

E. Comparison of Alternatives

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and the alternatives evaluated in this EIR/EIS. This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Sections D.2 through D.14. Section C introduces and describes the alternatives considered in this EIR/EIS; Appendix 1 includes the Alternatives Screening Report, which documents all alternatives considered in the screening process.

Section E.1 describes the methodology used for comparing alternatives. Section E.2 defines the environmentally superior alternative, based on comparison of each alternative with the Proposed Project. Section E.3 presents a comparison of the No Project/Action Alternative with the alternative that is determined in Section E.2 to be environmentally superior.

E.1 Comparison Methodology

E.1.1 California Environmental Quality Act (CEQA)

CEQA requires the following for alternatives analysis and comparison:

The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. Guidelines Section 15126.6(d)

If the environmentally superior alternative is the No Project Alternative, CEQA requires identification of an environmentally superior alternative among the other alternatives [CEQA Guidelines Section 15126.6(e)(2)].

E.1.2 National Environmental Policy Act (NEPA)

Under NEPA the Draft EIR/EIS should identify the environmentally preferable or superior alternative from a range of alternatives considered if one exists at the draft stage. Commenters from other agencies and the public are also encouraged to address this question. However, in all situations, the environmentally preferable alternative must be identified in the Record of Decision on the Final EIR/EIS [Forty Questions No. 6(a) and 6(b)]. The answer to Forty Questions No. 6(a) states

A. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, “. . . specifying the alternative or alternatives which were considered to be environmentally preferable.” The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA’s Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

The Council recognizes that the identification of the environmentally preferable alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. The public and other agencies reviewing a Draft EIS can assist the lead agency to develop and determine environmentally preferable alternatives by providing their views in comments on the Draft EIS. Through the identification of the environmentally preferable alternative, the decisionmaker is clearly faced with a choice between that alternative and others, and must consider whether the decision accords with the Congressionally declared policies of the Act.

In addition, the BLM NEPA Handbook (H-1790-1, Chapter 5.B.2.b) requires identification of an agency preferred alternative.

E.1.3 Alternatives Comparison

The following methodology was used to compare alternatives in this EIR/EIS:

- **Step 1: Identification of Alternatives.** An alternatives screening process (described in Chapter C) was used to identify a number of alternatives to the Proposed Project. That screening process identified three alternatives in the Harquahala area, three alternatives in the area of Alligator Rock, a transmission project alternative between Blythe and Devers Substation (California), and one alternative to the West of Devers segment. A No Project Alternative was also identified. No other feasible alternatives meeting most of the project objectives were identified that would lessen or alleviate significant impacts.
- **Step 2: Determination of Environmental Impacts.** The environmental impacts of the proposed and the alternative route segments were identified in Sections D.2 through D.14, including the potential impacts of transmission line and substation construction and operation. The significant and unmitigable (Class I) impacts that could occur with the Proposed Project and alternatives are summarized for each area below.
- **Step 3: Comparison of Proposed Project with Alternatives.** The environmental impacts of the Proposed Project were compared to those of each alternative to determine the environmentally superior alternative. The environmentally superior alternative was then compared to the No Project Alternative.

Determining an environmentally superior alternative requires balancing many environmental factors. In order to identify the environmentally superior alternative, the most important impacts in each issue area were identified and compared (see detailed comparison tables in Section E.2). Although this EIR/EIS identifies an environmentally superior alternative, it is possible that the ultimate decisionmakers could balance the importance of each impact area differently and reach a different conclusion. The following comparison highlights situations where an alternative would create impacts in one area as an unintended consequence of avoiding impacts to another area.

E.2 Environmentally Superior Alternative

For each area of the Proposed Project where an alternative is considered, the comparison begins with a summary of the significant impacts that cannot be mitigated (Class I impacts). Highlighting these areas of significant impacts identifies which alternatives would be capable of eliminating significant unavoidable environmental effects of the Proposed Project, and which alternatives would create new significant impacts. This simplifies identification of the environmentally superior alternatives while considering all issue areas equally.

The following sections summarize the advantages and disadvantages of each alternative and present a determination of whether the Proposed Project or an alternative is considered to be environmentally superior within each area. The preferred alternative is identified for each issue area. In the summary tables for each area, an alternative shown as “preferred” may still have environmental effects, but when compared with the other alternatives, the environmental effects would be minimized with the preferred alternative.

E.2.1 Transmission Line Route Alternatives: Devers-Harquahala Segment

The Proposed Project was designed to follow an established utility corridor. Use of the established corridor and existing access roads would minimize the duration and intensity of construction-related impacts. The following sections compare the alternatives with the Proposed Project in three areas of the 500 kV portion where alternatives were analyzed:

- The area near the Palo Verde Nuclear Generating Station (PVNGS) is addressed in Section E.2.1.1
- The area around Alligator Rock is addressed in Section E.2.1.2
- The area between Blythe and Devers Substation (where the Desert Southwest Transmission Project would be constructed) is addressed in Section E.2.1.3.

E.2.1.1 Proposed Project vs. Alternatives Near Palo Verde Nuclear Generating Station

Summary of Significant Unavoidable (Class I) Impacts

The **Proposed Project** in the segment between Harquahala Generating Station and the Kofa National Wildlife Refuge would have three significant (Class I) impacts:

- **AG-3:** Operation would permanently convert Farmland to non-agricultural use
- **C-1:** Construction of the project would cause an adverse change to known historic properties
- **C-2:** Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.

The **SCE Palo Verde Alternative** would eliminate the need for construction of 5.0 miles of the Proposed Project, but would add the required construction of 14.7 miles (from Harquahala Junction to the PVNGS). This alternative would have the same cultural resources impacts as the Proposed Project (potential Class I impacts to C-1 and C-2). Because the SCE Palo Verde Alternative would not affect farmland, this alternative would not result in a significant impact from conversion of farmland (Impact AG-3).

The **SCE Harquahala-West Alternative** would eliminate the need for construction of 35.0 miles of the Proposed Project (all adjacent to existing 500 kV lines) and would require construction of 21 miles of new 500 kV line entirely in a new transmission corridor. This alternative would have the same cultural resources impacts as the Proposed Project (Class I impacts for C-1 and C-2). The SCE Harquahala-West Alternative would result in a Class I impact for Impact AG-3 (conversion of Farmland), similar to the Proposed Project. However, it would have additional Class I impacts in visual resources (Impact V-33, inconsistency with BLM VRM management objective) and land use (Impact L-2, preclusion of land uses).

The **Harquahala Junction Switchyard Alternative** would eliminate five miles of transmission line construction required for the Proposed Project, but would require disturbance of between 6 and 40 acres of land. This alternative would have the same cultural resources impacts as the Proposed Project (potential Class I impacts for C-1 and C-2). The Harquahala Junction Switchyard Alternative would not affect farmland, so would not result in a significant impact from conversion of farmland (Impact AG-3).

Comparison of Impacts

Table E-1 compares each alternative in the PVNGS segment with the Proposed Project for each environmental issue area. For this segment of the project, land disturbance figures are calculated for the route between Harquahala Generating Station and the eastern edge of the Kofa National Wildlife Refuge, including the appropriate segments of the Proposed Project and each of the three alternatives.

The Harquahala Junction Switchyard Alternative is preferred because it would require the least miles of new transmission line construction and would eliminate effects to agricultural lands in the PVNGS area. The alternative with the most severe impacts would be the SCE Harquahala-West Alternative, due to its creation of a new transmission corridor and effects on agricultural land.¹

Table E-1. Comparison of Alternatives Near Palo Verde Nuclear Generating Station

Issue Area	Proposed Project	SCE Harquahala-West Alternative	SCE Palo Verde Alternative	Harquahala Junction Switchyard Alternative
Biological Resources	<ul style="list-style-type: none"> All impacts less than significant (Class II or Class III) 18.7 acres of permanent ground disturbance (13.6 acres of agricultural land and 5.1 acres of desert habitat) 199.9 acres of temporary ground disturbance 	<ul style="list-style-type: none"> All impacts less than significant (Class II or Class III) 30.2 acres of permanent ground disturbance (25.5 acres of agricultural land and 4.7 acres of desert habitat) 129.1 acres of temporary ground disturbance Least native habitat loss Preferred 	<ul style="list-style-type: none"> All impacts less than significant (Class II or Class III) 14.8 acres of permanent ground disturbance (1.2 acres of agricultural land and 13.6 acres of desert habitat) 229.7 acres of temporary ground disturbance Species impacts similar to Proposed Project 	<ul style="list-style-type: none"> All impacts less than significant (Class II or Class III) 16.5 to 50.5 acres of permanent ground disturbance² (6- to 40-acre switchyard is all within native habitat; no agricultural land affected) 176.5 acres of temporary ground disturbance
Visual Resources	<ul style="list-style-type: none"> Class I impact at Harquahala Peak Class III impacts to views from Saddle Mtn and Salome Hwy across Harquahala Plain All TL³ construction in existing corridors 	<ul style="list-style-type: none"> Class I impacts at Harquahala Peak, near Eagletail Mtns and Courthouse Rock with new TL corridor Creation of new TL corridor 	<ul style="list-style-type: none"> Class I impact at Harquahala Peak Class III impacts to residents west of PVNGS with views toward Saddle Mtn from Salome Hwy All TL construction in existing corridors 	<ul style="list-style-type: none"> Class I impact at Harquahala Peak Class II impact at switchyard to views on Salome Hwy, mitigable with landscaping Least overall length of TL added Preferred
Land Use	<ul style="list-style-type: none"> Class II impacts from construction disturbance to residents, operation (CAP), and from preclusion of land use 	<ul style="list-style-type: none"> Class I impact from preclusion of land use (agriculture) along new corridor 	<ul style="list-style-type: none"> No new disturbance of land uses Class III impact from preclusion of land uses (existing 500 kV transmission corridor) but would require 14 additional miles of construction along existing TL corridor 	<ul style="list-style-type: none"> Class III impacts from disturbance and preclusion of land uses (no developed land would be affected) adjacent to existing utility corridor Preferred

¹ Impacts are classified as follows: Class I (significant and unmitigable), Class II (less than significant with mitigation), Class III (less than significant), and Class IV (beneficial).

² Acreage depends on size of switchyard, which would be a minimum of 6 acres and a maximum of 40 acres.

³ TL: transmission line

Table E-1. Comparison of Alternatives Near Palo Verde Nuclear Generating Station

Issue Area	Proposed Project	SCE Harquahala-West Alternative	SCE Palo Verde Alternative	Harquahala Junction Switchyard Alternative
Wilderness and Recreation	<ul style="list-style-type: none"> • Class I impacts only at Harquahala Peak • Class II impacts from reduced access to recreational use of Big Horn Mtns WA (140 feet from corridor) during construction • No significant permanent preclusion of use would occur (Class III) 	<ul style="list-style-type: none"> • Class I impacts only at Harquahala Peak • Class II impacts from reduced access to Eagletail Mtns WA (about 1,000 feet from the corridor) during construction; avoids impacts to Big Horn Mtns WA (about 140 feet from corridor) • Preferred 	<ul style="list-style-type: none"> • Class I impacts only at Harquahala Peak • No impacts to wilderness or recreation areas in segment south of Harquahala Junction • Class II impacts from reduced access to recreational use of Big Horn Mtns WA during construction 	<ul style="list-style-type: none"> • Class I impacts only at Harquahala Peak • No impacts to wilderness or recreation areas near switchyard • Class II impacts from reduced access to recreational use of Big Horn Mtns WA during TL construction
Agricultural Resources	<ul style="list-style-type: none"> • Class I impacts from conversion of 13.6 acres of Prime Farmland to non-agricultural use • 16.7 acres of temporary agricultural land disturbance • Class II impacts from construction effects on Farmland 	<ul style="list-style-type: none"> • Class I impacts from conversion of 23.4 acres of Prime Farmland to non-agricultural use • 35.7 acres of temporary agricultural land disturbance 	<ul style="list-style-type: none"> • Class II impacts from conversion of 1.2 acres of Prime Farmland to non-agricultural use • 22.8 acres of temporary agricultural land disturbance • Class II impacts from interference with farm operations 	<ul style="list-style-type: none"> • No impacts on farmland • Preferred
Cultural and Paleontological Resources	<ul style="list-style-type: none"> • Potential Class I impact if avoidance is not possible: 1 high potential site for listing on the NRHP found (AZ S:8:1) • Total disturbance 218.6 acres 	<ul style="list-style-type: none"> • Potential Class I impact if avoidance is not possible: 4 sites with moderate to high potential for listing on the NRHP • Total disturbance 159.3 acres 	<ul style="list-style-type: none"> • Potential Class I impact if avoidance is not possible: no sites identified • Total disturbance 229.7 acres; greatest potential for discovery of unknown resources 	<ul style="list-style-type: none"> • No sites identified but potential Class I impact if avoidance is not possible • Total disturbance 193 to 227 acres⁴ • Preferred
Noise	<ul style="list-style-type: none"> • Class II impacts from exposure of residences to construction noise impacts 	<ul style="list-style-type: none"> • No impacts; residences more than 0.5 miles away • Preferred 	<ul style="list-style-type: none"> • Class II impacts from exposure of residences to construction noise impacts 	<ul style="list-style-type: none"> • Class II impacts from exposure of residences to construction noise impacts
Transportation and Traffic	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 10 county road and 2 crossings of I-10 crossings⁵ 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 4 county road crossings • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 9 county road crossings and 2 crossings of I-10 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 7 county road crossings and 2 crossings of I-10

⁴ Acreage depends on size of switchyard, which would be a minimum of 6 acres and a maximum of 40 acres.

⁵ Road crossings listed include all crossings between the eastern start of the project (Harquahala Switchyard or Harquahala Junction) and the eastern border of Kofa National Wildlife Refuge.

Table E-1. Comparison of Alternatives Near Palo Verde Nuclear Generating Station

Issue Area	Proposed Project	SCE Harquahala-West Alternative	SCE Palo Verde Alternative	Harquahala Junction Switchyard Alternative
Public Health and Safety	• No preference: all impacts Class II with slight risk of encountering contamination from agricultural land with potential for residual pesticide and herbicide contamination	• No preference: all impacts Class II with slight risk of encountering contamination from agricultural land with potential for residual pesticide and herbicide contamination	• No preference: all impacts Class II with slight risk of encountering contamination from past substation use	• No preference: all impacts Class II with slight risk of encountering contamination
Air Quality	• No preference: all impacts Class II or Class III and mitigated to less than significant.	• No preference: all impacts Class II or Class III and mitigated to less than significant.	• No preference: all impacts Class III and mitigated to less than significant.	• No preference: all impacts Class III and mitigated to less than significant.
Hydrology and Water Quality	• No preference: all impacts less than significant (Class II or Class III)	• No preference: all impacts less than significant (Class II or Class III)	• No preference: all impacts less than significant (Class II or Class III)	• No preference: all impacts less than significant (Class II or Class III)
Geology, Mineral Resources, and Soils	• No preference: all impacts Class II and mitigated to less than significant.	• No preference: all impacts Class II and mitigated to less than significant.	• No preference: all impacts Class II and mitigated to less than significant.	• No preference: all impacts Class II and mitigated to less than significant.
Socioeconomics	• No preference: all impacts less than significant (Class III)	• No preference: all impacts less than significant (Class III)	• No preference: all impacts less than significant (Class III)	• No preference: all impacts less than significant (Class III)

E.2.1.2 Proposed Project vs. Alligator Rock Alternatives

Three alternatives are considered to minimize the Proposed Project’s impacts as it passes through the Alligator Rock ACEC.

Summary of Significant Unavoidable (Class I) Impacts

The **Proposed Project** in this segment would have five significant (Class I) impacts:

- **V-15:** Inconsistency with Interim BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining⁶ when viewed from Key Viewpoint 10 in the Alligator Rock ACEC.
- **WR-2:** Operation would change the character of the Alligator Rock ACEC and adjacent wilderness area, diminishing its recreational value.
- **C-1:** Construction of the project would cause an adverse change to known historic properties.
- **C-2:** Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.
- **AQ-1:** Construction would generate dust and exhaust emissions in SCAQMD

⁶ Skylining occurs when a transmission tower is seen with only the sky behind it, making it highly visible.

The **Alligator Rock–North of Desert Center** Alternative is 1.2 miles longer than the Proposed Project. It would have the same Class I impacts in air quality and cultural resources, although the cultural resources potentially affected would likely have less value than those in the ACEC. The alternative would create a different Class I visual impact, Impact V-37, resulting from inconsistency with Interim BLM VRM Class III management objective when viewing the Chuckwalla Mountains from north of Desert Center. The alternative would eliminate the Class I impact of WR-2 because it would avoid the Alligator Rock ACEC.

The **Alligator Rock–Blythe Energy Project Alternative** is 0.65 miles longer than the proposed route. It would have the same Class I impacts in air quality and cultural resources, although the cultural resources potentially affected would likely have less value than those in the heart of the ACEC. The alternative would create a different Class I visual impact, Impact V-38, resulting from inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from westbound Interstate 10, east of Desert Center.

The **Alligator Rock–South of I-10 Frontage Alternative** is 0.57 miles longer than the proposed route. It would have the same Class I impacts in air quality and cultural resources, although the cultural resources potentially affected would have less value than those in the heart of the ACEC. The alternative would create a different Class I visual impact, Impact V-39 (inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from eastbound Interstate 10).

Comparison of Impacts

Table E-2 compares each Alligator Rock alternative with the Proposed Project for each environmental issue area. For this segment of the project, land disturbance figures are calculated with the Proposed Project and each of the three alternatives from the Midpoint Substation to the Cactus City Rest Area.

The Alligator Rock–North of Desert Center Alternative is preferred to the other routes because it would minimize biological, cultural, and wilderness area impacts, even though it would be closer to populated areas and would require two crossings of the I-10.

Devers–Palo Verde No. 2 Transmission Line Project
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Table E-2. Comparison of Alternatives Around Alligator Rock

Issue Area	Proposed Project	Alligator Rock– North of Desert Center	Alligator Rock– Blythe Energy Project Transmission Line Route	Alligator Rock– South of I-10 Frontage
Biological Resources	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 13.1 acres of permanent ground disturbance; 269.6 acres of temporary ground disturbance • Construction in highest-quality habitat furthest from I-10 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 24.9 acres of permanent ground disturbance; 273.9 acres of temporary ground disturbance • Lower value desert tortoise habitat due to greater disturbance (closer to developed areas), so loss of habitat would have less impact even with greater overall acreage loss • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 13.2 acres of permanent ground disturbance; 271.5 acres of temporary ground disturbance • Construction in more disturbed habitat near I-10 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 18.7 acres of permanent ground disturbance; 271.4 acres of temporary ground disturbance • Construction in more disturbed habitat near I-10
Visual Resources	<ul style="list-style-type: none"> • Class I impacts in the Alligator Rock ACEC • Uses existing corridor and farthest from viewers • Preferred 	<ul style="list-style-type: none"> • Class I impacts from new TL corridor and view blockage of Chuckwalla Mtns on southbound Kaiser Road, north of Desert Center • Creates new TL corridor 	<ul style="list-style-type: none"> • Class I impacts from new TL corridor and view blockage when viewing Alligator Rock on westbound I-10, east of Desert Center • Creates new TL corridor 	<ul style="list-style-type: none"> • Class I impacts from new TL corridor and view blockage when viewing Alligator Rock on eastbound I-10 • Creates new TL corridor
Land Use	<ul style="list-style-type: none"> • Equivalent impacts for all routes south of I-10 • Class II impacts from construction disturbance and from preclusion of land use • Equally preferred 	<ul style="list-style-type: none"> • Class II impacts from construction disturbance and from preclusion of land use • Introduces new industrial land use north of I-10 	<ul style="list-style-type: none"> • Equivalent impacts for all routes south of I-10 • Class II impacts from construction disturbance and from preclusion of land use • Equally preferred 	<ul style="list-style-type: none"> • Equivalent impacts for all routes south of I-10 • Class II impacts from construction disturbance and from preclusion of land use • Equally preferred
Wilderness and Recreation	<ul style="list-style-type: none"> • Class I impact to recreational resource and impacts to recreational value in ACEC • Uses existing TL corridor 	<ul style="list-style-type: none"> • No Class I impacts • Avoids significant impacts to the recreational facilities in the Alligator Rock ACEC • Preferred 	<ul style="list-style-type: none"> • Class I impact of new TL corridor across recreational resource and impacts to recreational value in ACEC • Creates new TL corridor within ACEC 	<ul style="list-style-type: none"> • Class I impact of new TL corridor across recreational resource and impacts to recreational value in ACEC • Creates new TL corridor within ACEC
Agricultural Resources	<ul style="list-style-type: none"> • No preference (no impacts on farmland) 	<ul style="list-style-type: none"> • No preference (no impacts on farmland) 	<ul style="list-style-type: none"> • No preference (no impacts on farmland) 	<ul style="list-style-type: none"> • No preference (no impacts on farmland)

Table E-2. Comparison of Alternatives Around Alligator Rock

Issue Area	Proposed Project	Alligator Rock– North of Desert Center	Alligator Rock– Blythe Energy Project Transmission Line Route	Alligator Rock– South of I-10 Frontage
Cultural and Paleontological Resources	<ul style="list-style-type: none"> • Class I impact within Alligator Rock ACEC and National Register district • Least acreage of temporary and permanent ground disturbance⁷ 	<ul style="list-style-type: none"> • Avoids all new impacts to Alligator Rock ACEC and National Register site • Potential Class I impacts could still occur north of I-10 to World War II training sites • Preferred 	<ul style="list-style-type: none"> • Class I impact within Alligator Rock ACEC and National Register site area but located in more disturbed area 	<ul style="list-style-type: none"> • Class I impact within Alligator Rock ACEC and National Register site area but located in more disturbed area
Noise	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Smallest number of residences exposed to construction noise impacts • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Class II impacts from increased construction traffic and noise through Desert Center, which could affect homes along access routes 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Exposes one additional home south of Desert Center to construction noise impacts than the Proposed Project 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Exposes one additional home to construction noise impacts than the Proposed Project
Transportation and Traffic	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 8 county road crossings and 1 crossing of I-10⁸ • Equally preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 12 county road crossings and 3 crossings of I-10 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 8 county road crossings and 1 crossing of I-10 • Equally preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 8 county road crossings and 1 crossing of I-10 • Equally preferred
Public Safety	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III)
Air Quality	<ul style="list-style-type: none"> • No preference: all routes would have Class I impact from construction-generated dust and exhaust emissions 	<ul style="list-style-type: none"> • No preference: all routes would have Class I impact from construction-generated dust and exhaust emissions 	<ul style="list-style-type: none"> • No preference: all routes would have Class I impact from construction-generated dust and exhaust emissions 	<ul style="list-style-type: none"> • No preference: all routes would have Class I impact from construction-generated dust and exhaust emissions
Hydrology and Water Quality	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III)
Geology, Mineral Resources, and Soils	<ul style="list-style-type: none"> • No preference: all impacts mitigable to less than significant (Class II) 	<ul style="list-style-type: none"> • No preference: all impacts mitigable to less than significant (Class II) 	<ul style="list-style-type: none"> • No preference: all impacts mitigable to less than significant (Class II) 	<ul style="list-style-type: none"> • No preference: all impacts mitigable to less than significant (Class II)
Socioeconomics	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class III)

⁷ See acreage figures in row for Biological Resources above.

⁸ Road crossings for comparison of Alligator Rock alternatives include all those between Blythe and Cactus City Rest Area.

E.2.1.3 Proposed Project vs. Desert Southwest Transmission Project Alternative

The Desert Southwest Transmission Project (DSWTP) Alternative would replace the Proposed Project between Blythe and the Devers Substation. Nearly the entire route would be the same as the Proposed Project, but the DSWTP would require construction of several additional substations and a transmission line into Blythe.

Summary of Significant Unavoidable (Class I) Impacts

The **Proposed Project** in this segment would have six significant (Class I) impacts:

- **V-15:** Inconsistency with Interim BLM VRM Class II management objective due to increased structure contrast, industrial character, view blockage, and skylining when viewed from Key Viewpoint 10 in the Alligator Rock ACEC.
- **WR-2:** Operation would change the character of a recreation or wilderness area, diminishing its recreational value.
- **C-1:** Construction of the project would cause an adverse change to known historic properties
- **C-2:** Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.
- **N-2:** Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines.
- **AQ-1:** Construction would generate dust and exhaust emissions in SCAQMD (SCAB, SSAB, and MDAB)

The Proposed Project and the **DSWTP Alternative** would be the same over the vast majority of the length of the route. The Class I impacts above would be the same for all both projects, except that a different Class I visual impact would occur in the area of Alligator Rock where the DSWTP would be closer to the I-10. DSWTP would still result in Class I cultural resources impacts, but it would avoid the specific effects on the North Chuckwalla Mountains NRHP Quarry District and three other NRHP-eligible sites in the area of Alligator Rock. It would eliminate Class I Impact V-15 (inconsistency with visual criteria when viewed in the Alligator Rock ACEC), but it would create Class I Impact V-36 (inconsistency with Interim BLM VRM Class II management objective when viewing Alligator Rock from eastbound Interstate 10. Table E-3 compares each Alligator Rock alternative with the Proposed Project for each environmental issue area.

Comparison of Impacts

Table E-3 compares the DSWTP Alternative with the Proposed Project for each environmental issue area. For this segment of the project, land disturbance figures are calculated for the route between the Palo Verde Valley and Devers Substation with the Proposed Project and the DSWTP Alternative.

The Proposed Project is preferred over the DSWTP because it would require less ground disturbance and construction of fewer substations.

Table E-3. Comparison of the Proposed Project to DSWTP Alternative

Issue Area	Proposed Project	Desert Southwest Transmission Project Alternative
Biological Resources	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 74.6 acres of permanent ground disturbance (2.3 acres of agricultural land and 72.4 acres of desert habitat) • 461.1 acres of temporary ground disturbance • Construction in high value habitat in Alligator Rock area (unless an alternative is selected; see Table E-2) • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 148.3 acres of permanent ground disturbance (2.5 acres of agricultural land and 145.8 acres of desert habitat) • 495.1 acres of temporary ground disturbance • Shorter route and closer to areas of human disturbance in the area of Alligator Rock
Visual Resources	<ul style="list-style-type: none"> • Class I impacts in the Alligator Rock ACEC • Reduced impacts in Alligator Rock area • Preferred 	<ul style="list-style-type: none"> • Class I impacts from new TL corridor and view blockage when viewing Alligator Rock on east-bound I-10
Land Use	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Uses an existing TL corridor • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Creates a new TL corridor across non-industrial land uses
Wilderness and Recreation	<ul style="list-style-type: none"> • Class I impact to recreational resource and impacts to recreational value in ACEC • Uses an existing TL corridor • Preferred 	<ul style="list-style-type: none"> • Class I impact to recreational resource and impacts to recreational value in ACEC • Creates a new ROW across the Alligator Rock recreational resource within the ACEC
Agricultural Resources	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 2.3 permanent acres and 43.0 temporary acres of Farmland converted to non-agricultural use • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 2.5 permanent acres and 46.6 temporary acres of Farmland converted to non-agricultural use
Cultural and Paleontological Resources	<ul style="list-style-type: none"> • Class I impact to Alligator Rock ACEC area in area of greatest significance • 535.7 acres of total ground disturbance 	<ul style="list-style-type: none"> • Class I impact to Alligator Rock ACEC area but avoids area of greatest significance • Avoids significant impacts to North Chuckwalla Mtns NRHP Quarry District and 3 other NRHP-eligible sites • 643.4 acres of total ground disturbance; greater potential for finding unknown resources • Preferred
Noise	<ul style="list-style-type: none"> • Class I impact from corona noise during operation • Preferred 	<ul style="list-style-type: none"> • Class I impact from corona noise during operation • Additional Class I impacts from corona noise to sensitive uses near Keim Substation
Transportation and Traffic	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 32 county road crossings, 1 SR-78 crossing, and 1 crossing of I-10 • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • 33 county road crossings, 1 SR-78 crossing, and 2 crossings of I-10
Public Safety	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Requires construction of 2 additional substations • Slightly greater length of TL construction creating greater ground disturbance and risk of spills of chemicals or fuel

Table E-3. Comparison of the Proposed Project to DSWTP Alternative

Issue Area	Proposed Project	Desert Southwest Transmission Project Alternative
Air Quality	<ul style="list-style-type: none"> • Class I impact from construction-generated dust and exhaust emissions in SCAQMD • Preferred 	<ul style="list-style-type: none"> • Class I impact from construction-generated dust and exhaust emissions in SCAQMD • Requires construction and operation of 2 additional substations and new corridor in Alligator Rock area
Hydrology and Water Quality	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II and Class III)
Geology, Mineral Resources, and Soils	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Avoids potential fault rupture impacts associated with construction of the Dillon Road Substation • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II or Class III) • Dillon Road Substation located in Alquist-Priolo zone for several unnamed short Quaternary fault segments, thereby increasing the potential for impacts from fault rupture and damage to the substation
Socioeconomics	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class III) 	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class III)

E.2.2 Transmission Line Route Alternatives: West of Devers Segment

Summary of Significant Unavoidable (Class I) and Beneficial (Class IV) Impacts

The **Proposed Project** in this segment would have three significant (Class I) impacts:

- **C-1:** Construction of the project would cause an adverse change to known historic properties
- **C-2:** Construction of the project could cause an adverse change to unknown significant buried prehistoric and historical archaeological sites or buried Native American human remains.
- **AQ-1:** Construction would generate dust and exhaust emissions in SCAQMD (SCAB, SSAB, and MDAB)

In addition, due to the proposed removal of structures in the West of Devers segment, the Proposed Project would result in the following beneficial (Class IV) impacts. These beneficial impacts would not occur if the Devers-Valley No. 2 Alternative were constructed.

- Three visual resources viewpoints (Cedar Hollow Road in the City of Beaumont, Stargazer Street and Rose Avenue in the City of Beaumont, and the Oak Valley Golf Course in the City of Beaumont)
- Project operation would provide revenue to the Morongo Band of Mission Indians (Impact S-4).

The **Devers-Valley No. 2 Alternative** was considered in the EIR/EIS because there is uncertainty as to whether SCE will negotiate lease renewals for the existing West of Devers corridor with the Morongo Band of Mission Indians in time to allow construction and operation of the West of Devers segment concurrent with the Devers-Harquahala segment of the project. In the absence of that lease renewal, the Proposed Project described by SCE would not be feasible.

The Devers-Valley No. 2 Alternative would not eliminate any significant (Class I) impacts of the Proposed Project. It would create the following additional significant and unavoidable (Class I) impacts:

- **V-40, V-43, V-44, V-45, V-47:** Increased visual contrast and skylining from 5 key viewpoints along Devers-Valley alternative
- **V-41, V-42, V-46:** Inconsistency with BLM and San Bernardino National Forest scenic criteria
- **WR-2:** Operation would change the character of a recreation or wilderness area, diminishing its recreational value.
- **N-2:** Permanent noise levels along the ROW would increase due to corona noise from operation of the transmission lines.

While the environmental impacts of the Proposed Project would be less than those of the Devers-Valley No. 2 Alternative, the Devers-Valley No. 2 Alternative is feasible and would be constructed within an existing transmission corridor.

Comparison of Impacts

Table E-4 compares the Devers-Valley No. 2 Alternative with the Proposed Project for each environmental issue area. The Devers-Valley No. 2 Alternative would replace all of the West of Devers proposed upgrades between the Devers Substation and the Vista and Mountain View Substations.

Based only on environmental factors, the West of Devers portion of the Proposed Project is preferred over the Devers-Valley No. 2 Alternative. However, the Devers-Valley No. 2 Alternative would also be in an existing transmission corridor, and it would be feasible to construct. If the Proposed Project is found to be infeasible, the alternative would meet project objectives and allow the entire DPV2 Project to be successfully constructed.

Table E-4. Comparison of the Proposed Project to Devers-Valley No. 2 Alternative

Issue Area	Proposed Project	Devers-Valley No. 2 Alternative
Biological Resources	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • Construction would occur closer to developed areas within more disturbed corridor • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • Greater habitat disturbance and impacts on sensitive species, especially in National Monument and National Forest where desert bighorn sheep habitat exists • Construction disturbance would be greater due to required steep slope construction techniques
Visual Resources	<ul style="list-style-type: none"> • All adverse impacts less than significant (Class II and Class III) • West of Devers upgrades would improve the visual environment (Class IV) due to consolidation of structures • Preferred 	<ul style="list-style-type: none"> • Class I impacts due to and conflicts with visual policy objectives • Eliminates Class IV (beneficial) impacts of the proposed West of Devers portion of the project in which towers would be removed
Land Use	<ul style="list-style-type: none"> • No preference; all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference; all impacts less than significant (Class II and Class III)
Wilderness and Recreation	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • Preferred 	<ul style="list-style-type: none"> • Class I impact to recreational resource and impacts to recreational value (e.g., SRSJ National Monument, Pacific Crest National Scenic Trail, San Bernardino National Forest, wilderness area adjacent to corridor, and Potrero ACEC)

Devers–Palo Verde No. 2 Transmission Line Project
E. COMPARISON OF ALTERNATIVES

Table E-4. Comparison of the Proposed Project to Devers-Valley No. 2 Alternative

Issue Area	Proposed Project	Devers-Valley No. 2 Alternative
Agricultural Resources	<ul style="list-style-type: none"> • All impacts less than significant (Class III) • Temporary conversion of less than 0.1 acre of Farmland to non-agricultural use • Preferred 	<ul style="list-style-type: none"> • All impacts less than significant (Class III) • Temporary conversion of 3.6 acres of Farmland to non-agricultural use and permanent loss of 0.2 acres
Cultural and Paleontological Resources	<ul style="list-style-type: none"> • Class I impact to known historic properties and/or unknown archaeological resources • Potential impacts to 3 known historic and prehistoric sites in the surveyed portion of the route • Preferred 	<ul style="list-style-type: none"> • Class I impact to known historic properties and/or unknown archaeological resources • Potential impacts to 11 known historic and prehistoric sites in the surveyed portion of the route
Noise	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • Preferred 	<ul style="list-style-type: none"> • Class I impact from corona noise during operation to sensitive uses along the TL corridor
Transportation and Traffic	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • 56 county, city, or Morongo Indian Reservation road crossings, 1 State route crossings, 3 crossings of I-10, and 3 Union Pacific Railroad crossings 	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • 36 county and city road crossings, 5 State route crossings, 1 crossing of I-10, and 1 Union Pacific Railroad crossing • Preferred
Public Safety	<ul style="list-style-type: none"> • No preference: all impacts less than significant (Class II or Class III)all impacts Class II and III and route does not pass through commercial or industrial land uses that are typically associated with soil contamination 	<ul style="list-style-type: none"> • No preference: all impacts Class II and III with slight risk of encountering contamination from 2.5 miles of agricultural land with potential for residual pesticide and herbicide contamination and a longer route
Air Quality	<ul style="list-style-type: none"> • Class I impact from construction-generated dust and exhaust emissions in SCAQMD • Greater construction emissions due to demolition and removal of existing towers 	<ul style="list-style-type: none"> • Class I impact from construction-generated dust and exhaust emissions in SCAQMD • Lower construction emissions, even with helicopter construction • Preferred
Hydrology and Water Quality	<ul style="list-style-type: none"> • No preference; all impacts less than significant (Class II and III) 	<ul style="list-style-type: none"> • No preference; all impacts less than significant (Class II and III)
Geology, Mineral Resources, and Soils	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • Requires 10 active fault crossings resulting in a greater potential for fault rupture 	<ul style="list-style-type: none"> • All impacts less than significant (Class II and Class III) • Requires 4 fault crossings • Crosses a larger area of potentially liquefiable materials in the San Jacinto Valley • Preferred
Socioeconomics	<ul style="list-style-type: none"> • No preference; all impacts less than significant (Class II and Class III) 	<ul style="list-style-type: none"> • No preference; all impacts less than significant (Class II and Class III)

E.2.3 Definition of Environmentally Superior/Preferred Alternative and Agency Preferred Alternative

The conclusions in Sections E.2.1 and E.2.2 for various alternatives result in the following environmentally superior alternatives and the BLM agency preferred alternatives:

- Harquahala Junction Switchyard (the project would begin at this point)
- Proposed Project route from Harquahala Switchyard to east of Alligator Rock
- Alligator Rock–North of Desert Center Alternative to west of Alligator Rock
- Proposed Project route from west of Alligator Rock to Devers Substation
- Proposed West of Devers upgrades *unless* determined to be infeasible, in which case the Devers-Valley No. 2 Alternative would be constructed.

The Environmentally Superior/Preferred transmission line route is illustrated in Figures E-1a and E-1b.

E.3 No Project Alternative vs. the Environmentally Superior Alternative

The No Project Alternative is described in Section C.6, and although no specific development scenario is envisioned, certain consequences can be identified without undue speculation. The absence of the Proposed Project may lead SCE or other developers to pursue other actions to achieve the objectives of the Proposed Project. The events or actions that are reasonably expected to occur in the foreseeable future without DPV2 include the following:

- The existing transmission grid and power generating facilities would continue to operate without being reduced until other major generation or transmission projects could be developed.
- Continued growth in electricity consumption and peak demand within California is expected. To serve this growth, additional electricity would need to be internally generated or imported into California by existing facilities. Net air emissions reductions caused by reducing generation from older and less efficient power plants in California and increasing generation from higher-efficiency power plants outside of California would not occur.
- A continuation of baseline *demand-side* or *supply-side* actions may be expected to occur. *Demand-side* actions include additional energy conservation or load management. *Supply-side* actions can include accelerated development of generation, such as conventional, renewable, and distributed generation, or other major transmission projects. These are described in more detail below because they could lead to new adverse environmental effects. Development of other major transmission facilities or new generation triggered by the No Project Alternative would be unpredictable because this varies depending on a number of uncontrollable factors (e.g., energy cost, need, market forces).

The environmental impacts of the No Project Alternative would primarily result from operation of gas-fired turbine generators and new transmission lines. These long-term operational impacts include substantial air emissions and ongoing noise near the generators, as well as visual impacts of the new transmission lines and generators depending on their locations.

Therefore, because the No Project Alternative could also require construction of transmission lines with impacts similar to those described for the Proposed Project, as well as impacts of generation sources, the No Project Alternative is not found to be superior to the Environmentally Superior Alternative as defined in Section E.2.3 above.

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Figure E-1a. Environmentally Superior/Preferred Alternative (Arizona)
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Figure E-1b. Environmentally Superior/Preferred Alternative (California)
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