

TLRR: Control-Silver Peak 55kV Project  
Highway 168 Alternative Analysis

Attachment A

February 18, 2025

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On February 4, 2025, the California Public Utilities Commission (CPUC) Energy Division issued the Data Request to Southern California Edison (SCE) “*Southern California Edison’s Control-Silver Peak Project (A.21-08-009) – Data Request No. 3*”. The data request asked SCE to “provide any comments regarding feasibility, ability to meet most project objectives, and other potential constraints” for a new route alternative to the Control-Silver Peak Project; this new route alternative (with minor modifications described below) is referred to as the Highway 168 Alternative (Alternative).

SCE has prepared a desktop-level analysis that addresses the Alternative’s feasibility, ability to meet most project objectives, and other potential constraints. Through this initial desktop evaluation of the Alternative, SCE has preliminarily determined that the Alternative appears to be both feasible and able to meet all project objectives. While the Alternative could reduce potential aggregate impacts to some environmental resources, it could also result in potentially significant impacts to other environmental resources. This Data Request response provides a summarized comparative analysis of the anticipated impacts of SCE’s Proposed Project and the Alternative.

## **BACKGROUND**

On August 13, 2021, SCE submitted an Application to the CPUC for a permit to construct (PTC) seeking authorization for SCE to construct the Control-Silver Peak Project (CSP Project, or Proposed Project). The purpose of the CSP Project is to comply with General Order (GO) 95 by remediating clearance discrepancies along the Control-Silver Peak ‘A’ 55 kV Subtransmission Line and Control-Silver Peak ‘C’ 55 kV Subtransmission Line. The Proposed Project would remediate these clearance discrepancies by removing the two existing single-circuited subtransmission lines and constructing one new double-circuited subtransmission line in the same alignment.

In 2017-2019, during preparation of the CSP Project Proponent’s Environmental Assessment (PEA), SCE investigated a possible option to route new subtransmission lines from the Fish Lake Valley area due west along Highway 168 to Big Pine and then north along Highway 395 to Control Substation in Bishop. However, the determination was made at that time that the approximately 12-mile-long stretch between White Mountain Road and Big Pine would traverse an extremely complex and dangerous portion of Highway 168 and that the increased overall line length would result in a need to convert the system to 115 kilovolts (kV). Adding an additional 115 kV line for approximately 16 miles south from Control Substation to Big Pine, paralleling the double-circuited Ivanpah-Control Project alignment, also had the potential to create significant impacts along that path. Accordingly, the possible option was not addressed in the PEA.

In 2022, the Bureau of Land Management (the lead federal agency for the CSP Project under the National Environmental Protection Act) asked SCE to identify an alternative alignment that would reroute the CSP Project alignment from Silver and Wyman canyons to a route in the vicinity of Highway 168. SCE conceptually identified a number of west-east routes—two of the alternative routes (Big Pine Northern Route and Big Pine Southern Route) follow Highway 168 from the community of Big Pine east and north to the point where Highway 168 intersects the CSP Project

alignment. A preliminary assessment of the potential environmental impacts associated with these routes compared to the Proposed Project was provided to the BLM and CPUC in mid-2022.

In mid-2024, the CPUC identified a new route that would avoid the complex and dangerous portion of Highway 168 and that would be shorter than any of the alternatives identified in the exercise performed in 2022, thus allowing it to be operated at the current voltage of 55 kV.

SCE has made two slight modifications to the new CPUC-identified route discussed in Data Request No. 3: the SCE design diverges from White Mountain Road and follows a Forest Service road east to Highway 168 rather than following White Mountain Road south to its intersection with Highway 168, and the alignment is modified at the north end of Deep Springs Valley. The scope of this new alternative, as modified by SCE (referred to hereafter as the Highway 168 Alternative and shown in Figure 1) is addressed in the following desktop-level environmental analysis.<sup>1</sup>

### **PROPOSED PROJECT AND HIGHWAY 168 ALTERNATIVE SCOPE**

The Highway 168 Alternative proposes construction of approximately 49 linear miles of subtransmission lines, whereas the Proposed Project requires the construction of approximately 35 linear miles of subtransmission lines. See Figure 1 and description below.

- Segments 1 and 2 would have the same scope under both the Proposed Project and the Alternative.
- Segment 3:
  - Proposed Project:
    - Remove approximately 35 miles of the existing parallel single-circuit subtransmission lines.
    - Construct approximately 35 miles of one double-circuit subtransmission line.
  - Alternative:
    - Remove approximately 35 miles of the existing parallel single-circuit subtransmission lines.
    - Construct approximately 16.2 miles of double-circuit subtransmission line from the eastern terminus of Segment 2 to approximately 1,000 feet east of White Mountain Substation.
    - Construct approximately 7.6 miles of double-circuit subtransmission line from the eastern terminus of Segment 9 to the Fish Lake Valley Metering Station.<sup>2</sup>
- Segment 4 (aka “Zack Tap”) would have the same scope under both the Proposed Project and the Alternative.
- Segment 5 (aka “Deep Springs Tap”):
  - Proposed Project:
    - Replace 8 existing poles with new poles

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<sup>1</sup> Additional scope not addressed by this analysis may be identified when detailed system studies are developed.

<sup>2</sup> Note that as shown in Figure 1, this mileage is not contiguous.

- Alternative:
  - Replace 8 existing poles with new poles
  - Remove approximately 1.4 miles of single-circuit subtransmission line from the point where the Alternative's Segment 9 intersects the Proposed Project's Segment 5 then north to the Deep Springs Tap
- Segment 6 (from approximately 1,000 feet east of White Mountain Substation south along White Mountain Road to the boundary of the Ancient Bristlecone Pine Forest):
  - Proposed Project:
    - Not Applicable
  - Alternative:
    - Construct approximately 4.5 miles of new double-circuit subtransmission line
- Segment 7 (from the southern terminus of Segment 6 continuing south along White Mountain Road and Forest Service Route 35E313 to Highway 168)
  - Proposed Project:
    - Not Applicable
  - Alternative:
    - Construct approximately 6.2 miles of new double-circuit subtransmission line
- Segment 8 (along Highway 168 east to the National Forest boundary):
  - Proposed Project:
    - Not Applicable
  - Alternative:
    - Construct approximately 2.8 miles of new double-circuit subtransmission line
- Segment 9 (from eastern terminus of Segment 8 to where the Proposed Project's Segment 3 crosses Highway 168):
  - Proposed Project:
    - Not Applicable
  - Alternative:
    - Construct approximately 11.8 miles of new double-circuit subtransmission line.

#### **ALTERNATIVE FEASIBILITY**

SCE's initial analysis indicates that the construction and operation of the Alternative is technically feasible at an operating voltage of 55 kV. SCE evaluated the Alternative using an overhead configuration (i.e., a subtransmission line constructed from a combination of monopoles, H-frames, and aerial conductor) for the subtransmission line segments included under the Alternative.

SCE notes that the Alternative would require a new right-of-way within designated Ancient Bristlecone Pine Forest of the Inyo National Forest (INF). The Land Management Plan (LMP) for the Inyo National Forest states the following (in part):

*01 The following uses are not suitable in the Ancient Bristlecone Pine Forest:*

*a. New above-ground utility rights-of-way*

This language suggests that construction of the Alternative within the Ancient Bristlecone Pine Forest would not be permitted without an amendment to the INF LMP. The LMP describes a process for amendment: “Plan components may be adjusted or excepted on a case-by-case basis in order to allow for compliance with State and federal laws and regulations, such as those governing utility line safety.”

**ABILITY OF THE ALTERNATIVE TO MEET MOST PROJECT OBJECTIVES**

The objective of the CSP Project is to ensure compliance with GO 95 and NERC Facility Ratings by remediating identified physical clearance discrepancies along the Control-Silver Peak ‘A’ 55 kV Subtransmission Line and Control-Silver Peak ‘C’ 55 kV Subtransmission Line.

Construction and operation of the Alternative, as described herein, would meet the objective of the CSP Project.

**POTENTIAL CONSTRAINTS OF THE ALTERNATIVE**

SCE understands that the CPUC is considering the Highway 168 Alternative over the Proposed Project to reduce significant environment impacts to resources identified during scoping meetings; specifically, impacts within Wyman Canyon, to the identified bi-state sage grouse habitat, and the White Mountain City Area of Critical Environmental Concern (ACEC).

SCE presents the following desktop-level environmental analysis that includes analysis of impacts in these areas and potential constraints to the implementation of the Alternative.<sup>3</sup> SCE’s initial desktop-level evaluation of the Alternative indicated that while the Alternative could reduce potential aggregate impacts to some environmental resources, it could also trigger potentially significant impacts to other environmental resources.

The desktop-level environmental analysis below includes an Executive Summary followed by more detailed discussions of potential impacts (Attachment A). The environmental analysis provides a summarized comparative analysis of the anticipated impacts of both SCE’s Proposed Project and the Alternative.

**EXECUTIVE SUMMARY: DESKTOP-LEVEL ENVIRONMENTAL ANALYSIS AND POTENTIAL CONSTRAINTS ANALYSIS**

**ES1. SPECIAL-STATUS WILDLIFE AND PLANT SPECIES**

The following discussion addresses special-status wildlife and plant species observed along the CSP Project alignment during surveys in 2017 and 2023, as well as those with the potential to occur along the Alternative, based on reported observations in the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) and/or other documented

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<sup>3</sup> The information provided in this response is based on a desktop-level analysis without the benefit of any field survey activities. A full evaluation of the various disturbances and impacts to habitats, vegetation, and waters (among others) specific for the Alternative cannot be developed before a preliminary engineering design is completed.

resources. These include federally-listed species (i.e., species listed as threatened or endangered under the Federal Endangered Species Act), state-listed species (i.e., species listed as threatened or endangered under the California Endangered Species Act) as well as candidates for state listing, CDFW Fully Protected species and Species of Special Concern, species designated as Sensitive by BLM and/or the US Forest Service (USFS, including Inyo National Forest), and plants identified by the California Native Plant Society (CNPS) as having California Rare Plant Ranks (CRPR) of 1B or 2B Plants that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA), including species considered by the CNPS to be rare, threatened, or endangered in California.

### **ES1.1 Greater Sage-Grouse (Bi-State Distinct Population Segment) – Federal Proposed Threatened, California Candidate Endangered, CDFW Species of Special Concern, BLM Sensitive, USFS Sensitive (Nesting and Leks)**

As shown in Figure 2, the Alternative would build approximately 5.8 new miles of subtransmission line and remove approximately 9.5 miles of existing line from potential critical habitat of the Bi-State Distinct Population Segment of the greater sage-grouse (*Centrocercus urophasianus*) in Segments 3, 6 and 7, potential critical habitat. Overall, the Alternative would result in approximately 10.3 acres of permanent disturbance in potential greater sage-grouse critical habitat. Under the Proposed Project, the permanent disturbance in potential greater sage-grouse critical habitat in Segment 3 would be approximately 11.8 acres.

### **ES1.2 Swainson’s Hawk – California Threatened, BLM Sensitive (Nesting)**

The Alternative would construct approximately 8 new miles of subtransmission line (approximately 90 new poles) within the range for Swainson’s hawk (*Buteo swainsoni*) in Deep Springs Valley. Under the Proposed Project, 8 poles would be replaced along a 1.3-mile length of subtransmission line within the range for Swainson’s hawk.

### **ES1.3 Golden Eagle – CDFW Fully Protected, BLM Sensitive (Nesting and Wintering)**

The golden eagle (*Aquila chrysaetos*) is a fully protected species in California and must be avoided during nesting season. Golden eagles have been observed in surveys along Segment 3 and reported in eBird along Segments 3 and 5 of the Proposed Project and along Segments 6 and 9 of the Alternative; no impacts would be reduced or eliminated under either the Proposed Project or the Alternative.

### **ES1.4 Desert Bighorn Sheep – CDFW Fully Protected, BLM Sensitive**

The desert bighorn sheep (*Ovis canadensis nelsonii*) is a fully protected species in California and is a BLM Sensitive species. Under the Alternative, approximately 10.4 new miles of subtransmission line would be constructed in desert bighorn sheep habitat, resulting in approximately 18 acres of new permanent disturbance. No areas of new permanent disturbance to desert bighorn sheep habitat are anticipated under the Proposed Project. Additionally, under the Proposed Project existing permanent disturbance would be reduced.

### **ES1.5 Additional Special-Status Bird Species**



Five CDFW Species of Special Concern (CDFW SSC) birds (yellow-headed blackbird [*Xanthocephalus xanthocephalus*], loggerhead shrike [*Lanius ludovicianus*], yellow warbler [*Setophaga petechia*], olive-sided flycatcher [*Contopus cooperi*], and burrowing owl [*Athene cunicularia*]) have been reported along the Proposed Project alignment. Given its longer length, the Alternative is expected to have greater potential impacts to these species, as well as to other species found in areas along the alignment, when compared to the Proposed Project.

### **ES1.9 Special-status Plant Species**

No federal and/or state-listed plant species have been reported along either the Proposed Project alignment or along the Alternative. The Alternative adds potential impacts along approximately 25 additional miles of new subtransmission line in Segments 6 through 9.<sup>4</sup> Impacts to special-status plants can largely be avoided or mitigated under the Proposed Project and are not anticipated to be adverse; similarly, impacts to sensitive plants are anticipated to largely be avoided or mitigated under the Alternative, and thus the Alternative would not reduce any potential impacts to sensitive plant species.

### **ES2. CULTURAL RESOURCES**

The Alternative would remove approximately 16 miles of existing subtransmission lines from White Mountain Substation east to a point at the northern end of Deep Springs Valley and would not require this section to be rebuilt. This would result in the removal of SCE facilities from within the White Mountain ACEC and within the NRHP eligible P-14-000259/002771, and 18 other cultural resources, seven of which are NRHP eligible resources.

The Alternative would require the construction of Segments 6, 7, 8, and 9, which includes approximately 25 miles of new right-of-way through the Inyo National Forest and Deep Springs Valley. Until further cultural studies are completed it is unknown what potential effects to historic properties may occur under this Alternative.

### **ES3. PALEONTOLOGICAL RESOURCES**

No additional potential impacts would be anticipated under the Alternative with implementation of project proposed resource protection measures.

### **ES4. VISUAL RESOURCES**

As shown in Figure 3, the Alternative would result in approximately 7.7 additional miles of subtransmission infrastructure to be installed in areas classified as BLM's Visual Resource Management Class II, when compared to the Proposed Project. The Alternative would result in the installation of approximately 4.6 additional miles of subtransmission infrastructure in areas classified as USFS Scenic Integrity Objective High when compared to the Proposed Project.

### **ES5. AIR QUALITY AND GREENHOUSE GASES**

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<sup>4</sup> While the Alternative would shorten the total construction required in Segment 3 by 11 miles, the Alternative would require the construction of Segments 6, 7, 8, and 9, resulting in 25 miles of new subtransmission line.

Air pollutant and greenhouse gas emissions associated with subtransmission line construction activities under the Alternative would be approximately 18 percent higher than what would be generated by the Proposed Project due to the longer length of the Alternative. No reporting thresholds or thresholds of significance would be exceeded under the Proposed Project or the Alternative.

Fugitive dust would be controlled during construction of either the Alternative or the Proposed Project. Under the Alternative, new access roads may need to be constructed along approximately 25 miles of new subtransmission line; no new access roads would need to be constructed under the Proposed Project. Construction of this length of new access road would require greater volumes of water for fugitive dust control than would be required to rehabilitate existing access roads under the Proposed Project.

#### **ES6. NOISE**

Under the Alternative, one additional potentially noise-sensitive receptor (the USFS Schulman Grove Visitor's Center) would be temporarily exposed to construction noise.

#### **ES7. Recreation**

Construction of both the Alternative and the Proposed Project would require some targeted seasonal road closures in Wyman Canyon and Silver Canyon.

The Alternative could impact future recreational access to and through Wyman Canyon as SCE would no longer maintain this road since the Alternative would remove the subtransmission infrastructure that SCE accesses from this road. Under the Proposed Project, SCE long-term O&M activities would continue in Wyman Canyon, and no impacts to future recreational access would be realized from a loss of maintenance.

Under the Alternative, new subtransmission infrastructure would be installed along (or in locations viewable from) White Mountain Road, which recreationalists use to access the Schulman Grove Visitor's Center.

#### **ES8. AREAS OF CRITICAL AND UNIQUE ENVIRONMENTAL CONCERN**

Approximately 1 mile of each existing subtransmission line (42 poles in total) would be removed from the White Mountain City ACEC under the Alternative. The Proposed Project would reduce the number of poles in the White Mountain City ACEC from 42 to 18. Under both the Proposed Project and the Alternative, the existing access road would remain and would not be restored, though SCE's long-term O&M activities to maintain this road would cease as a result of the Alternative. The Alternative would remove all SCE structures from P-14-000259/14-002771, the National Register of Historic Places (NRHP) eligible ethnographic village site, and the White Mountain City archaeological site. The Alternative does not cross any ACEC.

#### **ES9. ANCIENT BRISTLECONE SCENIC BYWAY**

The existing CSP circuitry (consisting of two single-circuit subtransmission pole lines) is visible from an approximately 2.5-mile length of the Ancient Bristlecone Scenic Byway (Byway). Under

the Proposed Project, a 2.5-mile length of the new 55 kV subtransmission double-circuit single pole line would remain visible from the Byway; under the Alternative, the new 55 kV subtransmission double-circuit single pole line would be visible along an approximately 12-mile length of the Byway.

## ATTACHMENT A

### **DETAILED DISCUSSION: ENVIRONMENTAL ANALYSIS AND POTENTIAL CONSTRAINTS ANALYSIS**

The following sections focus on comparing the Alternative with those portions of the Proposed Project wherein the scope of work would be affected if the Alternative was selected (i.e., that portion of Segment 3 east of White Mountain Substation to the point where Segment 9 of the Alternative would intersect Segment 3 of the Proposed Project), and Segment 5. Outside of these areas, the scope of the Proposed Project would be unchanged under the Alternative.

#### **A1. SPECIAL STATUS WILDLIFE AND PLANT SPECIES**

##### **A1.1 Greater Sage-Grouse (Bi-State Distinct Population Segment) – Federal Proposed Threatened, California Candidate Species, BLM Sensitive, USFS Sensitive (Nesting and Leks)**

The Bi-State Distinct Population Segment (DPS) of greater sage-grouse (*Centrocercus urophasianus*) is currently proposed to be listed as a threatened species under the Federal Endangered Species Act as well as the California Endangered Species Act. The Bi-State DPS of greater sage-grouse is currently listed as BLM and US Forest Sensitive Species.

The Bi-State DPS of greater sage-grouse usually nest in dense stands of mountain big sagebrush, as well as rubber rabbitbrush, black greasewood, and grassy areas. Leks are located in clear areas such as broad ridgetops, grassy swales, dry lakebeds, and sometimes recently burned areas. The greater sage-grouse place their nests on the ground, usually under a sagebrush shrub and sometimes under tufts of grass within dense patches of shrubs.

As shown in Figure 2, the BLM has identified that portions of Segment 3 in Wyman Canyon are located in known occupied greater sage-grouse habitat. Greater sage-grouse have been documented along portions of Segment 3 in Wyman Canyon and along portions of Segment 6 of the Alternative, including some with telemetry data. Potential greater sage-grouse critical habitat is identified along portions of Segment 3 of the Proposed Project, and Segments 6 and 7 of the Alternative.

When compared to the Proposed Project, the Alternative would result in a longer linear construction footprint but a lesser permanent disturbance area in greater sage-grouse potential critical habitat. The longer linear length of the Alternative would increase the duration in which greater sage-grouse individuals may be subject to disturbance during construction; which could possibly result in greater physical disturbance to these individuals.

**Population Management Units for the Bi-State Distinct Population Segment of Greater Sage-Grouse.** The Proposed Project alignment in Wyman Canyon, and the entirety of Segments 6, 7, 8, and 9 of the Alternative, are located in the Bi-State DPS of greater sage-grouse White Mountains

Population Management Unit (PMU); Highway 168 defines the southern boundary of the PMU in California.<sup>5</sup>

As shown in Tables 1A and 1B, looking only at the permanent disturbance associated with poles, the Proposed Project would result in a net reduction of approximately 15.7 acres of permanent disturbance within the White Mountains PMU; the Alternative would result in a net reduction of approximately 6.6 acres of permanent disturbance within the PMU.

**Table 1A. Permanent Disturbance in Bi-State DPS of Greater Sage-grouse PMUs, Proposed Project**

	<b>Length (Miles)</b>	<b>New TSPs</b>	<b>New Poles</b>	<b>Existing Pole Removals</b>	<b>Acres of Permanent Disturbance, Existing</b>	<b>Acres of Permanent Disturbance, After Construction</b>
Segment 3	15.1	86	254	671	33.6	17.9
<b>Total</b>	<b>15.1</b>	<b>86</b>	<b>254</b>	<b>671</b>	<b>33.6</b>	<b>17.9</b>

Note: Permanent disturbance—0.05 acres New pole/Existing pole, 0.06 acres TSP  
No work in Segment 5 in a PMU is included under the Proposed Project, and thus Segment 5 is ignored here.

**Table 1B. Permanent Disturbance in Bi-State DPS of Greater Sage-grouse PMUs, Alternative**

	<b>Length (Miles)</b>	<b>New TSPs</b>	<b>New Poles</b>	<b>Existing Pole Removals</b>	<b>Acres of Permanent Disturbance, Existing</b>	<b>Acres of Permanent Disturbance, After Construction</b>
Segment 3	0.2 (Install/Removal) 15.1 (Removal)	2	5	671	33.6	0.4
Segment 6	4.5	0	158	0	0	7.9
Segment 7	6.2	0	217	0	0	10.9
Segment 8	2.8	2	28	0	0	1.5
Segment 9	11.8	9	118	0	0	6.4
<b>Total</b>	<b>25.5 (Install)</b>	<b>13</b>	<b>524</b>	<b>671</b>	<b>33.6</b>	<b>27.0</b>

Notes: Permanent disturbance—0.05 acres per New or Existing pole; 0.06 acres per TSP  
For Segments 6 and 7, assumes average of 35 poles per 1-mile length of new subtransmission line.  
For Segments 8 and 9, assumes average of 1 TSP and 10 poles per 1-mile length of new subtransmission line.  
No work in Segment 5 in a PMU is included under the Proposed Project, and thus Segment 5 is ignored here.

<sup>5</sup> Given the uncertainty regarding the specific pole locations of the Alternative, for purposes of this analysis SCE has assumed that the entirety of Segments 8 and 9 are located within the PMU.

**Construction Footprint and Permanent Disturbance.** Altogether, approximately 4 fewer miles of poles would be installed in areas identified as potential greater sage-grouse critical habitat under the Alternative as compared to the Proposed Project:

- Under the Proposed Project, existing poles would be removed, and a lesser number of new poles would be installed along the 9.8 miles of Segment 3 located in potential critical habitat in Wyman Canyon.
- Under the Alternative:
  - The two existing pole lines would be removed along the 9.8 miles of Segment 3 located in potential critical habitat in Wyman Canyon.
  - New poles would be installed along 5.9 miles of Segment 3 and Segment 6 identified as potential critical habitat.

The acreage of permanent and temporary disturbance in potential greater sage-grouse Bi-State DPS critical habitat for both the Proposed Project and the Alternative is presented in Tables 2A and B, and Tables 3A and B, below.

As shown in Table 2A, following post-construction restoration, the Proposed Project would result in approximately 11.8 acres of permanent disturbance in areas identified as potential greater sage-grouse Bi-State DPS critical habitat, a reduction of approximately 10.3 acres compared to the existing condition. The Alternative would result in approximately 10.3 acres of permanent disturbance in areas identified as potential greater sage-grouse Bi-State DPS critical habitat, a reduction of approximately 11.8 acres compared to the existing condition.

**Increased Duration of Disturbance.** The Alternative proposes to eliminate installation of replacement poles in Wyman Canyon. This change will not measurably reduce potential impacts to greater sage-grouse that are anticipated from the Proposed Project. The duration of construction in this area would remain the same,<sup>6</sup> and given the close physical proximity of work areas, it would not noticeably reduce the area over which greater sage-grouse may be potentially disturbed by construction activities.

**Increased Physical Disturbance.** Potential direct impacts to greater sage-grouse may occur during construction (as a result of physical disturbance and vegetation removal). Potential indirect impacts may be realized during operations (as a result of poles providing roosting locations for predators).

The potential for increased physical disturbance during construction is a function of the area of construction and the duration of construction; as illustrated above, the Alternative represents an increase in the areas located within greater sage-grouse PMUs that would be disturbed during

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<sup>6</sup> Given the constrained physical environment in Wyman Creek Canyon and the design of the Proposed Project, removal of existing poles and installation of replacement poles would likely occur simultaneously along much of the alignment in sage-grouse habitat under the Proposed Project. Further, the existing circuitry in Wyman Creek Canyon would remain energized during construction of the Alternative. Upon the energization of the new circuitry along the Alternative, removal of the decommissioned poles in Wyman Creek Canyon would occur within a reasonable period likely lasting several construction seasons.

construction. There is no guarantee that the Alternative would reduce the duration of construction when compared to the Proposed Project; therefore, possibly making the duration of physical disturbance similar for both the Proposed Project and the Alternative.

While features to discourage roosting would be installed on all new poles, the poles installed under the Proposed Project or the Alternative would be taller than other surrounding potential perch structures (e.g., trees, fenceposts), and thus may result in increased potential for predation (despite anti-roosting features) due to the installation of this new subtransmission infrastructure.

**Impact Avoidance and Reduction.** SCE developed a comprehensive suite of impact avoidance and impact reduction measures that would be implemented under either the Proposed Project or the Alternative; these would serve to avoid and minimize impacts during construction and would mitigate any unavoidable habitat impacts, thus reducing potential impacts in the long-term. A draft Greater Sage-grouse Management Plan was developed for the Proposed Project, which could be modified, as appropriate, for the Alternative. This Plan, developed cooperatively by agency and SCE staff as members of a Technical Working Group, includes measures that would effectively minimize, or mitigate for, potential adverse impacts to greater sage-grouse during construction. These include buffer restrictions near nesting areas and leks, as well as limiting operating periods.

**Habitat Restoration.** Under the Proposed Project—which reduces the existing project footprint from two single-circuit transmission lines to a single double-circuit line—SCE will be reducing the overall permanent disturbance area through the implementation of the Habitat Restoration Plan. SCE is aware of, and understands, the sensitivity of some of the habitats and vegetation types found along portions of the Proposed Project alignment, particularly those at high elevations (including greater sage-grouse habitat) within Segment 3. SCE also anticipates these habitats and vegetation types would be subject to disturbance during the construction phase of both the Proposed Project and the Alternative. SCE also notes that, through restoration of habitat associated with poles to be removed and not replaced, the Proposed Project would ultimately result in a reduction of permanently disturbed area (and accordingly a net gain of habitat, including sensitive sagebrush habitat). Although the Alternative will remove existing permanent impacts through the Wyman Canyon right of way removal, and would generate a smaller permanent footprint, it would result in new permanent impacts to different areas of greater sage-grouse and other habitats along the Alternative alignment where no utility-related disturbances are present.

Additionally, through impact avoidance measures (including extensive helicopter-supported construction that reduces the disturbance footprint for each pole installation and removal) and other impact reduction measures (including agency-approved habitat restoration activities), impacts to habitats and vegetation will be reduced to the extent feasible and or mitigated under both the Proposed Project and the Alternative.

**Table 2A. Permanent Disturbance in Greater Sage-Grouse Potential Critical Habitat, Proposed Project**

<b>Proposed Project</b>	<b>Length (Miles)</b>	<b>New TSPs</b>	<b>New Poles</b>	<b>Existing Pole Removals</b>	<b>Acres of Permanent Disturbance, Existing</b>	<b>Acres of Permanent Disturbance, After Construction</b>
Segment 3C (Wyman Canyon)	9.8	49	177	441	22.1	11.8
<b>Total</b>	<b>9.8</b>	<b>49</b>	<b>177</b>	<b>441</b>	<b>22.1</b>	<b>11.8</b>

Note: Permanent disturbance—0.05 acres per new or existing pole; 0.06 acres per TSP  
 Permanent disturbance includes only cleared areas around poles.  
 No disturbance associated with access roads is included; no work along the access roads in Silver Canyon and Wyman Canyon are anticipated under the Proposed Project.

**Table 2B. Permanent Disturbance in Greater Sage-Grouse Potential Critical Habitat, Alternative**

<b>Alternative</b>	<b>Length (Miles)</b>	<b>New TSPs</b>	<b>New Poles</b>	<b>Existing Pole Removals</b>	<b>Acres of Permanent Disturbance, Existing</b>	<b>Acres of Permanent Disturbance, After Construction</b>
Segment 3C (Wyman Canyon)	0.2 (Install/Removal) 9.6 (Removal)	2	5	441	22.1	0.4
Segment 6	4.5	0	158	0	0	7.9
Segment 7	1.2	0	42	0	0	2.1
Segment 8	0	0	0	0	0	0
Segment 9	0	0	0	0	0	0
<b>Total</b>	<b>5.8</b>	<b>2</b>	<b>205</b>	<b>441</b>	<b>22.1</b>	<b>10.3</b>

Notes:  
 Numbers may not sum due to rounding.  
 Permanent disturbance—0.05 acres per new or existing pole; 0.06 acres per TSP  
 For Segments 6 and 7, assumes average of 35 poles per 1-mile length of new subtransmission line.  
 No disturbance associated with access roads is included; no work along the access roads in Silver Canyon and Wyman Canyon are anticipated under the Alternative.



**Table 3A. Temporary Disturbance in Greater Sage-Grouse Potential Critical Habitat, Proposed Project**

<b>Proposed Project</b>	<b>Length (Miles)</b>	<b>New TSPs</b>	<b>New Poles</b>	<b>Existing Pole Removals</b>	<b>Stringing Sites</b>	<b>Guard Structures</b>	<b>Acres of Temporary Disturbance, Poles</b>	<b>Acres of Temporary Disturbance, Stringing Sites</b>	<b>Acres of Temporary Disturbance, Guard Structures</b>
Segment 3C (Wyman Canyon)	9.8	49	177	441	35	10	44.9	38.5	1.3
<b>Total</b>	<b>9.8</b>	<b>49</b>	<b>177</b>	<b>441</b>	<b>35</b>	<b>10</b>	<b>44.9</b>	<b>38.5</b>	<b>1.3</b>

Notes: Stringing sites located on previously-disturbed areas (e.g., those resized and relocated onto access roads, etc. in Segment 3) are not counted.

**Table 3B. Temporary Disturbance in Greater Sage-Grouse Potential Critical Habitat, Alternative**

<b>Alternative</b>	<b>Length (Miles)</b>	<b>New TSPs</b>	<b>New Poles</b>	<b>Existing Pole Removals</b>	<b>Stringing Sites</b>	<b>Guard Structures</b>	<b>Acres of Temporary Disturbance, Poles</b>	<b>Acres of Temporary Disturbance, Stringing Sites</b>	<b>Acres of Temporary Disturbance, Guard Structures</b>
Segment 3C (Wyman Canyon)	0.2 (Install/Removal) 9.6 (Removal)	2	5	441	1	6	10.2	1.1	0.8
Segment 6	4.5	0	158	0	16	5	9.5	17.6	0.7
Segment 7	1.2	0	42	0	4	1	2.5	4.4	0.1
Segment 8	0	0	0	0	0	0	0	0	0
Segment 9	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>2</b>	<b>205</b>	<b>441</b>	<b>21</b>	<b>12</b>	<b>22.2</b>	<b>23.1</b>	<b>1.6</b>

Notes:  
 Numbers may not sum due to rounding.  
 Temporary disturbance associated with poles—0.02 per pole removal; 0.06 acres per new pole; 0.52 acres per new TSP.  
 Stringing sites located on previously-disturbed areas are not counted. Stringing sites assumed at 1.1 acres each.  
 Guard structures assumed at 0.13 acres each.

New poles along Segment 3C are assumed to be placed in same location as 7 existing poles; thus temporary disturbance associated with removal of the 7 existing poles where new poles are installed is incorporated within each associated installation disturbance area.  
Number of stringing sites and guard structures along Segments 6 and 7 are prorated by distance based on stringing sites along Segment 3C (Wyman Canyon)

### **A1.2 Swainson's Hawk – California Threatened, BLM Sensitive (Nesting)**

The Swainson's hawk is a California Threatened species and a BLM Sensitive species. Swainson's hawks occur in grasslands with scattered trees, juniper-sagebrush flats, riparian areas, and savannahs, as well as in agricultural lands with groves or lines of trees adjacent to suitable foraging areas such as grasslands, alfalfa fields, or grain fields that support rodent populations. Generally, they nest in a solitary tree in a small grove along a stream or field.

Swainson's hawks have a moderate to high potential to nest in large trees, on nearby cliffs, or on structures in limited locations along the CSP circuitry alignment in the Chalfant Valley in Segment 4, where one was observed nesting in June 2017 and, based on CNDDDB nesting records, near the Deep Springs Substation in Deep Springs Valley in Segment 5, and in the Fish Lake Valley area in Segment 3. There are several eBird records for this species along Segment 8 and Segment 9 of the Alternative. Because habitat for this species is not found in Wyman Canyon, the modified scope of work in this area under the Alternative would not reduce or eliminate any potential impacts to this species. Similarly, because habitat for this species is generally not found along Segment 6, 7, or 8, the work in this area under the Alternative would not generate new impacts to this species.

Habitat for this species is found in Deep Springs Valley, and the new scope of work in Segment 9 would increase potential risks to this species beyond what is anticipated by the Proposed Project. Under the Alternative, approximately 8 new miles of subtransmission line (approximately 90 new poles) would be constructed within the range for Swainson's hawk in Deep Springs Valley, whereas under the Proposed Project, just 9 poles would be replaced in this area.

### **A1.3 Golden Eagle - CDFW Fully Protected, BLM Sensitive (Nesting and Wintering)**

The golden eagle is a CDFW Fully Protected species and a BLM Sensitive species. The golden eagle commonly occurs in cliff-walled canyons that provide nesting habitat in most parts of its range, where it nests in large trees and utility structures in open areas within foothills, mountain areas, sage-juniper flats, and desert terrain.

Golden eagles have been observed in surveys along Segment 3 and reported in eBird along Segments 1, 2, 3, 4, and 5 of the Proposed Project and have also been reported along Segments 6 and 9 of the Alternative. With implementation of avoidance and impact reduction measures identified by SCE, no impacts to this species would occur under either the Proposed Project or the Alternative.

### **A1.4 Desert Bighorn Sheep – CDFW Fully Protected, BLM Sensitive**

The desert bighorn sheep is a CDFW Fully Protected species and a BLM Sensitive species. The BLM has communicated that construction of the Proposed Project would occur in bighorn sheep habitat, that lambing grounds are located in Silver Canyon, and that “[w]ater, forage, and rutting [areas are found] in Silver and Wyman Canyon”.

Almost the entirety of Segments 6 and 7, less approximately 1,200 feet at the southern end of Segment 7, is located in bighorn sheep occupied habitat; Segments 8 and 9 are not located in this

habitat. Approximately 6.5 miles of Segment 3 in Wyman Canyon is located in bighorn sheep occupied habitat. Under the Alternative, construction activities would occur along 3.9 more miles of bighorn sheep occupied habitat than under the Proposed Project.

SCE's construction scheduling for the Proposed Project anticipates the removal of existing poles and the installation of new poles in the same geography (e.g., Wyman Canyon) during the same construction season(s). Therefore, the Alternative would not reduce the duration of construction in this area (and thus would not reduce the duration of construction impacts to desert bighorn sheep). Further, the Alternative would add additional similar construction related impacts to this species where they are found along the entirety of Segment 6.

### **A1.5 Additional Special-Status Bird Species**

Five California Department of Fish and Wildlife Species of Special Concern (SSC) bird species have been observed along the Proposed Project alignment or along the Alternative; these include the yellow-headed blackbird, loggerhead shrike, yellow warbler, olive-sided flycatcher, and burrowing owl. Potential impacts to these avian species are most likely to be realized during construction, given the intensity of the activity and the disturbance of vegetation; potential impacts during O&M would be negligible.

#### **A1.5.1 Yellow-headed Blackbird – CDFW SSC (Nesting)**

The yellow-headed blackbird (*Xanthocephalus xanthocephalus*) inhabits undisturbed freshwater wetlands with dense vegetation and deep water, which are most common in the Owens Valley near Bishop in Segment 3 and southern end of the Chalfant Valley near Fish Slough in Segment 4, although incidental observations may be made elsewhere. No potential impacts to this species would be reduced under the Alternative as this species is not found along the Alternative.

#### **A1.5.2 Loggerhead Shrike – CDFW SSC, BLM S (Nesting)**

The loggerhead shrike (*Lanius ludovicianus*) occupies a wide range of habitats found along both the Proposed Project and Alternative but generally nests in shrubland vegetation and not in forested areas. Suitable nesting habitat for this species may be found in all Segments of the Proposed Project, as well as in Segments 8 and 9 under the Alternative. Under the Alternative, construction activities would occur over approximately 14.5 additional miles of alignment when compared to the Proposed Project.

#### **A1.5.3 Yellow Warbler – CDFW SSC (Nesting)**

The yellow warbler (*Setophaga petechia*) nests in stands of willows and riparian vegetation below 8,500 feet above mean sea level (amsl). No impacts would be reduced or eliminated under either the Proposed Project or the Alternative.

#### **A1.5.4 Olive-sided Flycatcher – CDFW SSC, BLM S (Nesting)**

The olive-sided flycatcher (*Contopus cooperi*) may be found in Wyman Canyon; eBird records also indicate the species is found along Segments 6 and 7. Suitable nesting habitat for this species occurs at high elevations supporting limber pine and bristlecone pine forest in portions of Segment 3 along the Proposed Project alignment and in Segments 6 and 7 of

the Alternative. Under the Alternative, new impacts may be realized along 5.5 miles of high elevation forest in Segment 6 in an area where no impacts under the Proposed Project would be realized.

SCE's construction scheduling for the Proposed Project anticipates the removal of existing poles and the installation of new poles in the same geography (e.g., Wyman Canyon) during the same construction season(s). Therefore, the Alternative would not reduce the duration of construction in this area (and thus would not reduce the duration of potential construction impacts to the olive-sided flycatcher).

#### **A1.5.5 Burrowing Owl – CDFW SSC, BLM S (Burrow Sites and Some Wintering Sites)**

The burrowing owl (*Athene cunicularia*) occupies and nests in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation, and suitable habitat occurs in Segments 1, 2, 3, 4, 5, and 9. A burrowing owl observation approximately 1.5 miles southwest of Deep Springs College in Segment 7 has been reported, and an eBird observation also was reported further south in the Deep Springs Valley. Under the Alternative, construction activities would occur over approximately 11.8 additional miles of potential habitat for the burrowing owl compared to the Proposed Project.

#### **A1.6 Panamint Alligator Lizard - CDFW Species of Special Concern, BLM Sensitive, USFS Sensitive**

The Panamint alligator lizard is a CDFW SSC and a BLM and USFS Sensitive species. This species occurs in areas near permanent water in canyons, damp gullies, and rocky areas near dense vegetation within riparian scrub habitat in the White Mountains, Inyo Mountains, Panamint Mountains, Nelson Mountains, and Coso Mountains at elevations of 2,800 - 7,500 feet amsl. There are several CNDDDB observations in drainages in Silver Canyon in Segment 3 of the Proposed Project, but none in Wyman Canyon. There is one CNDDDB observation that overlaps the Alternative in Segment 8 in Payson Canyon, which was described as rocky and dry at the time of the observation (June 2017).

Under the Alternative, construction activities would occur in one location of potential habitat for the Panamint alligator lizard in Segment 8, with potentially more individuals present over the 2-mile extent of Segment 8 compared to the Proposed Project.

#### **A1.7 Crotch's Bumble Bee – California Candidate Endangered**

Crotch's bumble bee is a California Candidate Endangered species. The primary distribution of the Crotch's bumble bee ranges from the coast of California to the western flanks of the Cascade Range and Sierra Nevada, with uncommon occurrences in the margins of the Mojave and Sonoran deserts. Habitat requirements include pollen from up to 33 plant genera, including buckwheat (*Eriogonum*), milkweed (*Asclepias*), lupine (*Lupinus*), *Eschscholzia*, and pincushion (*Chaenactis*) species.

A single 1914 CNDDDB record was reported at least 5 miles west of Segments 1 and 2, but no other record has been documented in the area of either the Proposed Project or the Alternative, with this CNDDDB record being over 100 years old. Therefore, the Crotch's bumble bee is unlikely to occur in the Proposed Project or Alternative area.

Potential impacts to Crotch's bumble bee under the Proposed Project or under the Alternative would be generally indirect and are related to the removal of plant species upon which the bumble bee relies. No portion of Segments 6, 7, 8 or 9 under the Alternative would be constructed in suitable habitat for the Crotch's bumble bee. Therefore, no additional potential impacts to this species would be realized under the Alternative.

### **A1.8 Other Special-status Invertebrate Species**

Two additional special-status invertebrate species have been reported along or near the existing Proposed Project alignment. While the Alternative would be expected to have greater potential impacts to these species when compared to the Proposed Project—given the longer length of the alternative—neither are anticipated to have any impacts to these species as summarized below.

#### **A1.8.1 Morrison Bumble Bee – CDFW S1S2 (Critically Imperiled or Imperiled)**

Morrison bumble bee (*Bombus morrisoni*) is designated by CDFW as S1S2 (Critically Imperiled or Imperiled). This bumble bee species occurs in open dry shrublands and coniferous forests, as well as in orchards, utilizing a range of food plants: *Asclepias*, *Astragalus*, *Chrysothamnus*, *Cirsium*, *Cleome*, *Ericameria*, *Helianthus*, *Melilotus*, and *Senecio*. There are multiple CNDDDB observations of this species in the White Mountains, Inyo Mountains, Owens Valley, and surrounding areas. The Morrison bumble bee has been reported in CNDDDB near Segment 3 in Bishop, north of Segment 4 near Hammil, at the mouth of Wyman Canyon in Segment 3, and near Oasis in Segment 3, as well as in or adjacent to Segments 6 and 7 in three locations along the Alternative. While construction activities associated with the Alternative would occur over a longer length than under the Proposed Project, with implementation of avoidance and impact reduction measures identified by SCE, no impacts to this species would occur under either the Proposed Project or the Alternative.

#### **A1.8.2 White Mountains Icarioides Blue Butterfly – CDFW S1 (Critically Imperiled)**

White Mountains icarioides blue butterfly (*Icaricia icarioides albihalos*) is designated by CDFW as S1 (Critically Imperiled). Very little is known about the ecological preferences of this species, but it is confined to elevations in the White Mountains above 7,680 feet amsl.

Its range in California occurs over 4 miles north of the current Proposed Project alignment near Campito Mountain in the White Mountains of Mono County, where there are 3 nearby CNDDDB observations. There is also one 1964 CNDDDB observation one mile south of Segment 7 of the Alternative, west of Westgard Pass.

Under the Alternative, construction activities would occur within one mile of the reported 1964 observation of the White Mountains icarioides blue butterfly at the southern end of

Segment 7. However, the species was last observed 60 years ago; the White Mountains icarioides blue butterfly is unlikely to occur in the Proposed Project or Alternative area and no potential impacts to this species would be realized with either the Proposed Project or the Alternative.

### **A1.9 Special-Status Plant Species**

No federal or state-listed plant species have been reported along the Proposed Project alignment or along the Alternative. However, one California Candidate Threatened species, the western Joshua tree (*Yucca brevifolia*) occurs in Segment 3 in Wyman Canyon adjacent to the Proposed Project alignment on a rocky south-facing slope near the eastern boundary of Inyo National Forest north of Wyman Creek in California Buckwheat Scrub at approximately 6,000 feet amsl. Impacts to western Joshua tree will be avoided with implementation of avoidance measures identified by SCE.

The Alternative adds impacts along approximately 25 additional miles of new subtransmission line in Segments 6, 7, 8, and 9. Impacts to special-status plants can largely be avoided or mitigated under the Proposed Project and are not anticipated to be adverse; similarly, impacts to sensitive plants are anticipated to be largely avoided or mitigated under the Alternative, as such the Alternative would not reduce any potential impacts to sensitive plant species.

Potential impacts to special-status plant species are generally direct impacts that are most likely to be realized during construction; potential impacts during O&M would be negligible. SCE has developed, and would implement, measures contained in the Habitat Restoration Plan to avoid and minimize where possible, or mitigate, impacts to special-status plant species; as a result, no permanent impacts to special-status plant species are anticipated under the Proposed Project. If implemented under the Alternative, these measures would also result in no impacts to special-status plant species.

## **A2. CULTURAL RESOURCES**

The Alternative would require the construction of Segments 6, 7, 8, and 9, which includes approximately 25 miles of new right-of-way through the Inyo National Forest and Deep Springs Valley. Until further cultural studies are completed it is unknown what potential effects to historic properties may occur under this Alternative.

## **A3. PALEONTOLOGICAL RESOURCES**

A summary of the potential for paleontological resources associated with the Alternative is presented here:

- **Segments 6 and 7.** The majority of Segments 6 and 7 cross various Precambrian to Early Cambrian marine sedimentary formations with a Potential Fossil Yield Classification (PFYC) of 3–Moderate and 4–High. A short distance crosses Quaternary alluvium (PFYC 2–Low).
- **Segment 8.** The entirety of Segment 8 crosses various Precambrian to Early Cambrian marine sedimentary formations with a PFYC of 3–Moderate and 4–High.

- **Segment 9.** Segment 9 crosses, at its western extreme, Precambrian to Early Cambrian marine sedimentary formations with a PFYC of 3–Moderate. The large majority of Segment 9 crosses younger Quaternary alluvial fan deposits that are Holocene in age (PFYC 2–Low) and older Quaternary alluvial fan deposits that are Pleistocene in age (PFYC 3–Moderate).

With implementation of the resource protection measures that were identified for the Proposed Project, no significant impacts to paleontological resources are anticipated under either the Alternative or the Proposed Project.

#### **A4. VISUAL RESOURCES**

The lengths of new (N), replaced (R), or removed and not to be replaced (X) subtransmission line infrastructure to be installed under the Proposed Project and under the Alternative are presented in Tables 4A and 4B below.

As shown in Figure 3 and Table 4B, the Alternative would result in greater lengths of subtransmission infrastructure installed in the most visually sensitive areas (those designated as BLM Visual Resource Management [VRM] Class II or USFS Scenic Integrity Objective [SIO] High).

- The Alternative would result in the installation of 9.9 miles and the removal of 2.2 miles (for a net increase of 7.7 miles) of subtransmission infrastructure in areas designated BLM VRM Class II when compared to the Proposed Project.
  - Along portions of SR-168 in Deep Springs Valley within the VRM Class II-designated area, no electrical infrastructure is currently present, and no regularly-spaced vertical anthropogenic alterations to the landscape are present.
    - In this area, the infrastructure installed under the Alternative would attract the attention of the casual observer as it would not repeat the basic elements of form, line, color, and texture found in the predominant natural features of the landscape, and thus would be in conflict with the objective of a VRM Class II-designated area.
- The Alternative would result in the installation of 10.9 miles and the removal of 6.3 miles (for a net increase of 4.6 miles) of subtransmission infrastructure in areas designated as USFS High SIO and a net reduction of 3.9 miles of subtransmission infrastructure in areas designated as USFS Medium SIO when compared to the Proposed Project.
  - Along White Mountain Road within the SIO High-designated area, no electrical infrastructure is currently present, and no regularly spaced vertical anthropogenic alterations to the landscape are present.
  - If installed in these areas, the infrastructure installed under the Alternative would not repeat the form, line, color, texture, and pattern common to the landscape, and thus would be in conflict with the Objective for a SIO High-designated area.



- The Alternative would expose greater numbers of potentially-sensitive viewers to infrastructure that is new in the landscape. Annual average daily traffic (AADT) along Highway 168 (representative of traffic along Segments 8 and 9) is approximately 170 to 180 vehicle movements, with a peak of between 240 and 290 vehicle movements per day; while formal traffic counts along Wyman Canyon Road are not available, anecdotal and other evidence suggests that few vehicles travel this roadway on any given day.

**Table 4A. Approximate Miles of Alignment Segments by VRM and SIO Classification, Proposed Project**

	<b>Segment 3</b>	<b>Segment 5</b>	<b>Segments 6-8</b>	<b>Segment 9</b>
<b>VRM II</b>	2.2 (R)	N/A (See Note)	N/A	N/A
<b>VRM III</b>	0	0	N/A	N/A
<b>SIO High</b>	6.3 (R)	0	N/A	N/A
<b>SIO Medium</b>	6.4 (R)	0	N/A	N/A

(R)=Replaced subtransmission line infrastructure  
 Note: A single pole in VRM II would be replaced in Segment 5 under the PP; this is ignored here.

**Table 4B. Approximate Miles of Alignment Segments by VRM and SIO Classification, Alternative**

	<b>Segment 3</b>	<b>Segment 5</b>	<b>Segments 6-8</b>	<b>Segment 9</b>
<b>VRM II</b>	2.2 (X)	0	0	9.9 (N)
<b>VRM III</b>	0	0	0	0
<b>SIO High</b>	6.3 (X)	0	10.9 (N)	0
<b>SIO Medium</b>	6.4 (X)	0	2.5 (N)	0

(N)=New subtransmission line infrastructure  
 (X)=Removed and not replaced subtransmission line infrastructure

#### **A5. AIR QUALITY AND GREENHOUSE GASES**

Air pollutant emissions have been modeled for the Proposed Project. As shown in Table 5 below, under the Proposed Project air pollutant emissions are projected to be below the significant impact thresholds established by the Great Basin Unified Air Pollution Control District.

**Table 5. Proposed Project Estimated Construction Emissions, Controlled**

<b>Construction Year</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
2024	0.672	15.8	0.079	7.63	0.931
2025	0.509	11.0	0.055	9.28	1.06
2026	2.04	17.3	0.099	8.98	1.12
2027	0.009	0.042	0.000	4.94	0.501
Maximum	<b>2.04</b>	<b>17.3</b>	<b>0.099</b>	<b>9.28</b>	<b>1.12</b>

**Table 5. Proposed Project Estimated Construction Emissions, Controlled**

<b>Construction Year</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Significance Threshold (pounds per day/tons per year)	25	25	27	15	None
<b>Exceedance?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>N/A</b>

The Alternative would construct approximately 49 miles of electrical line; the Proposed Project would construct approximately 35 miles of line. Given that line construction scope is the primary difference between the Alternative and the Proposed Project, we can generalize that air pollutant emissions under the Alternative would be approximately 40 percent greater than those under the Proposed Project. Extrapolating the emissions shown in Table 5 indicates that emissions under the Alternative would not exceed the Great Basin Unified Air Pollution Control District-established significance thresholds for any pollutant.

Under the Proposed Project, approximately 8,788 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) of greenhouse gases would be emitted during construction; based on the increased scope under the Alternative, emissions of greenhouse gases would be expected to be approximately 40 percent greater. No reporting thresholds or thresholds of significance would be exceeded under the Proposed Project or the Alternative.

#### **A6. NOISE**

Under the Proposed Project, fewer than 20 potential residences and one institution (Deep Springs College) may be exposed to construction noise. Under the Alternative, some of these same residences and the institution may be exposed to more construction noise (both in terms of intensity and duration) given the greater scope of work in areas adjacent to some of these residences and the institution. In addition, the Alternative may expose an additional potentially noise-sensitive receptor (the USFS Schulman Grove Visitor's Center) to construction noise as the construction associated with the alternative would be routed in the vicinity of the Visitor's Center.

#### **A7. RECREATION**

Construction of the Alternative would not reduce the duration of road closures (and by extension conflicts with recreation) in Wyman Canyon. Under both the Proposed Project and the Alternative, the road through Wyman Canyon would require seasonal travel restrictions to the public during the removal of existing poles. SCE's construction scheduling for the Proposed Project anticipates the removal of existing poles and the installation of new poles in the same geography (e.g., Wyman Canyon) during the same construction season(s). Therefore, eliminating the installation of replacement poles in Wyman Canyon under the Alternative would not noticeably reduce the duration of needed closures to Wyman Canyon Road.

Under the Alternative, SCE would no longer maintain the existing road in Wyman Canyon after the removal of existing facilities is completed. If maintenance of this road declines over time due to agency budgetary constraints, motorized access to this area, and thus access for recreationalists,

would be impacted. Further, this may require that the USFS Recreation Opportunity Spectrum designation be changed from Semi-Primitive Motorized to Semi-Primitive Non-Motorized.

The Alternative would require the construction of new access roads, or the improvement of existing roads or trails, along the lengths of subtransmission line to be installed in portions of Segment 8 and in Segment 9. This may result in improved access to public lands located along these Segments, with the potential for greater recreational use of these lands. This greater access may reduce Project-related recreational conflicts by providing ready access to additional public lands on which individuals could recreate during seasonal closures of the road in Wyman Canyon. This greater access may also increase conflicts with existing users of these lands from the increased numbers of individuals accessing these lands.

## **A8. AREAS OF CRITICAL ENVIRONMENTAL CONCERN OR AREAS OF CRITICAL AND UNIQUE ENVIRONMENTAL CONCERN**

### **A8.1 White Mountain City ACEC**

The Proposed Project would remove 42 existing poles and install 18 new double-circuit poles in the White Mountain City ACEC. Of these, nine existing poles and four new poles are located within the NRHP eligible ethnographic village site and the White Mountain City archaeological site (P-14-000259/002771).

The Alternative would remove all 42 existing poles and would not install any poles in the White Mountain City ACEC and from the NRHP eligible P-14-000259/00271. The existing SCE permanent access and spur roads would be removed and rehabilitated. The existing Wyman Canyon Road would remain.

### **A8.2 Ancient Bristlecone Pine Forest (National Protection Area)**

A portion of the existing CSP Project alignment (approximately 5.6 miles of Segment 3) is located within the Ancient Bristlecone Pine Forest (Bristlecone Forest). The Bristlecone Forest was designated by Congress in 2009 within the Omnibus Public Land Management Act. The enabling legislation states that the Bristlecone Forest is designated to “conserve and protect the Ancient Bristlecone Pines by maintaining near-natural conditions and to ensure the survival of the Pines for the purposes of public enjoyment and scientific study”. The legislation directs that “[t]he Secretary shall allow only such uses of the Forest as the Secretary determines would further the purposes for which the Forest is established” and that “all Federal land within the Forest is withdrawn from ... all forms of entry, appropriation or disposal under the public land laws”.

The Alternative appears to be inconsistent with the Land Management Plan (LMP) for the Inyo National Forest, which identifies for the Ancient Bristlecone Pine Forest (National Protection Area) Desired Conditions, Standards, Potential Management Approaches, and Suitability of uses of the lands within the Forest. The LMP includes the following language:

*Suitability*

*(DA-ABPF-SUIT)*

*01. The following uses are not suitable in the Ancient Bristlecone Pine Forest:*

*a. New above-ground utility rights-of-way*

However, the LMP also includes language stating that “Plan components may be adjusted or excepted on a case-by-case basis in order to allow for compliance with State and federal laws and regulations, such as those governing utility line safety.” While the Alternative as described would require the issuance of a new right-of-way for approximately 4.5 miles of a new above-ground utility line within the Ancient Bristlecone Pine Forest boundary, it would be offset by the removal of approximately 5.5 miles of existing above-ground utility lines, resulting in a net reduction of approximately 1 mile of above-ground utility lines within the Ancient Bristlecone Pine Forest boundaries. Because the work under the Proposed Project would not require new rights-of-way, it would not conflict with the Plan or require an any amendment.

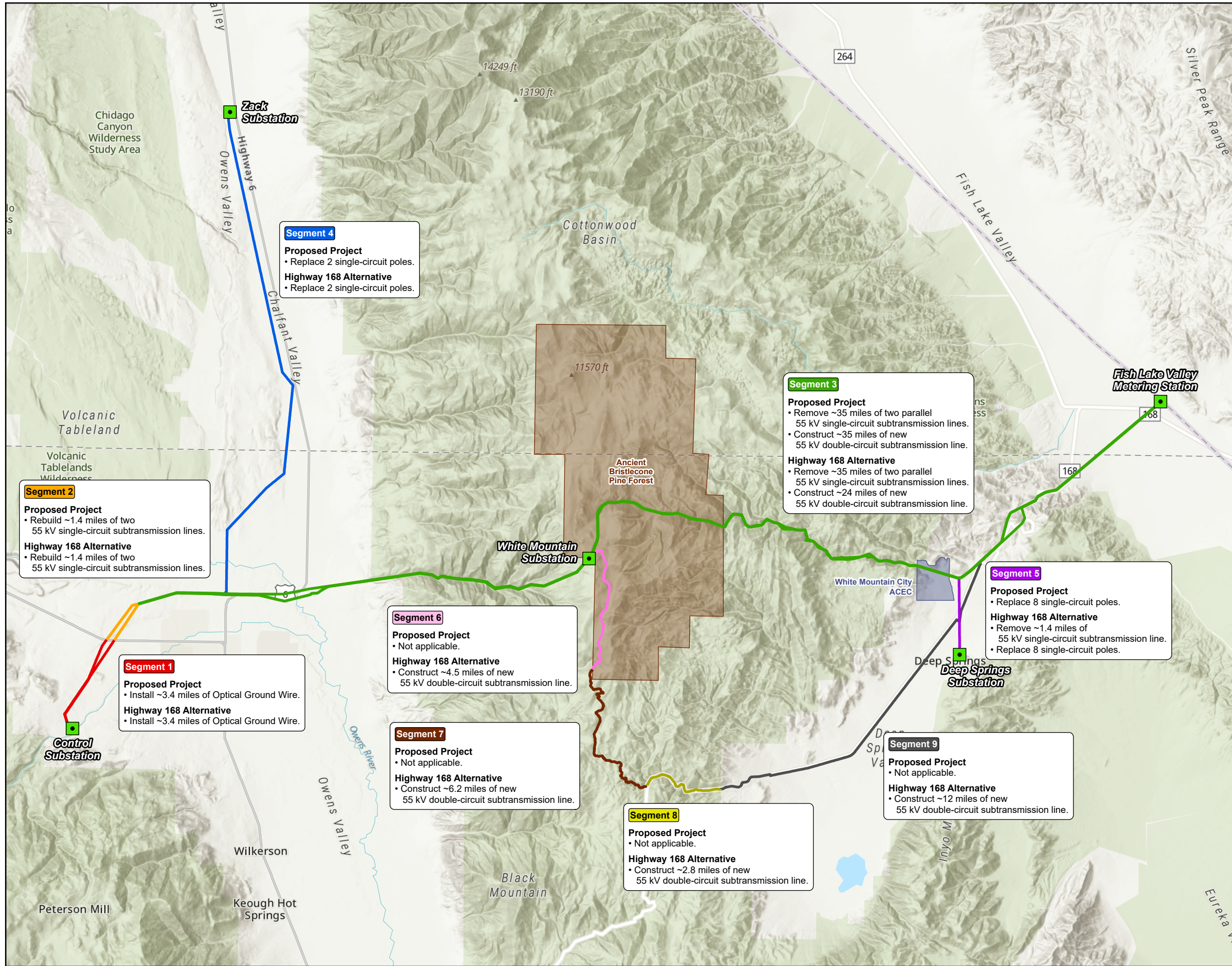
#### **A9. ANCIENT BRISTLECONE SCENIC BYWAY**

The Ancient Bristlecone Scenic Byway, established in 1992, includes a portion of Highway 168 and White Mountain Road/Forest Road 4S01. Both the Proposed Project, and the Alternative, are consistent with the Byway designation; the replacement or installation of utility infrastructure is not explicitly prohibited by any of the criteria for the designation of a road as a National Scenic Byway (Federal Register, Vol. 60, No. 96, FHWA Docket No. 95–15, National Scenic Byways Program). Further, the infrastructure associated with the existing CSP circuitry, and infrastructure associated with other utility pole lines, was present within the viewshed of Forest Road 4S01 and Highway 168 at the time the Byway was designated; thus, the presence of those utility pole lines within the viewshed of the Byway is taken to be consistent with the Byway designation.

A portion of Forest Road 4S01 intersects at a near right-angle to the Proposed Project alignment northeast of White Mountain Substation. The Byway is approximately 35.5 miles in length; the existing CSP circuitry is visible from an approximately 2.5-mile length of the Byway. From this 2.5-mile length, approximately 1.5 miles of the existing CSP circuitry, and more than 1 mile of a non-Project-related electrical pole line, are presently visible from the Byway. The CSP-circuitry related infrastructure and a foreign utility pole line is visible in the foreground, middleground, and background. Under the Proposed Project, the replacement infrastructure to be installed along this same length would be visible from the Byway. Under the Alternative, approximately 1.5 miles of existing poles northeast of White Mountain Substation would be removed, but the foreign utility pole line would remain in the viewshed, and some replacement poles installed west and southwest of White Mountain Substation would also be visible. In addition, a new electrical pole line would be installed adjacent to, or would be visible from, approximately 11 miles of the Byway along White Mountain Road/Forest Service Road 4S01.

#### **CONCLUSION**

SCE notes that this preliminary evaluation indicates that the Alternative is technically and economically feasible. However, as shown in this evaluation, the Alternative could have equal or greater environmental impacts when compared to the Proposed Project. Additionally, construction of new aerial subtransmission lines through a portion of the Ancient Bristlecone National Forest may be found to be inconsistent with the Land Management Plan for the Inyo National Forest, unless an amendment to the plan is processed.

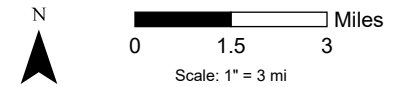


**Legend**

- Substation
  - Ancient Bristlecone Pine Forest
  - White Mountain City ACEC
- Control-Silver Peak Alignment Segments**
- Segment 1
  - Segment 2
  - Segment 3
  - Segment 4
  - Segment 5
  - Segment 6
  - Segment 7
  - Segment 8
  - Segment 9

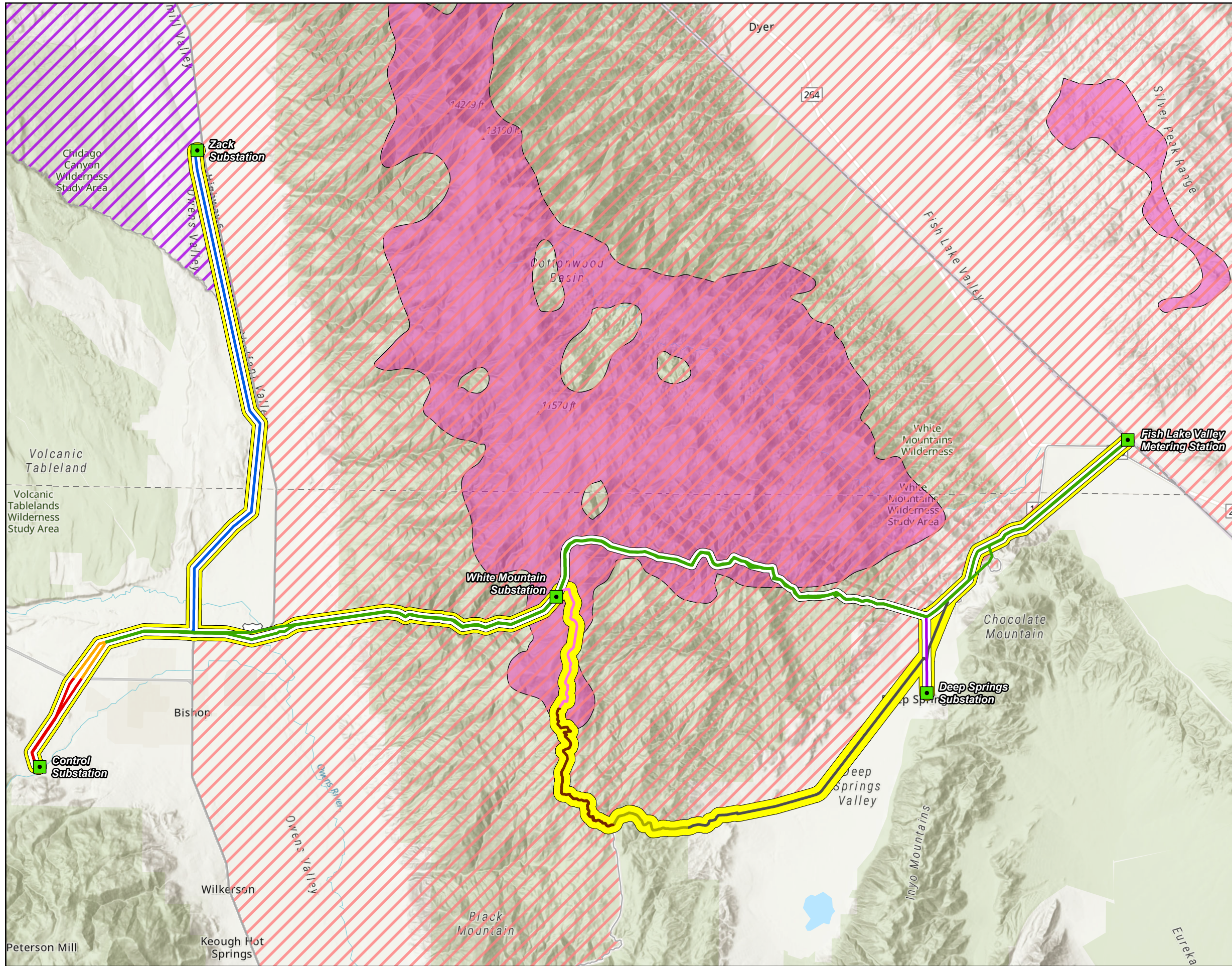
**Notes**

- Base map source: ESRI World Topographic Map.
- ACEC = Area of Critical Environmental Concern.



**Control-Silver Peak Project**

**Highway 168 Alternative—Proposed Project Scope Comparison**



**Legend**

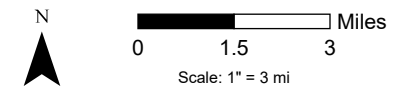
- Substation
- Proposed Control-Silver Peak Project
- Highway 168 Alternative
- Greater Sage-Grouse Critical Habitat
- White Mountains PMU
- South Mono PMU

**Control-Silver Peak Alignment Segments**

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- Segment 7
- Segment 8
- Segment 9

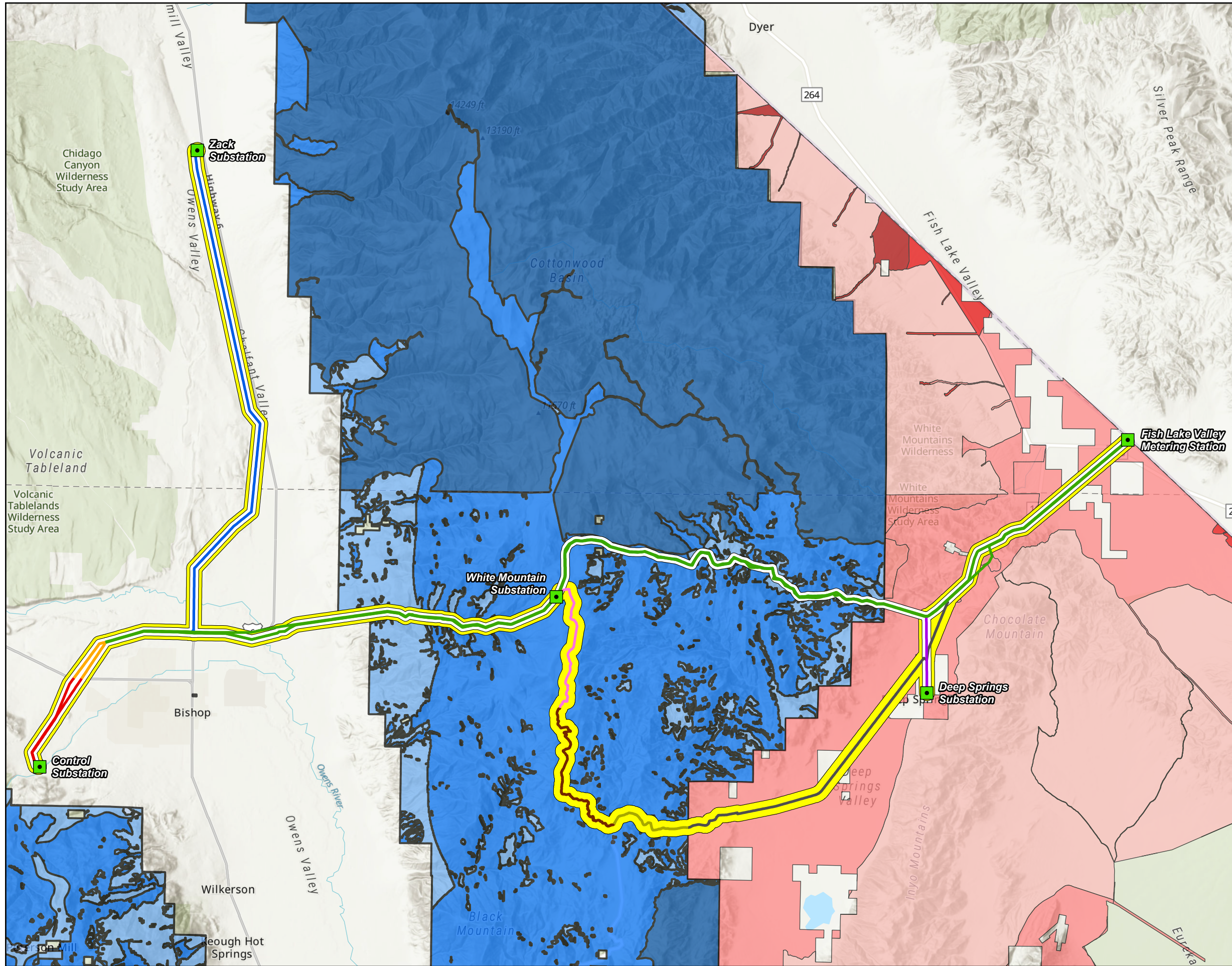
**Notes**

- Base map source: ESRI World Topographic Map.
- PMU = Population Management Unit.



**Control-Silver Peak Project**

**Highway 168 Alternative—Proposed Project  
Greater Sage-Grouse Impact Comparison**



**Legend**

- Substation
- Highway 168 Alternative
- Proposed Control-Silver Peak Project

**BLM Visual Resource Management Classes**

- Class I
- Class II
- Class III
- Class IV

**USFS Scenic Integrity Objectives**

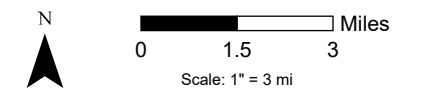
- Low
- Medium
- High
- Very High

**Control-Silver Peak Alignment Segments**

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- Segment 7
- Segment 8
- Segment 9

**Notes**

• Base map source: ESRI World Topographic Map.



**Control-Silver Peak Project**

**Highway 168 Alternative—Proposed Project Visual Impact Comparison**