

13. Summary of Mitigation Measures and Monitoring Requirements

The mitigation measures introduced in Sections 6 through 11 of this Specialist Report for Visual Resources are presented below in Table 13-1 (Mitigation Monitoring Program – Visual Resources), which provides a summary of how each mitigation measure should be implemented as well as effectiveness criteria by which the mitigation measures should be measured.

Table 13-1. Mitigation Monitoring Program – Visual Resources				
Mitigation Measure	Location	Monitoring Requirement	Determination of Effectiveness	Timing of Action
Impact V-1: Temporary visibility of construction activities and equipment involved with the Project would alter the landscape character and visual quality of landscape views.				
<p>V-1: Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis. SCE shall keep construction-related operations areas clean and tidy by storing building materials and equipment within the proposed construction staging areas and/or generally away from public view when feasible. SCE shall remove construction debris promptly at regular intervals. For areas of non-NFS lands where cleared vegetation would be visible from sensitive viewing locations, SCE shall dispose of cleared vegetation and woody material in a manner that is not visually evident and does not create visual contrasts. For NFS lands, in areas where cleared vegetation would be visible from sensitive viewing locations, SCE shall dispose of cleared vegetation and woody material off-site (not necessarily off-NFS lands), or the cleared vegetation shall be chipped and stored for restoration work, as approved by the FS, and in a manner that is not visually evident and does not create visual contrasts.</p>	Entire Project	CPUC and/or FS will monitor for compliance.	Avoid or minimize degradation of visual quality.	During construction
Impact V-2: For a landscape that currently has no transmission lines, introduction of a new transmission line in a new ROW would adversely affect landscape character and visual quality.				
<p>V-2a: Use tubular steel poles instead of lattice steel towers in designated areas. When feasible, SCE shall use tubular steel poles, rather than lattice steel towers, in locations designated by the CPUC to reduce visual impacts as seen from sensitive receptor locations and/or to match existing and/or future wind turbine generator monopoles and/or to accomplish community desires. SCE shall submit a Structure Type and Treatment Plan to the CPUC as soon as possible after Project approval, demonstrating compliance with this.</p>	Entire Project	<ul style="list-style-type: none"> • SCE shall submit a Structure Type and Treatment Plan for the lattice steel towers, tubular steel poles, and any other visible structures to the CPUC, as applicable, for review and approval. • CPUC and/or FS will monitor compliance during construction. 	Views of the new transmission line will be less prominent.	Prior to and during construction.

Table 13-1. Mitigation Monitoring Program – Visual Resources				
Mitigation Measure	Location	Monitoring Requirement	Determination of Effectiveness	Timing of Action
<p>V-2b: Treat surfaces with appropriate colors, textures, and finishes. For all structures that are visible from sensitive viewing locations outside NFS lands, and for all NFS lands, SCE shall treat surfaces with appropriate galvanizing treatments, per APM AES-1, to most effectively blend the structures with the visible backdrop landscape, as determined by the CPUC (for non-NFS lands) and the FS (for NFS lands). For structures that are visible from more than one sensitive viewing location, if backdrops are substantially different when viewed from different vantage points, the darker color shall be selected, because dark colors tend to blend into landscape backdrops more effectively than lighter colors, which may contrast and reflect light, producing glare. At locations where a lattice steel tower or a tubular steel pole would be silhouetted against the skyline, non-reflective, light gray colors shall be selected to blend with the sky. The transmission line conductors shall be non-specular and non-reflective, per APM AES-4,, and the insulators shall be non-reflective and non-refractive, per APM AES-3. SCE shall consult with the CPUC and the FS to ensure that the objectives of this measure are achieved. SCE shall submit a Structure Type and Treatment Plan for the lattice steel towers, tubular steel poles, conductors, insulators, substation structures, fences/walls, retaining walls, and any other visible structures, to the CPUC and FS, as appropriate, after Project approval, demonstrating compliance with this measure.</p>	Entire Project	CPUC and/or FS will monitor compliance during construction.	Views of the new transmission line will be less prominent.	Prior to and during construction.
<p>V-2c: Establish permanent screen. At Antelope and Vincent Substations, SCE shall establish a permanent screen of sufficient height for immediate visual screening around the new expansion areas of the Antelope and Vincent Substations. Plant materials selected for screening shall be locally appropriate, wind-resistant, non-invasive, and acclimated to the particular environment and micro-climate. Other screening materials shall blend in with the local landscape. SCE shall consult with the CPUC to ensure that the objectives of this measure are achieved. SCE shall submit landscaping plans for Antelope and Vincent Substations that demonstrate compliance with this measure to the CPUC for review and approval at least 60 days prior to the start of construction at these substations.</p>	Antelope and Vincent Substations	<ul style="list-style-type: none"> • At least 60 days prior to construction of the Antelope and Vincent Substations, SCE shall submit a landscaping plan to the CPUC for review and approval. • CPUC and/or FS will monitor compliance during construction. 	Views of the transition station will be partially screened by specific plantings.	Sixty (60) days prior to and during construction.

Table 13-1. Mitigation Monitoring Program – Visual Resources				
Mitigation Measure	Location	Monitoring Requirement	Determination of Effectiveness	Timing of Action
<p>V-2d: At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible (Alts 3, 4, and 7 Only).</p> <p>To the extent practical, in locations designated by the CPUC and the FS (for NFS lands), SCE shall relocate new transmission line structures at road crossings and trail crossings so that conductors are approximately mid-span at the road or trail and structures are kept away from the roadway or trail as far as possible. V-2d is compatible and complementary to APM AES-6 (Transmission Structures Set Back from Major Roadways).</p>	At road crossings along Alternatives 3, 4, and 7	SCE shall coordinate with the CPUC and FS to determine where structures should be offset.	Minimize visual complexity from sensitive receptor locations.	Prior to and during construction.
Impact V-3: For a landscape with an existing transmission line, increased structure size and new materials would result in adverse visual effects.				
<p>V-1: Clean up staging areas, storage areas, marshalling yards, helicopter staging areas, access and spur roads, and structure locations on a regular periodic basis.</p> <p>Same as V-1, above.</p>	Entire Project	Same as V-1, above.	Same as V-1, above.	During construction.
<p>V-2a: Use tubular steel poles instead of lattice steel towers in designated areas.</p> <p>Same as V-2a, above.</p>	Entire Project	Same as V-2a, above.	Same as V-2a, above.	Prior to and during construction.
<p>V-2b: Treat surfaces with appropriate colors, textures, and finishes.</p> <p>Same as V-2b, above.</p>	Entire Project	Same as V-2b, above.	Same as V-2b, above.	Prior to and during construction.
<p>V-2c: Establish permanent screen.</p> <p>Same as V-2c, above.</p>	Antelope and Vincent Substations	Same as V-2c, above.	Same as V-2c, above.	Sixty (60) days prior to and during construction.
<p>V-2d: At road crossings, structures should be offset so that they are equidistant on each side of the road where feasible (Alts 3, 4, and 7 Only).</p> <p>Same as V-2d, above.</p>	At road crossings along Alternatives 3, 4, and 7	Same as V-2d, above.	Same as V-2d, above.	Prior to and during construction.
<p>V-3a: Match spans of existing transmission structures.</p> <p>If the new Project components are adjacent to an existing transmission line, SCE shall, where feasible, match existing structure spacing and spans as closely as possible in order to reduce visual complexity as seen from sensitive receptor locations. All new structures should also match the heights of existing transmission line structures to the extent possible as dictated by variation in terrain and kV-capacity of lines.</p>	Entire Project	<ul style="list-style-type: none"> SCE will submit a Structure Span and Spacing Plan, including construction drawings detailing structure locations, spacing, and spans to the CPUC and FS for review and approval. CPUC and/or FS will monitor compliance during construction. 	The number of off-set tower placements is reduced and/or avoided to minimize visual complexity.	Prior to and during construction.

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<p>V-3b: On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality. All reasonable efforts shall be made to meet the Scenic Integrity Objectives (SIOs) shown on the SIO Map in the ANF Land Management Plan. SIO adjustments that exceed a drop of more than one SIO level would require a Project-specific amendment to Forest Plan (Part 3) Standards S9 and S10. In order to compensate for the Project's long-term visual impacts to the landscape character and visual quality, including but not limited to impacts to landscape character and visual quality of scenic highway and scenic trail viewsheds, SCE and the Forest Supervisor shall reach a consensus on what is a commensurate amount of restoration, monetary compensation, or landscape character/visual quality improvement.</p>	NFS Lands	<ul style="list-style-type: none"> SCE shall submit a Landscape Restoration/Compensation Plan to the CPUC and FS for review and approval. CPUC and/or FS will monitor for compliance. 	Minimize impacts to landscape character and visual quality.	Sixty (60) prior to and during construction.
<p>V-4b: Slope-round and re-contour in areas as prescribed. Same as V-4b, below</p>	Non-NFS Lands	Same as V-4e, below.	Same as V-4e, below.	Prior to and during construction
<p>V-4d: Dispose of excavated materials as prescribed. Same as V-4d, below.</p>	Entire Project	Same as V-4d, below.	Same as V-4d, below.	Prior to and during construction
Impact V-4: Vegetative clearing and/or earthwork associated with road improvements and pulling/splicing locations would adversely affect landscape character and visual quality.				
<p>V-4a: Construct, operate, and maintain the Project using existing access and spur roads where feasible. For non-NFS lands and in locations designated by the CPUC, to protect landscape character and promote visual quality, SCE shall remove existing transmission line towers and conductors using existing and already maintained access roads and spur roads, and shall construct the new transmission line using the existing and already maintained network of access roads and spur roads to the greatest practical extent. SCE shall submit plans for any new access roads and spur roads, and any maintenance plans for un-maintained access and spur roads, demonstrating compliance with this measure, to the CPUC for review and approval at least 60 days prior to the start of construction. For NFS lands, to protect landscape character and promote visual quality, SCE shall use only those access roads and spur roads designated by the FS for that purpose. For the new LST at Mill Creek Summit, SCE shall maintain vegetative screening as seen from the PCT, trailhead, and PCT feeder trail to the extent feasible and practical and as GO-95 allows. In an effort to protect the scenic integrity along the PCT, SCE and the FS have agreed that for the new LST at Mill</p>	Entire Project	<ul style="list-style-type: none"> SCE shall submit plans and construction drawings for access roads and spur roads to the CPUC and other affected agencies for review and approval. CPUC and/or FS will monitor compliance during construction. 	Views of new access and spur roads will be less prominent.	Sixty (60) days prior to and during construction.

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Creek Summit, the existing vegetation around this tower and along the PCT, for the most part, shall not be cleared and will be preserved to the greatest degree possible without violating GO-95 Rule 35. The only sections that should be cleared of vegetation for operation and maintenance at this specific tower site is the area directly underneath the base of the new tower and the immediate space adjacent to FS Road 3N17 and the new tower (STR 34 M7-T2).				
V-4b: Slope-round and re-contour in areas as prescribed. For areas of non-NFS lands where natural terrain includes rounded landforms, where soil types are conducive, and where cuts-and-fills and excavated materials would be visible from sensitive viewing locations, SCE shall employ slope-rounding techniques to blend earthwork with natural contours where feasible. Greater land area would be disturbed by this measure, possibly increasing exposure to soil erosion and possibly causing more vegetation disturbance, but the goal of this measure is a permanent landform that is natural-appearing in the long-term and may be conducive to wildlife movement. During and following re-contouring, applicable mitigation measures of the other issue area sections shall be applied, including biological resources, cultural resources, geology and soils, hydrology and water resources, wilderness and recreation, land use, and possibly agricultural resources. SCE shall submit plans for proposed new, upgraded, or newly maintained access roads and spur roads or structure pads to the CPUC for approval at least 60 days prior to construction.	Non-NFS Lands	<ul style="list-style-type: none"> • SCE shall submit an excavation plan to the CPUC for review and approval. • CPUC will monitor compliance during construction. 	Views of excavated materials will be less prominent.	Sixty (60) days prior to and during construction.
V-4c: Avoid locating new roads in bedrock on NFS lands. Where feasible, re-opened and/or new access road and spur road locations on NFS lands shall be designed to avoid bedrock cuts, and shall be located in soil material to protect landscape character, ensure revegetation opportunities, and promote visual quality. SCE shall submit road construction plans to the CPUC and FS for review and approval at least 60 days prior to the start of construction.	NFS Lands	SCE shall submit road construction plans to the CPUC and F S, as applicable, for review and approval.	Designs will avoid bedrock cuts and protect landscape character.	Sixty (60) days prior to and during construction.

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<p>V-4d: Dispose of excavated materials as prescribed. For non-NFS lands, SCE shall dispose of excavated materials (soil, rocks, and concrete, and reinforcing steel) in a manner that is not visually evident and does not create visual contrasts. For NFS lands, SCE shall dispose of excavated materials (excess soil and rocks) in disposal areas (either on-NFS lands or off-NFS lands) as designated by the FS. For NFS lands, the FS will designate whether any footings from existing transmission structures need to be removed. Any designated footings designated for removal (concrete, reinforcing steel, angle steel, anchor bolts, etc.) shall be disposed off-NFS lands in disposal areas that do not create visual contrasts. These sites shall be pre-approved by the CPUC and FS.</p>	Entire Project	<ul style="list-style-type: none"> SCE shall submit an excavation plan to the CPUC and FS, as applicable, for review and approval. CPUC and/or FS will monitor compliance during construction. 	Views of excavated materials will be less prominent.	Sixty (60) days prior to and during construction.
Impact V-5: New metal surfaces associated with transmission infrastructure would potentially reflect sunlight and produce glint and glare in certain lighting conditions.				
<p>V-2b: Treat surfaces with appropriate colors, textures, and finishes. Same as V-2b, above.</p>	Entire Project	Same as V-2b, above.	Same as V-2b above	Prior to and during construction.
Impact V-6: The Project would contribute to the long-term loss or degradation of a scenic highway viewshed or scenic trail viewshed.				
<p>V-3b: On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality. Same as V-3b, above.</p>	NFS Lands	Same as V-3b above.	Same as V-3b above.	Sixty (60) prior to and during construction.
Impact V-7: The Project would conflict with established visual resource management plans or landscape conservation plans.				
<p>V-3b: On NFS lands, provide restoration/compensation for impacts to landscape character and visual quality. Same as V-3b, above.</p>	NFS Lands	Same as V-3b above.	Same as V-3b above.	Sixty (60) prior to and during construction.