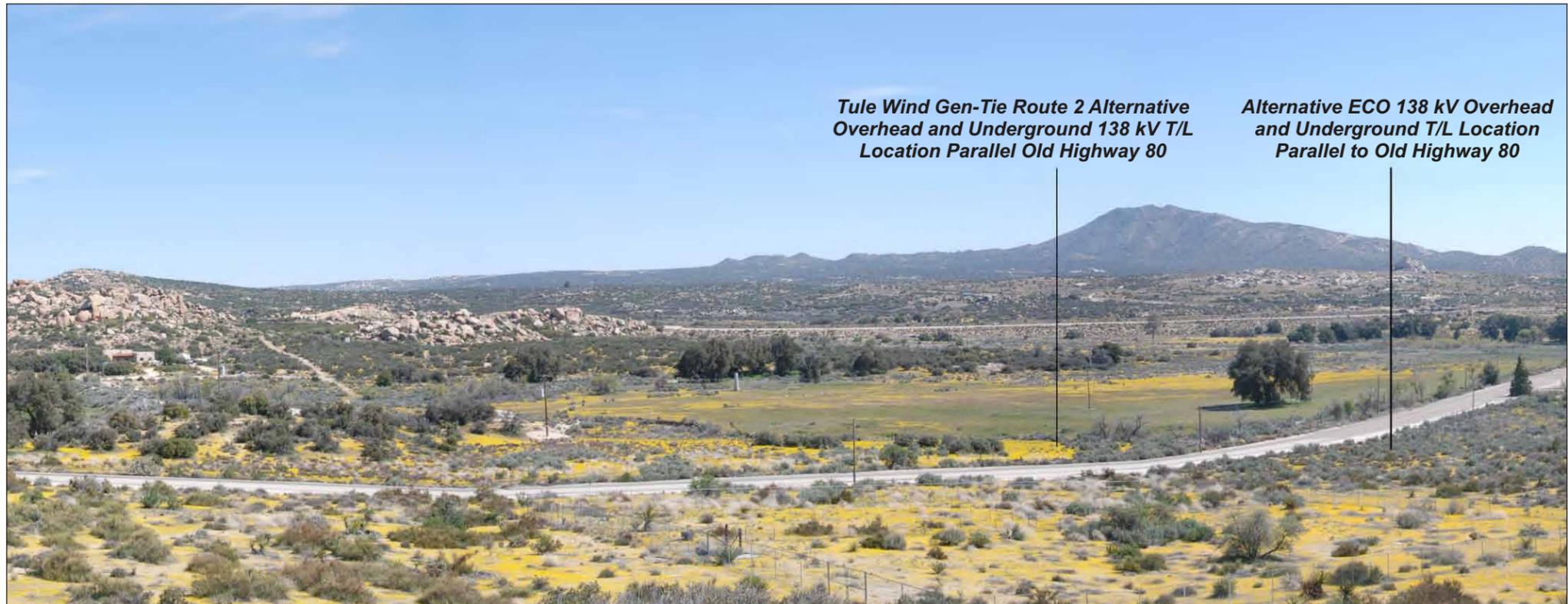
ECO Highway 80 Alternative 138 kV Overhead Transmission Line Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate-Strong
- Structure Texture–Moderate-Strong
- Impact Class–Class I

NOTE:
This view does not show the following elements which would contribute to PROJECT visual changes: ECO Boulevard Substation Rebuild, Tule Wind Gen-Tie Route 3 Alternative 138 kV Overhead and Underground Lines, ECO Highway 80 Alternative 138 kV Overhead and Underground Transmission Lines.

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KOP 9–TULE WIND ALTERNATIVE PROJECT COMPONENTS LOCATIONS
View looking northeast from South of Old Highway 80 on Hilltop Trail toward Proposed Tule Wind Project

PHOTO DESCRIPTION

Tule Wind Gen-Tie Route 2 Overhead 138 kV Transmission Line Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

Tule Wind Gen-Tie Route 2 Underground 138 kV Transmission Line Visual Contrasts

- Structure Form–Weak
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class II

ECO Highway 80 Alternative 138 kV Overhead Transmission Line Visual Contrasts

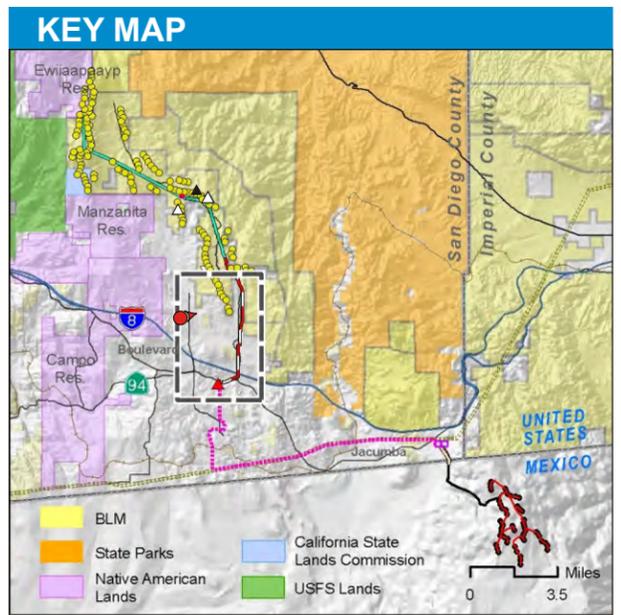
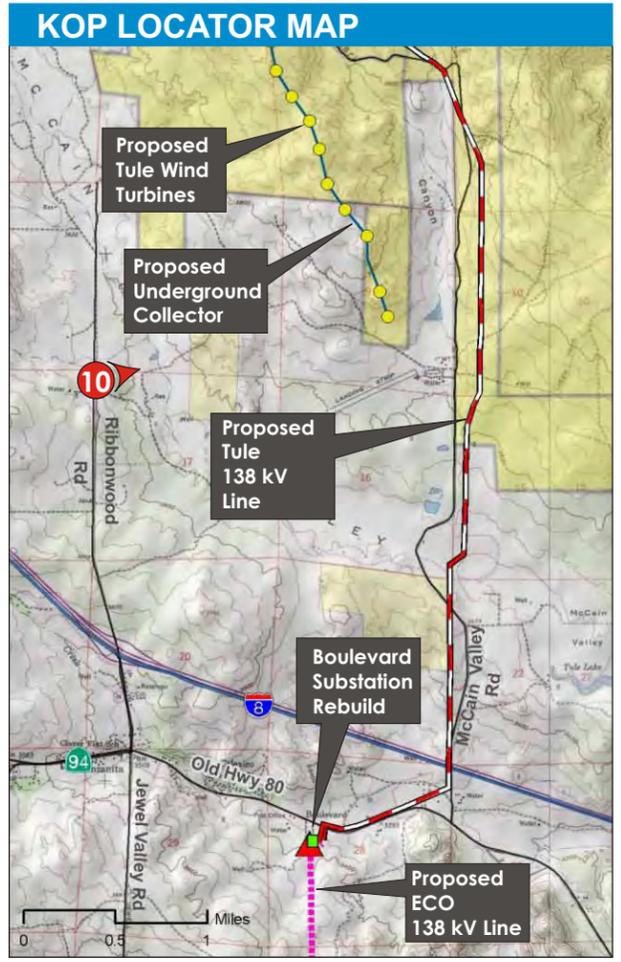
- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate-Strong
- Structure Texture–Moderate-Strong
- Impact Class–Class I

ECO Highway 80 Alternative 138 kV Underground Transmission Line Visual Contrasts

- Structure Form–Weak
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class II

NOTE:
This view does not show the following elements which would contribute to PROJECT visual changes: Tule Wind Turbines, Tule Wind Gen-Tie Route 2 Alternative 138 kV Overhead and Underground Lines, ECO Highway 80 Alternative 138 kV Overhead and Underground Transmission Lines.

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KOP 10—EXISTING SETTING (ES)
View looking northeast from Ribbonwood Road (Community of Boulevard) toward Proposed and Alternative Tule Wind Project Sites

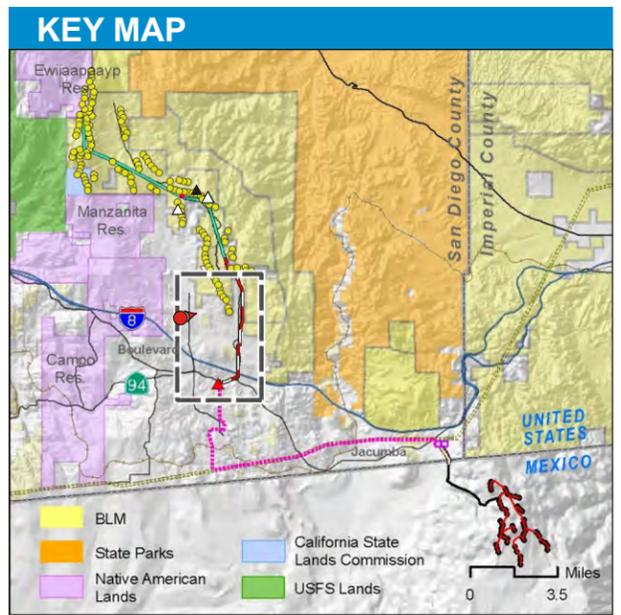
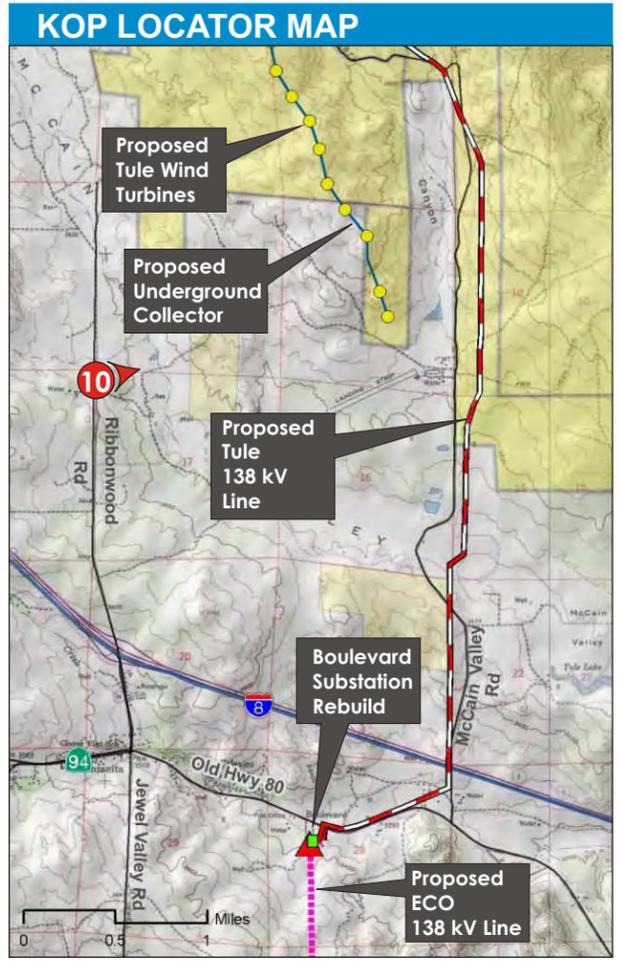
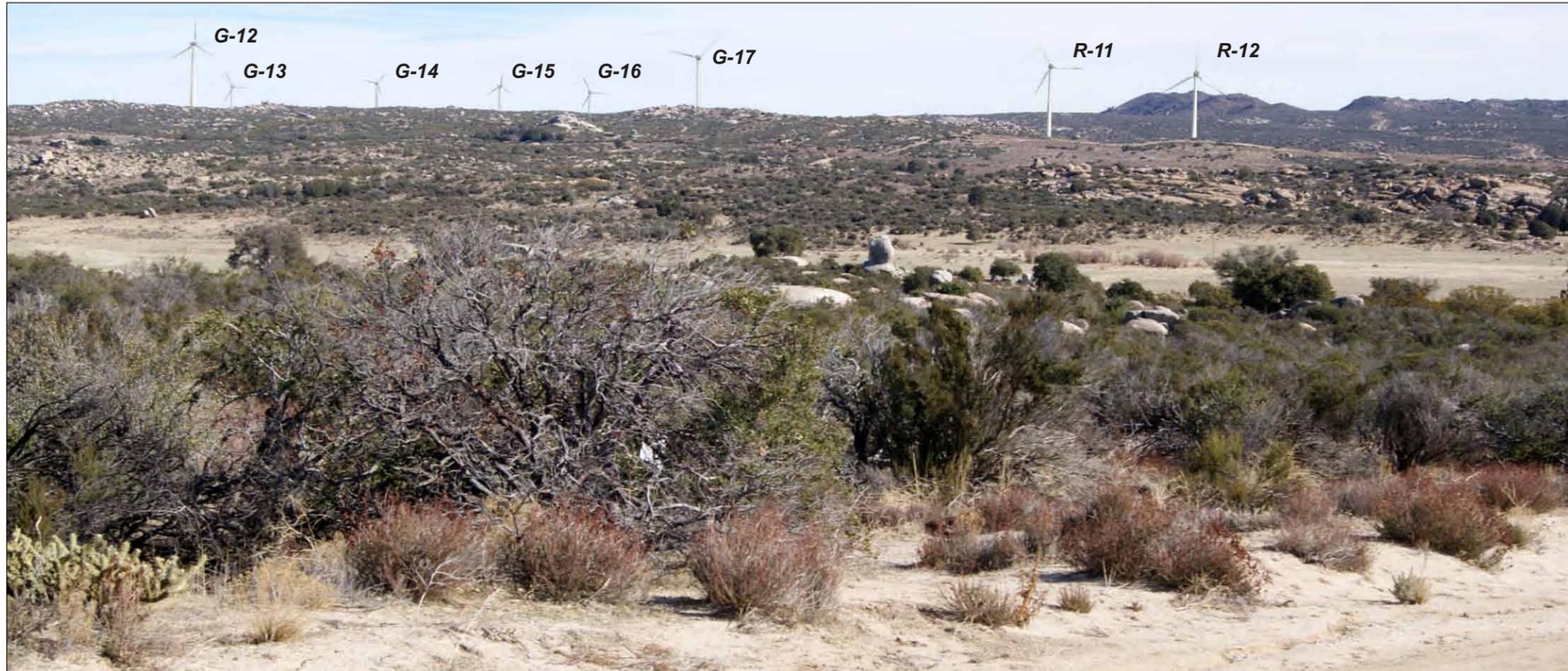
PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B—Representative	<p>High</p> <ul style="list-style-type: none"> • Viewer Groups—Residents and Recreationists (hikers) • Viewer Volume—Low • Public Concern Level—High 	Foreground to Middleground

FIGURE D.3-15A
KOP 10—Existing Setting (ES)

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KOP 10–VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS)
 View looking northeast from Ribbonwood Road (Community of Boulevard) toward Proposed Tule Wind Project Turbines

PHOTO DESCRIPTION

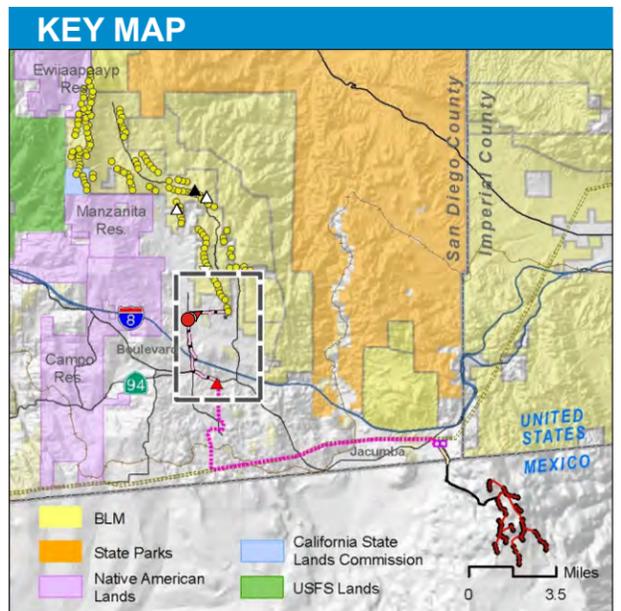
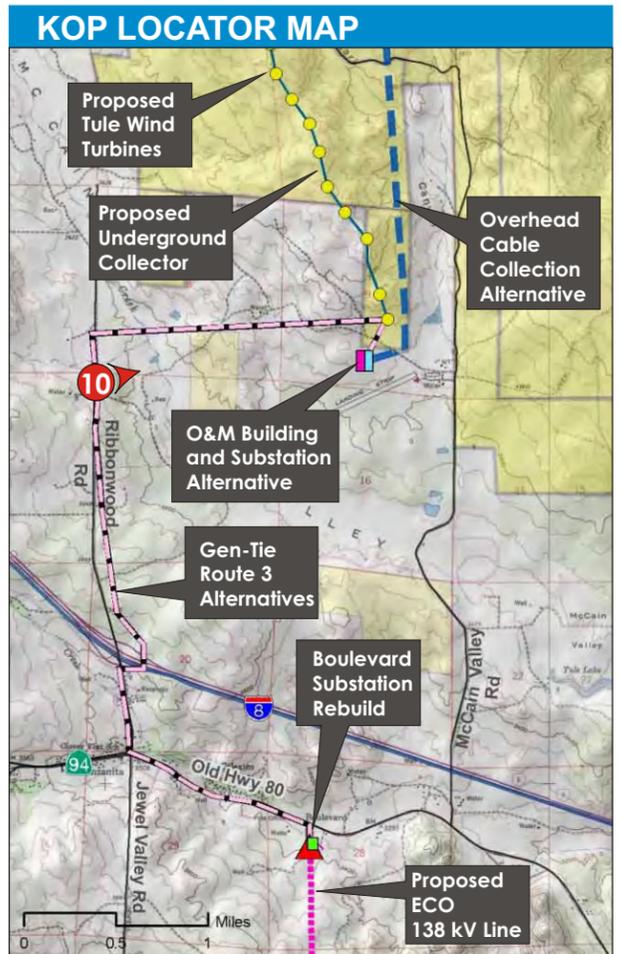
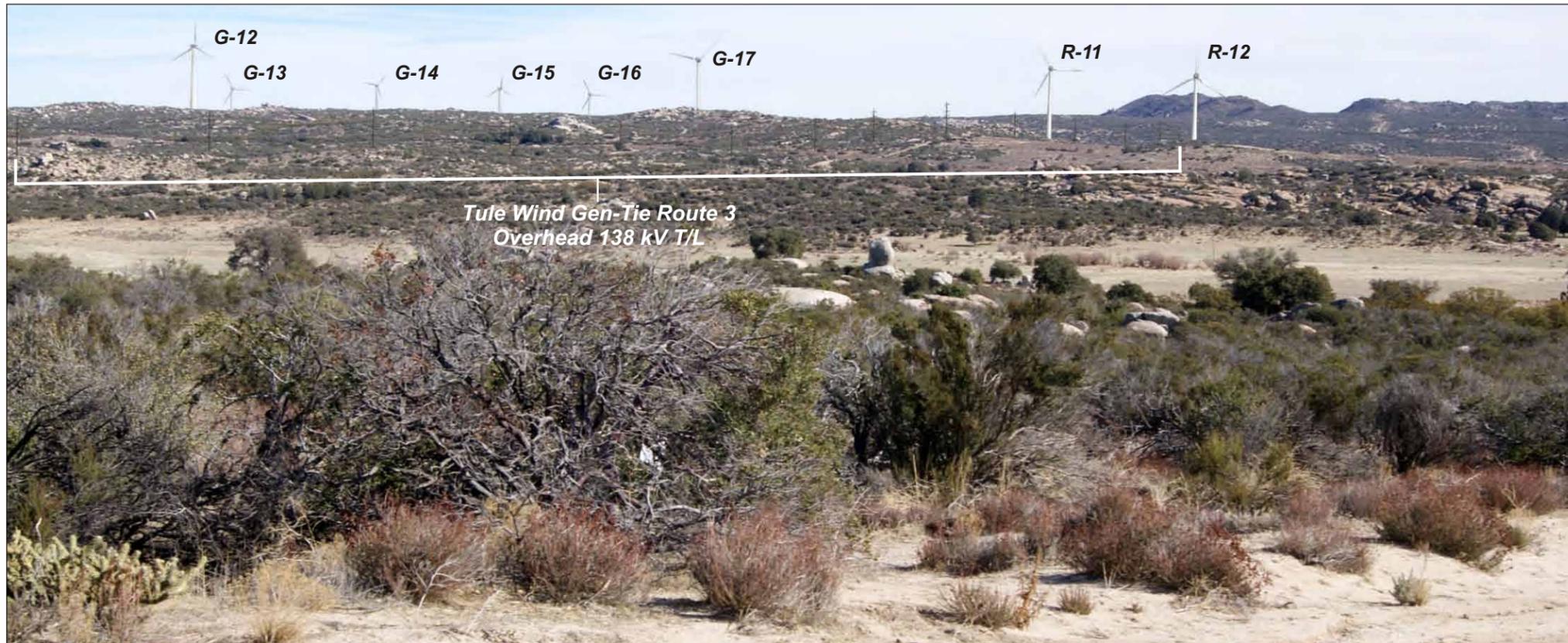
Tule Wind Turbines Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Strong
- Structure Texture–Strong
- Impact Class–Class I

NOTE:
 Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under typical sunny weather conditions.

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KOP 10–VISUAL SIMULATION OF TULE WIND ALTERNATIVE PROJECT (AVS)

View looking northeast from Ribbonwood Road (Community of Boulevard) toward Proposed Tule Wind Project Turbines and Tule Wind Gen-Tie Route 3 Alternative Location

PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Strong
- Structure Texture–Strong
- Impact Class–Class I

NOTE:

Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under typical sunny weather conditions.

This simulation does not show the following elements which would contribute to PROJECT visual changes: Tule Wind Gen-Tie Route 3 Alternative Overhead and Underground 138 kV Transmission Lines.

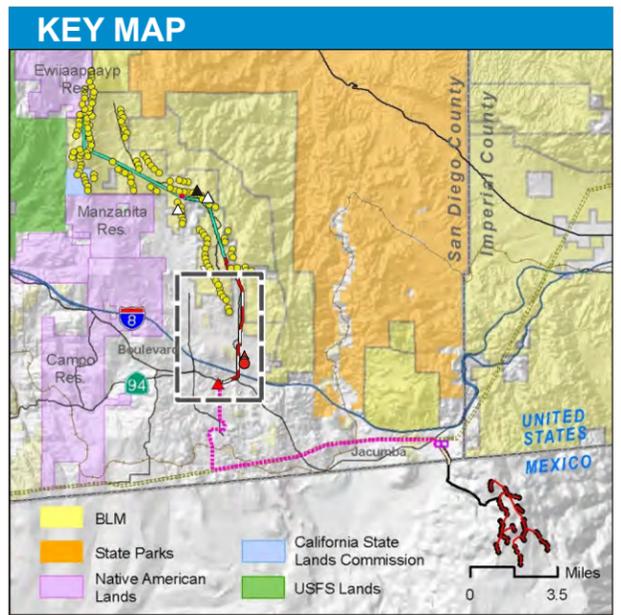
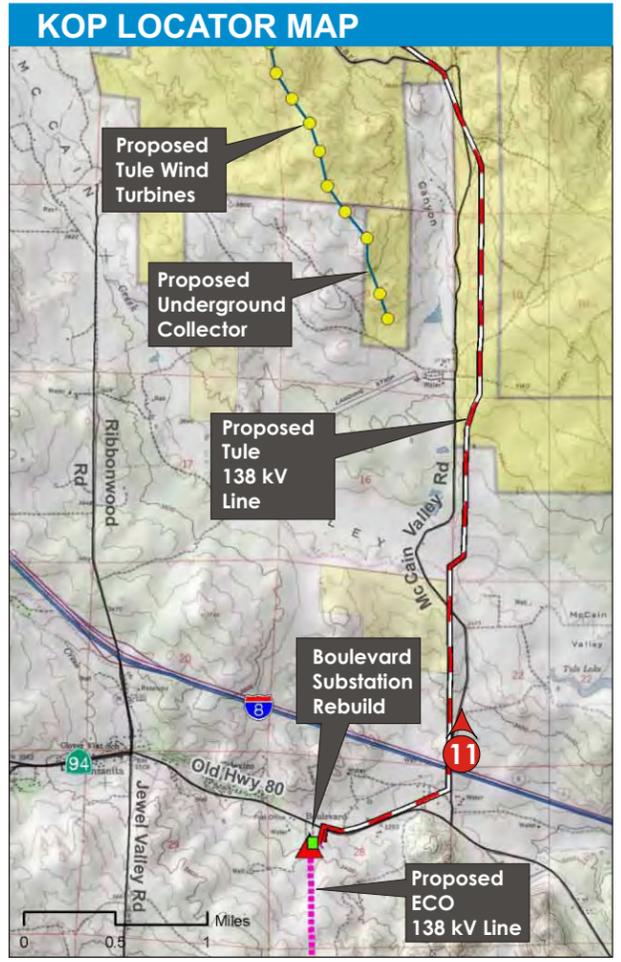
Tule Wind Gen-Tie Route 3 Overhead 138 kV Transmission Line Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

Tule Wind Gen-Tie Route 3 Underground 138 kV Transmission Line Visual Contrasts

- Structure Form–Weak
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class II

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KOP 11—EXISTING SETTING (ES)
 View looking north from McCain Valley Road at I-8 toward Proposed Tule Wind 138 kV Gen-Tie and Turbine Locations

PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
<p>Class B—Representative</p>	<p>Medium</p> <ul style="list-style-type: none"> • Viewer Groups—Public Land Recreationists (OHV users, campers, and hikers) • Viewer Volume—Low • Public Concern Level—Moderate 	<p>Foreground to Middleground</p>

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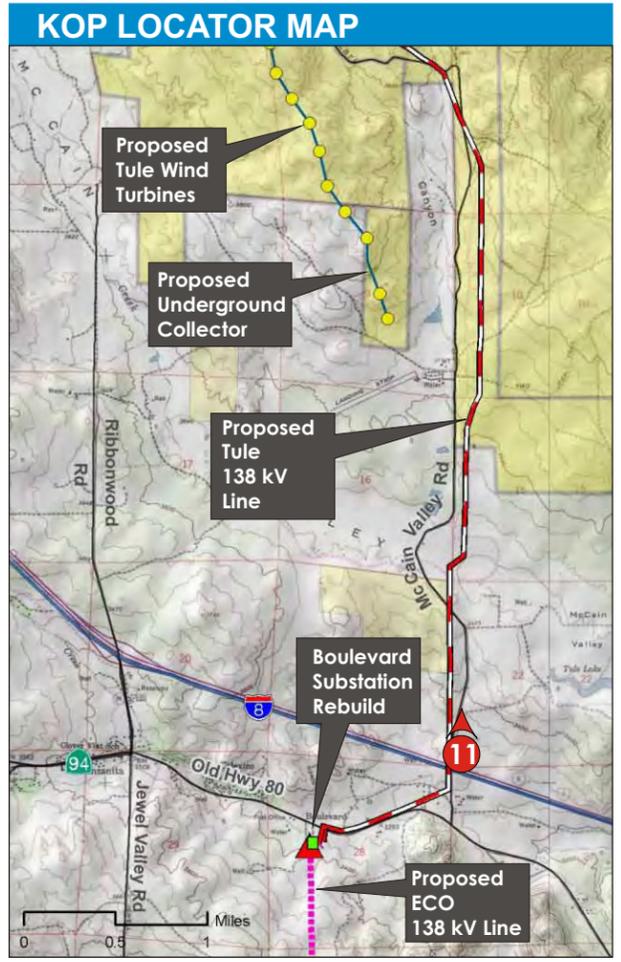
SOURCE: HDR 2010

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East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects - EIR/EIS

FIGURE D.3-16A
KOP 11—Existing Setting (ES)

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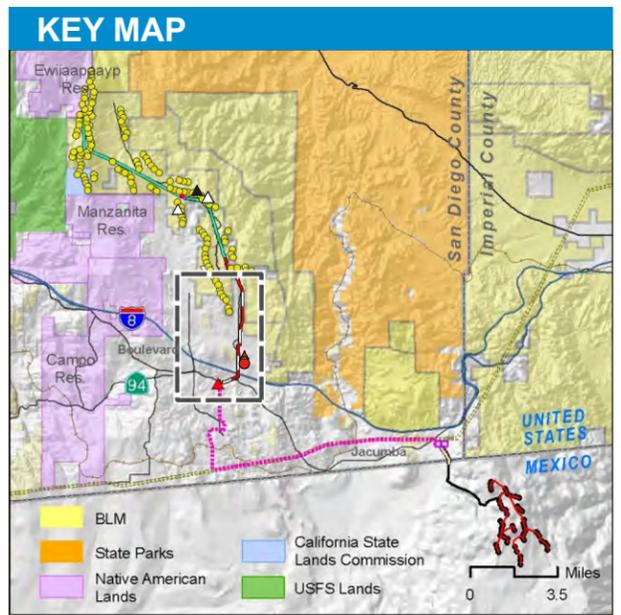
KOP 11–VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS1)
 View looking north from McCain Valley Road at I-8 toward Proposed Tule Wind 138 kV Transmission Line

PHOTO DESCRIPTION

Tule Wind 138 kV Transmission Line Visual Contrasts

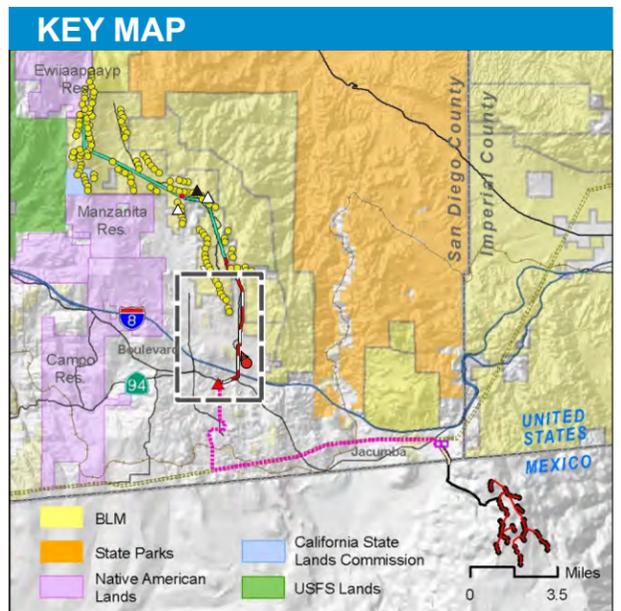
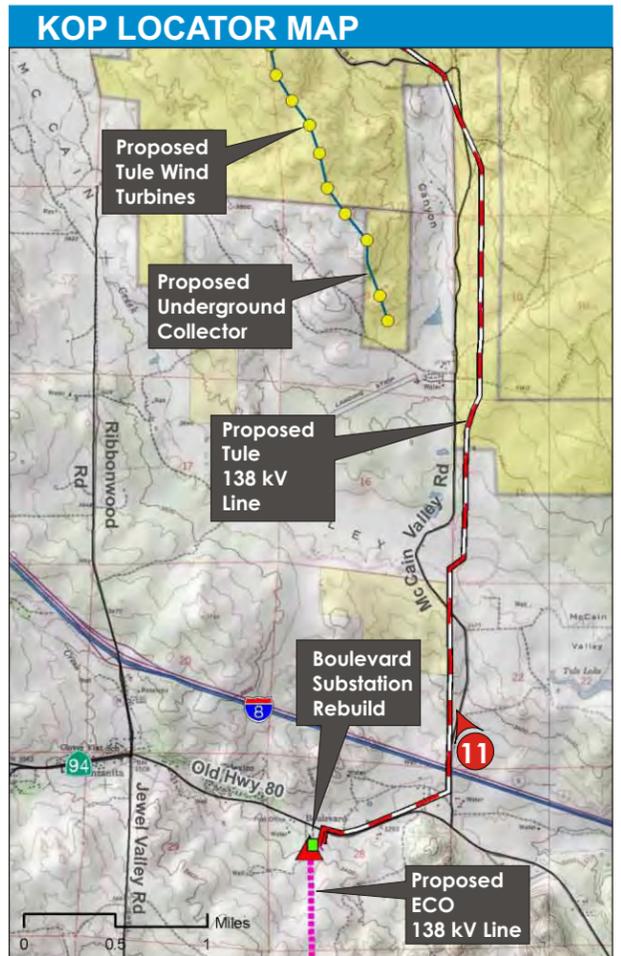
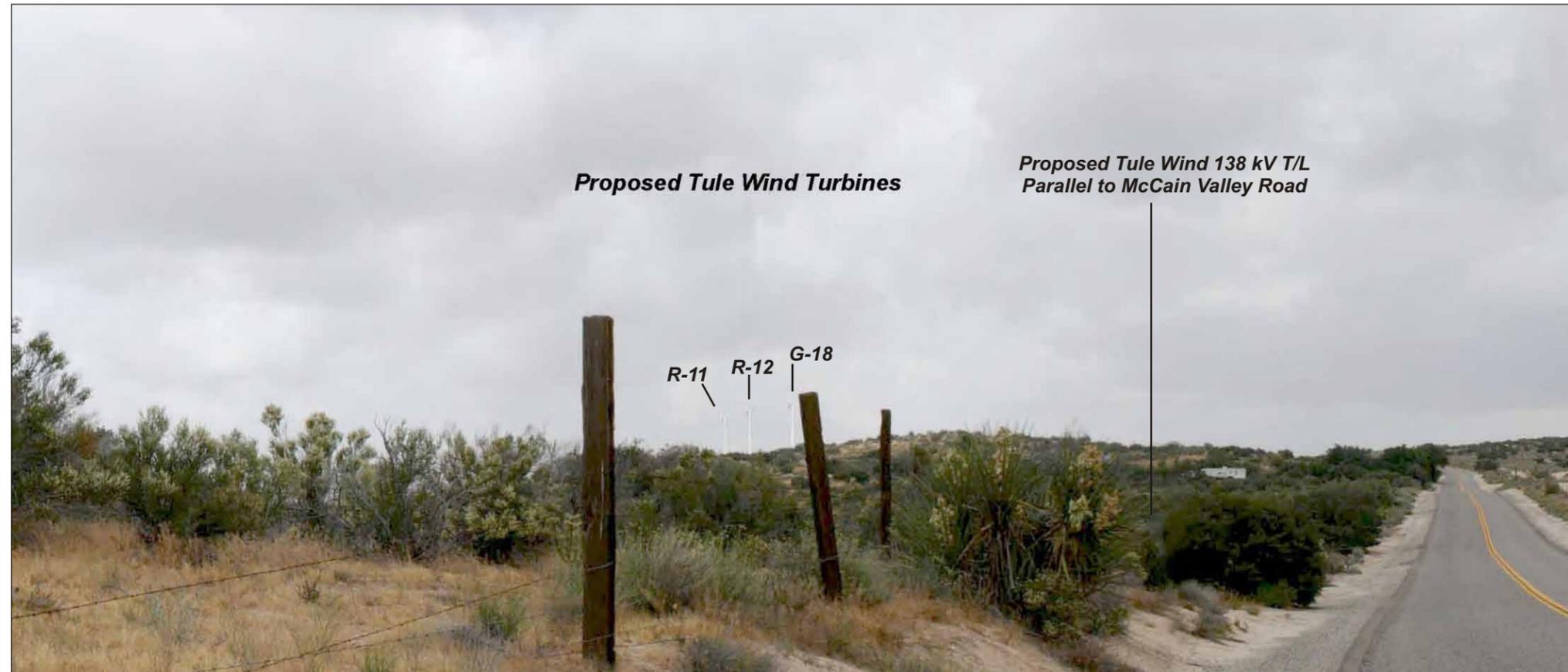
- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

NOTE:
 Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under typical sunny weather conditions.



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KOP 11–VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS2)
View looking northwest from McCain Valley Road at I-8 toward Proposed Tule Wind Turbines

PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Strong
- Structure Texture–Strong
- Impact Class–Class I

NOTE:

This simulation does not show the following elements which would contribute to PROJECT visual changes: Tule Wind 138 kV Transmission Line.

Atypical lighting conditions. Lighting shown on figure is not representative of typical conditions. Increased structure contrasts would be seen under typical sunny weather conditions.

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KOP 12-EXISTING SETTING (ES1)

View looking north from McCain Valley Road at BLM Lands Entrance toward Proposed Tule Wind Project Turbines and 138 kV T/L Locations

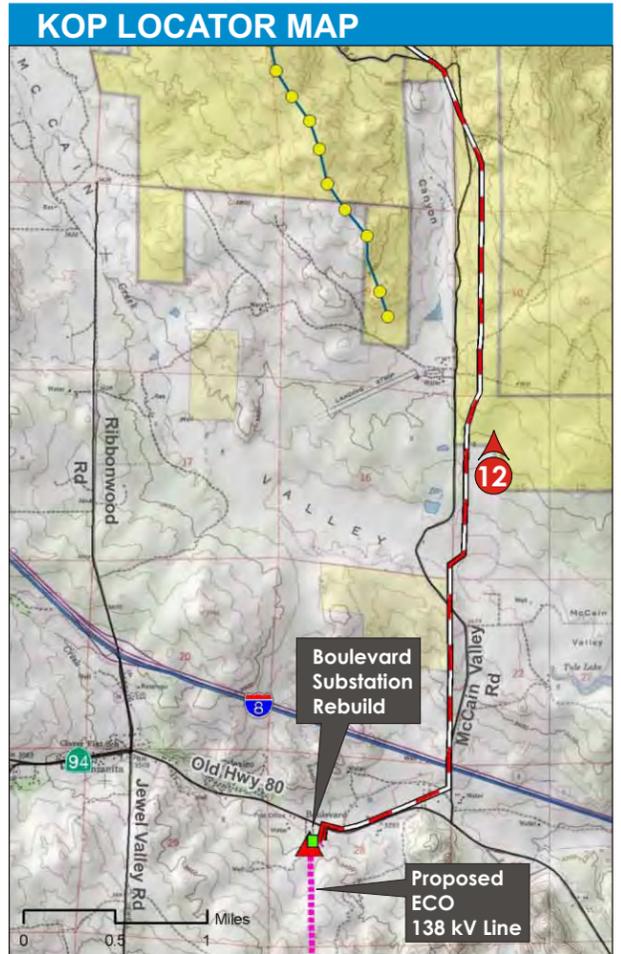


PHOTO DESCRIPTION

Scenic Quality

Class B-Representative

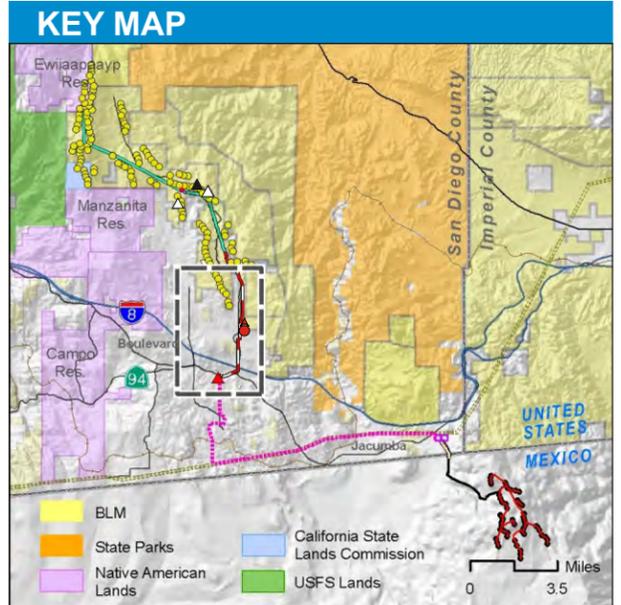
Visual Sensitivity

Medium

- Viewer Groups—Public Land Recreationists (OHV users, campers, and hikers)
- Viewer Volume—Low
- Public Concern Level—Moderate

Viewing Distance Zone

Foreground to Middleground



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KOP 12-EXISTING SETTING (ES2)

View looking northwest from McCain Valley Road at BLM Lands Entrance toward Proposed Tule Wind Project Turbines

PHOTO DESCRIPTION

Scenic Quality

Class B-Representative

Visual Sensitivity

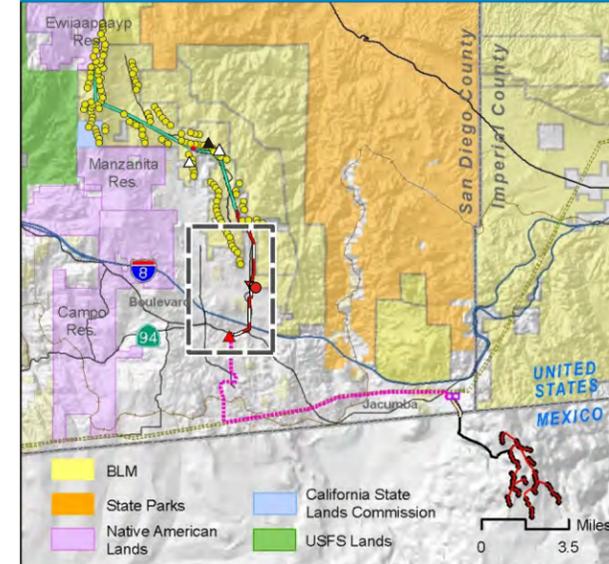
Medium

- Viewer Groups—Public Land Recreationists (OHV users, campers, and hikers)
- Viewer Volume—Low
- Public Concern Level—Moderate

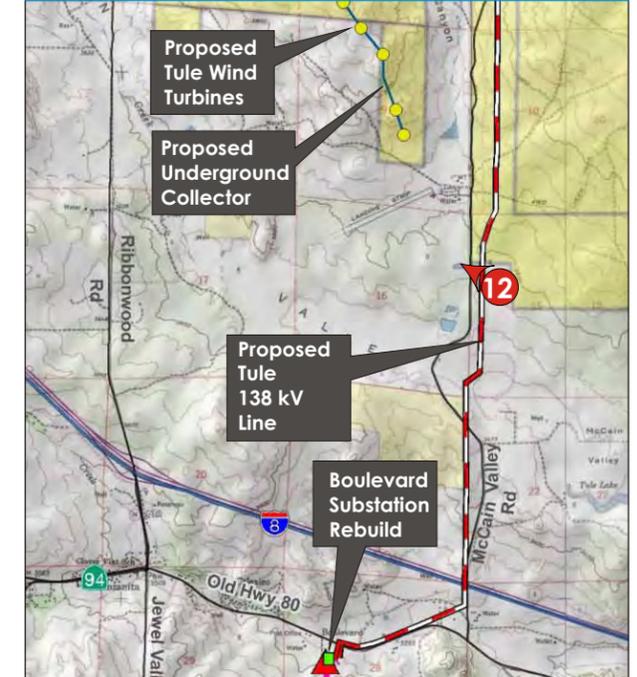
Viewing Distance Zone

Foreground to Middleground

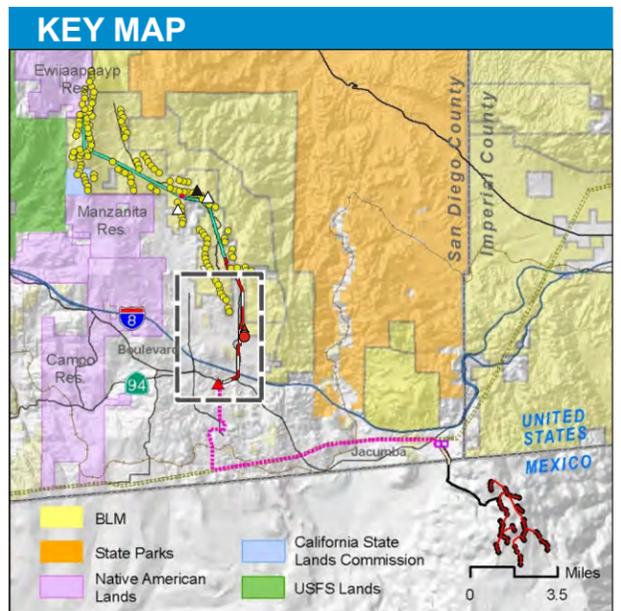
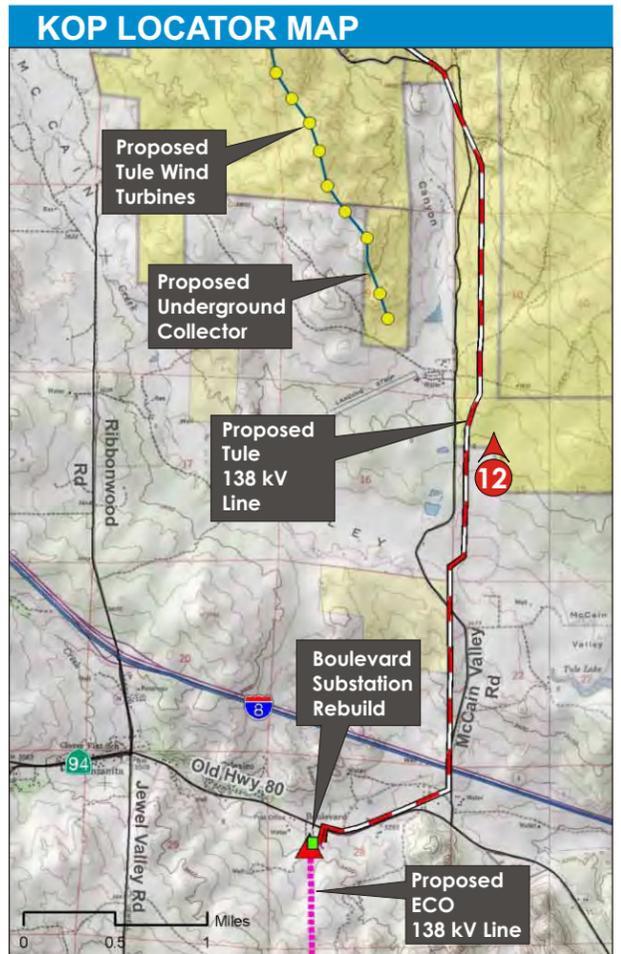
KEY MAP



KOP LOCATOR MAP



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KOP 12—VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS)
 View looking north from McCain Valley Road at BLM Lands Entrance toward Proposed Tule Wind Project Turbines and 138 kV Gen-Tie Line

PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

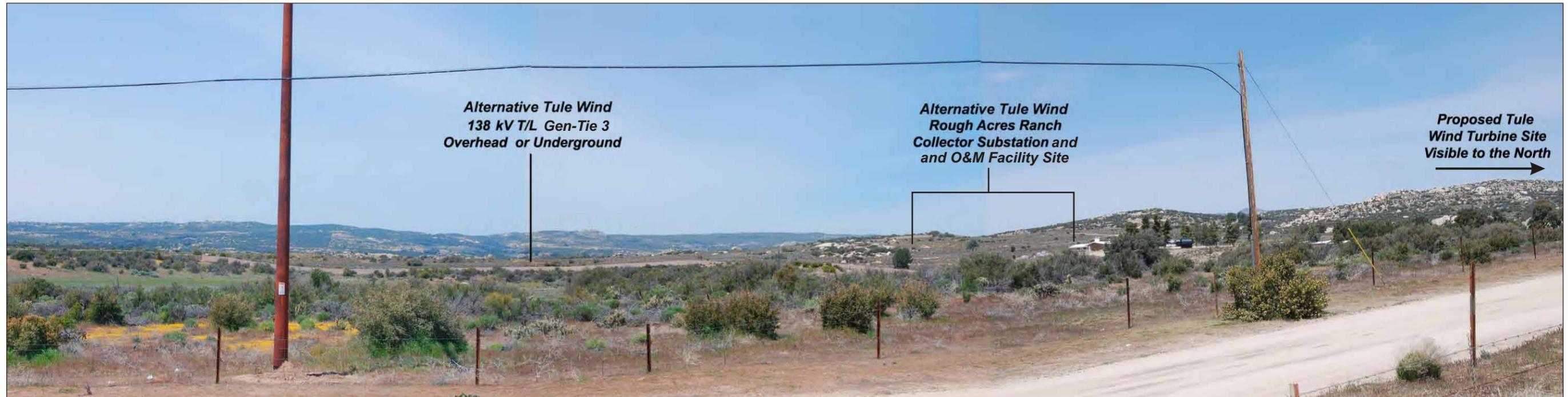
- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Strong
- Impact Class—Class I

Tule Wind 138 kV Transmission Line Visual Contrasts

- Structure Form—Strong
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

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KOP 12-TULE WIND PROJECT ALTERNATIVE COMPONENTS LOCATIONS

View looking northwest from McCain Valley Road at BLM Lands Entrance toward Tule Gen-Tie Alternative Route 3 Location and Alternative Collector Substation Location

PHOTO DESCRIPTION

Tule Wind Gen-Tie Route 3 Overhead 138 kV Transmission Line Visual Contrasts

- Structure Form—Strong
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

Tule Wind Gen-Tie Route 3 Underground 138 kV Transmission Line Visual Contrasts

- Structure Form—Weak
- Vegetation Line—Moderate
- Vegetation Color—Moderate
- Vegetation Texture—Moderate
- Impact Class—Class II

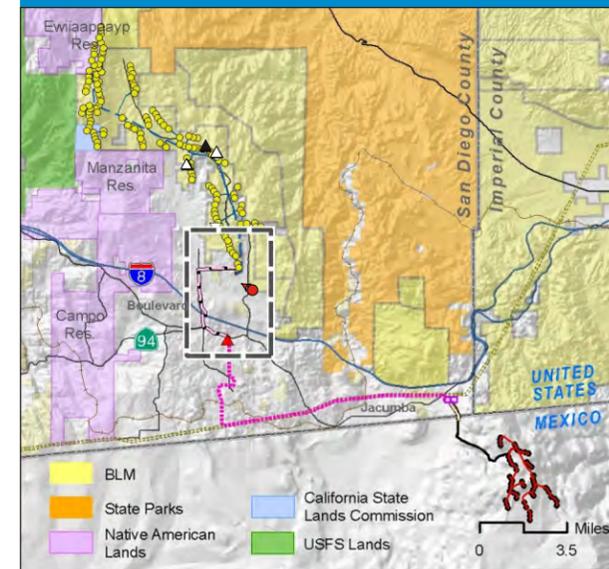
Tule Wind Alternative Collector Substation and O&M Facility on Rough Acres Ranch Visual Contrasts

- Structure Form—Strong
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class I

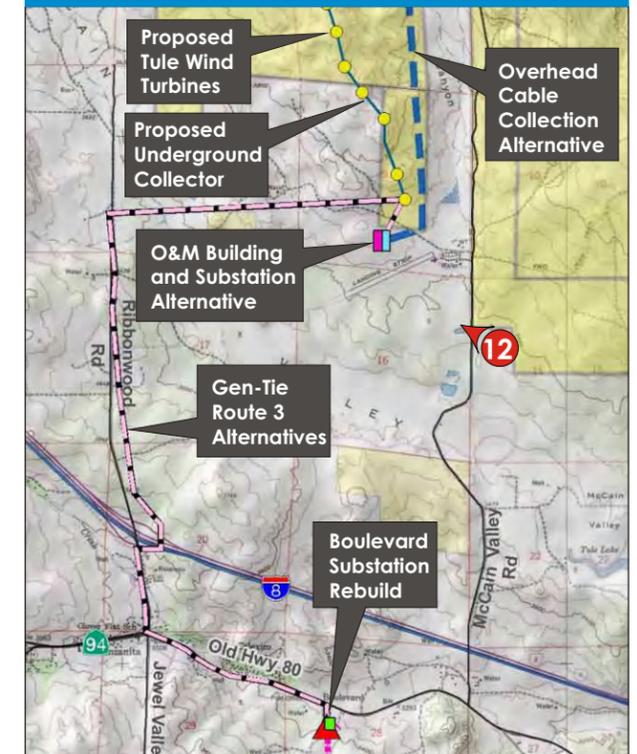
NOTE:

This view does not show the following elements which would contribute to PROJECT visual changes: Tule Wind Turbines, Tule Wind Gen-Tie Route 3 (overhead and underground), Collector Substation and O&M Facility on Rough Acres Ranch.

KEY MAP



KOP LOCATOR MAP



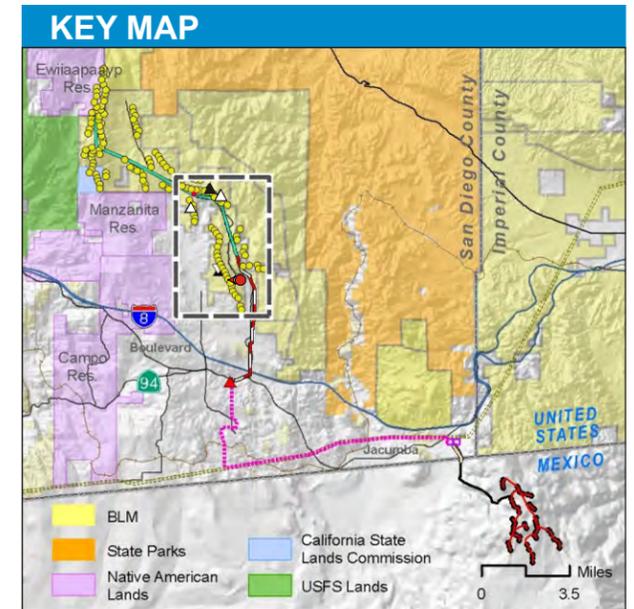
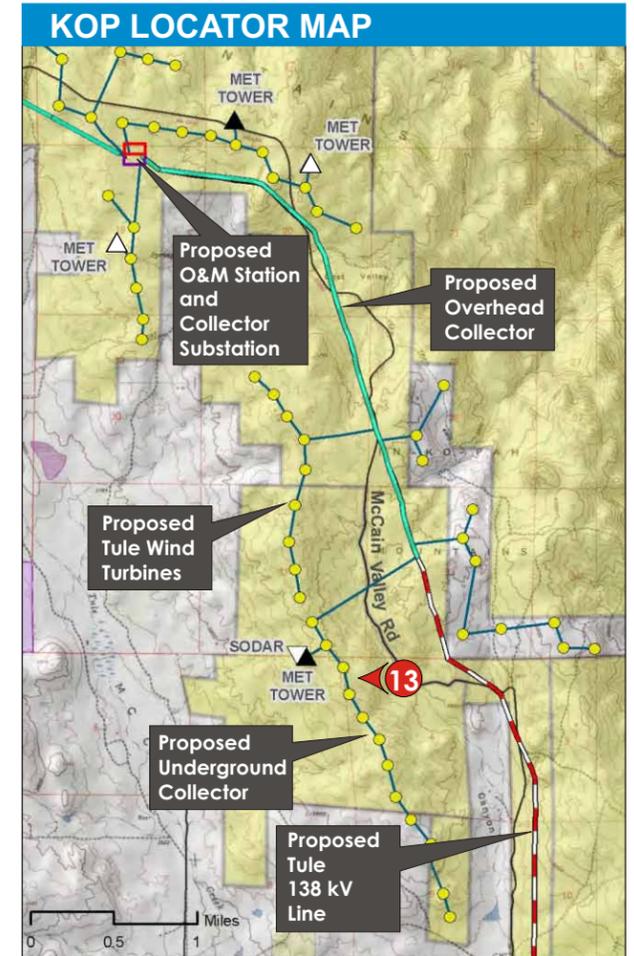
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KOP 13—EXISTING SETTING (ES)
View looking west from Lark Canyon OHV Staging Area toward Proposed Tule Wind Project Turbine Locations

PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class C—Common	<p>Medium</p> <ul style="list-style-type: none"> • Viewer Groups—Residents and Recreationists (OHV users, campers, and hikers) • Viewer Volume—Low • Public Concern Level—Moderate 	Foreground



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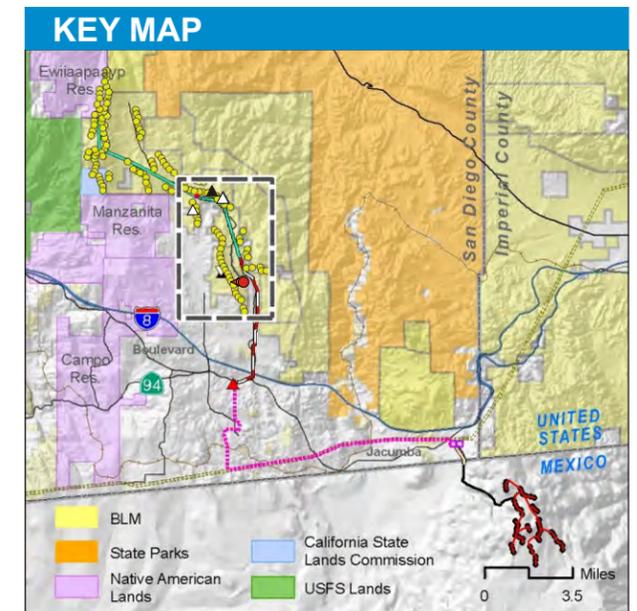
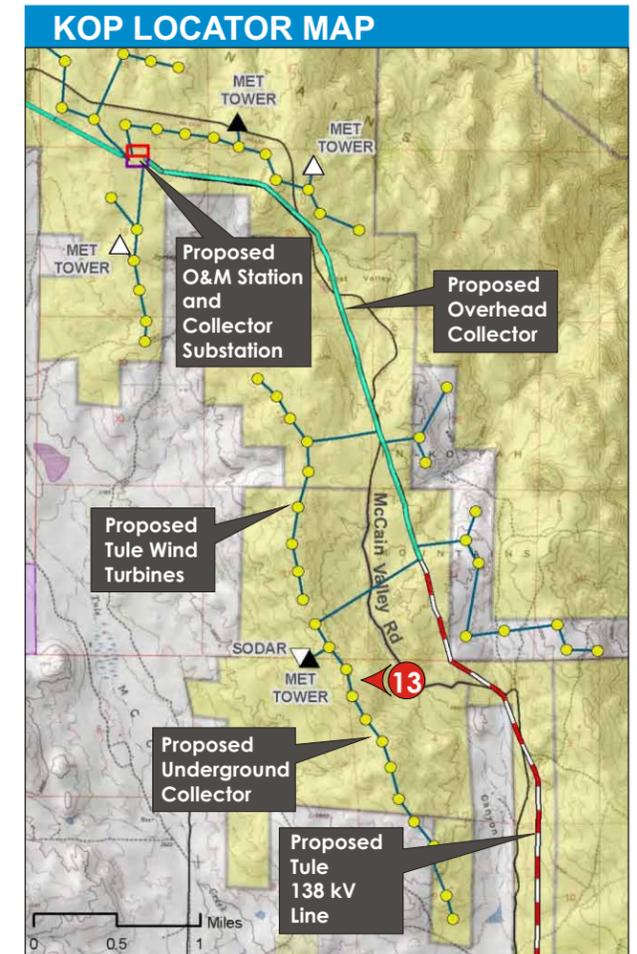


KOP 13-VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS)
 View looking west from Lark Canyon OHV Staging Area toward Proposed Tule Wind Project Turbine

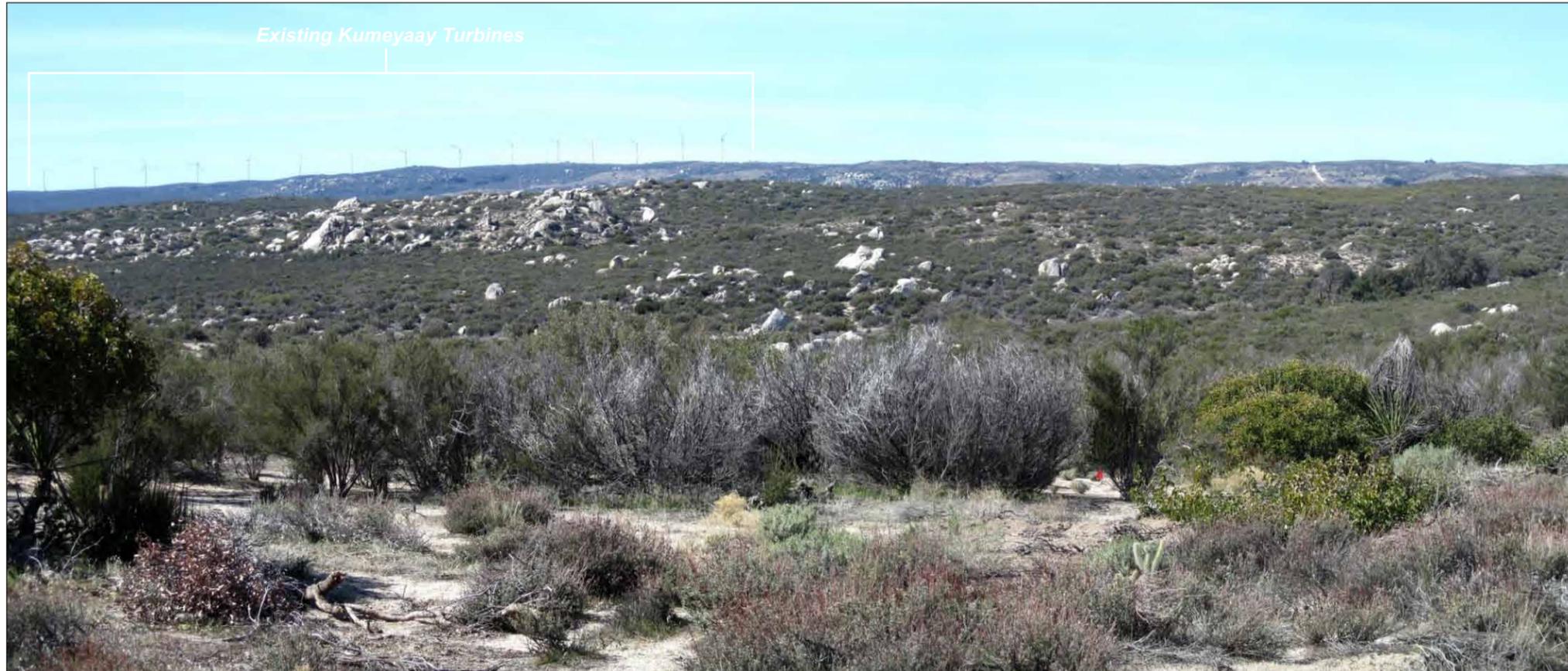
PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

- Structure Form-Strong
- Structure Line-Strong
- Structure Color-Strong
- Structure Texture-Strong
- Impact Class-Class I



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Existing Kumeyaay Turbines

KOP 14—EXISTING SETTING (ES)
View looking southwest from Carrizo Overlook toward Proposed Tule Wind Project Turbines, Collector Substation, and 138 kV T/L Locations

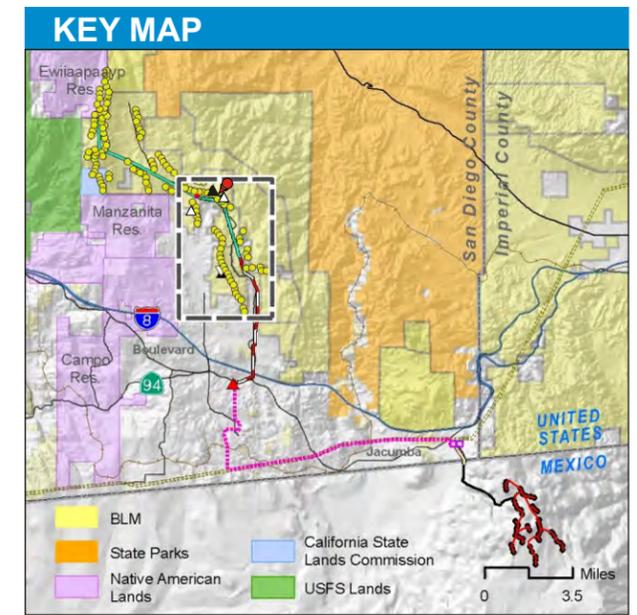
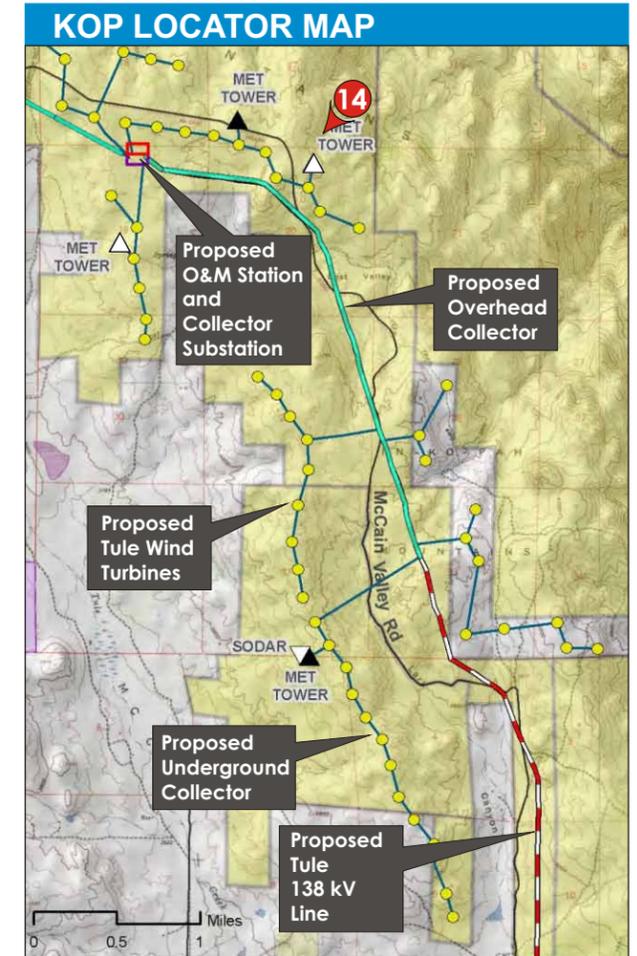


PHOTO DESCRIPTION

Scenic Quality

Class A—Exceptional

Visual Sensitivity

- High
- Viewer Groups—Public Land Recreationists
 - Viewer Volume—Low
 - Public Concern Level—High

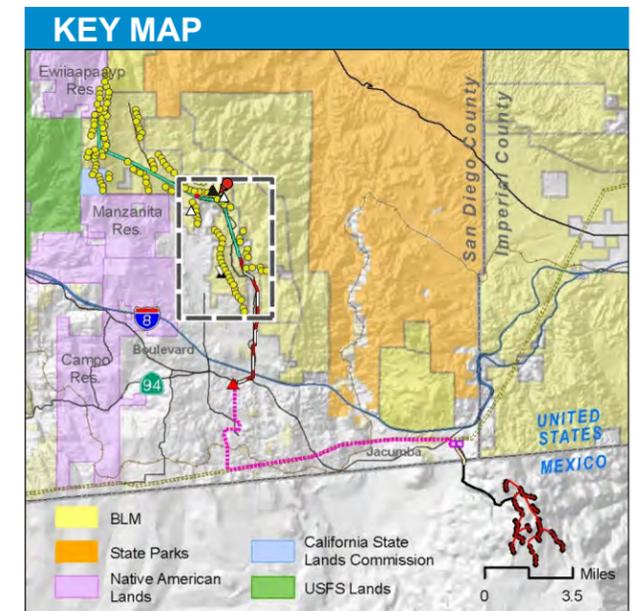
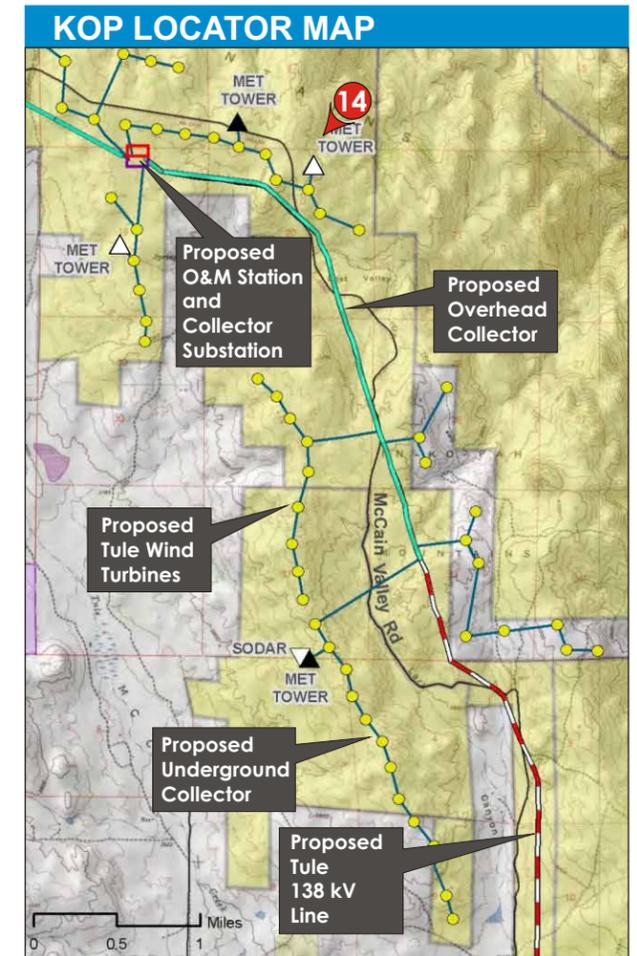
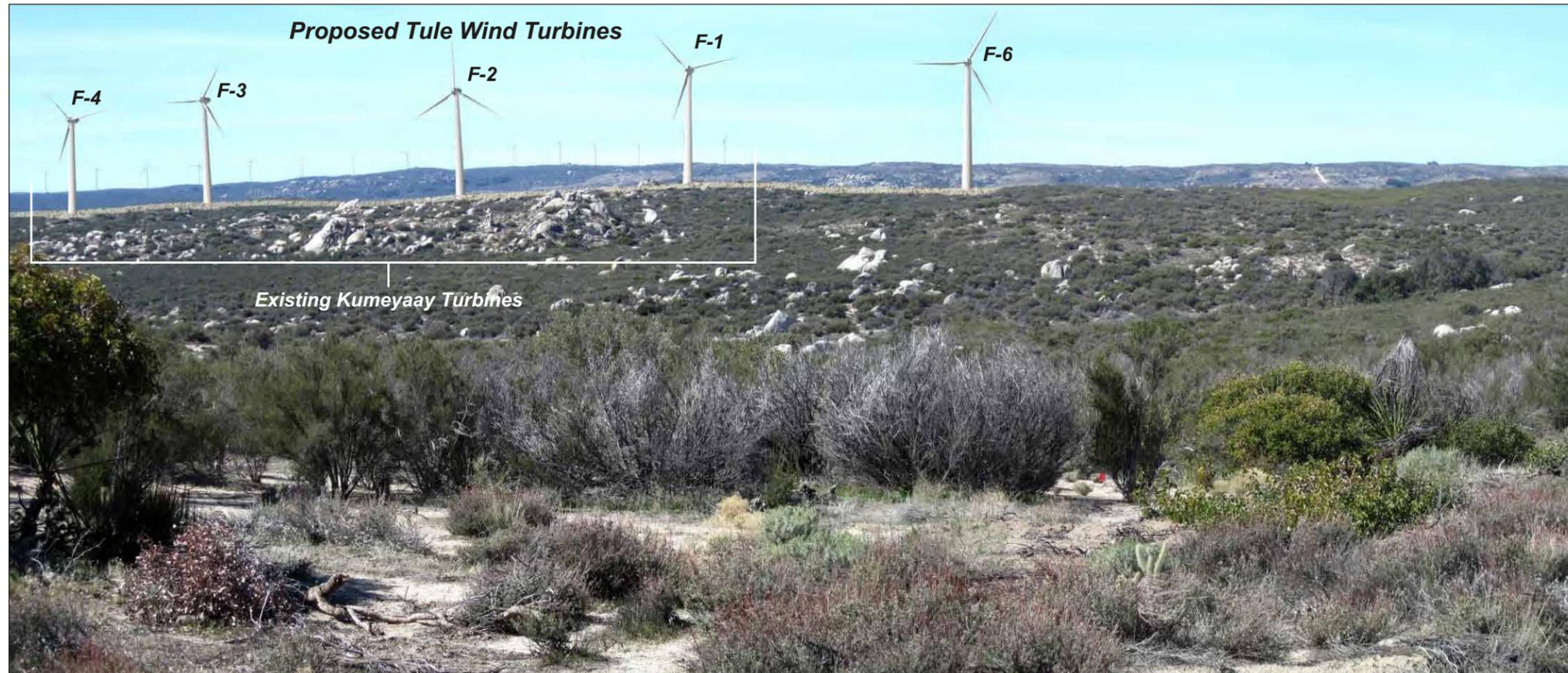
Viewing Distance Zone

Foreground to Middleground

FIGURE D.3-19A
KOP 14—Existing Setting (ES)

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KOP 14—VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS)
 View looking southwest from Carrizo Overlook toward Proposed Tule Wind Project Turbines

PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Strong
- Impact Class—Class I

NOTE:
 This simulation does not show the following elements which would contribute to PROJECT visual changes: Tule Wind 138 kV Transmission Line, and MET Towers.

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KOP 15—EXISTING SETTING (ES)
 View looking west from Old Highway 80 toward Proposed and Alternative Tule Wind Project 138 kV T/L Locations

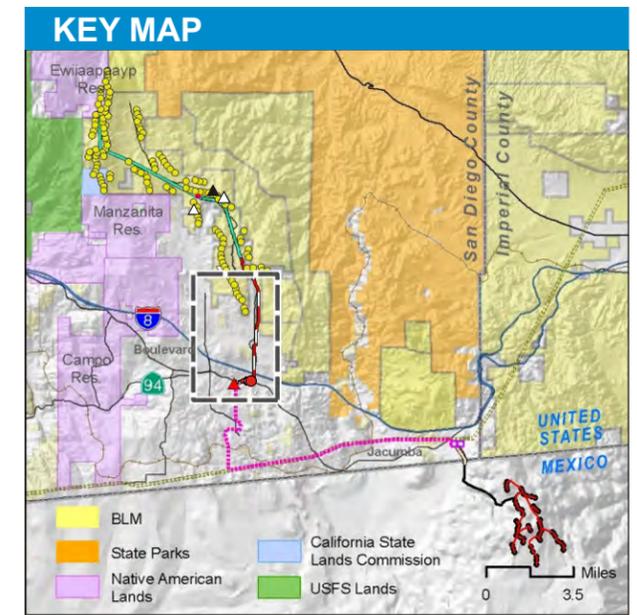
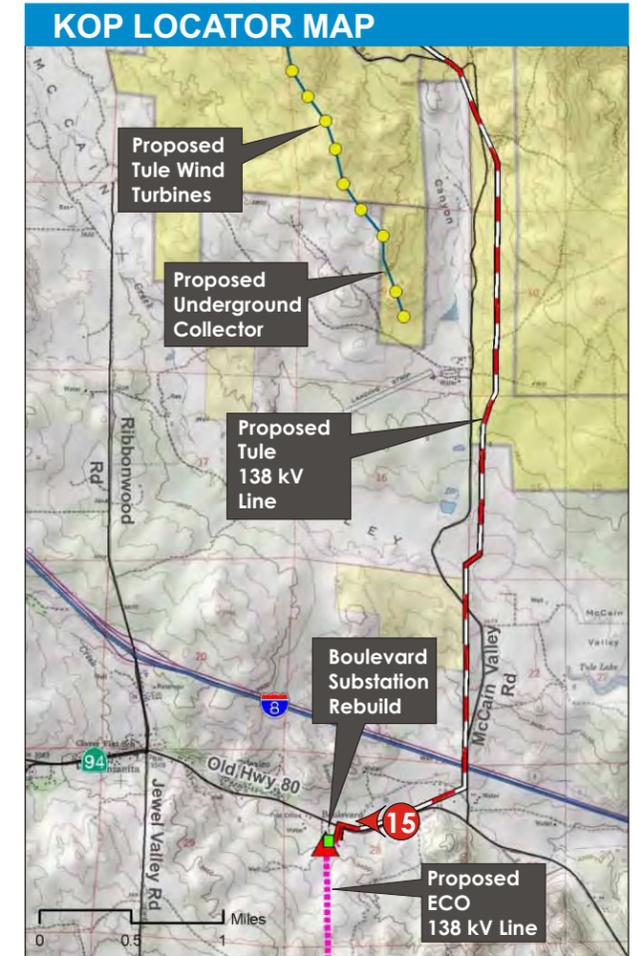
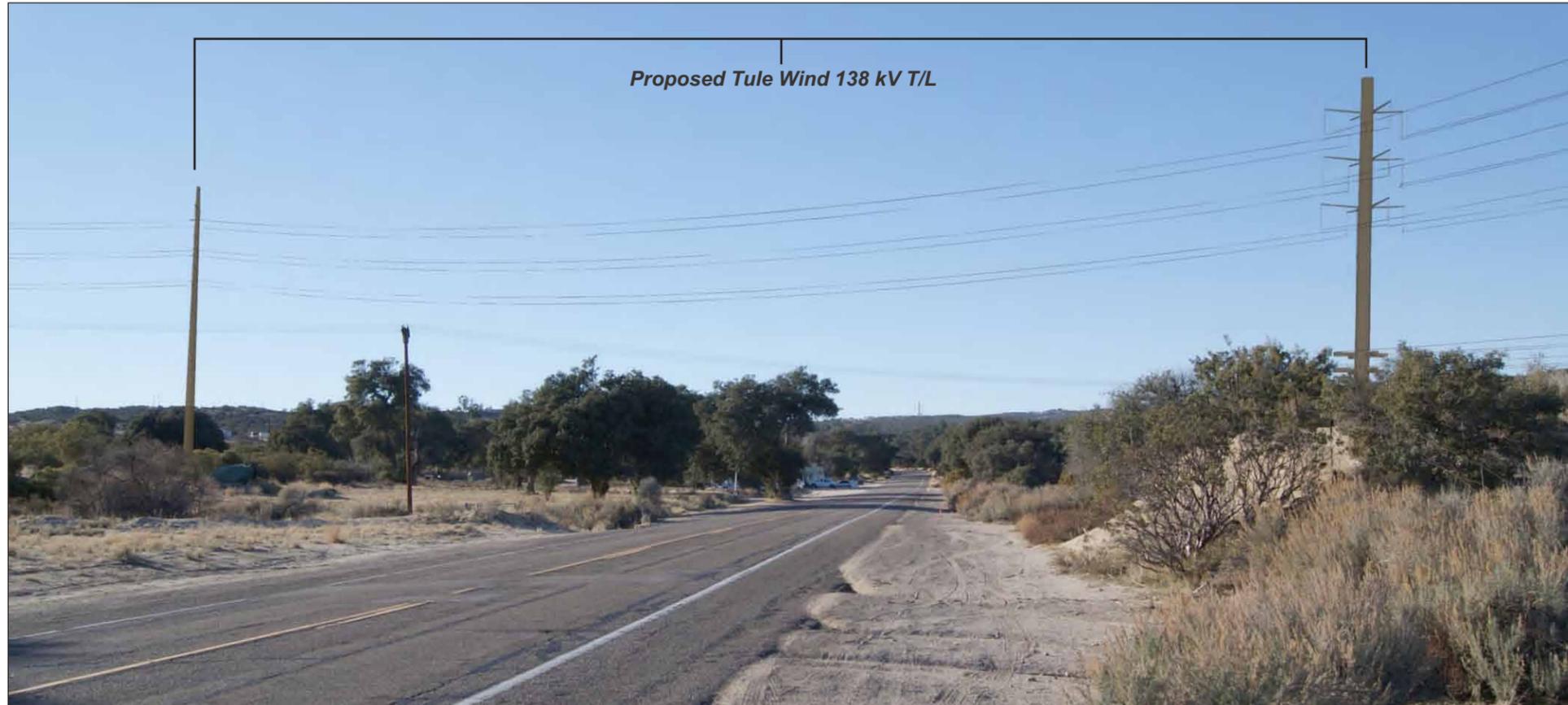


PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class B—Representative	Medium to High <ul style="list-style-type: none"> • Viewer Groups—Residents, Recreationists, and Motorists • Viewer Volume—Low • Public Concern Level—High 	Foreground

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KOP 15–VISUAL SIMULATION OF PROPOSED TULE WIND PROJECT (VS)
 View looking west from Old Highway 80 toward Proposed Tule Wind 138 kV Transmission Line

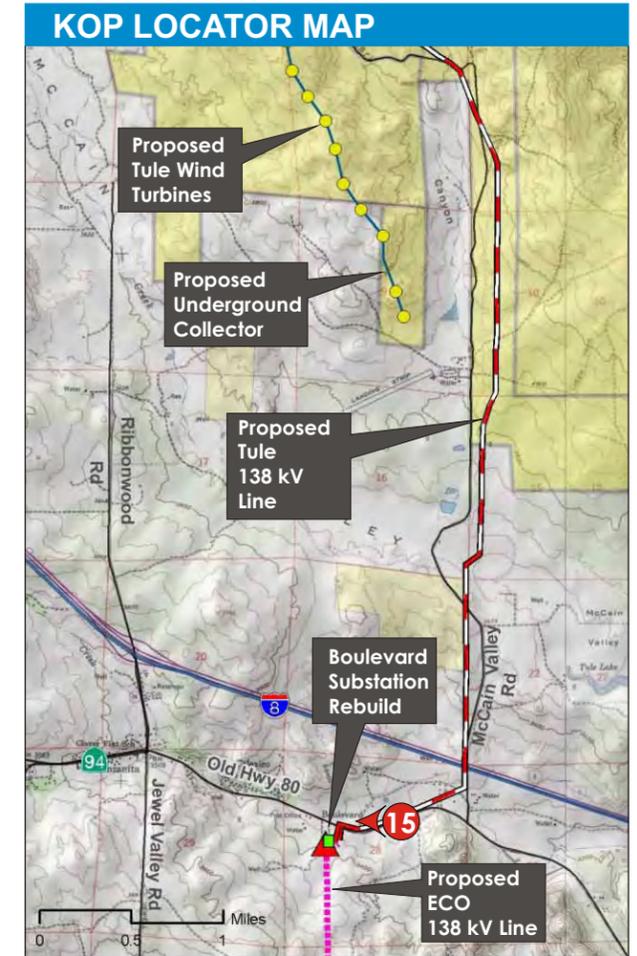
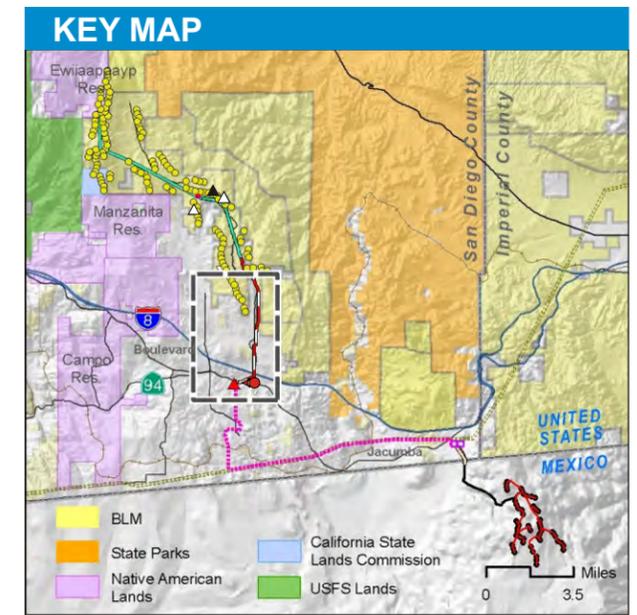


PHOTO DESCRIPTION

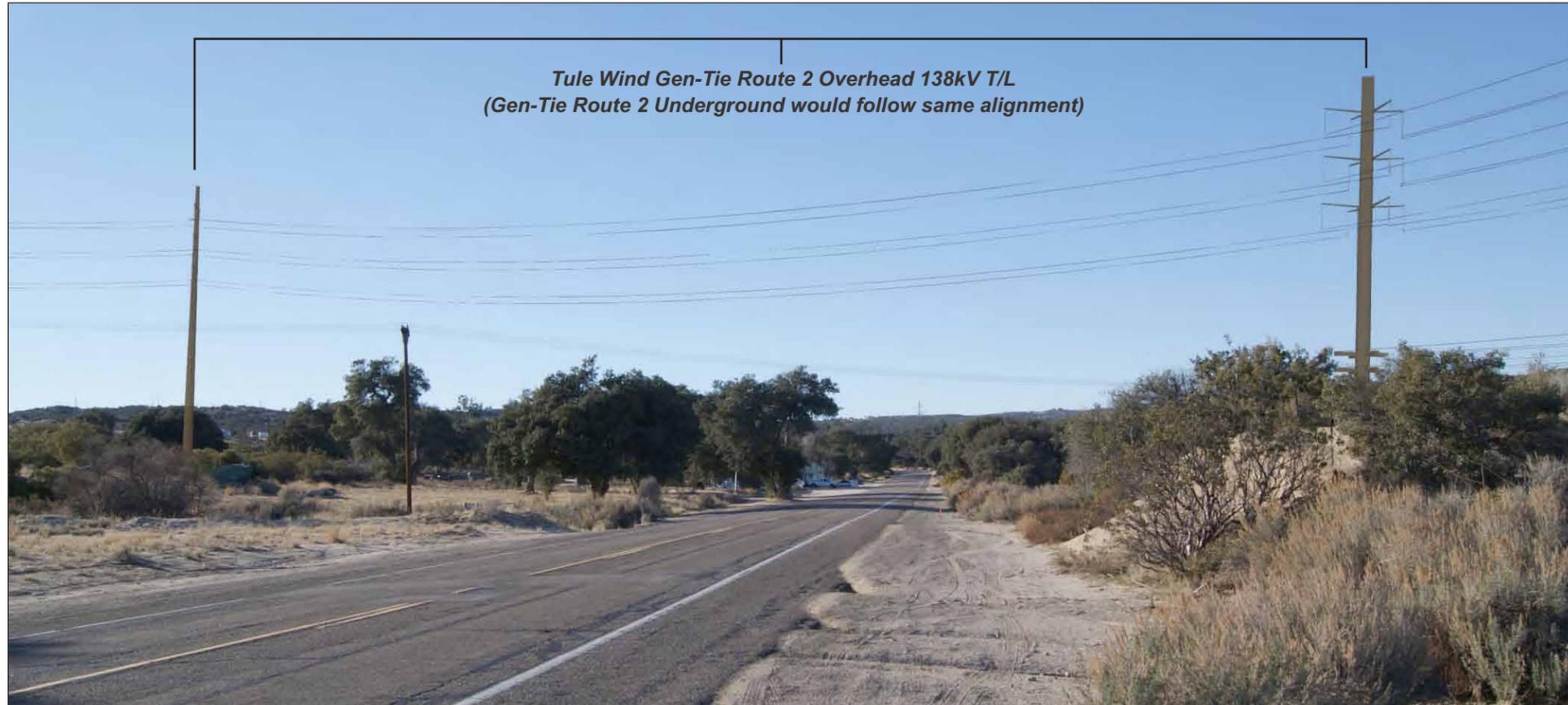
Tule Wind 138 kV Transmission Line Visual Contrasts

- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I



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KOP 15–VISUAL SIMULATION OF PROPOSED TULE WIND GEN-TIE ROUTE 2 ALTERNATIVE PROJECT (AVS1)
View looking west from Old Highway 80 toward Tule Wind Gen-Tie Route 2 Alternatives

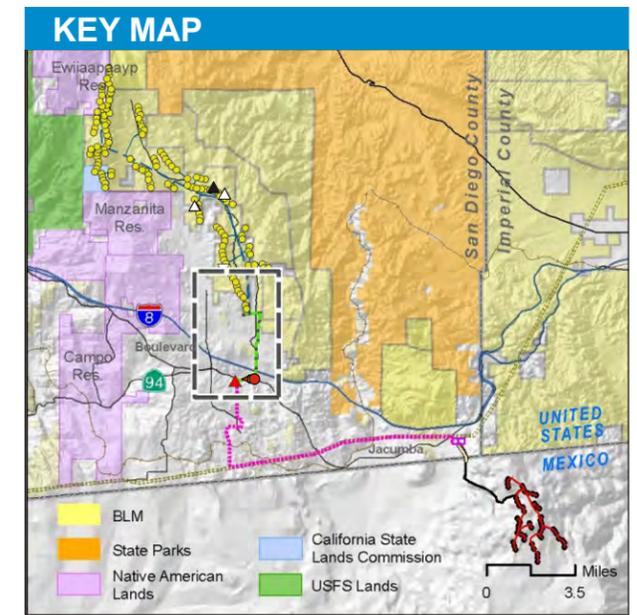
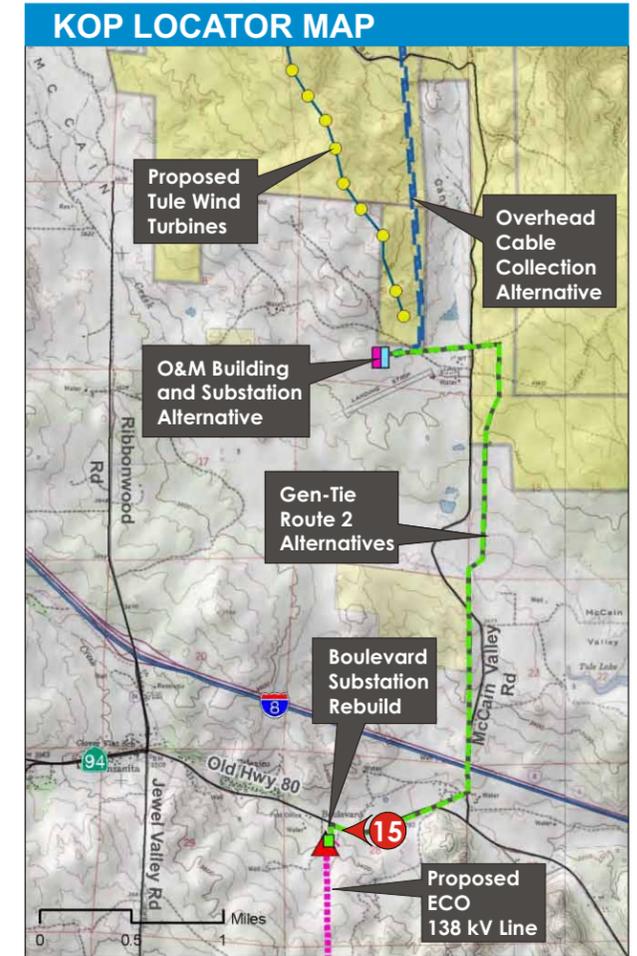


PHOTO DESCRIPTION

Tule Wind Gen-Tie Route 2 Overhead 138 kV Transmission Line Visual Contrasts

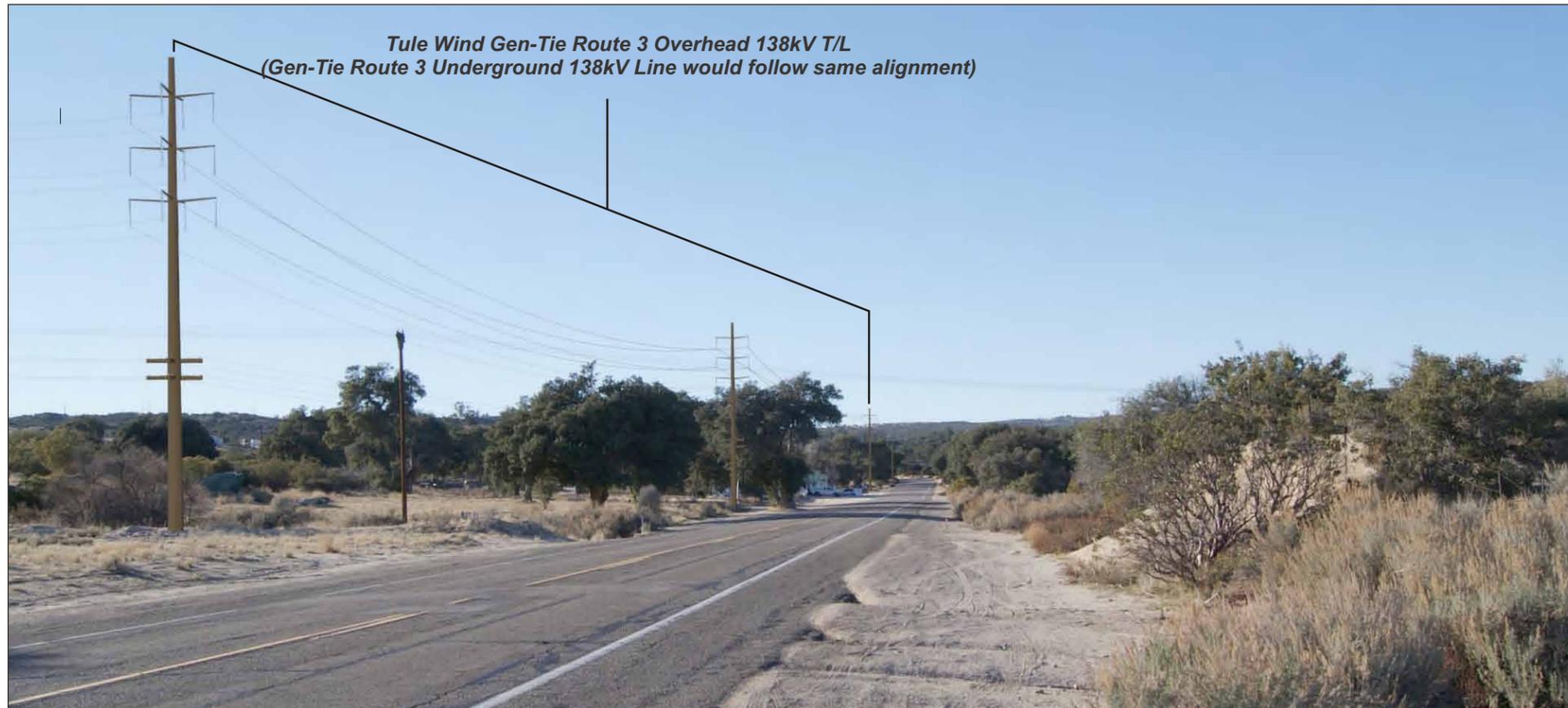
- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

Tule Wind Gen-Tie Route 2 Underground 138 kV Transmission Line Visual Contrasts

- Structure Form–None
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class II

NOTE:
This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Highway 80 Overhead 138 kV Transmission Line Route Alternative, ECO Highway 80 Underground 138 kV Transmission Line Route Alternative.

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KOP 15–VISUAL SIMULATION OF PROPOSED TULE WIND GEN-TIE ROUTE 3 ALTERNATIVE PROJECT (AVS2)
View looking west from Old Highway 80 toward Tule Wind Gen-Tie Route 3 Alternatives

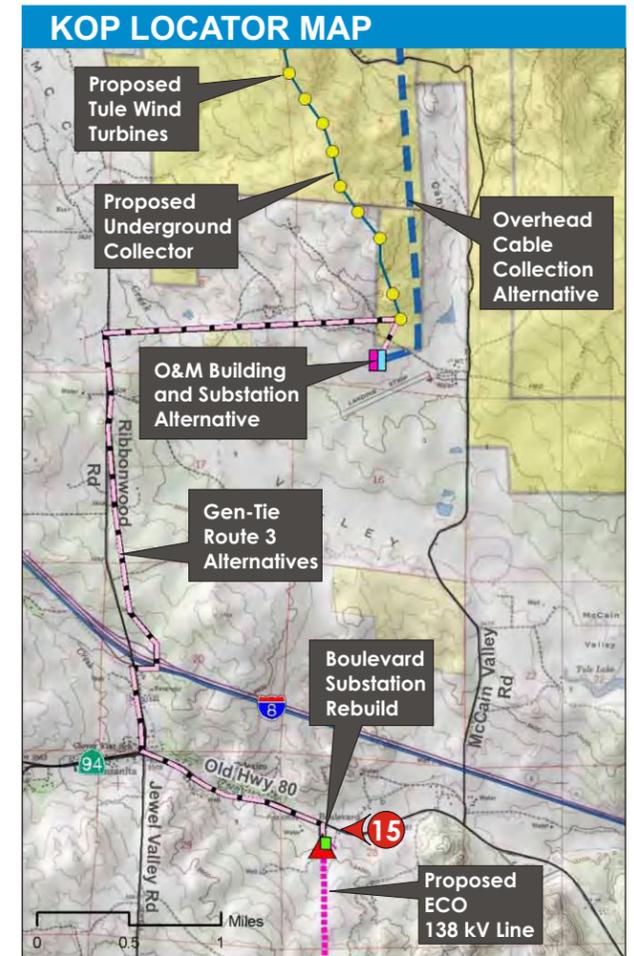


PHOTO DESCRIPTION

Tule Wind Gen-Tie Route 3 Overhead 138 kV Transmission Line Visual Contrasts

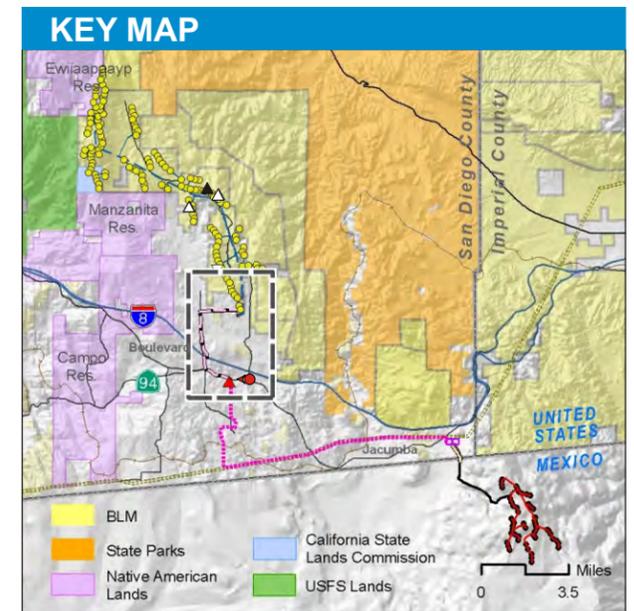
- Structure Form–Strong
- Structure Line–Strong
- Structure Color–Moderate
- Structure Texture–Moderate
- Impact Class–Class I

Tule Wind Gen-Tie Route 3 Underground 138 kV Transmission Line Visual Contrasts

- Structure Form–None
- Vegetation Line–Moderate
- Vegetation Color–Moderate
- Vegetation Texture–Moderate
- Impact Class–Class I

NOTE:

This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Highway 80 Overhead 138 kV Transmission Line Route Alternative, ECO Highway 80 Underground 138 kV Transmission Line Route Alternative.



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KOP 16—EXISTING SETTING (ES)
 View looking northeast from BLM lands toward In-Ko-Pah ACEC and Proposed Tule Wind Project Turbine Locations

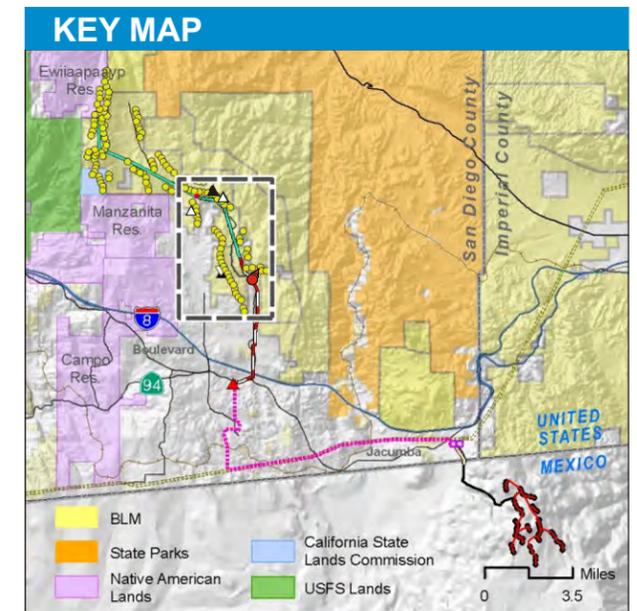
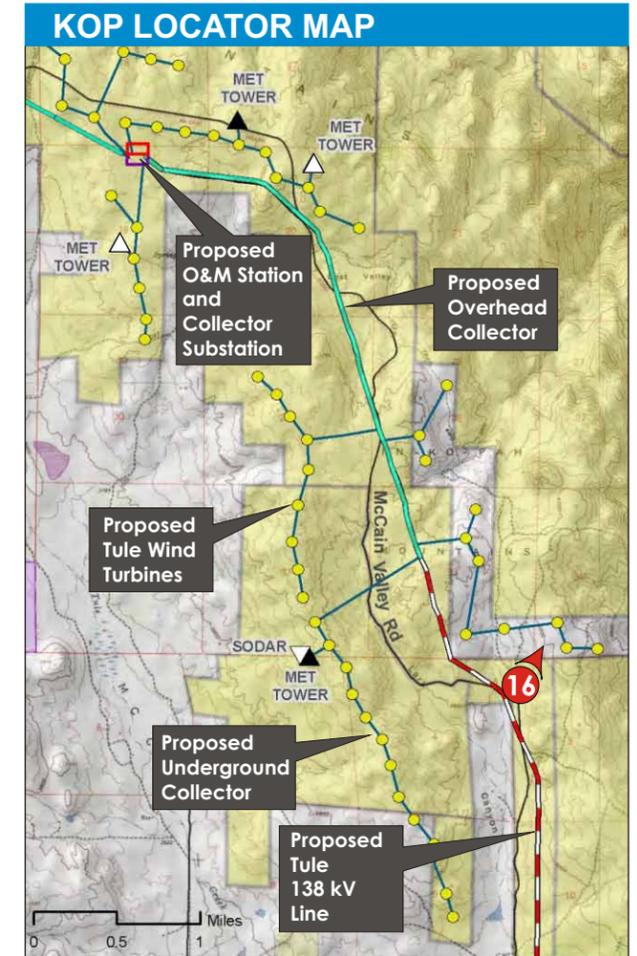


PHOTO DESCRIPTION

Scenic Quality

Class A—Exceptional

Visual Sensitivity

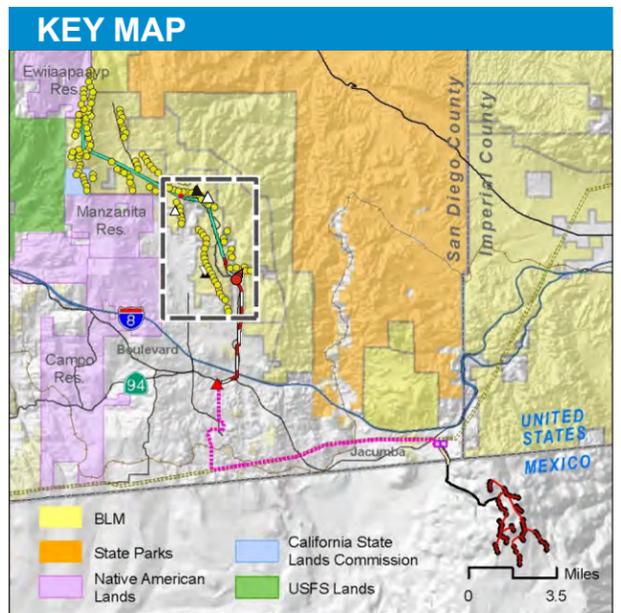
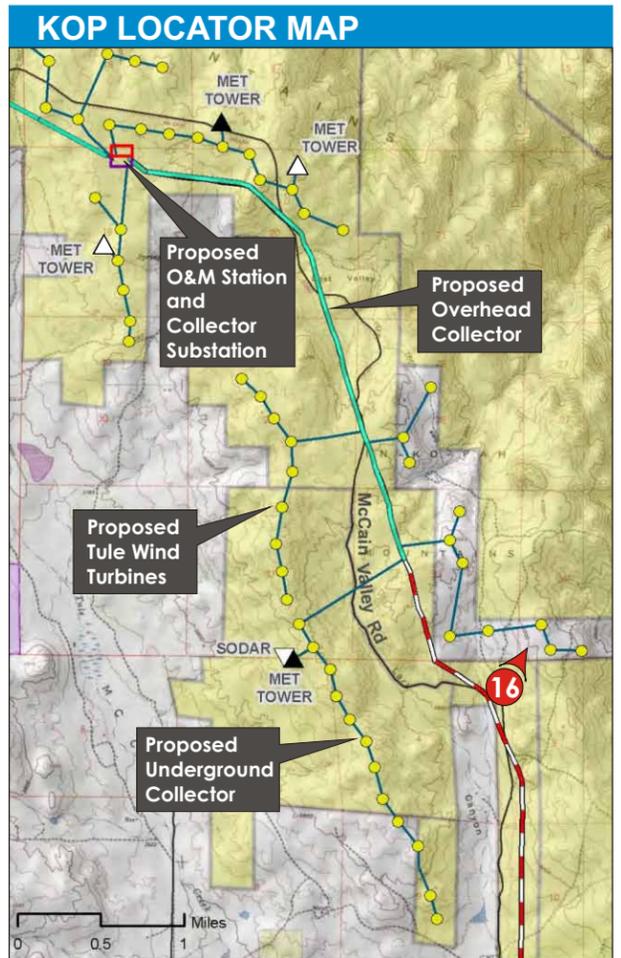
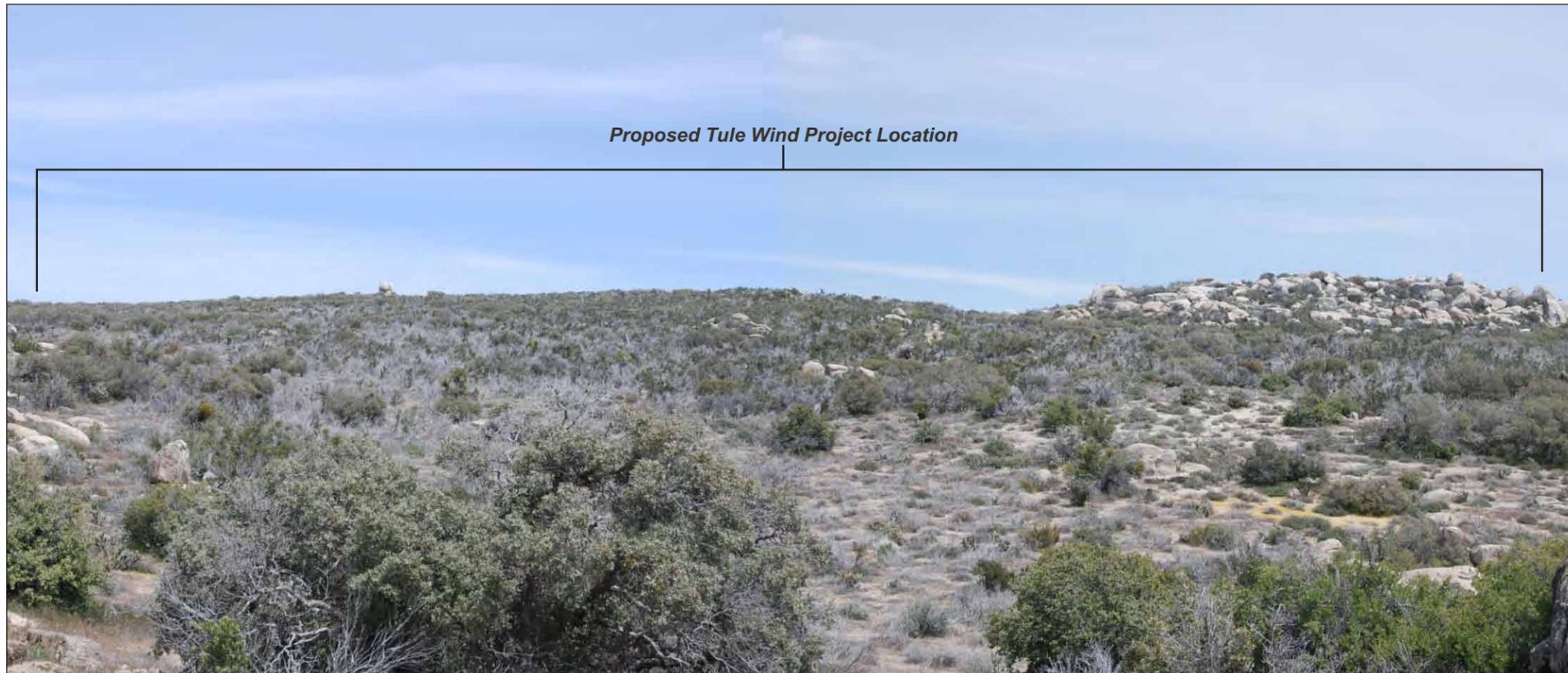
- High
- Viewer Groups—Public Land Recreationists
 - Viewer Volume—Low
 - Public Concern Level—Moderate to High

Viewing Distance Zone

Foreground to Middleground

FIGURE D.3-21A
KOP 16—Existing Setting (ES)

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KOP 16—PROPOSED TULE WIND PROJECT COMPONENT LOCATION
 View looking northeast from BLM lands toward In-Ko-Pah ACEC and Proposed Tule Wind Project Turbine Locations

PHOTO DESCRIPTION

Tule Wind Turbines Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Strong
- Impact Class—Class I

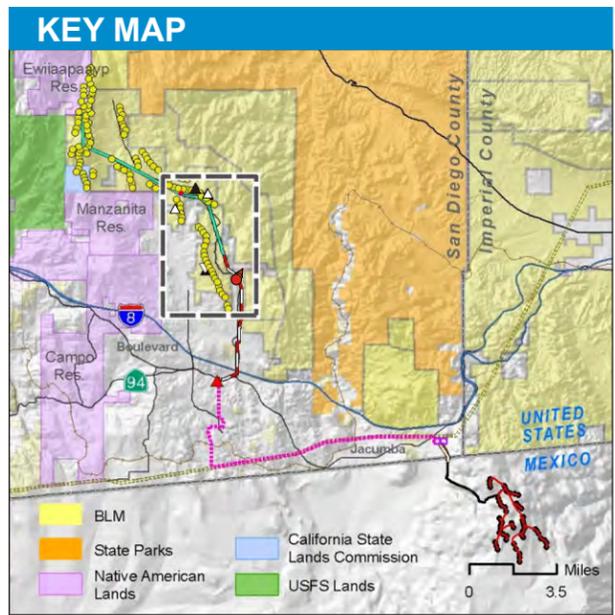
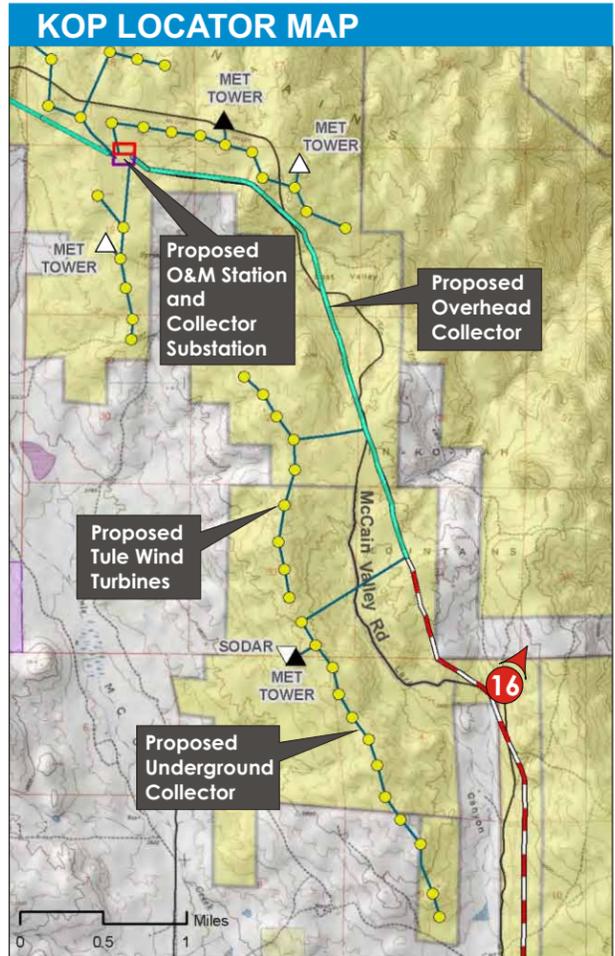
NOTE:
 This view does not show the following elements which would contribute to PROJECT visual changes: Tule Wind Turbines.

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Proposed Tule Wind Turbine Reduction Alternative Location



KOP 16–TULE WIND PROJECT ALTERNATIVE COMPONENT LOCATION
View looking northeast from BLM lands toward In-Ko-Pah ACEC and Tule Wind Turbine Reduction Alternative Location

PHOTO DESCRIPTION

Tule Wind Turbine Reduction Alternative Visual Contrasts

- Structure Form–None
- Structure Line–None
- Structure Color–None
- Structure Texture–None
- Impact Class–No Impact

NOTE:
Under the Tule Wind Turbine Reduction Alternative, wind turbines would not be constructed on County lands bordering the In-Ko-Pah ACEC and therefore, this view would not be affected.

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KOP 17–EXISTING SETTING (ES)
 View looking north-northeast from Old Highway 80 toward ECO Highway 80 138 kV Transmission Route Alternative Location

PHOTO DESCRIPTION

Scenic Quality

Class B–Representative

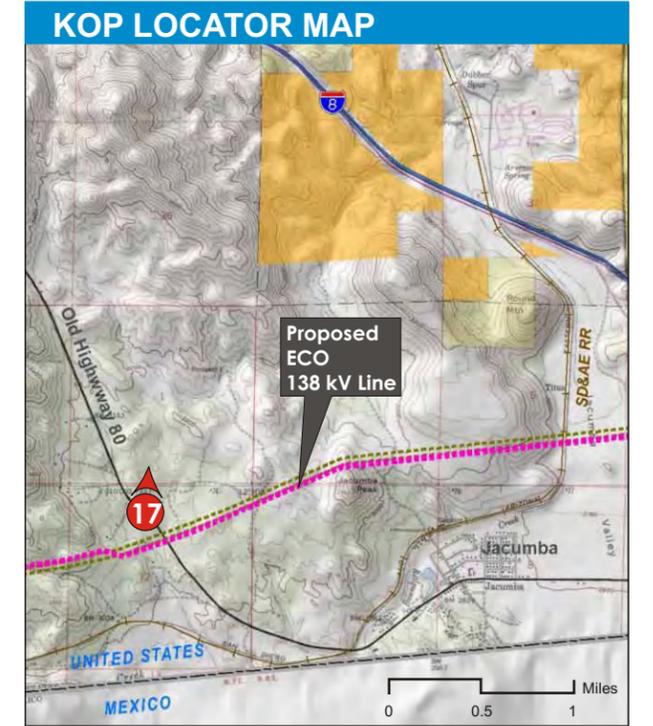
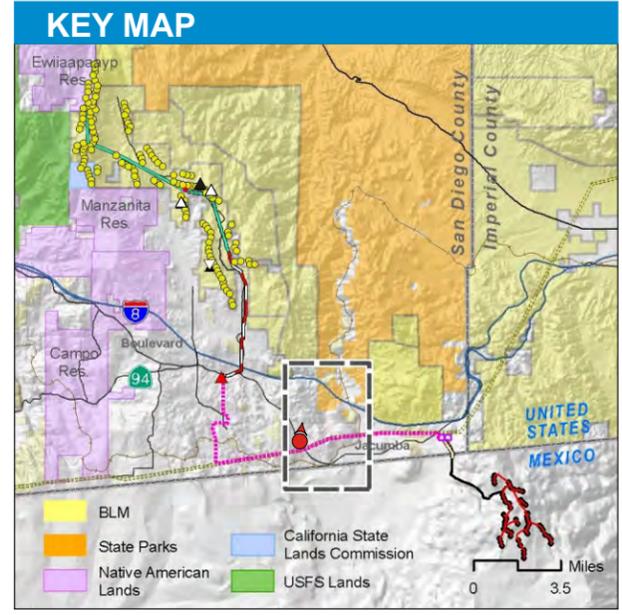
Visual Sensitivity

Medium to High

- Viewer Groups–Motorists
- Viewer Volume–Low
- Public Concern Level–Moderate to High

Viewing Distance Zone

Foreground to Middleground



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KOP 17-ECO SUBSTATION ALTERNATIVE PROJECT COMPONENTS LOCATIONS
View looking north-northeast from Old Highway 80 toward ECO Highway 80 138 kV Transmission Line Alternatives

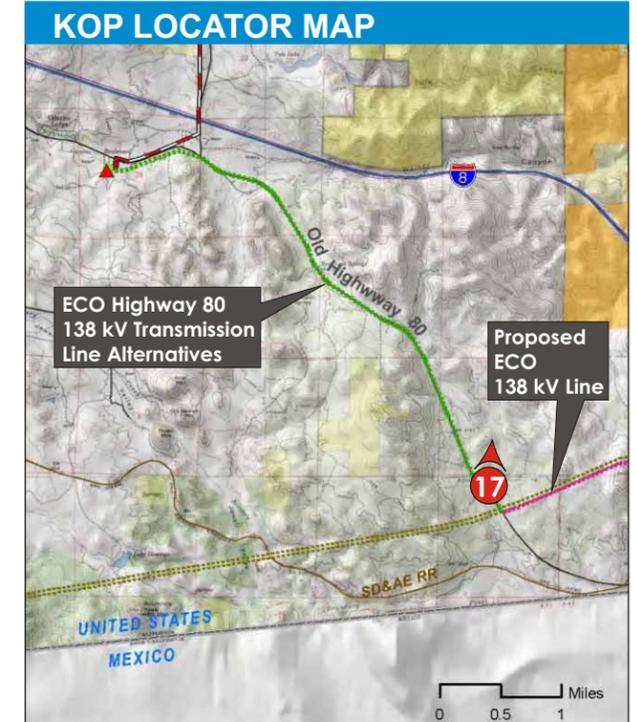
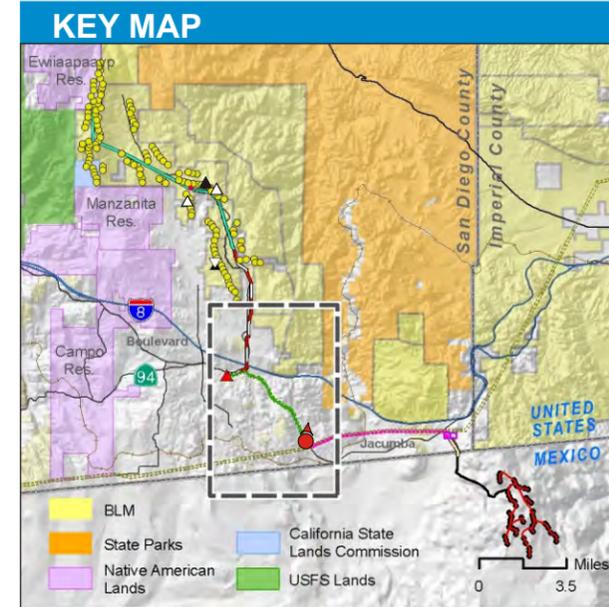
PHOTO DESCRIPTION

ECO Highway 80 Overhead 138 kV Transmission Line Route Alternative Visual Contrasts

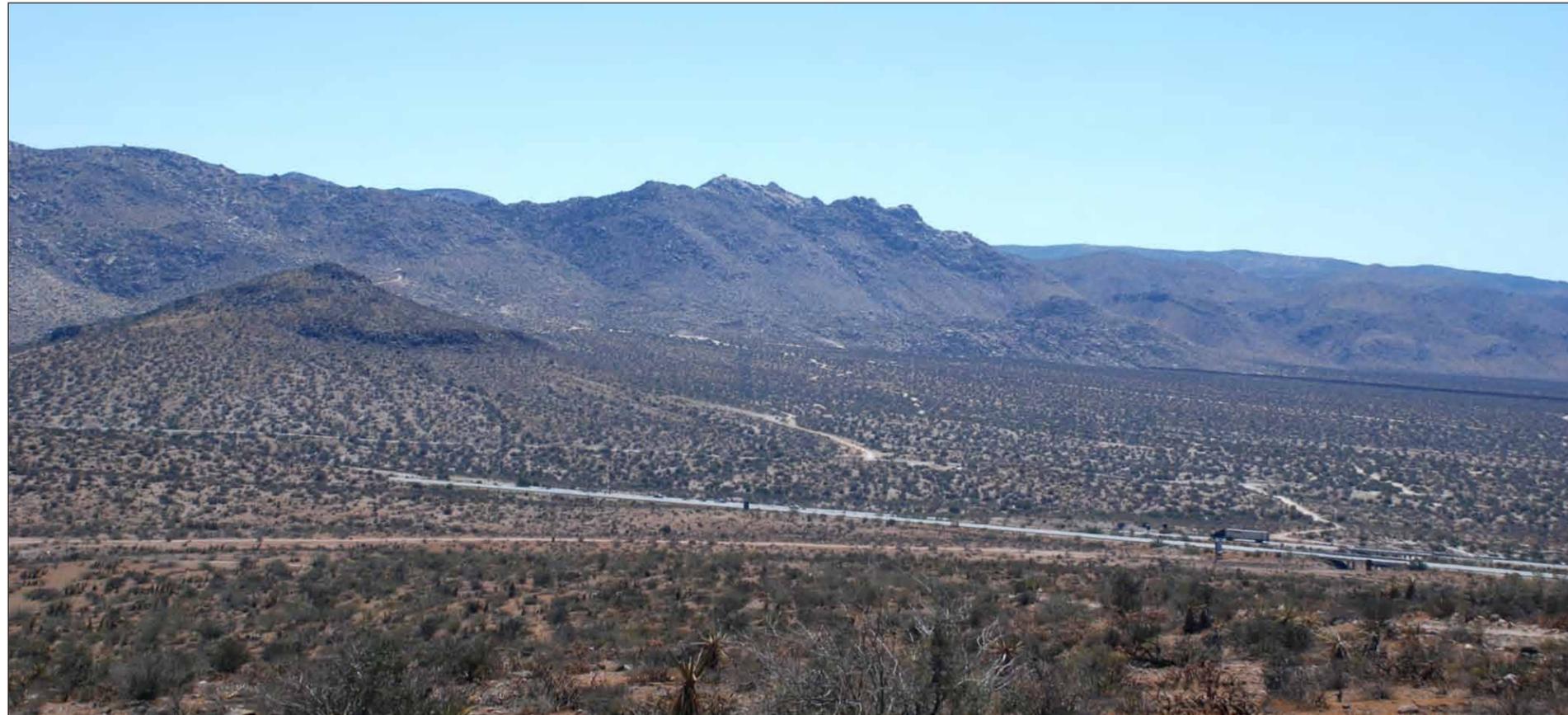
- Structure Form-Strong
- Structure Line-Weak
- Structure Color-Moderate
- Structure Texture-Moderate
- Impact Class-Class I

ECO Highway 80 Underground 138 kV Transmission Line Route Alternative Visual Contrasts

- Structure Form-None
- Vegetation Line-Weak
- Vegetation Color-Moderate
- Vegetation Texture-Weak
- Impact Class-Class IV



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KOP 18—EXISTING SETTING (ES)
 View looking southeast from Table Mountain ACEC toward Proposed ESJ Gen-Tie, ESJ Wind Phase 1, ECO Substation, and ECO 138 kV Locations

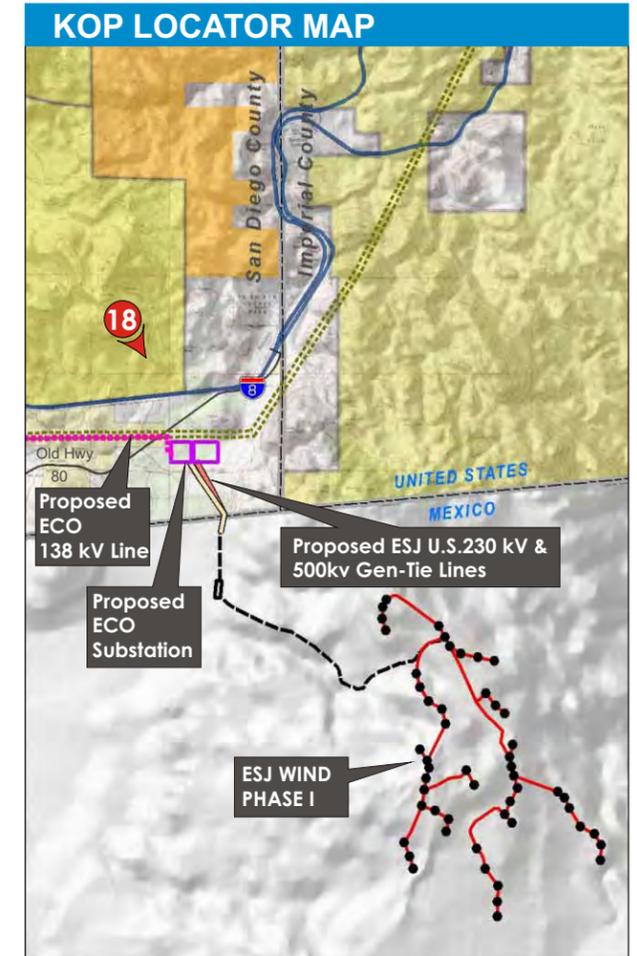
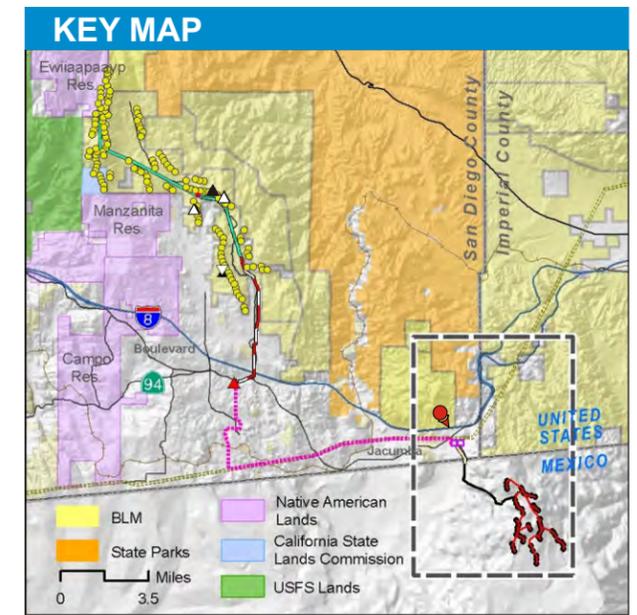
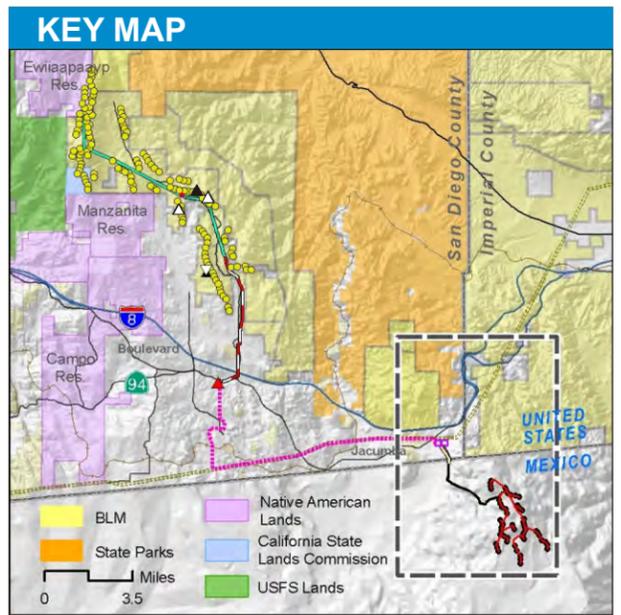
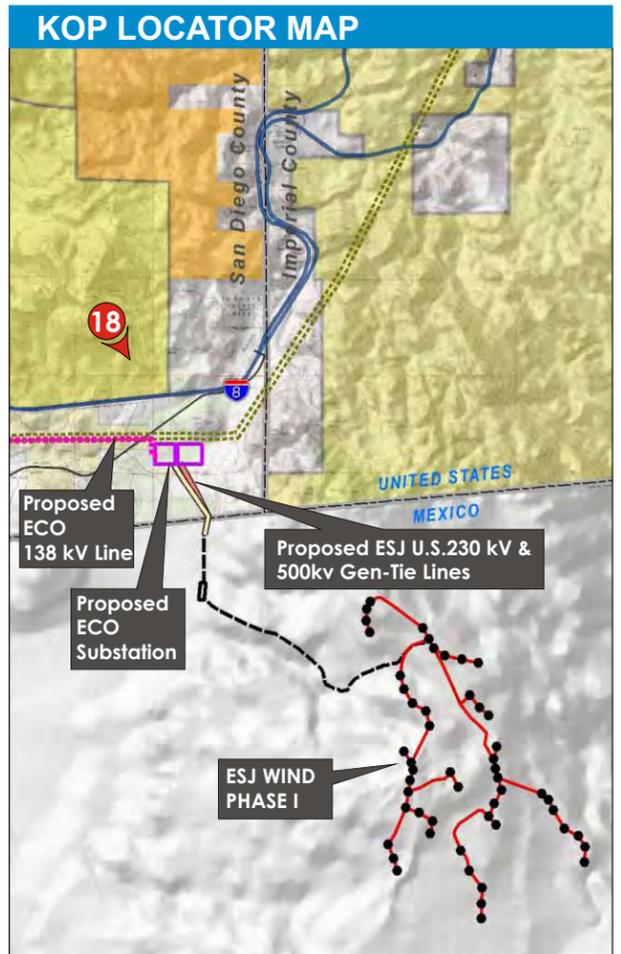
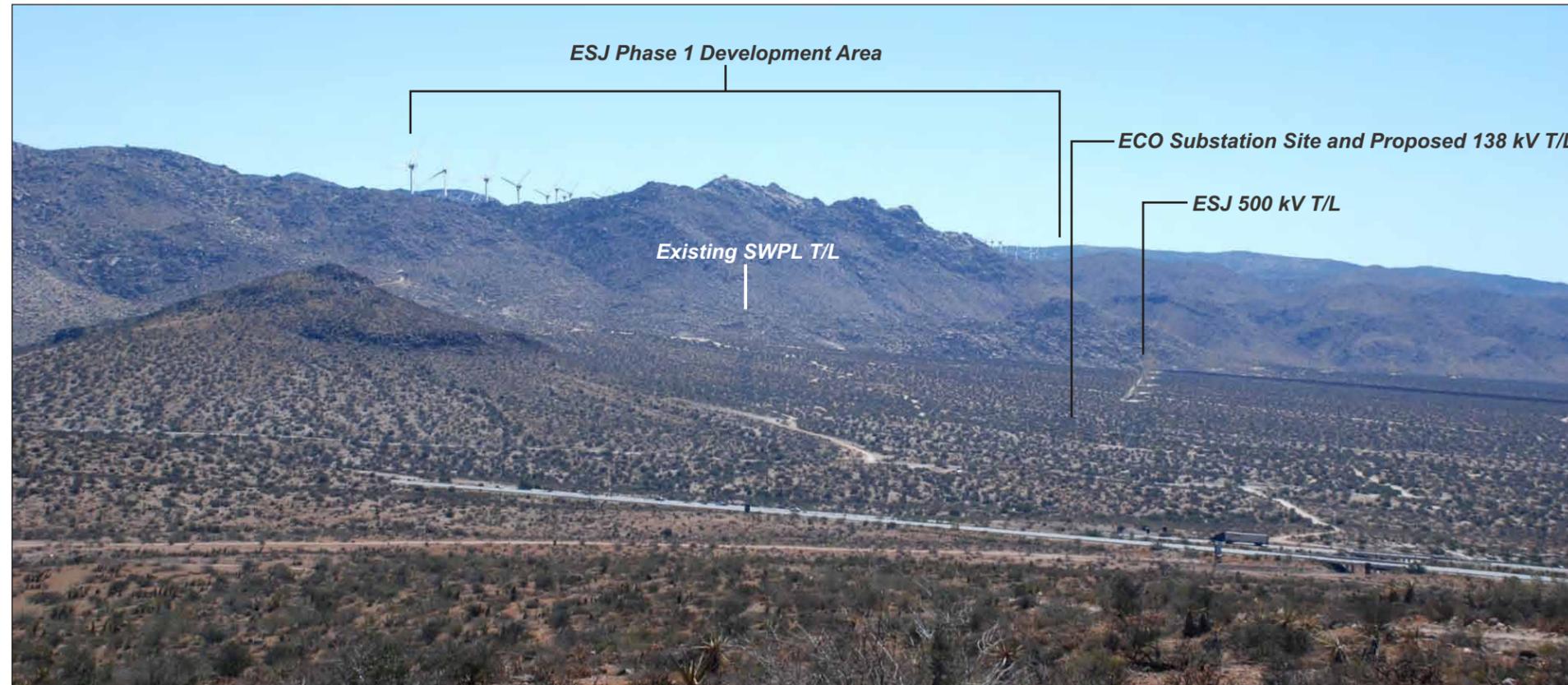


PHOTO DESCRIPTION

Scenic Quality	Visual Sensitivity	Viewing Distance Zone
Class A—Exceptional	High <ul style="list-style-type: none"> • Viewer Groups—Recreationists (hikers) • Viewer Volume—Low • Public Concern Level—High 	Middleground to Background



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KOP 18-VISUAL SIMULATION OF PROPOSED ECO SUBSTATION AND ESJ GEN-TIE PROJECTS (VS)
 View looking southeast from Table Mountain ACEC toward Proposed ESJ 500 kV Gen-Tie (Steel Lattice Towers), ESJ Wind Phase 1 Turbines, and Proposed ECO Substation and 138 kV Locations

PHOTO DESCRIPTION

ECO Substation and SWPL Loop-In Visual Contrasts

- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

ECO 138 kV Transmission Line Visual Contrasts

- Structure Form—Weak
- Structure Line—Weak
- Structure Color—Weak
- Structure Texture—Weak
- Impact Class—Class III

ESJ 230 kV Gen-Tie Line Visual Contrasts

- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

ESJ 500 kV Gen-Tie Line Visual Contrasts

- Structure Form—Moderate
- Structure Line—Moderate
- Structure Color—Moderate
- Structure Texture—Moderate
- Impact Class—Class II

ESJ Wind Turbines Visual Contrasts

- Structure Form—Strong
- Structure Line—Strong
- Structure Color—Strong
- Structure Texture—Moderate
- Impact Class—Class I

NOTE:
 This simulation does not show the following elements which would contribute to PROJECT visual changes: ECO Substation and SWPL Loop-In, ECO 138 kV Transmission Line.

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KOP 19–EXISTING SETTING (ES)
View looking southeast from I-8 toward Proposed Campo and Jordan Wind Energy Project Sites

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DUDEK

SOURCE: DUDEK 2010

6168-01

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects - EIR/EIS

FIGURE D.3-24A
KOP 19–Existing Setting (ES)

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Conceptual representation of turbine locations only



KOP 19—VISUAL SIMULATION OF PROPOSED CAMPO AND JORDAN WIND ENERGY PROJECTS (VS)
View looking southeast from I-8 toward Proposed Campo and Jordan Wind Energy Projects

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DUDEK

SOURCE: DUDEK 2010

6168-01

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects - EIR/EIS

KOP 19—Visual Simulation of Proposed Campo and Jordon Wind Energy Projects (VS) FIGURE D.3-24B

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KOP 20-EXISTING SETTING (ES)

View looking northeast from Jewel Valley Road toward Proposed Campo, Manzanita, Jordan Wind Energy Project Sites and Tule Wind Turbines

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Conceptual representation of turbine locations only



KOP 20–VISUAL SIMULATION OF PROPOSED CAMPO, MANZANITA, JORDAN WIND ENERGY PROJECTS AND TULE WIND TURBINES (VS)
View looking northeast from Jewel Valley Road toward Proposed Campo, Manzanita, Jordan Wind Energy Project Sites and Tule Wind Turbines

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DUDEK

SOURCE: DUDEK 2010

6168-01

East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects - EIR/EIS

KOP 20–Visual Simulation of Proposed Campo, Manzanita, Jordan Wind Energy Projects and Tule Wind Turbines (VS)

FIGURE D.3-25B

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KOP 21-EXISTING SETTING (ES)

View looking north from Ribbonwood Road toward Proposed Manzanita and Jordan Wind Energy Project Sites and Tule Wind Turbines

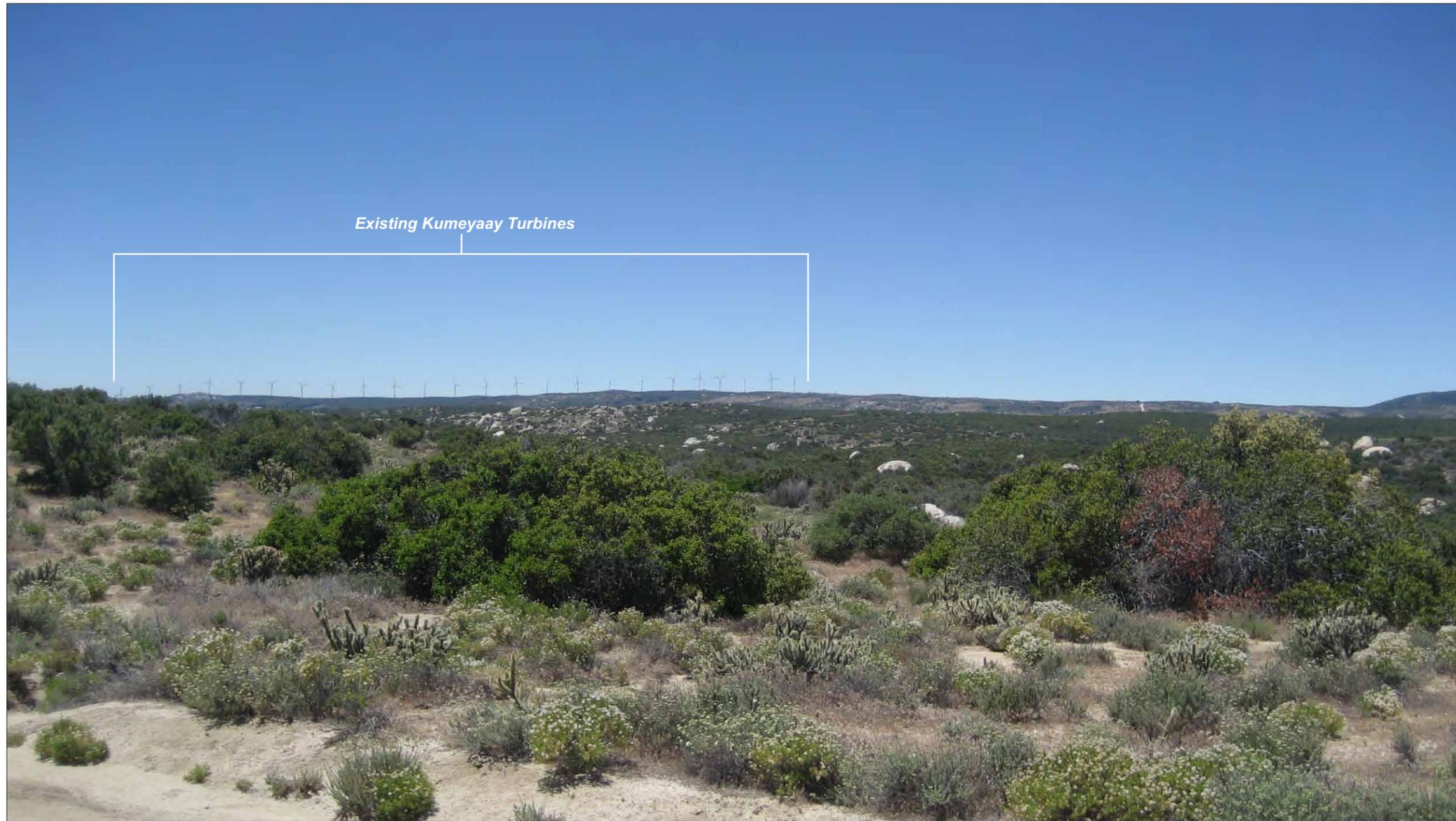
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Conceptual representation of turbine locations only



KOP 21–VISUAL SIMULATION OF PROPOSED MANZANITA AND JORDAN WIND ENERGY PROJECTS AND TULE WIND TURBINES (VS)
View looking north from Ribbonwood Road toward Proposed Manzanita and Jordan Wind Energy Project Sites and Tule Wind Turbines

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Existing Kumeyaay Turbines

KOP 22-EXISTING SETTING (ES)

View looking southwest toward Proposed Manzanita and Jordan Wind Energy Project Sites and Tule Wind Turbines

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Conceptual representation of turbine locations only

Existing Kumeyaay Turbines

KOP 22-VISUAL SIMULATION OF PROPOSED CAMPO AND JORDAN WIND ENERGY PROJECTS (VS)
 View looking southwest toward Proposed Manzanita and Jordan Wind Energy Project Sites and Tule Wind Turbines

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