

6 COMPARISON OF ALTERNATIVES

6.1 INTRODUCTION

This section summarizes and compares the environmental advantages and disadvantages of the Proposed Project and the alternatives evaluated in this EIR. This comparison is based on the assessment of environmental impacts of the Proposed Project and each alternative, as identified in Chapters 4 and 5. Section 3 introduces and describes the alternatives considered in this EIR; Appendix E includes the Alternatives Screening Report, which documents all alternatives considered in the screening process. Section 3 and Appendix E include figures of all alternatives that have been retained for analysis, which are compared within this chapter.

Section 6.2 describes the regulatory requirements for alternatives comparison. Section 6.3 describes the methodology used for comparing alternatives. Section 6.4 presents a comparison of the alternative project components with the Proposed Project. Based on the comparisons, Section 6.5 presents the Environmentally Superior Alternative. Section 6.6 compares No Project Alternative to the Environmentally Superior Alternative.

6.2 CEQA REQUIREMENTS FOR ALTERNATIVES COMPARISON

CEQA Guidelines Section 15126.6(d) 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.

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

6.2.1 Conclusion Regarding Environmentally Superior Alternative

In this section, the CPUC has identified the Environmentally Superior Alternative, as required by CEQA Guidelines Sections 15126.6(d) and (e)(2). The results of the comparisons of alternatives are presented below, with the Environmentally Superior Alternative shown first

6 COMPARISON OF ALTERNATIVES

and the least environmentally preferable alternative shown last. The rationale for these conclusions is presented in Section 6.4.

1. Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead
2. Combination of Alternative 3: Los Peñasquitos Canyon Preserve – Mercy Road Underground and Alternative 4: Segment D 69-kV Partial Underground Alignment, with Proposed Project in Segment A between the Sycamore Canyon Substation and Ivy Hill Drive
3. No Project Alternative¹
4. Alternative 3: Los Peñasquitos Canyon Preserve-Mercy Road Underground, with Proposed Project in Segment A between the Sycamore Canyon Substation and Ivy Hill Drive and Segment D
5. Combination of Alternative 1: Cable Pole at Carmel Valley Road and Alternative 4: Segment D 69-kV Partial Underground Alignment, with Proposed Project in Segments A, B, and C
6. Combination of Alternative 2: Eastern Cable Pole at P40 and Underground Alignment through City Open Space and Alternative 4: Segment D 69-kV Partial Underground Alignment, with Proposed Project in Segments A, B, and C
7. Alternative 4: Segment D 69-kV Partial Underground Alignment, with Proposed Project in Segments A, B, and C
8. Alternative 1: Cable Pole at Carmel Valley Road, with Proposed Project in all other locations
9. Alternative 2: Eastern Cable Pole at P40, with Proposed Project in all other locations
10. Proposed Project

6.3 ALTERNATIVES COMPARISON METHODOLOGY

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

Step 1: Identification of Alternatives.

A screening process (described in Chapter 3) was used to evaluate 41 alternatives to the Proposed Project. That screening process identified two cable pole alternatives and three routing alternatives for analysis in the EIR. A No Project Alternative was also identified. No other potentially feasible alternatives meeting most of the basic project objectives were identified that would avoid or substantially lessen any of the project's significant impacts.

¹ The No Project Alternative does not achieve most or all project objectives.

6 COMPARISON OF ALTERNATIVES

Step 2: Determination of Environmental Impacts.

The environmental impacts of the Proposed Project and the alternative route segments and cable poles were evaluated in Chapter 4. The significant and unavoidable impacts that would occur with the Proposed Project, as well as those that would be created and/or eliminated by each alternative, are summarized in the table at the beginning of Section 6.4 below. It should be noted that alternatives that replace only a portion of the Proposed Project would require combination with the remainder of the Proposed Project or other alternatives to form a complete alternative route conveying 230-kV transmission between the Sycamore Canyon and Peñasquitos substations. As a result, an “area of comparison” was developed in order to determine the project impacts for only the comparable portion of the route that would be replaced by the alternative.

Step 3: Comparison of Proposed Project and Alternatives.

The environmental impacts of the Proposed Project were compared to those of each alternative to determine the environmentally superior alternative. To evaluate the various alternatives along the Proposed Project route, the impacts of the Proposed Project within the “area of comparison” were compared to the impacts of the alternative, as identified in the impact analysis in Chapter 4. The Proposed Project was then compared to the No Project Alternative (Section 6.5).

Determining an environmentally superior alternative requires balancing many environmental factors. In order to identify the environmentally superior alternative, the impacts in each resource area were identified and compared in a detailed comparison table in Section 6.4. The table presents a preference ranking and a brief explanation of the ranking for each environmental resource area. If an alternative is not considered preferred for any resource area and there are no significant unavoidable impacts, it is not ranked and it is stated that there is no preference for the alternative in terms of that resource area. The comparisons presented in this chapter highlight situations where a route or alternative would create impacts in one area as a consequence of avoiding impacts to another area.

6.4 COMPARISON OF PROJECT ALTERNATIVES

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. Significant and unavoidable impacts of the Proposed Project and any significant impacts either created or eliminated by each alternative are listed in the table in this section. 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 comparison helps identify the environmentally superior alternative while considering all environmental resource areas equally.

This section also summarizes the advantages and disadvantages of each alternative and presents a determination of whether the Proposed Project or the alternative is considered to be

6 COMPARISON OF ALTERNATIVES

environmentally superior within each resource area. The preferred alternative is identified for each resource area. An alternative identified as “preferred” in one resource area may still have significant environmental effects, but its environmental effects would be less than the other alternatives in the area of comparison.

The Proposed Project would have nine significant and unavoidable impacts in one or more segments in the following resource areas: aesthetics, transportation and traffic, noise, and recreation (see Table 6.4-1). Additionally, as addressed under the individual sections below, the Proposed Project would have significant impacts that can be mitigated to a less than significant level and less than significant impacts in eleven resource areas. There would be no impact to land use or population and housing.

Table 6.4-1 Summary of All Significant and Unavoidable Impacts for the Proposed Project

Resource Area	Significant and Unavoidable Impacts
Aesthetics	Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings.
Transportation and Traffic	<p>Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</p> <p>Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</p> <p>Traffic-8: The project would result in inadequate parking capacity.</p>
Noise	<p>Noise-1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.</p> <p>Noise-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above existing noise levels.</p> <p>Noise-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</p>
Recreation	<p>Recreation-3: Substantially disrupt activities in a recreational area.</p> <p>Recreation-4: Substantially reduce the recreational value of a recreational area.</p>

6.4.1 Cable Pole and Routing Project Alternatives

The EIR identifies three routing and two cable pole location alternatives to the Proposed Project. These alternatives were developed to reduce the Proposed Project’s significant and unavoidable impacts related to the visual character and visual quality of the site and its surroundings, construction traffic, construction and operation noise, and access to recreational areas. This section compares the relevant geographic segment of the Proposed Project (i.e., the portion of the Proposed Project that is avoided by each alternative route or relocation) to each of these alternatives.

6 COMPARISON OF ALTERNATIVES

6.4.1.1 Proposed Project vs. Cable Pole Alternatives (Alternatives 1, 2a, and 2b)

This section compares the Proposed Project to Alternative 1: Eastern Cable Pole Option 1b at Carmel Valley Road, Alternative 2a: Eastern Cable Pole Option with Underground Alignment in City Open Space, and Alternative 2b: Eastern Cable Pole Option with Underground Alignment in City Utility Service Road. The relevant area of comparison is between cable poles P40 and P41, because locating the cable pole P40 south of Carmel Valley Road avoids constructing cable pole P41 as proposed under the Proposed Project and reduces the number of cable poles installed by one pole. The area of comparison includes all impacts associated with the activities involved with relocating the proposed 150-foot pole including relocating stringing sites and the underground transmission line duct bank to Carmel Valley Road (Segment B).

Alternatives 1, 2a, and 2b would avoid use of a tubular steel cable pole north of Carmel Valley Road at the northern end of Black Mountain Ranch Community Park as proposed. Alternative 1 would use a single tubular steel cable pole approximately 150 feet high located immediately south of Carmel Valley Road within existing SDG&E ROW.

Alternative 2a would use a cable pole south of Carmel Valley Road at the approximate location of the first proposed TSP within existing SDG&E ROW. From the cable pole, the Alternative 2a underground line would head southwest following the approximate alignment of an existing unpaved access road for 600 feet to a main access road (an extension of Emden Road). The underground line then would turn north and follows an unpaved road for approximately 400 feet to Carmel Valley Road. The underground alignment would travel through City of San Diego dedicated park land and Multiple Species Conservation Plan (MSCP) open space areas near Emden Road and Carmel Valley Road.

Alternative 2b would use a cable pole south of Carmel Valley Road at the approximate location of the first proposed TSP within existing SDG&E ROW (i.e., the same location as the cable pole in Alternative 2a, above). From this location, the underground line would be routed northeast for about 250 feet within the SDG&E ROW, and then would turn east for about 110 feet to the paved service road within the City of San Diego's Black Mountain Reservoir facility north of the ROW. The underground transmission line would be located within this road for approximately 350 feet to Carmel Valley Road. Table 6.4-2 compares the significant and unavoidable impacts of the cable pole alternatives with the Proposed Project eastern cable pole for each environmental resource area.

6.4.1.2 Summary of Impacts

The Proposed Project would result in four significant and unavoidable impacts on aesthetics, transportation and traffic, and recreation (see Table 6.4-2) within the area of comparison between cable poles P40 and P41 including all work areas associated with installation of cable pole P41 (i.e., stringing areas and the underground transmission line duct bank construction to Carmel Valley Road). Additionally, as shown in Table 6.4-3 below, the Proposed Project would result in impacts in eleven resource areas that would either be less than significant or less than significant following implementation of required mitigation. Neither the Proposed Project nor

6 COMPARISON OF ALTERNATIVES

Table 6.4-2 Summary of Significant and Unavoidable Impacts by Cable Pole Alternative

Alternative	Significant and Unavoidable Impacts
Proposed Project Eastern Cable Pole	<p>Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings.</p> <p>Traffic-8: The project would result in inadequate parking capacity.</p> <p>Recreation-3: Substantially disrupt activities in a recreational area.</p> <p>Recreation-4: Substantially reduce the recreational value of a recreational area.</p>
1: Eastern Cable Pole Option 1b at Carmel Valley Road	<p>Similar to the Proposed Project: Aesthetics-3.</p> <p>Eliminates: Traffic-8, Recreation-3, and Recreation-4.</p> <p>No new significant and unavoidable impacts created.</p>
2a: Eastern Cable Pole Option with Underground Alignment in City Open Space	<p>Similar to the Proposed Project: Aesthetics-3 and Recreation-4.</p> <p>Eliminates: Traffic-8 and Recreation-3.</p> <p>No new significant and unavoidable impacts created.</p>
2b: Eastern Cable Pole Option with Underground Alignment in City Utility Service Road	<p>Similar to the Proposed Project: Aesthetics-3 and Recreation-4.</p> <p>Eliminates: Traffic-8 and Recreation-3.</p> <p>No new significant and unavoidable impacts created.</p>

the alternatives would have impacts on land use, forestry resources, or population and housing.

Alternatives 1 would result in one significant and unavoidable impact to aesthetics and Alternatives 2a, and 2b would result in significant and unavoidable impacts to aesthetics and recreation (see Table 6.4-2). Additionally, as shown in Table 6.4-3 below, Alternatives 1 would result in impacts in thirteen resource areas, which would either be less than significant or less than significant following implementation of required mitigation. Alternatives 2a and 2b would result in impacts in twelve resource areas, which would be less than significant or less than significant with mitigation. Alternatives 1, 2a, and 2b would eliminate the significant and unavoidable impacts to recreation and parking access that would result from the Proposed Project by eliminating the need to construct a tubular steel cable pole at the northern end of Black Mountain Ranch Community Park to transfer the transmission line from overhead to underground at the eastern end of Segment B. The use of a cable pole immediately south of Carmel Valley Road to transition the transmission line from overhead to underground would also reduce the significant visual impact, but not to less than significant.

Alternatives 1, 2a, and 2b would not substantially increase any significant and unavoidable environmental impacts for the Proposed Project. All three alternatives would involve a shorter distance for trenching the underground alignment within the area of comparison, and lower associated impacts, than the Proposed Project. Alternative 1 would involve trenching within the previously disturbed alignment for Carmel Valley Road, whereas Alternatives 2a involves placing the underground transmission line within previously undisturbed open space and Alternative 2b would place the underground line within SDG&E ROW.

6 COMPARISON OF ALTERNATIVES

6.4.1.3 Conclusion

Table 6.4-3 compares the three alternatives between cable poles P40 and P41 with the Proposed Project for each environmental resource area in the area of comparison.

Overall, Alternative 1 would be environmentally superior to the Proposed Project due to its reduction of significant and unavoidable impacts to parking, and recreational access and value as well as minimizing the significant and unavoidable impact to aesthetics, but not to a less than significant level. It would result in slightly reduced less-than-significant impacts in the area of comparison than the other alternatives because it would involve the least amount of trenching for undergrounding the transmission line and the trenching would occur within a previously disturbed roadway. The cable pole would also be located at a lower elevation along the roadway, which would topographically screen a portion of the cable pole from views at the park and nearby open space areas. Similar to the Proposed Project, significant and unavoidable impacts to visual quality and recreation would remain.

6 COMPARISON OF ALTERNATIVES

Table 6.4-3 Comparison of the Proposed Project to the Cable Pole Alternatives

Resource Area		Proposed Project (P40 to P41)	Alternative 1	Alternative 2a	Alternative 2b
Biological Resources	Comparison	Ranking = 3 Impacts sensitive habitat in Black Mountain Open Space Preserve	Preferred Impacts the least amount of sensitive vegetation communities; avoids impacts from stringing in Black Mountain Open Space Preserve	Ranking = 4 Greater permanent and temporary impacts on sensitive vegetation communities; greater impacts on special-status species; avoids impacts from stringing in Black Mountain Open Space Preserve	Ranking = 2 Slightly greater permanent and temporary impacts on sensitive vegetation communities; avoids impacts from stringing in Black Mountain Open Space Preserve
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Aesthetics	Comparison	Ranking = 2 Visual impact on Black Mountain Ranch Community Park and nearby trails from overhead lines and a cable pole at the edge of a parking lot	Preferred Reduces the visual impact of overhead lines and a cable pole in Black Mountain Ranch Community Park	Ranking = 3 Greater visual impact to Black Mountain Ranch Community Park due to high visibility of the cable pole from the baseball fields and views of the cable pole from Carmel Valley Road	Ranking = 3 Greater visual impact to Black Mountain Ranch Community Park due to high visibility of the cable pole from the baseball fields and views of the cable pole from Carmel Valley Road
	Impact	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable	Significant and Unavoidable
Cultural Resources	Comparison	Ranking = 4 Involves the greatest amount of ground disturbance	Preferred Involves the least amount of ground disturbance	Ranking = 3 Involves the third least amount of ground disturbance	Ranking = 2 Involves the second least amount of ground disturbance
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project (P40 to P41)	Alternative 1	Alternative 2a	Alternative 2b
Paleontological Resources	Comparison	Ranking = 4 Involves the most amount of ground disturbance	Preferred Involves the least amount of ground disturbance	Ranking = 3 Involves the third least amount of ground disturbance	Ranking = 2 Involves the second least amount of ground disturbance
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Geology, Soils, and Mineral Resources	Comparison	Ranking = 4 Involves the most amount of ground disturbance	Preferred Involves the least amount of ground disturbance	Ranking = 3 Involves the third least amount of ground disturbance	Ranking = 2 Involves the second least amount of ground disturbance
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Hydrology and Water Resources	Comparison	Ranking = 4 Involves the most amount of ground disturbance	Preferred Involves the least amount of ground disturbance	Ranking = 3 Involves the third least amount of ground disturbance	Ranking = 2 Involves the second least amount of ground disturbance
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Transportation & Traffic	Comparison	Ranking = 3 Impacts parking at Black Mountain Ranch Community Park and traffic on Carmel Valley Road	Ranking = 2 Avoids parking impact and involves same amount of construction activity along Carmel Valley Road as Proposed Project	Equally preferred Avoids parking impact and tied for least amount of construction along Carmel Valley Road	Equally preferred Avoids parking impact and tied for least amount of construction along Carmel Valley Road
	Impact	Significant and Unavoidable	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Noise	Comparison	No preference No sensitive receptors within 300 feet	No preference No sensitive receptors within 300 feet	No preference No sensitive receptors within 300 feet	No preference No sensitive receptors within 300 feet

6 COMPARISON OF ALTERNATIVES

Resource Area	Proposed Project (P40 to P41)	Alternative 1	Alternative 2a	Alternative 2b	
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Land Use and Planning	Comparison	No preference	No preference	No preference	No preference
	Impact	No Impact	No Impact	No Impact	No Impact
Recreation	Comparison	Ranking = 3 Temporary closure of parking and recreational facilities at Black Mountain Ranch Community Park; erects cable pole and lines within Black Mountain Ranch Community Park	Preferred Avoids temporary closure of Black Mountain Ranch Community Park; avoids long-term impacts from stringing in Black Mountain Ranch Community Park	Ranking = 2 Avoids temporary closure of Black Mountain Ranch Community Park; temporary closure of trails in work area; avoids long-term impacts from stringing in Black Mountain Ranch Community Park	Ranking = 2 Avoids temporary closure of Black Mountain Ranch Community Park ; avoids long-term impacts from stringing in Black Mountain Ranch Community Park
	Impact	Significant and Unavoidable	Less than Significant with Mitigation	Significant and Unavoidable	Significant and Unavoidable
Hazards and Hazardous Materials	Comparison	No preference Similar potential for hazards and hazardous materials impacts	No preference Similar potential for hazards and hazardous materials impacts	No preference Similar potential for hazards and hazardous materials impacts	No preference Similar potential for hazards and hazardous materials impacts
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Fire and Fuels Management	Comparison	Ranking = 3 Fire risk from work in open space areas where wildfire could spread quickly	Preferred Best potential to contain fire risk due to work adjacent to roadway on landscaped slope	Ranking = 3 Fire risk from work in open space areas where wildfire could spread quickly	Ranking = 2 Second best potential to contain fire due to underground construction in roadway
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project (P40 to P41)	Alternative 1	Alternative 2a	Alternative 2b
Air Quality	Comparison	Ranking = 4 Fourth shortest distance of underground transmission line	Preferred Avoids emissions from underground construction to Carmel Valley Road	Ranking = 3 Third shortest distance of underground transmission line	Ranking = 2 Second shortest distance of underground transmission line
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Greenhouse Gas Emissions	Comparison	Ranking = 4 Fourth shortest distance of underground transmission line	Preferred Avoids emissions from underground construction to Carmel Valley Road	Ranking = 3 Third shortest distance of underground transmission line	Ranking = 2 Second shortest distance of underground transmission line
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation
Agriculture and Forestry	Comparison	No preference	No preference	No preference	No preference
	Impact	Less than significant	Less than significant	Less than significant	Less than significant
Population and Housing	Comparison	No preference	No preference	No preference	No preference
	Impact	No Impact	No Impact	No Impact	No Impact
Utilities and Public Service Systems	Comparison	Ranking = 3 Avoids utility conflicts; generates the largest volume of waste from underground construction	Preferred Avoids utility conflicts and generates the least amount of waste	Ranking = 2 Avoids utility conflicts; generates the second least volume of waste	Ranking = 4 Located in water utility service road with parallel buried utility pipelines
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

6.4.2 Proposed Project vs. Alternative 3: Los Peñasquitos Canyon Preserve—Mercy Road Underground

This section compares the Proposed Project to Alternative 3: Los Peñasquitos Canyon Preserve—Mercy Road Alternative. The relevant area of comparison is between Segment A at Ivy Hill Drive and Peñasquitos Junction, because this is the portion of the overhead and underground transmission corridor through Chicarita Substation proposed by the Proposed Project that is avoided by Alternative 3. The area of comparison includes all impacts associated with the activities involved with undergrounding the transmission line from Ivy Hill Drive within Scripps Poway Parkway, Mercy Road, Black Mountain Road and Park Village Road.

Table 6.4-4 compares the significant and unavoidable impacts of Alternative 3 with the Proposed Project for each environmental resource area.

Table 6.4-4 Summary of Significant and Unavoidable Impacts Proposed Project and Alternative 3: Los Peñasquitos Canyon—Mercy Road Alternative

Alternative	Significant and Unavoidable Impacts
Proposed Project Ivy Hill Drive to Peñasquitos Junction (norther Segment A, Segment B, and Segment C)	<p>Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings.</p> <p>Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</p> <p>Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</p> <p>Traffic-8: The project would result in inadequate parking capacity.</p> <p>Noise-1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.</p> <p>Noise-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above existing noise levels.</p> <p>Noise-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</p> <p>Recreation-3: Substantially disrupt activities in a recreational area.</p> <p>Recreation-4: Substantially reduce the recreational value of a recreational area.</p>
3: Los Peñasquitos Canyon Preserve—Mercy Road Alternative	<p>Similar to the Proposed Project: Aesthetics-3, Traffic-1, Traffic-2, Noise-1, Noise-4, and Recreation-4.</p> <p>Eliminates: Noise-3, Traffic-8, and Recreation-3.</p> <p>Creates: Air-1, Air-2, and Air-3</p>

6 COMPARISON OF ALTERNATIVES

6.4.2.1 Summary of Impacts

The Proposed Project would result in nine significant and unavoidable impacts to aesthetics, transportation and traffic, noise, and recreation within the area of comparison between Segment A at Ivy Hill Drive and Peñasquitos Junction. Additionally, as shown in Table 6.4-5 below, the Proposed Project would have impacts in eleven resource areas, which would be less than significant or less than significant following implementation of required mitigation. Neither the Proposed Project nor Alternative 3 would have impacts on land use, agriculture and forestry resources, or population and housing.

Alternative 3 would result in nine significant and unavoidable impacts within five resource areas; aesthetics, air quality, noise, recreation and transportation and traffic. Additionally, as shown in Table 6.4-5 below, Alternative 3 would result in impacts in nine resource areas, which would be less than significant following implementation of required mitigation. Alternative 3 would eliminate the significant and unavoidable impacts to recreation access as well as parking access that would result from the Proposed Project by eliminating the need to construct a tubular steel cable pole at the northern end of Black Mountain Ranch Community Park and eliminating new overhead transmission line infrastructure in Black Mountain Ranch Open Space. Alternative 3 would reduce permanent corona noise levels by placing the overhead transmission line underground and would reduce temporary noise levels by avoiding helicopter use.

Compared to the Proposed Project, Alternative 3 would increase the generation of NO_x and CO_{2e} emissions through higher usage of diesel-powered equipment resulting in a significant and unavoidable impact to air quality.

6.4.2.2 Conclusion

Table 6.4-5 compares Alternative 3 with the Proposed Project for each environmental resource area within the area of comparison.

Alternative 3 would be environmentally superior to the Proposed Project because it would minimize significant and unavoidable impacts to visual character (the transmission line would be mostly underground with the exception of the two cable poles) and would reduce the significant and unavoidable impacts to less than significant to recreation access and noise. Similar to the Proposed Project, significant and unavoidable impacts to visual character, temporary and permanent noise levels, and traffic levels of service would remain. Alternative 3 would also create significant and unavoidable impacts to air quality due to additional emissions during construction. The significant and unavoidable air quality impacts from Alternative 3 would be temporary and limited to the 10 month construction period for Alternative 3.

6 COMPARISON OF ALTERNATIVES

Table 6.4-5 Comparison of the Proposed Project to Alternative 3

Resource Area		Proposed Project (Segment A at Ivy Hill Drive to Peñasquitos Junction)	Alternative 3
Biological Resources	Comparison	Ranking = 2 Greater potential impacts to habitat for special-status species and jurisdictional waters	Preferred Lower potential impacts to special-status plants, amphibians, reptiles, birds, and mammals; reduces impacts to sensitive habitats; slightly lower impacts to jurisdictional waters
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Aesthetics	Comparison	Ranking = 2 Greatest visual impact from overhead conductor and TSPs in the northern portion of Segment A and additional overhead conductor in Segment C	Preferred Reduces visual impacts by installing the transmission line underground
	Impact	Significant and Unavoidable	Significant and Unavoidable
Cultural Resources	Comparison	Preferred Less potential to encounter previously undiscovered resources due to less earth disturbance	Ranking = 2 Greater potential to encounter and damage previously undiscovered cultural resources due to increased earth disturbance from underground construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Paleontological Resources	Comparison	Preferred Less potential to encounter paleontological resources due to less earth disturbance	Ranking = 2 Greater potential to encounter and damage previously undiscovered paleontological resources due to increased earth disturbance from underground construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Geology, Soils, and Mineral Resources	Comparison	Ranking = 2 New TSPs in expansive or collapsible soils and areas that are prone to landslide; greater potential for topsoil loss due to new areas of disturbance.	Preferred Fewer structures in expansive or collapsible soils and areas that are prone to landslides. Less potential for topsoil loss due to construction in existing roads.
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area	Proposed Project (Segment A at Ivy Hill Drive to Peñasquitos Junction)	Alternative 3	
Hydrology and Water Resources	Comparison	Preferred Similar contribution to less than significant impacts	Ranking = 2 Increased work in Los Peñasquitos Canyon and in proximity to Los Peñasquitos Creek.
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Transportation & Traffic	Comparison	Preferred Less underground construction in roadways; impacts parking at Black Mountain Ranch Community Park and traffic on Carmel Valley Road; greater use of helicopters for conductor stringing and pole installation	Ranking = 2 Approximately 2.5 additional miles of temporary road closure from underground construction; avoids parking impact; lower use of helicopters; avoids stringing conductor across highways
	Impact	Significant and Unavoidable	Significant and Unavoidable
Noise	Comparison	Ranking = 2 Greater helicopter usage and distance of overhead transmission line (corona noise)	Preferred Lower temporary and permanent noise levels from lower helicopter usage and avoids corona noise on underground transmission line
	Impact	Significant and Unavoidable	Significant and Unavoidable
Land Use and Planning	Comparison	No preference	No preference
	Impact	No impact	No impact
Recreation	Comparison	Ranking = 2 Greater temporary closure of public parks and trails; erects cable pole and lines within Black Mountain Ranch Community Park	Preferred Avoids impacts to public parks and reduces impacts to trails; avoids cable pole and lines in Black Mountain Ranch Community Park
	Impact	Significant and Unavoidable	Significant and Unavoidable
Hazards and Hazardous Materials	Comparison	Preferred Lower emissions exposure for sensitive receptors; less potential interference with emergency response; higher helicopter usage	Ranking = 2 Slightly higher construction emissions near sensitive receptors; greater potential interference with emergency response during construction due to additional underground construction in residential areas for 0.6 mile; avoids helicopter usage
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project (Segment A at Ivy Hill Drive to Peñasquitos Junction)	Alternative 3
Fire and Fuels Management	Comparison	Ranking = 2 Higher risk of igniting a wildfire during overhead construction	Preferred Less construction near flammable vegetation
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Air Quality	Comparison	Preferred Lower use of diesel-powered construction equipment (NO _x emissions); helicopter usage (PM ₁₀ emissions)	Ranking = 2 Higher usage of diesel-powered construction equipment (NO _x emissions) due to additional underground construction; lower PM ₁₀ emissions from no helicopter usage
	Impact	Less than Significant with Mitigation	Significant and Unavoidable
Greenhouse Gas Emissions	Comparison	Preferred Lower CO ₂ e emissions from construction	Ranking = 2 Higher CO ₂ e emissions from construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Agriculture and Forestry	Comparison	Ranking = 2 Greater impacts to FMMP-designated Farmland	Preferred Avoids impacts to FMMP-designated Farmland
	Impact	Less than significant	No Impact
Population and Housing	Comparison	No preference	No preference
	Impact	No impact	No impact
Utilities and Public Service Systems	Comparison	Preferred Higher water usage; lower solid waste generation; lower impact on emergency response	Ranking = 2 Lower water usage; more solid waste generation from excavated soil; greater impact on emergency response due to underground construction in residential areas for 0.6 mile; more construction near buried utilities
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

6.4.3 Proposed Project vs. Alternative 4: Segment D 69-kV Partial Underground Alignment

This section compares the Proposed Project to Alternative 4: Segment D 69-kV Partial Underground Alignment. The relevant area of comparison is between cable pole P48 and Peñasquitos Substation because this is the portion of the Proposed Project 69-kV power line that is avoided by Alternative 4. The area of comparison includes all impacts associated with the activities involved with undergrounding the transmission line from the area of Del Mar Mesa to Peñasquitos Substation.

Table 6.4-6 compares the significant and unavoidable impacts of the Proposed Project with Alternative 4.

6.4.3.1 Summary of Impacts

The Proposed Project would result in seven significant and unavoidable impacts in aesthetics, noise, and transportation and traffic within the area of comparison between cable pole P48 and Peñasquitos Substation. Additionally, as shown in Table 6.4-7 below, the Proposed Project would have impacts in eleven resource areas, which would be less than significant or less than significant following implementation of required mitigation.

Table 6.4-6 Summary of Significant and Unavoidable Impacts Proposed Project and Alternative 4: Segment D 69-kV Partial Underground Alignment

Alternative	Significant and Unavoidable Impacts
Proposed Project P 48 to Peñasquitos Junction (Segment D)	<p>Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings.</p> <p>Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</p> <p>Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</p> <p>Noise-1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.</p> <p>Noise-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above existing noise levels.</p> <p>Noise-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</p> <p>Recreation-4: Substantially reduce the recreational value of a recreational area.</p>
4: Segment D 69-kV Partial Underground Alignment	Similar to the Proposed Project: Aesthetics-3, Traffic-1, Traffic-2, Noise-1, Noise-3, Noise-4, and Recreation-4.

6 COMPARISON OF ALTERNATIVES

Alternative 4 would result in seven significant and unavoidable impacts in aesthetics (cable poles), noise, transportation and traffic, and recreation (cable pole). Additionally, as shown in Table 6.4-7 below, Alternative 4 would result in impacts in ten resource areas, which would be less than significant following implementation of required mitigation. Alternative 4 would reduce the impact to visual character of installing new TSPs and overhead line within the area of comparison and would reduce temporary noise impacts by reducing helicopter usage.

Alternative 4 would increase temporary road closures and generate higher NO_x and CO₂e emissions through higher usage of diesel-powered diesel equipment as compared to the Proposed Project within the area of comparison. However, the impact to air quality would be less than significant with mitigation.

Table 6.4-7 Comparison of the Proposed Project to Alternative 4

Resource Area		Proposed Project (P48 to Peñasquitos Substation)	Alternative 4
Biological Resources	Comparison	Ranking = 2 Greater impacts to sensitive habitats in Los Peñasquitos Canyon Preserve	Preferred Reduces impacts to sensitive habitats and special-status plants, reptiles, birds, and mammals by constructing the power lines underground within roadways
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Aesthetics	Comparison	Ranking = 2 Significant visual impact from installation and operation of additional overhead lines and TSPs	Preferred Avoids new TSPs in visually sensitive open space areas; significant and unavoidable impact at one cable pole location on Los Peñasquitos Canyon
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Cultural Resources	Comparison	Preferred Less potential to encounter previously undiscovered resources due to less earth disturbance	Ranking = 2 Greater potential to encounter and damage previously undiscovered cultural resources due to increased earth disturbance from underground construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Paleontological Resources	Comparison	Preferred Involves a lower amount of excavation in areas of moderate to high paleontological sensitivity	Ranking = 2 Higher potential to encounter and damage eight known locations within paleontologically sensitive formations
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project (P48 to Peñasquitos Substation)	Alternative 4
Geology, Soils, and Mineral Resources	Comparison	Ranking = 2 Higher potential for topsoil loss; more structures in landslide prone areas	Preferred Lower potential for topsoil loss; fewer structures in landslide prone areas
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Hydrology and Water Resources	Comparison	Ranking = 2 More construction in Los Peñasquitos Canyon with greater impacts to water quality	Preferred Less earthwork in undisturbed areas
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Transportation & Traffic	Comparison	Preferred No construction in roadways; slightly higher use of helicopters	Ranking = 2 Temporary lane closures and impacts to traffic during underground construction; lower use of helicopters
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Noise	Comparison	Ranking = 2 Slightly higher helicopter usage	Preferred Slightly lower temporary noise levels from lower helicopter usage
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Land Use and Planning	Comparison	No preference No impact to land use	No preference No impact to land use
	Impact	No Impact	No Impact
Recreation	Comparison	Ranking =2 Requires new poles and transmission line near recreational trails on Los Peñasquitos Canyon; erects cable pole and lines within Black Mountain Ranch Community Park	Preferred Avoids new poles within recreational areas in Los Peñasquitos Canyon and Black Mountain Ranch Community Park
	Impact	Significant and Unavoidable	Significant and Unavoidable
Hazards and Hazardous Materials	Comparison	No Preference Greater helicopter usage; less road closures	No Preference More temporary road closures; lower helicopter usage
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project (P48 to Peñasquitos Substation)	Alternative 4
Fire and Fuels Management	Comparison	Ranking = 2 Higher risk of igniting a wildfire due to additional TSP installation in Los Peñasquitos Canyon Preserve	Preferred Less construction in areas with flammable vegetation
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Air Quality	Comparison	Preferred Less use of diesel-powered construction equipment (NO _x emissions); higher helicopter usage (PM ₁₀ emissions)	Ranking = 2 Higher usage of diesel-powered construction equipment (NO _x emissions) and lower PM ₁₀ emissions from less helicopter usage
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Greenhouse Gas Emissions	Comparison	Preferred Lower CO ₂ e emissions from construction	Ranking = 2 Higher CO ₂ e emissions from construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Agriculture and Forestry	Comparison	Ranking = 2 Greater impacts to FMMP-designated Farmland	Preferred No impact to FMMP-designated Farmland
	Impact	Less than significant	No impact
Population and Housing	Comparison	No preference	No preference
	Impact	No impact	No impact
Utilities and Public Service Systems	Comparison	Preferred Lower solid waste generation; lower impact on emergency response from fewer road closures	Ranking = 2 More solid waste generation from excavated soil; greater impact on emergency access from lane closures; more construction near buried utilities
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6.4.3.2 Conclusion

Alternative 4 would be environmentally superior to the Proposed Project because it would minimize long-term significant and unavoidable impacts to aesthetics. Similar to the Proposed Project, significant and unavoidable impacts to visual character at the eastern cable pole, temporary and permanent noise levels, and traffic levels of service would remain. Alternative 4 would increase air emissions due to additional emissions during construction, which would impact air quality, but the impact would be less than significant with mitigation. The air emissions would be temporary and limited to the 9 month construction period for Alternative 4.

6 COMPARISON OF ALTERNATIVES

6.4.4 Proposed Project vs. Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead

This section compares the Proposed Project to Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead. The relevant area of comparison is the entire Proposed Project alignment because Alternative 5 includes an entirely new alignment that only shares 0.7 miles with the Proposed Project Segment A alignment. The area of comparison includes all impacts associated with the activities involved with undergrounding the majority of the transmission line from Stonebridge Parkway to Peñasquitos Substation.

Table 6.4-8 compares the significant and unavoidable impacts of the Proposed Project with Alternative 5.

Table 6.4-8 Summary of Significant and Unavoidable Impacts Proposed Project and Alternative 5: Pomerado Road to Miramar Area North Combination Underground/Overhead

Alternative	Significant and Unavoidable Impacts
Proposed Project (Segments A, B, C, and D)	<p>Aesthetics-3: Substantially degrade the existing visual character or quality of the site and its surroundings.</p> <p>Traffic-1: Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</p> <p>Traffic-2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</p> <p>Traffic-8: The project would result in inadequate parking capacity.</p> <p>Noise-1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.</p> <p>Noise-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above existing noise levels.</p> <p>Noise-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.</p> <p>Recreation-3: Substantially disrupt activities in a recreational area.</p> <p>Recreation-4: Substantially reduce the recreational value of a recreational area.</p>
5: Pomerado Road to Miramar Area North Combination Underground/Overhead	<p>Similar to the Proposed Project: Aesthetics-3, Traffic-1, Traffic-2, Noise-1, and Noise-4.</p> <p>Eliminates: Noise-3, Traffic-8, Recreation-3, and Recreation-4.</p> <p>Creates: Air-1, Air-2, and Air-3</p>

6 COMPARISON OF ALTERNATIVES

6.4.4.1 Summary of Impacts

The Proposed Project would result in nine significant and unavoidable impacts within four resource areas including aesthetics, noise, recreation, and transportation and traffic within the area of comparison between Segment A at Stonebridge Parkway and Peñasquitos Substation. Additionally, as shown in Table 6.4-9 below, the Proposed Project would result in impacts in the remaining eleven resource areas, which would be less than significant following implementation of required mitigation.

Alternative 5 would result in eight significant and unavoidable impacts within four resource areas including air quality, aesthetics (at the eastern cable pole), noise, and transportation and traffic. Additionally, as shown in Table 6.4-9 below, Alternative 5 would result in impacts in eleven resource areas, which would be less than significant following implementation of required mitigation. Alternative 5 would eliminate the significant and unavoidable impacts to recreational value and parking access that would result from the Proposed Project by eliminating the need to construct a tubular steel cable pole at the northern end of Black Mountain Ranch Community Park to transfer the transmission line from overhead to underground at the eastern end of Segment B. Alternative 5 would reduce the significant and unavoidable impact to recreational access but not to less than significant. Additionally, Alternative 5 would reduce permanent noise levels to less than significant by placing the transmission line underground and would reduce temporary noise levels by substantially reducing the use of helicopters.

Compared to the Proposed Project, Alternative 5 would add traffic impacts to SR-56 by requiring temporary closure for conductor stringing, contribute more construction vehicle trips to area roadways, require a greater amount of temporary road closures, and increase the generation of NO_x and CO_{2e} emissions through higher usage of diesel-powered equipment. Table 6.4-9 compares Alternative 5 with the Proposed Project for each environmental resource area within the overall area of comparison.

6.4.4.2 Conclusion

Table 6.4-9 compares Alternative 5 with the Proposed Project for each environmental resource area within the overall area of comparison.

Alternative 5 would be environmentally superior to the Proposed Project because it would minimize significant and unavoidable impacts to aesthetics, noise, and recreation. Similar to the Proposed Project, significant and unavoidable impacts to visual character, temporary noise levels, and traffic levels of service would remain. Alternative 5 would result in temporary significant and unavoidable impacts to air quality from emissions during construction.

6 COMPARISON OF ALTERNATIVES

Table 6.4-9 Comparison of the Proposed Project to Alternative 5

Resource Area	Proposed Project (Segment A at Stonebridge Parkway to Peñasquitos Substation)		Alternative 5
Biological Resources	Comparison	Ranking = 2 Greater impacts to habitat for special-status species and jurisdictional waters	Preferred Lower impacts to habitat for special-status plants, amphibians, reptiles, birds, and mammals; lower impacts to jurisdictional waters
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Aesthetics	Comparison	Ranking = 2 Significant visual impact from installation and operation of overhead lines and TSPs	Preferred Reduces the temporary and permanent visual impacts due to shorter distance of overhead line and substantially fewer new TSPs
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Cultural Resources	Comparison	Preferred Less potential to encounter previously undiscovered resources due to less earth disturbance	Ranking = 2 Greater potential to encounter and damage previously undiscovered cultural resources due to increased earth disturbance from underground construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Paleontological Resources	Comparison	Preferred Involves a lower amount of excavation in areas of moderate to high paleontological sensitivity	Ranking = 2 Higher potential to encounter and damage previously undiscovered paleontological resources due to additional excavation in areas of moderate to high paleontological sensitivity
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Geology, Soils, and Mineral Resources	Comparison	Ranking = 2 Greater potential for top soil loss due to construction in undisturbed areas; installation of more transmission structures in areas with expansive and collapsible soils and areas prone to landslides	Preferred Construction in previously disturbed roadways; installation of fewer new structures and less potential for landslide
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area	Proposed Project (Segment A at Stonebridge Parkway to Peñasquitos Substation)		Alternative 5
Hydrology and Water Resources	Comparison	Ranking = 2 Larger area of new impervious surfaces; higher water usage during construction; greater potential for sedimentation near Los Peñasquitos Creek	Preferred Slightly lower creation of impervious surfaces; lower water usage; less potential for sedimentation near Los Peñasquitos Creek
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Transportation & Traffic	Comparison	Preferred Less construction within roadways with less temporary road closures; increased use of helicopters	Ranking = 2 Greater amount of construction vehicle trips; increased construction within roadways resulting in greater impacts from temporary road closures and impacts to public transit
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Noise	Comparison	Ranking = 2 Greater helicopter usage and permanent corona noise from 13 miles of overhead transmission line corona noise	Preferred Lower helicopter usage; reduced permanent corona noise from only 2.8 miles of overhead transmission line
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Land Use and Planning	Comparison	No preference	No preference
	Impact	No Impact	No Impact
Recreation	Comparison	Ranking = 2 Greater temporary closure of public parks including Black Mountain Ranch Community Park and Sycamore Canyon Park	Preferred No facility closures at Black Mountain Ranch Community Park or trails in Segments A or D; temporary closure of Sycamore Canyon Park
	Impact	<i>Significant and Unavoidable</i>	Less than Significant with Mitigation
Hazards and Hazardous Materials	Comparison	Preferred Fewer hazardous materials sites in the vicinity; higher helicopter usage	Ranking = 2 Greater potential to create a hazard due to close proximity to hazardous materials site; more temporary road closures; lower helicopter usage
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project (Segment A at Stonebridge Parkway to Peñasquitos Substation)	Alternative 5
Fire and Fuels Management	Comparison	<p>Ranking = 2</p> <p>Higher risk of igniting a wildfire during overhead construction due to increased construction in open space areas</p>	<p>Preferred</p> <p>Lower amount of overhead transmission line constructed in areas with flammable vegetation</p>
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Air Quality	Comparison	<p>Preferred</p> <p>Lower usage of diesel-powered construction equipment (NO_x emissions); higher helicopter usage (PM₁₀ emissions)</p>	<p>Ranking = 2</p> <p>Higher usage of diesel-powered construction equipment (NO_x emissions) and lower PM₁₀ emissions from less helicopter usage</p>
	Impact	Less than Significant with Mitigation	<i>Significant and Unavoidable</i>
Greenhouse Gas Emissions	Comparison	<p>Preferred</p> <p>Lower CO₂e emissions from construction</p>	<p>Ranking = 2</p> <p>Higher CO₂e emissions from construction</p>
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Agriculture and Forestry	Comparison	No preference	No preference
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Population and Housing	Comparison	No preference	No preference
	Impact	No Impact	No Impact
Utilities and Public Service Systems	Comparison	<p>Preferred</p> <p>Higher water usage; lower solid waste generation; lower impact on emergency response from fewer road closures</p>	<p>Ranking = 2</p> <p>Lower water usage; more solid waste generation from excavated soil; greater impact on emergency access; more construction near buried utilities</p>
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

6.4.5 Conclusion: Environmentally Superior Alternative

Alternative 5 would be the Environmentally Superior Alternative because it would minimize significant and unavoidable impacts to aesthetics, noise, and recreation. Significant and unavoidable impacts to visual quality would be limited to one cable pole and the alternative would avoid all other significant and unavoidable aesthetic impacts of the Proposed Project. Alternative 5 would also substantially reduce significant and unavoidable noise impacts by reducing potential for corona noise generation. Alternative 5 would avoid significant and unavoidable impacts on recreational value by eliminating new structures in open space recreational areas. Alternative 5 would also further reduce impacts that are less than significant with mitigation on biological resources, hydrology, geology and soils, and fires and fuels by eliminating 11.5 miles of new overhead transmission line.

6.5 NO PROJECT ALTERNATIVE VS. THE PROPOSED PROJECT

The No Project Alternative is described in Section 3.7. In the absence of the Proposed Project, SDG&E is obligated to maintain system reliability and would need to pursue actions to alleviate thermal overloads in the system. The events or actions that are reasonably expected to occur in the foreseeable future in the event the Sycamore—Peñasquitos 230-kV transmission line project were not approved include the following:

- New Mission—Peñasquitos 230-kV Transmission Line
- Second Poway—Pomerado 69-kV Line
- Install a series reactor at Sycamore Canyon Substation

Both the 15-mile-long Mission—Peñasquitos 230-kV transmission line and 2.6-mile-long Poway—Pomerado 69-kV line would be overhead. The No Project Alternative would require 17.6 miles of new overhead transmission and power lines compared with 13.3 miles of overhead transmission line for the Proposed Project. Table 6.5-1 compares the No Project Alternative with the Proposed Project for each environmental resource area.

6 COMPARISON OF ALTERNATIVES

Table 6.5-1 Comparison of the Proposed Project to the No Project Alternative

Resource Area		Proposed Project	No Project Alternative
Biological Resources	Comparison	Ranking = 2 Greater impacts to Preserve areas including habitat for special-status species and vernal pools	Preferred Avoids construction within Black Mountain Ranch and Del Mar Mesa Preserves
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Aesthetics	Comparison	Ranking = 2 Significant visual impact from installation and operation of overhead lines and TSPs in Segments A and D	Preferred Reduces the temporary and permanent visual impacts due to use of existing structures in 7.5 miles and installation of new structures in MCAS Miramar where there is low visual sensitivity; impacts would be the same in Segment D of the Proposed Project
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Cultural Resources	Comparison	Ranking = 2 Greater potential to encounter previously undiscovered resources due to more earth disturbance	Preferred Less potential to encounter cultural resources due to fewer miles of new poles and pole replacements and no underground construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Paleontological Resources	Comparison	Ranking = 2 Involves a greater amount of earth disturbance and greater associated potential to impact buried paleontological resources	Preferred Less potential to encounter paleontological resources due to fewer miles of new poles and pole replacements and no underground construction
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Geology, Soils, and Mineral Resources	Comparison	Ranking = 2 Greater potential for top soil loss due to 1 more mile of pole replacements and new pole installations in undisturbed areas	Preferred Requires approximately 1 less mile of pole replacements resulting in less loss of top soil and potential for erosion
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area		Proposed Project	No Project Alternative
Hydrology and Water Resources	Comparison	Preferred Fewer crossings of waterbodies and less potential to cause water quality impacts to impaired creeks	Ranking = 2 Greater potential for water quality impacts due to additional crossings of Los Peñasquitos Creek and tributary waters and more pole replacements in proximity to creeks
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Transportation & Traffic	Comparison	Ranking = 2 Greater construction within roadways and temporary road closures	Preferred Less trip construction within roadways due to overhead construction; decreased temporary closures
	Impact	<i>Significant and Unavoidable</i>	Less than Significant with Mitigation
Noise	Comparison	Preferred Decreased permanent corona noise from installation of a portion of the 230-kV transmission line underground	Ranking = 2 Increased permanent corona noise from 1.2 more miles of overhead 230-kV transmission line
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Land Use and Planning	Comparison	No preference	No preference
	Impact	No Impact	No Impact
Recreation	Comparison	Ranking = 2 Greater temporary closure of public parks including Black Mountain Ranch Community Park and Sycamore Canyon Park	Preferred No facility closures at Black Mountain Ranch Community Park, Sycamore Canyon Park or trails in Segments A
	Impact	<i>Significant and Unavoidable</i>	<i>Significant and Unavoidable</i>
Hazards and Hazardous Materials	Comparison	Preferred Fewer hazardous materials sites in the vicinity	Ranking = 2 Greater potential to encounter hazardous materials and create a hazard due to construction within MCAS Miramar and new structures near the runway
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Fire and Fuels Management	Comparison	Preferred Lower risk of igniting a wildfire due to less overhead construction near wildlands/fuel sources	Ranking = 2 Greater risk of igniting a wildfire due to greater amount of overhead transmission and power lines constructed near wildlands
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

6 COMPARISON OF ALTERNATIVES

Resource Area	Proposed Project	No Project Alternative	
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation
Air Quality	Comparison	Ranking = 2 Greater usage of diesel-powered construction equipment and greater associated emissions due to underground construction	Preferred Lower usage of diesel-powered construction equipment and lower associated emissions due to overhead construction
	Impact	Less than Significant with Mitigation	Less than Significant
Greenhouse Gas Emissions	Comparison	Ranking = 2 Greater CO ₂ e emissions from construction	Preferred Lower CO ₂ e emissions from construction
	Impact	Less than Significant with Mitigation	Less than Significant
Agriculture and Forestry	Comparison	Preferred No impacts to designated Farmland including Farmland of Statewide Importance	Ranking = 2 Impacts to Farmland of Statewide Importance
	Impact	Less than Significant with Mitigation	Less than Significant
Population and Housing	Comparison	No preference	No preference
	Impact	No Impact	No Impact
Utilities and Public Service Systems	Comparison	Ranking = 2 Construction in roadways near buried utilities	Preferred Avoids construction in roadways near buried utility pipelines
	Impact	Less than Significant with Mitigation	Less than Significant with Mitigation

Conclusion

The No Project Alternative would reduce the significant and unavoidable impacts of the Proposed Project on Aesthetics, Transportation and Traffic, and Recreation; however, the No Project Alternative would increase significant and unavoidable permanent noise impacts due to more miles of overhead transmission line. The No Project Alternative is environmentally superior to the Proposed Project. The No Project Alternative is not the Environmentally Superior Alternative because Alternative 5 would further reduce the long-term impacts of the Proposed Project on aesthetics and noise. Alternative 5 is the Environmentally Superior Alternative because it provides the greatest overall reduction of environmental impacts.

6 COMPARISON OF ALTERNATIVES

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