

5.0 Comparison of Alternatives

The purpose of an alternatives analysis pursuant to the California Environmental Quality Act (CEQA) is to identify feasible alternatives that would attain most of the basic objectives of the project being proposed while avoiding or substantially reducing at least of one its significant effects. (Pub. Resources Code, § 21002; CEQA Guidelines, § 15126.6.) This chapter analyzes the advantages and disadvantages of each alternative being considered in the Environmental Impact Report (EIR) for the proposed Valley-Ivyglen 115-kilovolt (kV) Subtransmission Line Project (proposed Valley-Ivyglen Project, or VIG) and the proposed Alberhill System Project (proposed Alberhill Project, or ASP) (see Chapter 3, “Description of Alternatives” for further information on each alternative). The analysis is based on comparison of environmental impacts of the proposed projects presented in Chapter 4 (“Environmental Analysis”) to the environmental impacts of the alternatives retained for consideration in this EIR.

The alternatives to the proposed Valley-Ivyglen Project retained for consideration in this EIR are:

- VIG Alternative A – Campbell Ranch Road (115-kV Segment VIG8)
- VIG Alternative B1 – Underground along Santiago Canyon Road (115-kV Segment VIG8)
- VIG Alternative B2 – Santiago Canyon Road Underground and Overhead
- VIG Alternative C – Underground along Temescal Canyon Road and Horsethief Canyon Road (115-kilovolt [kV] Segment VIG6)
- VIG Alternative M – Underground along the Entire Proposed Project Alignment
- VIG No Project Alternative

The alternatives to the proposed Alberhill Project retained for consideration in this EIR are:

- ASP Alternative B – All Gas-Insulated Switchgear at Proposed Alberhill Substation Site
- ASP Alternative DD – Serrano Commerce Center Substation Site
- ASP No Project Alternative

An Environmentally Superior Alternative for each proposed project is identified in Sections 5.2.7 and 5.3.4.

5.1 Comparison Methodology

5.1.1 CEQA Requirements

CEQA Guidelines Section 15126.6(d) contains guidance regarding the comparison of alternatives. It states:

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 impacts 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

1 alternative shall be discussed, but in less detail than the significant effects of the project as
2 proposed.

3
4 If the EIR identifies the No Project Alternative as the Environmentally Superior Alternative, CEQA
5 Guidelines section 15126.6(e)(2) requires that the lead agency identify an Environmentally Superior
6 Alternative among the other alternatives analyzed in the EIR.

7 8 **5.1.2 Comparison Methodology**

9
10 The following process was used to conduct a comparison of alternatives and the proposed projects in this
11 EIR:

- 12
13 • **Step 1: Identification of Alternatives and Potential Environmental Effects.** A screening
14 process was used to identify a number of alternatives to the proposed projects. An Alternatives
15 Screening Report (Appendix D) was prepared during this process to document the criteria used to
16 evaluate and select alternatives for further analysis, including their feasibility, the extent to which
17 they would meet most of the basic objectives of the proposed projects (Section 1.2, “Objectives
18 of the Proposed Projects”), and their potential to avoid or substantially lessen a potentially
19 significant effect of the proposed projects. The potentially significant effects utilized for the
20 screening report were identified based on the applicant’s Project Modification Report,
21 Proponent’s Environmental Assessment, and a preliminary review of the proposed projects and
22 environmental setting in the proposed projects’ areas.
- 23 • **Step 2: Evaluation of Environmental Impacts.** Environmental impacts from construction and
24 operation of the proposed projects are evaluated by resource area in Chapter 4 of this EIR.
25 Chapter 4 contains a much more detailed evaluation than that presented in the Alternatives
26 Screening Report and covers more resource areas. Table ES-1 in the Executive Summary
27 provides a detailed summary of the impacts anticipated to result from the proposed projects. Once
28 the EIR’s analysis of the proposed projects’ impacts was completed, the range of alternatives
29 considered in the Alternatives Screening Report was refined.
- 30 • **Step 3: Comparison of the Proposed Project and Alternatives.** This chapter compares the
31 environmental impacts of the proposed projects to those of each alternative, including the No
32 Project Alternative. An Environmentally Superior Alternative is then identified for each proposed
33 project.

34 35 **5.2 Comparison of Valley-Ivyglen Project Alternatives**

36
37 This section analyzes the advantages and disadvantages of each VIG alternative in comparison to the
38 proposed Valley-Ivyglen Project. It evaluates whether the VIG Alternative would be more or less
39 impactful than the proposed Valley-Ivyglen Project with respect to resource areas for which a significant
40 impact was identified in Section 4.0, “Environmental Analysis.” Table 5-1 summarizes the analysis and
41 determinations for the proposed Valley-Ivyglen Project. Each alternative is ranked from 1 to 3 according
42 to its ability to reduce an impact relative to the proposed project, as follows: (1) reduced impact
43 (environmentally superior to proposed project as to that resource area); (2) similar impact; and (3) greater
44 impact (proposed project would be environmentally superior to the alternative for that resource area. It
45 rank each alternative according to its ability to reduce an impact of the proposed project, from
46 environmentally superior (1) to least environmentally superior (6). A ranking is not provided when the
47 impacts of an alternative would be comparable or greater, since in this case the alternative would not be
48 environmentally superior for that resource area.

Table 5-1 Summary of the Valley-Ivyglen Project Alternatives Analyses and Determination

Resource Area	Proposed Valley-Ivyglen Project	VIG Alternative A (Rank)	VIG Alternative B1 (Rank)	VIG Alternative B2 (Rank)	VIG Alternative C (Rank)	VIG Alternative M (Rank)	No Project Alternative (Rank)	Environmentally Superior Alternative(s) ^(a)
Aesthetics	Less than significant with mitigation	Similar <u>(2)</u>	Similar <u>(2)</u>	Greater <u>(3)</u>	Reduced <u>(1)</u> (3)	Reduced <u>(1)</u> (2)	No Impact <u>(1)</u>	VIG Alternative <u>C</u> and M
Agriculture and Forestry	Less than significant	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Greater <u>(3)</u> Reduced <u>(2)</u>	No Impact <u>(1)</u>	None VIG Alternative M
Air Quality	Significant and unavoidable	Greater <u>(3)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u> Greater	Greater <u>(3)</u>	No Impact <u>(1)</u>	None
Biological Resources	Less than significant with mitigation	Similar <u>(2)</u> Reduced <u>(2)</u> ^(b)	Similar <u>(2)</u> Reduced <u>(4)</u>	Similar <u>(2)</u> Reduced <u>(3)</u>	Greater <u>(3)</u> Reduced <u>(2)</u> ⁽²⁾	Greater <u>(3)</u>	No Impact <u>(1)</u>	None VIG Alternative A and C ^(b)
Cultural Resources	Less than significant with mitigation	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u> Reduced	Greater <u>(3)</u>	No Impact <u>(1)</u>	None VIG Alternative C
Geology, Soils, and Mineral Resources	Less than significant with mitigation	Greater <u>(3)</u>	Greater <u>(3)</u>	Greater <u>(3)</u>	Reduced <u>(1)</u> (3)	Greater <u>(3)</u> Reduced <u>(2)</u>	No Impact <u>(1)</u>	VIG Alternative <u>C</u> M
Greenhouse Gases	Less than significant	Greater <u>(3)</u>	Greater <u>(3)</u>	Greater <u>(3)</u>	Reduced <u>(1)</u> (2)	Greater <u>(3)</u> Reduced <u>(3)</u>	No Impact <u>(1)</u>	VIG Alternative C
Hazards and Hazardous Materials	Less than significant with mitigation	Similar Reduced ^(b) <u>(2)</u>	Similar <u>(2)</u> Reduced <u>(3)</u>	Reduced <u>(1)</u> <u>(4)</u>	Similar <u>(2)</u> Reduced ^(b)	Greater <u>(3)</u>	No Impact <u>(1)</u>	VIG Alternative <u>B2</u> A and C ^(b)
Hydrology and Water Quality	Less than significant with mitigation	Reduced <u>(1)</u> ^(b) <u>(2)</u>	Similar <u>(2)</u> Reduced <u>(3)</u>	Similar <u>(2)</u> Reduced <u>(4)</u>	Greater <u>(3)</u> Reduced ^(b) <u>(2)</u>	Greater <u>(3)</u> Reduced <u>(5)</u>	No Impact <u>(1)</u>	VIG Alternatives <u>A</u> and <u>C</u> ^(b)
Land Use and Planning	Less than significant with mitigation	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	No Impact <u>(1)</u>	None
Noise and Vibrations	Significant and unavoidable	Greater <u>(3)</u>	Greater <u>(3)</u>	Greater <u>(3)</u>	Similar <u>(2)</u>	Greater <u>(3)</u>	No Impact <u>(1)</u>	None
Population and Housing	Less than significant	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Greater <u>(3)</u>	No Impact <u>(1)</u>	None
Public Services and Utilities	Less than significant	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Greater <u>(3)</u> Reduced <u>(2)</u>	No Impact <u>(1)</u>	None VIG Alternative M
Recreation	Less than significant	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Similar <u>(2)</u>	Greater <u>(3)</u>	No Impact <u>(1)</u>	None

Table 5-1 Summary of the Valley-Ivyglen Project Alternatives Analyses and Determination

Resource Area	Proposed Valley-Ivyglen Project	VIG Alternative A (Rank)	VIG Alternative B1 (Rank)	VIG Alternative B2 (Rank)	VIG Alternative C (Rank)	VIG Alternative M (Rank)	No Project Alternative (Rank)	Environmentally Superior Alternative(s) ^(a)
Transportation and Traffic	Less than significant with mitigation	Similar (2)	Similar (2)	Similar (2)	Greater (3) Similar	Greater (3)	No Impact (1)	None
Cumulative		Greater (3)	Greater (3)	Greater (3)	Greater (3)	Greater (3)	No Impact (1)	None

Notes

^(a) CEQA Guidelines section 15126.6(e)(2) requires that the lead agency identify an Environmentally Superior Alternative among the other alternatives analyzed in the EIR if the EIR identifies the No Project Alternative as the Environmentally Superior Alternative. Since the No Project Alternative would result in No Impact for all resource areas, it would be the Environmentally Superior Alternative. Therefore, this column identifies the Environmentally Superior Alternative among the other alternatives for each resource area.

^(b) ~~VIG Alternative A and VIG Alternative C do not have overlapping components; therefore, these alternatives can have the same environmentally superior ranking as both alternatives could be incorporated into the proposed project.~~

Key:

CEQA California Environmental Quality Act
EIR Environmental Impact Report
VIG Valley-Ivyglen

1
2

5.2.1 VIG Alternative A—Campbell Ranch Road (115-kV Segment VIG8)

VIG Alternative A includes construction of 115-kV Segments VIG1 through VIG7 as described for the proposed Valley–Ivyglen Project, but 115-kV Segment VIG8 would be routed underground along Campbell Ranch Road instead of underground along Temescal Canyon Road (see Figure 3-1). The comparison of alternatives focuses on how impacts would differ along 115-kV Segment VIG8, given that impacts on all other components would be the same.

Aesthetics

The aesthetic impacts of VIG Alternative A would be similar to those of the proposed Valley-Ivyglen Project. Construction and operation of 115-kV Segment VIG8 would be similar) under the alternative and the proposed project, though the location of the alignment would be different. Construction activities and equipment for this alternative would be temporarily visible to motorists on Campbell Ranch Road, and views of the construction area from Interstate 15 (I-15) would be partially obscured by foliage along I-15, similar to the proposed project. VIG Alternative A would eliminate one freeway crossing (I-15). VIG Alternative A would not be visible during operation; therefore, it would not impact the visual quality of the surrounding area or create a new source of light or glare. Impacts of VIG Alternative A to aesthetics would therefore be similar to those of the proposed project.

Air Quality

The highest level of intensity of daily construction activities under VIG Alternative A would be similar to the same as for the proposed project. As shown in Appendix B,¹ the undergrounding activities of the proposed project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG Alternative A would be the same as the proposed project because both VIG Alternative A and the portion of the proposed route that would be replaced by this alternative would both be undergrounded and are of similar length. VIG Alternative A would therefore also have significant impacts on air quality from emissions of oxides of nitrogen (NO_x), particulate matter less than or equal to 10 microns in diameter (PM₁₀), and particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). Similar to the proposed Valley–Ivyglen Project, NO_x and PM_{2.5} emissions associated with VIG Alternative A would be less than significant with mitigation similar to that developed for the proposed Valley–Ivyglen Project. Additionally, impacts from PM₁₀ emissions would remain significant and unavoidable under VIG Alternative A and would be similar to the proposed Valley–Ivyglen Project. VIG Alternative A would ~~negligibly~~ increase the amount of undergrounding when compared to the proposed project. Assuming a ~~negligibly~~ longer construction period to account for the additional undergrounding, there would be more days of peak daily emissions under VIG Alternative A than under the proposed project. Therefore, VIG Alternative A would result in greater ~~negligible increase in~~ total emissions over the lifetime of project construction.

Biological Resources

VIG Alternative A would require approximately 2,000 feet more disturbance than the proposed Valley–Ivyglen Project along 115-kV Segment VIG8. This additional disturbance would occur within the rights-of-way (ROWS) of De Palma Road, Campbell Ranch Road, and Temescal Canyon Road. The potential to impact ~~terrestrial~~ special status wildlife species along VIG Alternative A could be lower ~~is very low~~ since the construction area is currently either paved or landscaped; however, landscaping includes numerous trees, which could be used by MBTA species. Construction could require extensive tree trimming or

¹ See Table 2 on the Peak Daily Emissions worksheet of the VIG_AQ Emissions_Without PC-J.xls file in Appendix B (SCE 2014).

1 removal, which would be greater than any tree trimming or removal required for 115-kV Segment VIG8.
2 Therefore, considering that there is no survey data for VIG Alternative A, it is assumed that impacts on
3 MBTA species would be greater.

4
5 VIG Alternative A would ~~include~~ involve less construction than the proposed project in areas that would
6 potentially affect jurisdictional waters. Along the VIG Alternative A 115-kV Segment VIG8 alignment,
7 the National Wetlands Inventory (NWI) shows Sycamore Creek near the intersection of Campbell Ranch
8 Road and Mayhew Canyon Road, and the intersection of Campbell Ranch Road and Indian Truck Trail. ~~It~~
9 Sycamore Creek parallels Campbell Ranch Road for a total of about 210 feet. There is also a mapped
10 wetland near Alternative A 115-kV Segment VIG8's intersection ~~with 115-kV Segment VIG7~~
11 that parallels De Palma Road for about 140 feet. VIG Alternative A's 115-kV Segment VIG8 would cross
12 two drainages. In comparison, the proposed project's 115-kV Segment VIG8 is paralleled by mapped
13 wetlands within 40 to 180 feet of the edge of pavement of Temescal Canyon Road for about 0.8 miles,
14 and this segment would cross six drainages.

15
16 Therefore, although VIG Alternative A would result in fewer ~~involve more~~ ground disturbance than the
17 ~~proposed Valley-Ivyglen Project, the location of the disturbance would result in a reduced and~~
18 ~~substantially lower potential for impacts to drainages and riparian habitat on 115-kV Segment VIG8 than~~
19 ~~the proposed Valley-Ivyglen Project, impacts on special status species would not necessarily be reduced~~
20 ~~and could be greater.~~ Overall, impacts on special status species would not necessarily be reduced
21 and could be greater. Overall, impacts on biological resources under VIG Alternative A would
22 be less than similar to impacts those of the proposed project along 115-kV Segment VIG8 but and would
23 still be significant. Impacts Significant impacts would be reduced to less than significant with
24 implementation of the mitigation measures similar to those developed for the proposed Valley-Ivyglen
25 Project.

26 Cultural Resources

27 VIG Alternative A would require approximately 2,000 feet more construction disturbance, including
28 excavation, than the proposed Valley-Ivyglen Project along 115-kV Segment VIG8. The additional
29 excavation performed under VIG Alternative A would occur within the ROWs of De Palma Road,
30 Campbell Ranch Road, and Temescal Canyon Road. The potential of discovering a significant cultural
31 resource within Campbell Ranch Road is low, since these areas have already been disturbed. Therefore,
32 although VIG Alternative A would increase the amount of ground disturbance for the project, the fact that
33 most of the disturbance would be within Campbell Ranch Road means that VIG Alternative A would be
34 have about the same potential to impact cultural resources as the proposed project. Impacts to cultural
35 resources under VIG Alternative A would be ~~reduced to less than significant with~~ implementation of the
36 mitigation measures similar to those developed for the proposed Valley-Ivyglen Project.

38 Geology, Soils, and Mineral Resources

39 VIG Alternative A would increase ground disturbance by less than 0.5 percent² above that associated with
40 the proposed project. This would result in a somewhat higher potential for erosion and loss of topsoil than
41 the proposed project. VIG Alternative A would therefore have somewhat greater impacts to geology and
42 soils compared to the proposed Valley-Ivyglen Project.

² This number assumes 636 acres of disturbance.

1 **Hazards and Hazardous Materials**

2 Construction of VIG Alternative A would utilize the same construction equipment, methods, and
3 materials as the proposed Valley-Ivyglen Project. VIG Alternative A would result in a slight increase in
4 ground disturbance increase of less than 0.5 percent above that associated with the proposed project. This
5 would result in slightly a negligibly higher potential for accidents and hazardous materials impacts than
6 the proposed project because more construction would be required. Blasting would not be required along
7 the alternative alignment. The slightly higher potential for accident and hazardous materials impacts is
8 offset by the reduced impacts of not using blasting, so However, overall, VIG Alternative A's A would
9 result in reduced hazards impacts are expected to be similar as compared to the proposed project. Impacts
10 from hazardous materials under VIG Alternative A would be reduced to less than significant with
11 implementation of the mitigation measures similar to those developed for the proposed project Valley-
12 Ivyglen Project.

13
14 **Hydrology and Water Quality**

15 VIG Alternative A would include less construction than the proposed Valley-Ivyglen Project in areas that
16 would potentially affect jurisdictional waters, as previously discussed for biological resources. Though
17 VIG Alternative A would result in a ground disturbance increase of less than 0.5 percent above that
18 associated with the proposed project, due to the location of that disturbance, VIG Alternative A. This
19 would result in a slightly reduced negligible increase in the potential for sedimentation and contamination
20 related to hazardous materials spills when compared to the proposed project. The potential for drainage
21 alteration impacts would be slightly less under VIG Alternative A than the proposed project, since, as
22 mapped with NWI data, 115-kV Segment VIG8 would cross six drainages as part of the proposed project
23 and only two drainages under VIG Alternative A. Overall, impacts on water quality and hydrology would
24 be reduced under VIG Alternative A when compared to the proposed project, but impacts would still be
25 significant. Implementation of the mitigation measures Mitigation similar to that developed for the
26 proposed Valley-Ivyglen Project would reduce these impacts to less than significant.

27
28 **Land Use and Planning**

29 VIG Alternative A would have impacts on land use similar to those described for the proposed Valley-
30 Ivyglen Project. Undergrounding Segment 8 along Campbell Ranch Road instead of Temescal Ranch
31 Road would neither create nor avoid a land use conflict that would result in significant environmental
32 impacts. Impacts under VIG Alternative A would be similar to those of the proposed project.

33
34 **Noise**

35 Construction of VIG Alternative A's 115-kV Segment VIG8 would utilize the same construction
36 equipment, methods, and materials as the proposed Valley-Ivyglen Project's 115-kV Segment VIG8.
37 Construction activities would generate significant short-term increases in ambient noise levels along De
38 Palma Road, Campbell Ranch Road, and Temescal Canyon Road. Sensitive receptors would be closer
39 under VIG Alternative A; the closest receptors would be about 40 feet away from 115-kV Segment VIG8
40 on De Palma Road, whereas for the proposed Valley-Ivyglen Project, the closest sensitive receptor would
41 be 158 feet from 115-kV Segment VIG8. There are also more sensitive receptors along VIG Alternative
42 A's 115-kV Segment VIG8. Noise at the closest sensitive receptor under VIG Alternative A would be
43 about 97 A-weighted decibels (dBA), which is above the significance threshold of 75 dBA. Though
44 blasting would not be needed on this alternative alignment, overall impacts would be greater than those of
45 the proposed project and would be significant. The mitigation measures developed for the proposed
46 project Mitigation would be implemented but would could not reduce noise levels by 22 dBA, and
47 therefore, noise impacts would remain significant.

1
2 **Transportation and Traffic**

3 Construction of VIG Alternative A would require a similar number of workers and include the use of the
4 same construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips
5 would be distributed slightly differently than for the proposed project during construction, since more
6 construction equipment and vehicles would be routed south of I-15 from Indian Truck Trail rather than
7 north of I-15. This change would result in ~~slightly lower~~ ~~negligibly fewer~~ impacts to level of service
8 (LOS) at intersections also used to access other project components, such as the intersection of Temescal
9 Canyon Road with Indian Truck Trail. Traffic may ~~slightly~~ ~~instead~~ ~~negligibly~~ increase at the intersection
10 of Indian Truck Trail Road and Campbell Ranch Road. The proposed project would maintain the overall
11 LOS at Indian Truck Trail Road and Campbell Ranch Road at LOS D, with a delay of 39.5 seconds
12 (increase of 0.8 seconds) in the AM peak hour and 45.7 seconds (increase of 8.5 seconds) in the PM peak
13 hour. Signalized delay can be up to 55 seconds to stay within the acceptable threshold of LOS D. Even if
14 delay doubled on these intersections when compared to the proposed project, delay would be less than 55
15 seconds and would be within an acceptable LOS. Impacts would be similar and would still be less than
16 significant for intersections near 115-kV Segment VIG8 under VIG Alternative A.
17

18 The alignment of VIG Alternative A would occur in front of Riverside County Sycamore Creek Fire
19 Station 64 on Campbell Ranch Road. Trenching activities in front of the fire station would cause a greater
20 impact to emergency access than would be associated with the proposed project. The mitigation measure
21 requiring provisions for emergency vehicle access developed for the proposed project would reduce this
22 impact to less than significant for VIG Alternative A.
23

24 Other impacts, including lane closure and potential road damage, would be ~~similar~~ ~~about the same~~ for VIG
25 Alternative A and the proposed project, given that VIG Alternative A is only 2,000 feet longer than the
26 proposed project. The ~~same~~ mitigation measures developed for the proposed project ~~would~~ ~~could~~ be
27 implemented ~~used~~ to reduce impacts of VIG Alternative A to less than significant.
28

29 **Cumulative Impacts**

30 VIG Alternative A includes construction of 115-kV Segments VIG1 through VIG7 as described for the
31 proposed Valley-Ivyglen Project; however, Segment VIG8 115 kV power line would be undergrounded
32 along Campbell Ranch Road instead of underground along Temescal Canyon Road. The segments would
33 be roughly the same length, although VIG Alternative A would be slightly longer. Note that it would not
34 be feasible to acquire additional ROW outside of the Campbell Ranch Road ROW due to significant
35 sloping. Therefore, considering the extensive development along Campbell Ranch Road (street lights,
36 landscaping, trees, and other underground utilities), there is potential that all of the existing surface and
37 subsurface development would need to be reconfigured, which would result in greater cumulative impacts
38 than the proposed project.
39

40 **Other Resource Areas**

- 41
- 42 • **Agriculture and Forestry:** The impacts to farmland and forestry would be similar under VIG
Alternative A compared to the proposed Valley-Ivyglen Project.
 - 43 • **Greenhouse Gases:** VIG Alternative A would result in a ground disturbance increase of less than
44 one percent above that associated with the proposed Valley-Ivyglen Project; this involves a slight
45 increase in equipment use and therefore in greenhouse gas emissions. Impacts would be greater
46 than those of the proposed project.

- **Population and Housing:** The same crew sizes would be needed for VIG Alternative A and the proposed Valley-Ivyglen Project, so impacts would be similar as to those of the proposed project.
- **Public Services and Utilities:** The VIG8 alignment under VIG Alternative A would be only 2,000 feet longer than the alignment for the proposed Valley-Ivyglen Project, so increase in water use for fugitive dust would be negligible. The construction period would be about the same, resulting in similar impacts to public services for the alternative and the proposed project.
- **Recreation:** VIG Alternative A would not result in impacts to recreation, which would be the same as the proposed Valley-Ivyglen Project.

5.2.2 VIG Alternative B1—Underground along Santiago Canyon Road (115-kV Segment VIG8)

VIG Alternative B1 includes construction of 115-kV Segments VIG1 through VIG7 as described for the proposed Valley-Ivyglen Project; however, 115-kV Segment VIG8 would be installed in approximately 3.5 miles of new underground conduit and approximately 12 vaults along De Palma Road, Santiago Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri Road, as well as an unnamed dirt road, instead of along Temescal Canyon Road east of I-15 (see Figure 3-1).

Aesthetics

Construction activities and equipment for VIG Alternative B1 would be temporarily visible to motorists along about 500 feet of I-15, an Eligible Scenic Highway. This impact is comparable to the proposed Valley-Ivyglen Project, given that most of the construction activities would be partially screened by vegetation and set back from I-15. Motorists along the local roadways mentioned previously would also see construction, which would be similar to the proposed project but appear in a different location. VIG Alternative B1 would not be visible during operation, and therefore would not impact the visual quality of the surrounding area or create a new source of light or glare. Impacts of VIG Alternative B1 would therefore be similar to impacts of the proposed project.

Air Quality

The highest level of intensity of daily construction activities under VIG Alternative B1 would be similar to the same as for the proposed project. As shown in Appendix B,⁺ the undergrounding activities of the proposed project would create the greatest Peak Daily Emissions. Considering the minor amount of additional trenching involved with VIG Alternative B1 (3.5 miles as opposed to 1.9 miles for the proposed project), the Peak Daily Emissions. Thus, daily emissions impacts under VIG Alternative B1 would be similar to the same as the proposed project. VIG Alternative B1 would therefore also have significant impacts on air quality resulting from NO_x, PM₁₀, and PM_{2.5} emissions. Similar to the proposed project because—rather than increase the daily intensity level—the minor amount of additional trenching would be more likely to result in a slight lengthening of the construction period. Therefore, while emissions would be greater over a slightly longer period, the level of impact would be similar. Under VIG Alternative B1, similar to the proposed project, NO_x Valley-Ivyglen Project, NO_x and PM_{2.5} emissions would be less than significant with implementation of the mitigation measures similar to that developed for the proposed Valley-Ivyglen Project. However, impacts from PM₁₀ emissions, similar to the proposed project, would remain significant and unavoidable. The decrease in helicopter use would be negligible because the majority of the proposed VIG8 route, under VIG Alternative B1, which would be replaced by this alternative, would be underground. Considering that the length of the alternative would be longer overall, any benefit of reduced helicopter construction would be offset by increased trenching. Therefore, similar to the proposed project, VIG Alternative B1 would result in similar negligible

1 increase the amount of undergrounding when compared to the proposed project. Assuming a negligibly
2 longer construction period to account for the additional undergrounding, there would be more days of
3 peak daily emissions under VIG Alternative B1 than the proposed project. Therefore, VIG Alternative B1
4 would result in a negligible increase in total emissions over the lifetime of project construction when
5 compared to the proposed project.

6 7 **Biological Resources**

8 VIG Alternative B1 would require approximately 8,000 feet more disturbance than the proposed Valley-
9 Ivyglen Project along 115-kV Segment VIG8. This additional disturbance would occur within the ROWs
10 of several local roadways. The potential to impact special status species along VIG Alternative B1 is
11 generally lower since the route is either developed or very disturbed. ~~The~~ However, the VIG Alternative
12 B1 route would be located on the edges of potential vernal pool habitat. The proposed VIG Alternative B1
13 route that runs adjacent to the vernal pool habitat would be located along the edge of an unlined mining
14 pit. Therefore, there is some potential that it would not be practical to place an underground transmission
15 line along the edge of a steep pit, which could result in relocating the route closer to vernal pool habitat
16 (see Figure 5-1). VIG Alternative B1 would include less construction in areas that would potentially
17 affect jurisdictional waters. Along the VIG Alternative B1 115-kV Segment VIG8 alignment, the NWI
18 shows that VIG Alternative B1 would parallel mapped waters for about 0.5 miles within 15 to 180 feet of
19 the alignment. VIG Alternative B1's 115-kV Segment VIG8 would cross three drainages. In comparison,
20 the proposed project's 115-kV Segment VIG8 is paralleled by mapped wetlands within 40 to 180 feet of
21 the edge of pavement of Temescal Canyon Road for about 0.8 miles and would cross six drainages.
22 Potential impacts to waters under VIG Alternative B1 would be ~~substantially~~ less than those associated
23 with the proposed project. Overall, impacts to biological resources under VIG Alternative B1 would be
24 ~~reduced~~ similar as compared to the proposed project along 115-kV Segment VIG8 ~~but and still~~ would be
25 significant. Significant impacts would be ~~reduced to~~ less than significant with implementation of the
26 mitigation measures similar to those developed for the proposed Valley-Ivyglen Project.

27 28 **Cultural Resources**

29 VIG Alternative B1 would require approximately 1.5 percent³ more ground disturbance, including
30 excavation, than the proposed Valley-Ivyglen Project along 115-kV Segment VIG8. The additional
31 disturbance under VIG Alternative B1 would occur within the ROWs of De Palma Road, Santiago
32 Canyon Road, and Maitri Road, as well as an unnamed road. The potential of discovering a significant
33 cultural resource along VIG Alternative B1 is low since the route is either developed or very disturbed.
34 Therefore, although VIG Alternative B1 would result in more ground disturbance than the proposed
35 project, the potential to impact cultural resources would be similar ~~about the same for both~~. Impacts to
36 cultural resources under VIG Alternative B1 would be reduced to less than significant with
37 implementation of the mitigation measures ~~similar to those~~ developed for the proposed Valley-Ivyglen
38 Project.

39 40 **Geology, Soils, and Mineral Resources**

41 VIG Alternative B1 would increase ground disturbance by about 1.5 percent over that associated with the
42 proposed Valley-Ivyglen Project. This would result in ~~negligibly~~ greater potential for erosion and loss of
43 topsoil than the proposed project. VIG Alternative B1 would therefore have ~~slightly~~ greater impacts ~~on~~
44 geology and soils than the proposed project.

³ This number assumes approximately 643 acres of disturbance.

1 Hazards and Hazardous Materials

2 Construction of VIG Alternative B1 would utilize the same construction equipment, methods, and
3 materials as the proposed Valley-Ivyglen Project. VIG Alternative B1 would increase ground disturbance
4 by about 1.5 percent over that associated with the proposed project. This would result in greater
5 ~~negligibly higher~~ potential for accidents and hazardous materials impacts than for the proposed project
6 because more construction would be needed. Blasting would not be required along the alternative
7 alignment, ~~however~~, which would reduce ~~overall hazards related to blasting impacts compared to the~~
8 ~~proposed project~~. Overall, VIG Alternative B1 would result in similar~~reduced~~ hazards and hazardous
9 materials impacts ~~as compared to the proposed project~~. Impacts from hazardous materials under VIG
10 Alternative B1 would be reduced to less than significant with implementation of the mitigation measures
11 ~~similar to those~~ developed for the proposed Valley-Ivyglen Project.

13 Hydrology and Water Quality

14 VIG Alternative B1 would include less construction than the proposed Valley-Ivyglen Project in areas
15 that would potentially affect jurisdictional waters, as previously discussed for biological resources. VIG
16 Alternative B1 would increase ground disturbance by about 1.5 percent above that associated with the
17 proposed Valley-Ivyglen Project. This would result in a greater~~negligibly higher~~ potential for
18 sedimentation and hazardous materials spills than the proposed project. The potential for drainage
19 alteration impacts would be slightly lower under VIG Alternative B1 than the proposed project, since, as
20 mapped with NWI data, 115-kV Segment VIG8 would cross six drainages as part of the proposed project
21 and only three drainages would be crossed under VIG Alternative B1. However, considering the greater
22 potential for sedimentation and materials spills, overall, the balance of~~Overall~~, impacts on water quality
23 and hydrology under VIG Alternative B1 would be similar~~reduced~~ compared to the proposed project.
24 Implementation of the mitigation measures, ~~but would still be significant~~. ~~Mitigation similar to that~~
25 developed for the proposed Valley-Ivyglen Project would reduce VIG Alternative B1 impacts to less than
26 significant.

28 Land Use and Planning

29 VIG Alternative B1 would have impacts on land use similar to those described for the proposed Valley-
30 Ivyglen Project. Undergrounding 115-kV Segment VIG8 along the VIG Alternative B1 alignment would
31 neither create nor avoid a land use conflict that would result in significant environmental impacts. Impacts
32 on land use under VIG Alternative B1 would be similar to~~the same as for~~ the proposed project.

34 Noise

35 Construction of VIG Alternative B1's 115-kV Segment VIG8 would utilize the same construction
36 equipment, methods, and materials as the proposed Valley-Ivyglen Project's 115-kV Segment VIG8.
37 Construction activities would generate significant short-term increases in ambient noise levels along De
38 Palma Road, Santiago Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri
39 Road, as well as an unnamed road. There are also more sensitive receptors along VIG Alternative B1's
40 115-kV Segment VIG8 than for the proposed project. Sensitive receptors would be closer under VIG
41 Alternative B1; the closest receptors would be about 18 feet away from 115-kV Segment VIG8 on
42 Santiago Canyon Road, whereas under the proposed project the closest sensitive receptor would be 158
43 feet from 115-kV Segment VIG8. Noise at the closest sensitive receptor under VIG Alternative B1 would
44 be over 97 dBA, which is above the significance threshold of 75 dBA. Though blasting would not be
45 needed for this alternative alignment, impacts would be greater than the proposed project and would be
46 significant. The mitigation measures developed for the proposed project~~Mitigation~~ would be implemented

1 but could not reduce noise levels to under 75 dBA, and therefore, noise impacts would remain significant
2 and unavoidable.

4 **Transportation and Traffic**

5 Construction of VIG Alternative B1 would require a similar number of workers and include the use of the
6 same construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips
7 would be distributed slightly differently than for the proposed project during construction, since more
8 construction equipment and vehicles would be routed south of I-15 from Indian Truck Trail rather than
9 north of I-15. This change would result in negligibly fewer impacts to LOS at intersections also used to
10 access other project components, such as the intersection of Temescal Canyon Road with Indian Truck
11 Trail. Traffic may instead negligibly increase at the intersection of Indian Truck Trail Road and Campbell
12 Ranch Road. The proposed project would maintain the overall existing LOS D at Indian Truck Trail Road
13 and Campbell Ranch Road, with a delay of 39.5 seconds (increase of 0.8 seconds) in the AM peak hour
14 and 45.7 seconds (increase of 8.5 seconds) in the PM peak hour. Signalized delay can be up to 55 seconds
15 to stay within the acceptable threshold of LOS D. Even if delay doubled on this intersection when
16 compared to the proposed project, delay would be less than 55 seconds and would be within an acceptable
17 LOS. Impacts on traffic and transportation under VIG Alternative B1 would be reduced to less than
18 significant with implementation of the mitigation measures developed for the proposed Valley-Ivyglen
19 Project ~~Impacts would be similar and would still~~ be less than significant for intersections
20 near 115-kV Segment VIG8 under VIG Alternative B1.

22 **Cumulative Impacts**

23 VIG Alternative B1 includes construction of 115-kV Segments VIG1 through VIG7 as described for the
24 proposed Valley-Ivyglen Project. However, for Segment VIG8 the 115-kV power line would be installed
25 in approximately 3.5 miles of new underground conduit and approximately 12 vaults along De Palma
26 Road, Santiago Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri Road,
27 as well as an unnamed dirt road, instead of along Temescal Canyon Road east of I-15. This would result
28 in greater cumulative impacts than the proposed project resulting from additional ground disturbance
29 from undergrounding and modification of existing aboveground and belowground infrastructure along the
30 route to accommodate the new 115-kV segments. In addition, this area contains extensive surface mining
31 operations. Therefore, trenching and construction in this location would contribute to greater cumulative
32 effects related to erosion and fugitive dust that would not otherwise occur with the proposed project. In
33 addition, a large segment of the proposed ROW is located along a dirt road adjacent to vernal pool
34 habitat. Because it might not be practical to install underground vaults along a dirt road in an isolated
35 area, it is assumed that this private, unnamed dirt road would need to be paved. This could have the
36 unanticipated effect of attracting members of the community into the area, which could exacerbate
37 impacts on vernal pool habitat or could result in an increase in hazardous situations for the public.
38 Currently, there is no road allowing easy vehicle access to this area, and current users of the dirt road
39 include heavy vehicles and work trucks engaged in mining or other industrial operations. Figure 5-1
40 depicts a portion of the VIG Alternative B1 route, which would be located along the unpaved road
41 between an open mining pit and vernal pool habitat. The route would continue to the east, presumably
42 giving vehicle access to the residential neighborhood.



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Figure 5-1: An example of a steep unlined mining pit and vernal pool habitat adjacent to Alternatives B1 and B2 route (to be located along a dirt road)

Other Resource Areas

- **Agriculture and Forestry:** The impacts to farmland and forestry would be similar the same under VIG Alternative B1 and proposed Valley-Ivyglen Project.
- **Greenhouse Gases:** VIG Alternative B1 would increase ground disturbance by about 1.5 percent over that associated with the proposed Valley-Ivyglen Project; this involves an increase in equipment use and therefore slightly greater greenhouse gas emissions.

- 1 • **Population and Housing:** The same crew sizes would be needed under VIG Alternative B1 as
2 for the proposed Valley-Ivyglen Project for a negligibly longer construction period, so impacts of
3 the alternative and the proposed project would be similar ~~about the same~~.
- 4 • **Public Services and Utilities:** The alternative 115-kV VIG8 alignment would be only 8,000 feet
5 longer than the proposed alignment, so the increase in water use needed for fugitive dust control
6 would be negligible. The construction period for VIG Alternative B1 would be negligibly longer
7 than that of the proposed Valley-Ivyglen Project, resulting in similar ~~the same~~ impacts to those
8 of public services as the proposed project.
- 9 • **Recreation:** Alternative VIG B1 would not result in impacts to recreation, which is the same as
10 the proposed project.

11 12 **5.2.3 VIG Alternative B2— Santiago Canyon Road Underground and Overhead** 13 **(115-kV Segment VIG8)**

14
15 VIG Alternative B2 would include construction of 115-kV Segments VIG1 through VIG7 as described
16 for the proposed Valley-Ivyglen Project; however, 115-kV Segment VIG8 would be installed on new
17 poles and in new underground conduit for approximately 3.5 miles along De Palma Road, Santiago
18 Canyon Road, and Maitri Road, as well as an unnamed dirt road (see Figure 3-1). About 1.5 miles would
19 be undergrounded, with the remaining 2 miles being installed overhead on tubular steel poles (TSPs) and
20 lightweight lattice steel (LWS) poles.

21 22 **Aesthetics**

23 Construction activities and equipment for VIG Alternative B2 would be temporarily visible to motorists
24 along about 500 feet of I-15, an Eligible Scenic Highway. This is comparable to the proposed project's
25 impact, given that most of the construction activities would be partially screened by vegetation and set
26 back from I-15. Motorists along the local roadways mentioned previously would also see construction,
27 which would be similar to the proposed project but in a different location. The underground portions of
28 VIG Alternative B2 would not be visible during operation and therefore would not impact the visual
29 quality of the surrounding area or create a new source of light or glare.

30
31 The aboveground portions of VIG Alternative B2 would be placed on portions of Temescal Canyon Road
32 that have an environmental setting and visual quality similar to those described for Key Viewpoint 7
33 (Lake Street). Therefore, the visual quality impacts of VIG Alternative B2 along Temescal Canyon Road
34 would be similar to those described for Key Viewpoint 7 as part of the proposed Valley-Ivyglen Project,
35 which are classified as significant. Mitigation similar to that introduced for the proposed Valley-Ivyglen
36 Project would reduce these impacts to less than significant. Other aboveground portions of VIG
37 Alternative B2 would occur along access roads in an area used for aggregate mining and would not
38 degrade the visual quality of the area.

39
40 Aboveground portions of VIG Alternative B2 would also be visible to the west of Santiago Canyon Road
41 and the Deleo Regional Sports Park. There is currently no electric transmission infrastructure in this area
42 and none proposed under the proposed project. Thus, LWSPs and TSPs may substantially reduce the
43 visual quality of the views from Santiago Canyon Road and the Diablo Regional Sports Park. The land
44 where the segment would be located is relatively flat, so it would likely not be feasible to screen or
45 camouflage the color or finish of the TSPs and LWSPs. This may result in a significant, unavoidable
46 visual impacts ~~aesthetic impact~~. Compared to the proposed project's 115-kV Segment VIG8, VIG
47 Alternative B2 would have greater visual impacts.

Air Quality

The highest level of intensity of daily construction activities under VIG Alternative B2 would be similar to the same as for the proposed project. As shown in Appendix B,⁺ the undergrounding activities of the proposed project would create the greatest Peak Daily Emissions. VIG Alternative B2 would require slightly less undergrounding than the proposed project but the total length of the alternative route would be longer because part of the route would be located aboveground. Therefore, the reduction in trenching would be offset by the longer route. Therefore, the Peak Daily Emissions under VIG Alternative B2 would be similar to the proposed project. Under VIG Alternative B2, similar to the proposed project, NO_x and PM_{2.5} emissions would be less than significant with implementation of the mitigation measures developed for the proposed Valley-Ivyglen Project. However, impacts from PM₁₀ emissions, similar to the proposed project, would remain significant and unavoidable. Thus, daily emissions impacts under this alternative would be the same as the proposed project. VIG Alternative B2 would therefore also have significant impacts on air quality from emissions of NO_x, PM₁₀, and PM_{2.5}. Similar to the proposed Valley-Ivyglen Project, NO_x and PM_{2.5} daily emissions associated with VIG Alternative B2 would be less than significant with mitigation similar to that developed for the proposed Valley-Ivyglen Project. Additionally, impacts from daily PM₁₀ emissions would remain significant and unavoidable under this alternative and would be similar to the proposed Valley-Ivyglen Project. VIG Alternative B2 would negligibly decrease the amount of undergrounding when compared to the proposed project. Assuming a negligibly shorter construction period for undergrounding, air emissions associated with undergrounding would negligibly decrease. The alternative would negligibly increase the amount of overhead construction when compared to the proposed project. This additional overhead construction would negligibly increase air emissions when compared to the proposed project. Therefore, VIG Alternative B2 would result in about the same total emissions over the lifetime of project construction.

Biological Resources

VIG Alternative B2 would require approximately 8,000 feet of disturbance more than the proposed Valley-Ivyglen Project along 115-kV Segment VIG8. The additional disturbance under VIG Alternative B2 would occur within the ROWs of several local roadways. The potential to impact special status species along VIG Alternative B2 is generally lower since the route is either developed or very disturbed. The However, the route would be located on the edges of potential vernal pool habitat. The proposed VIG Alternative B2 route that runs adjacent to the vernal pool habitat would be located along the edge of an unlined mining pit. Therefore, there is some potential that it would not be practical to place components along the edge of a steep pit, which could result in relocating the route closer to vernal pool habitat (see Figure 5-1). Compared to VIG Alternative B1, impacts would be slightly less because habitat could mostly be spanned, which would result in less habitat disturbance.

VIG Alternative B2 would require less construction in areas that would potentially affect jurisdictional waters. Along the VIG Alternative B2 115-kV Segment VIG8 alignment, the NWI shows that VIG Alternative B2 would parallel mapped waters for about 0.5 miles within 15 to 180 feet of the alignment. VIG Alternative B2's 115-kV Segment VIG8 would cross three drainages. In comparison, the proposed Valley-Ivyglen Project's 115-kV Segment VIG8 is paralleled by mapped wetlands within 40 to 180 feet of the edge of pavement of Temescal Canyon Road for about 0.8 miles and would cross over six drainages. Potential impacts to waters under Alternative VIG B2 would be substantially lower than lower than those associated with the proposed project; these impacts would be significant but would be mitigated to less than significant with implementation of the mitigation measures similar to those developed for the proposed Valley-Ivyglen Project.

1 Overall, impacts to biological resources under VIG Alternative B2 would be similar as compared to the
2 proposed project along 115-kV Segment VIG8 and would be significant. Significant impacts would be
3 less than significant with implementation of the mitigation measures developed for the proposed Valley-
4 Ivyglen Project.

6 **Cultural Resources**

7 VIG Alternative B2 would require approximately 3.3 percent⁴ more ground disturbance, including
8 excavation, than the proposed Valley-Ivyglen Project along 115-kV Segment VIG8. The additional
9 disturbance under VIG Alternative B2 would occur within the ROWs of De Palma Road, Santiago
10 Canyon Road, and Maitri Road, as well as an unnamed road. The potential of discovering a significant
11 cultural resource along VIG Alternative B2 is low since the route is either developed or very disturbed.
12 Therefore, although VIG Alternative B2 would involve more ground disturbance, the potential for
13 impacts to cultural resources would be similar to about the same as for the proposed project. Impacts to
14 cultural resources under VIG Alternative B2 would be reduced to less than significant with
15 implementation of the mitigation measures similar to those developed for the proposed Valley-Ivyglen
16 Project.

18 **Geology, Soils, and Mineral Resources**

19 VIG Alternative B2 would increase ground disturbance by about 3.3 percent over that associated with the
20 proposed Valley-Ivyglen Project. This would result in ~~negligibly higher~~ potential for erosion and loss of
21 topsoil than the proposed project. VIG Alternative B2 would therefore have ~~slightly greater~~ impacts to
22 geology and soils than the proposed Valley-Ivyglen Project.

24 **Hazards and Hazardous Materials**

25 Construction of VIG Alternative B2 would utilize the same construction equipment, methods, and
26 materials as the proposed Valley-Ivyglen Project. ~~VIG Alternative B2 would involve about 3.3 percent~~
27 ~~more ground disturbance than the proposed project. This would result in negligibly higher potential for~~
28 ~~accidents and hazardous materials impacts than the proposed project because more construction would be~~
29 ~~needed. Blasting would not be required along the alternative alignment, however, which would result in~~
30 ~~lower overall hazards impacts as compared to the proposed project. Impacts from hazardous materials~~
31 ~~under VIG Alternative B2 would be reduced to less than significant with mitigation measures similar to~~
32 ~~those developed for the proposed Valley-Ivyglen Project.~~

34 VIG Alternative B2 would include less construction in areas that would potentially affect jurisdictional
35 waters, as previously discussed for biological resources. VIG Alternative B2 would increase ground
36 disturbance by about 3.3 percent over that associated with the proposed project. This would result in
37 greater potential for accidents and hazardous materials impacts than for the proposed project because
38 more construction would be needed. Blasting would not be required along the alternative alignment,
39 which would reduce hazards related to blasting. Overall, VIG Alternative B2 would result in similar
40 hazards and hazardous materials impacts to the proposed project. Impacts from hazardous materials under
41 VIG Alternative B2 would be reduced to less than significant with implementation of the mitigation
42 measures developed for the proposed Valley-Ivyglen Project.

⁴ This number assumes approximately 654 acres of disturbance.

1 Hydrology and Water Quality

2 VIG Alternative B2 would include less construction than the proposed Valley-Ivyglen Project in areas
 3 that would potentially affect jurisdictional waters, as previously discussed for biological resources. VIG
 4 Alternative B2 would increase ground disturbance by about 3.3 percent above that associated with the
 5 proposed Valley-Ivyglen Project. This would result in a greater potential for sedimentation and hazardous
 6 materials spills than the proposed project. The potential for drainage alteration impacts would be slightly
 7 lower under VIG Alternative B2 than for the proposed project, since, as mapped with NWI data, 115-kV
 8 Segment VIG8 would cross six drainages as part of the proposed project and only three drainages would
 9 be crossed under VIG Alternative B2. However, considering the greater potential for sedimentation and
 10 materials spills, overall, the balance of Overall, impacts on water quality and hydrology under VIG
 11 Alternative B2 would be similar compared to less than the proposed project. Implementation of the
 12 mitigation measures, but would still be significant. Mitigation similar to that developed for the proposed
 13 Valley-Ivyglen Project would reduce VIG Alternative B2 these impacts to less than significant.

15 Land Use and Planning

16 VIG Alternative B2 would have impacts on land use similar to those described for the proposed Valley-
 17 Ivyglen Project. Undergrounding 115-kV Segment VIG8 along the VIG Alternative B2 alignment would
 18 neither create nor avoid a land use conflict that would result in significant environmental impacts. Impacts
 19 would be the same as for the proposed project.

21 Noise

22 Construction of VIG Alternative B2's 115-kV Segment VIG8 would require the same construction
 23 equipment, methods, and materials as the proposed Valley-Ivyglen Project's 115-kV Segment VIG8.
 24 Construction activities would generate significant short-term increases in ambient noise levels along De
 25 Palma Road, Santiago Canyon Road, a short segment of Temescal Canyon Road west of I-15, and Maitri
 26 Road, as well as an unnamed road. There are also more sensitive receptors along VIG Alternative B2's
 27 115-kV Segment VIG8. Sensitive receptors would also be closer under VIG Alternative B2; the closest
 28 receptors are about 18 feet away from 115-kV Segment VIG8 on Santiago Canyon Road, whereas for the
 29 proposed project the closest sensitive receptor is 158 feet from 115-kV Segment VIG8. Noise at the
 30 closest sensitive receptor under VIG Alternative B2 would be over 97 dBA, which is above the
 31 significance threshold of 75 dBA. Though blasting would not be needed on this alternative alignment,
 32 impacts to sensitive receptors would be greater than with the proposed project and would be significant.
 33 Mitigation would be implemented, but noise levels could not be reduced to under 75 dBA and would
 34 remain significant and unavoidable.

36 Transportation and Traffic

37 Construction of VIG Alternative B2 would require a similar number of workers and include the use of the
 38 same construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips
 39 would be distributed slightly differently than the proposed project, since more construction equipment and
 40 vehicles would be routed south of I-15 from Indian Truck Trail rather than north of I-15. This change
 41 would cause a negligible decrease in LOS impacts to intersections also used to access other project
 42 components, such as the intersection of Temescal Canyon Road with Indian Truck Trail. Traffic might
 43 instead negligibly increase at the intersection of Indian Truck Trail Road and Campbell Ranch Road. The
 44 proposed project would maintain the existing overall LOS D at Indian Truck Trail Road and Campbell
 45 Ranch Road, with a delay of 39.5 seconds (an increase of 0.8 seconds) in the AM peak hour and 45.7
 46 seconds (an increase of 8.5 seconds) in the PM peak hour. Signalized delay can be up to 55 seconds to
 47 stay within the acceptable threshold of LOS D. Even if delay doubled on this intersection when compared

1 to the proposed project, delay would still be less than 55 seconds and would be within the acceptable
2 LOS. The mitigation measures developed for the proposed project impacts would be implemented, and
3 therefore, impacts would be similar to those of~~about the same~~ as the proposed project. Under VIG
4 Alternative B2, impacts would remain less than significant for intersections near 115-kV Segment VIG8.
5

6 **Cumulative Impacts**

7 VIG Alternative B2 includes construction of 115-kV Segments VIG1 through VIG7 as described for the
8 proposed Valley-Ivyglen Project; however, in Segment VIG8, 115-kV would be installed on new poles
9 and in new underground conduit for approximately 3.5 miles along De Palma Road, Santiago Canyon
10 Road, and Maitri Road, as well as an unnamed road. About 1.5 miles would be undergrounded, with the
11 remaining 2 miles being installed overhead on tubular steel poles (TSPs) and lightweight steel (LWS)
12 poles. This may result in greater cumulative impacts than the proposed project resulting from additional
13 ground disturbance from undergrounding and modification of existing aboveground and belowground
14 infrastructure along the route to accommodate the new 115-kV segments. In addition, this area contains
15 extensive surface mining operations. Therefore, trenching and construction in this location would
16 contribute to greater cumulative effects related to erosion and fugitive dust that would not otherwise occur
17 with the proposed project. In addition, a large segment of the proposed ROW is located along a dirt road
18 adjacent to vernal pool habitat. Figure 5-1 depicts a portion of the B2 route, which would be located along
19 the unpaved road between an open mining pit and vernal pool habitat.
20

21 **Other Resource Areas**

- 22 • **Agriculture and Forestry:** The impacts to farmland and forestry under VIG Alternative B2
23 would be similar to those~~the same~~ as for the proposed Valley-Ivyglen Project.
- 24 • **Greenhouse Gases:** VIG Alternative B2 would increase ground disturbance by about 3.3 percent
25 over that associated with the proposed project; this involves a negligible increase in equipment
26 use and therefore greater~~increased~~ greenhouse gas emissions compared to the proposed project.
- 27 • **Population and Housing:** The same crew sizes would be needed under VIG Alternative B2 as
28 under the proposed Valley-Ivyglen project for a slightly~~negligibly~~ longer construction period, so
29 impacts would be similar to those~~about the same~~ as for the proposed project.
- 30 • **Public Services and Utilities:** The alternative 115-kV VIG8 alignment would be only 8,000 feet
31 longer than the proposed alignment, so the increase in water use to control fugitive dust would be
32 negligible. The construction period would be negligibly longer, resulting in similar~~the same~~
33 impacts to public services as the proposed project.
- 34 • **Recreation:** VIG Alternative B2 would not result in impacts to recreation, which would be the
35 same as the proposed project.
36

37 **5.2.4 VIG Alternative C—Underground along Temescal Canyon Road and** 38 **Horsethief Canyon Road (115-kV Segment VIG6)**

39
40 VIG Alternative C includes construction of 115-kV Segments VIG1 through VIG5 and VIG7 through
41 VIG 8, as described for the proposed Valley-Ivyglen Project; however, ~~wood poles along a 0.75-mile~~
42 ~~section of the Valley-Elsinore-Fogarty-Ivyglen 115-kV line along Temescal Canyon Road near the~~
43 ~~western corner of the proposed Alberhill Substation site would be removed, and new underground conduit~~
44 ~~capable of supporting two 115-kV circuits (the Valley-Elsinore-Fogarty-Ivyglen 115-kV line and~~
45 ~~proposed Valley-Ivyglen 115-kV line)~~ would be installed along Temescal Canyon Road from Concordia

1 Ranch Road to Horsethief Canyon Road to De Palma Road in lieu of Segment 115-kV VIG6 (see Figure
2 3-2).

4 **Aesthetics**

5 Construction activities and equipment for VIG Alternative C would mostly be screened or out of view
6 from motorists along I-15 due to vegetation and topography, which would result in fewer visual impacts
7 than the proposed VIG 115-kV Segment ~~VIG 6~~VIG8 construction. During operation, however, VIG
8 Alternative C would not be visible, while the proposed project would be visible from I-15, an Eligible
9 Scenic Highway. The proposed project's impacts on visual character in this area would be less than
10 significant but VIG Alternative C would avoid these impacts altogether. Under VIG Alternative C, a
11 structure to transition the line from underground to overhead near the intersection of Horsethief Canyon
12 Road and De Palma Road would increase visual impacts in this area since the only other infrastructure in
13 the area is a streetlamp. While the proposed project would involve subtransmission structures in this area,
14 transition structures tend to have greater visual impacts. Overall, aesthetic impacts would be reduced
15 under this alternative, but still would be significant. Aesthetic impacts under VIG Alternative C would be
16 reduced to less than significant with implementation of the mitigation measures similar to those
17 developed for the proposed project.

19 **Air Quality**

20 The highest level of intensity of daily construction activities under VIG Alternative C would be similar to
21 the proposed project. As shown in Appendix B, the undergrounding activities of the proposed project
22 would create the greatest Peak Daily Emissions. Considering the minor amount of additional trenching
23 (2.9 miles as opposed to 1.9 miles for the proposed project), the highest level of intensity of daily
24 construction activities is expected to be similar to the proposed project. Due to these minimal differences
25 in construction activity, daily emissions under VIG Alternative C would be similar to the proposed
26 project because the minor amount of additional trenching is not expected to significantly alter
27 construction phasing, although it could slightly lengthen the construction period. Under VIG Alternative
28 C, similar to the proposed project, NO_x and PM_{2.5} emissions would be less than significant with
29 implementation of the mitigation measures developed for the proposed Valley-Ivyglen Project. However,
30 impacts from PM₁₀ emissions, similar to the proposed project, would remain significant and unavoidable.
31 The decrease in helicopter use would be negligible due to the additional one mile of undergrounding,
32 since helicopter use would be needed for the rest of the aboveground construction. In addition, the benefit
33 of reduced helicopter construction would be offset by increased trenching. Therefore, VIG Alternative C
34 would result in similar total emissions over the lifetime of project construction.

35
36 ~~The highest level of intensity of daily construction activities under VIG Alternative C would be the same~~
37 ~~as for the proposed project. As shown in Appendix B,⁺ the undergrounding activities of the proposed~~
38 ~~project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG~~
39 ~~Alternative C would be the same as the proposed project. Under VIG Alternative C, NO_x emissions~~
40 ~~would be less than significant with mitigation similar to that developed for the proposed Valley-Ivyglen~~
41 ~~Project. VIG Alternative C would have significant impacts on air quality from NO_x, PM₁₀, and PM_{2.5}~~
42 ~~emissions. Similar to the proposed Valley-Ivyglen Project, NO_x and PM_{2.5} emissions under VIG~~
43 ~~Alternative C would be less than significant with implementation of mitigation similar to that developed~~
44 ~~for the proposed project. Additionally, impacts from PM₁₀ emissions would be less than for the proposed~~
45 ~~Valley-Ivyglen Project but would remain significant and unavoidable under VIG Alternative C. VIG~~
46 ~~Alternative C would, however, result in increased total emissions over the lifetime of project construction.~~
47 ~~The most emissions-intensive activities would occur for a longer period of time under VIG Alternative C~~
48 ~~due to undergrounding approximately 2.9 miles of the VIG Alternative C alignment compared to 1.9~~

1 miles for the proposed project. The decrease in helicopter use would be negligible due to the additional
2 one mile of undergrounding, since helicopter use would be needed for the rest of the aboveground
3 construction. Assuming a negligibly longer construction period to account for the additional
4 undergrounding, there would be more days of peak daily emissions under VIG Alternative C than under
5 the proposed project. Therefore, VIG Alternative C would result in a negligible increase in total emissions
6 over the lifetime of project construction.

7
8 **Biological Resources**

9 The majority of the VIG Alternative C Route is located along previously disturbed areas. Therefore, VIG
10 Alternative C could require fewer acres of new disturbance compared to the proposed Valley-Ivyglen
11 Project. VIG Alternative C would also result in avoidance of impacts on relatively undisturbed vegetation
12 south of I-15. However, it is not certain whether all ground disturbance could be confined to the ROWs of
13 Temescal Canyon Road and Horsethief Canyon Road due to existing aboveground and belowground
14 infrastructure. Therefore, new ROW might need to be acquired, which would be located outside of the
15 existing ROW. Therefore, while the probability of encountering a terrestrial special status wildlife species
16 along the proposed project's 115-kV Segment VIG 6 is much greater than under VIG Alternative C, VIG
17 Alternative C could require more extensive tree removal to accommodate the additional ROW, which
18 could have greater impacts on avian species protected under the MBTA. In addition, the proposed
19 project's 115-kV Segment VIG6 is paralleled by jurisdictional waters for about 900 feet and would cross
20 nine drainages. In contrast, the VIG Alternative C 115-kV Segment VIG6 alignment would parallel or
21 cross about 1,800 feet of waters and would cross one large drainage, which provides higher quality habitat
22 than the area that would be disturbed for the proposed project. Therefore, the trenching required for VIG
23 Alternative C would result in greater impacts on drainages and waters. Impacts on biological resources
24 under VIG Alternative C would be significant but would be less than significant with implementation of
25 the mitigation measures developed for the proposed Valley-Ivyglen Project.

26
27 ~~VIG Alternative C would require approximately 41 fewer acres of disturbance than the proposed Valley-~~
28 ~~Ivyglen Project. VIG Alternative C would also result in avoidance of impacts on relatively undisturbed~~
29 ~~vegetation south of I-15. Ground disturbance associated with Alternative C's 115-kV Segment VIG6~~
30 ~~would occur within the ROWs of Temescal Canyon Road and Horsethief Canyon Road and would have a~~
31 ~~lower probability of impacting a special status species than the proposed project. The probability of~~
32 ~~encountering a special status species along the proposed 115-kV Segment VIG6 is much greater than~~
33 ~~under VIG Alternative C, as the proposed project's 115-kV Segment VIG6 would install poles and~~
34 ~~develop access roads within a large, generally undisturbed area south of I-15. The VIG Alternative C 115-~~
35 ~~kV Segment VIG6 alignment would parallel or cross about 1,800 feet of waters and would cross one large~~
36 ~~drainage. In comparison, the proposed project's 115-kV Segment VIG6 is paralleled by jurisdictional~~
37 ~~waters for about 900 feet but would cross nine drainages. This would result in VIG Alternative C~~
38 ~~substantially reducing impacts to biological resources as compared to the proposed project. Impacts on~~
39 ~~biological resources under VIG Alternative C would still be significant but could be reduced to less than~~
40 ~~significant with mitigation measures similar to those developed for the proposed Valley-Ivyglen Project.~~

41
42 **Cultural Resources**

43 VIG Alternative C is located along previously disturbed areas as compared to the Valley-Ivyglen Project
44 along 115-kV Segment VIG6, which is located in an undeveloped area. Even if new ROW is required
45 outside of the Temescal Road ROW, the areas along Temescal Road are generally more developed than
46 VIG 6. The potential of discovering a significant cultural resource along VIG Alternative C is therefore
47 presumed to be lower than the proposed project. However, the potential to encounter and impact
48 paleontological resources would increase due to trenching activity associated with the underground

1 construction required for VIG Alternative C. On balance, VIG Alternative C's potential for impacts to
 2 cultural resources would be similar to the proposed project. Impacts to cultural resources under VIG
 3 Alternative C would be reduced to less than significant with implementation of the mitigation measures
 4 developed for the proposed Valley-Ivyglen Project.

5
 6 ~~VIG Alternative C would require approximately 6.5 percent⁵ less ground disturbance than the proposed~~
 7 ~~Valley-Ivyglen Project along 115-kV Segment VIG6. The reduced disturbance performed under VIG~~
 8 ~~Alternative C would occur within the ROW of Temeseal Road. The potential of discovering a significant~~
 9 ~~cultural resource along VIG Alternative C is low since the road is either paved or very disturbed.~~
 10 ~~Therefore, VIG Alternative C's potential for impacts to cultural resources would be reduced as compared~~
 11 ~~to the proposed project. Impacts to cultural resources under VIG Alternative C would be reduced to less~~
 12 ~~than significant with mitigation measures similar to those developed for the proposed Valley-Ivyglen~~
 13 ~~Project.~~

14 **Geology, Soils, and Mineral Resources**

15
 16 ~~VIG Alternative C would be located in a more developed area than the decrease ground disturbance by~~
 17 ~~about 6.5 percent compared to the proposed Valley-Ivyglen Project along 115-kV Segment VIG6.- This~~
 18 ~~could result in a slight decrease in the potential for erosion and loss of topsoil as compared to the~~
 19 ~~proposed project. VIG Alternative C would therefore have slightly reduced impacts to geology and soils~~
 20 ~~as compared to the proposed Valley-Ivyglen Project. Impacts would be significant but would be~~
 21 ~~mitigated to less than significant with implementation of the mitigation measures similar to those~~
 22 ~~developed for the proposed Valley-Ivyglen Project.~~

23 **Hazards and Hazardous Materials**

24
 25 Construction of VIG Alternative C would utilize the same construction equipment, methods, and
 26 materials as the proposed Valley-Ivyglen Project. VIG Alternative C would cross a large drainage and
 27 would parallel or cross about 1,800 feet of waters, compared to nine drainages and 900 feet of waters for
 28 the proposed project. In addition, VIG Alternative C would be located in an area with more traffic and
 29 therefore more opportunity for accidents that could involve members of the community. This would result
 30 in a similar potential for accidents and hazardous materials impacts as compared to the proposed project;
 31 however, if impacts were to occur, they would be more likely to affect the public. Therefore, impacts
 32 would be greater. Impacts from hazardous materials under VIG Alternative C would be less than
 33 significant with implementation of the mitigation measures developed for the proposed Valley-Ivyglen
 34 Project.

35
 36 ~~Construction of VIG Alternative C would utilize the same construction equipment, methods, and~~
 37 ~~materials as the proposed Valley-Ivyglen Project. VIG Alternative C would cross a large drainage and~~
 38 ~~would parallel or cross about 1,800 feet of waters, compared to nine drainages and 900 feet of waters for~~
 39 ~~the proposed project. In addition, VIG Alternative C would be located in an area with more traffic and~~
 40 ~~therefore more opportunity for accidents that could involve members of the community. This would result~~
 41 ~~in a similar potential for accidents and hazardous materials impacts as compared to the proposed project;~~
 42 ~~however, if impacts were to occur, they would be more likely to affect the public. Therefore, impacts~~
 43 ~~would be greater. Impacts from hazardous materials under VIG Alternative C would be less than~~

⁵ This number assumes that total disturbance is 592 acres, based on elimination of ten LWSPs, eight TSPs, and 7 miles of access roads, and that VIG Alternative C would require 4.5 acres of pole removal, 0.9 miles of 50-foot-wide trenching, and 4.2 acres for vaults.

1 ~~significant with implementation of the mitigation measures developed for the proposed Valley-Ivyglen~~
2 ~~Project.~~

4 **Hydrology and Water Quality**

5 VIG Alternative C would include construction in areas that would potentially affect jurisdictional waters,
6 as previously discussed for biological resources. The proposed project's 115-kV Segment VIG6 is
7 paralleled by jurisdictional waters for about 900 feet and would cross nine drainages. In contrast, the VIG
8 Alternative C 115-kV Segment VIG6 alignment would parallel or cross about 1,800 feet of waters and
9 would cross one large drainage. This would result in a greater potential for sedimentation and
10 contamination related to hazardous materials spills as compared to the proposed project because more
11 acres of waters and drainages would be affected than for the proposed project. This would also result in
12 greater modification of existing drainages. Therefore, VIG Alternative C would result in greater impacts
13 on hydrology and water quality due to trenching required through a large hydrological feature. Impacts
14 would be reduced but still significant for VIG Alternative C. Implementation of the mitigation measures
15 developed for the proposed Valley-Ivyglen Project would reduce these impacts to less than significant.

16
17 ~~VIG Alternative C would include less construction in areas that would potentially affect jurisdictional~~
18 ~~waters, as previously discussed for biological resources. VIG Alternative C would result in about 6.5~~
19 ~~percent less ground disturbance than that associated with the proposed project. This would result in~~
20 ~~negligibly lower potential for sedimentation and hazardous materials spills as compared to the proposed~~
21 ~~project. The potential for drainage alteration impacts would be slightly lower under VIG Alternative C~~
22 ~~than under the proposed project, since 115-kV Segment VIG6 would cross nine drainages as part of the~~
23 ~~proposed project and VIG Alternative C would only cross one large drainage. Impacts would be~~
24 ~~substantially reduced but still significant for VIG Alternative C. Mitigation similar to that developed for~~
25 ~~the proposed Valley-Ivyglen Project would reduce these impacts to less than significant.~~

27 **Land Use and Planning**

28 VIG Alternative C would have land use impacts similar to those described for the proposed Valley-
29 Ivyglen Project. Undergrounding 115-kV Segment VIG6 would neither create nor avoid a land use
30 conflict that would result in significant environmental impacts. Impacts would be the same as for the
31 proposed project.

33 **Noise**

34 Construction of VIG Alternative C would utilize the same construction equipment, methods, and
35 materials as the proposed Valley-Ivyglen Project. Construction activities would generate short-term
36 increases in ambient noise levels along Temescal Canyon Road and Horsethief Canyon Road. Under this
37 alternative, the nearest sensitive receptor would be about the same distance as for the proposed project.
38 Impacts for VIG Alternative C would therefore be about the same as those of the proposed project and
39 would be significant. ~~Noise impacts would be reduced to less than significant with implementation of the~~
40 ~~mitigation measures similar to that developed for the proposed Valley-Ivyglen Project, but would~~
41 ~~remain not to less than significant and unavoidable.~~

43 **Transportation and Traffic**

44 Construction of VIG Alternative C would require a similar number of workers and utilize the same
45 construction equipment, methods, and materials as the proposed Valley-Ivyglen Project. Trips would be
46 distributed slightly differently than the proposed project since more construction equipment and vehicles
47 would be routed north of I-15 from Horsethief Canyon Road and Temescal Canyon Road rather than

1 south of I-15. This change would cause ~~ana negligible~~ increase in LOS impacts at intersections also used
 2 to access other project components, such as the intersection of Temescal Canyon Road with Horsethief
 3 Canyon Road. That intersection operates at LOS B. Traffic to construct VIG Alternative C would not be
 4 of sufficient volume to decrease the intersection's operation from LOS B to LOS D, and the intersection
 5 would operate above the acceptable LOS of LOS D. More road closures would be needed under VIG
 6 Alternative C than for the proposed project, since this alternative would be constructed along within a
 7 public roadway, ~~and the proposed project would not~~. This would result in ~~could cause~~ significant safety
 8 impacts, but these impacts would be reduced to less than significant with implementation of the
 9 mitigation measures developed for the proposed project. Overall, traffic impacts under VIG Alternative C
 10 would be greater than ~~similar to those likely to result from~~ the proposed project.

11 **Cumulative Impacts**

13 VIG Alternative C includes construction of 115-kV Segments VIG1 through VIG5, VIG7 and VIG 8 as
 14 described for the proposed Valley-Ivyglen Project. VIG Alternative C would reroute a portion of VIG6
 15 proposed to run south of I-15 instead to a location north of I-15 along Temescal Canyon Road from
 16 Concordia Ranch Road to Horsethief Canyon Road to De Palma Road. The route would be placed
 17 underground; however, due to additional ROW requirements that would be required to site this segment
 18 outside of the existing Temescal Canyon Road ROW, which is already likely too congested to
 19 accommodate the additional conduit without significant reconfiguration, this alternative could result in
 20 greater cumulative impacts. In particular, the route would be closer to the Alberhill Substation and would
 21 contribute to greater cumulative impacts on various resources areas. For example, construction would be
 22 located along a road segment that is likely to be used for Alberhill Substation construction traffic.
 23 Because this alternative would require lane closures, cumulative traffic impacts would be greater.

24 **Other Resource Areas**

- 26 • **Agriculture and Forestry:** The new ROW required along Temescal Canyon Road would not
 27 affect Prime or otherwise Important Farmland, similar impacts to the proposed VIG6 segment.
 28 Therefore, farmland and forestry would be the same under VIG Alternative C would have similar
 29 impacts on agriculture than ~~and the proposed project~~ Valley-Ivyglen Project.
- 30 • **Greenhouse gases:** VIG Alternative C would be constructed along a public roadway and
 31 therefore would require the construction of fewer access roads result in about 6.5 percent less
 32 ground disturbance ~~and less helicopter use than that associated with the proposed Valley-Ivyglen~~
 33 Project; this indicates a slight decrease in equipment use and therefore a slight decrease in
 34 greenhouse gas emissions.
- 35 • **Population and Housing:** The same crew sizes would be needed for VIG Alternative C as for the
 36 proposed Valley-Ivyglen Project for a negligibly longer ~~shorter~~ construction period, so impacts
 37 would be similar to ~~about the same as~~ the proposed project.
- 38 • **Public Services and Utilities:** VIG Alternative C would not require access road construction.
 39 While additional trenching would be required, this is not expected to significantly increase the
 40 amount of water needed for fugitive dust control because greater emissions associated with
 41 trenching would be offset by the lack access road construction. Therefore, impacts would be
 42 similar to public services as the proposed Valley-Ivyglen Project. The alternative 115 kV VIG6
 43 alignment disturbance area would be about 41 acres less than that of the proposed alignment, so
 44 the decrease in water use to control fugitive dust would be negligible. The construction period
 45 would be negligibly shorter, resulting in about the same impacts to public services as the
 46 proposed Valley-Ivyglen Project.

- **Recreation:** VIG Alternative C would not result in impacts to recreation, which would be the same as the proposed Valley-Ivyglen Project.

5.2.5 VIG Alternative M – Underground along the Entire Proposed Project Alignment

VIG Alternative M would follow the same alignment as the proposed project, but all segments would be undergrounded. 115-kV Segment VIG8 would be undergrounded as part of the proposed project, so VIG Alternative M would be different from the proposed project for only 115-kV Segments VIG1 through VIG7.⁶

Aesthetics

Construction activities and equipment for VIG Alternative M would be temporarily visible to motorists along I-15 and State Route (SR-74) and from local roadways, similar to the proposed Valley-Ivyglen Project. The additional undergrounding under Alternative M may increase the amount of night work and lighting associated with the project and increase light during construction. Mitigation developed for the proposed project would reduce these impacts to less than significant. Unlike the proposed project, most of VIG Alternative M would not be visible during operation, except for limited surface infrastructure such as vault manholes and transition structures at each end of the project where the line transitions from overhead to underground. This would avoid significant visual quality impacts of the proposed project along 115-kV Segments VIG2 (along SR-74) and VIG5 (along Lake Street). VIG Alternative M would also avoid the additional source of glare from poles and conductor since the line would be undergrounded, which would reduce the impact on motorist views along eligible scenic state highways, visual quality of the proposed project area, and glare. Overall, aesthetic impacts under VIG Alternative M would be substantially reduced as compared to the proposed project.

Air Quality

As shown in Appendix B, the undergrounding activities of the proposed project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG Alternative M would be greater than the proposed project due to the extensive trenching required for undergrounding. In addition, trenching activities could occur in numerous locations on the same day. Therefore, under VIG Alternative M, NO_x, PM_{2.5}, and PM₁₀ emissions would be greater on a daily basis and would be likely to exceed the highest level of intensity of daily construction activities associated with the proposed project. Even with implementation of the mitigation measures developed for the proposed project, emissions may be significant and unavoidable. Therefore, although helicopters would not be used, the reduction in total emissions associated with helicopter activities is likely to be offset by the additional equipment required for undergrounding construction activities associated with VIG Alternative M. Overall, impacts associated with Alternative M would be greater than for the proposed project.

⁶ Note that previously impacts resulting from VIG Alternative M were generally assumed to be less than the proposed project; however, due to comments received on the DEIR, the CPUC has closely re-examined VIG Alternative M. In doing so, the CPUC determined that previous estimates did not account for the transport and use of trenching equipment into areas that were previously proposed to be spanned by the project or constructed via use of helicopter. Portions of several segments contain significant sloping. Therefore, undergrounding the route within the proposed ROW would result in significant disturbance. For example, it would not be practical to place trenching equipment along significant slopes without creating pathways for equipment transport and work areas to complete the work. This could result in significant scarring that would be difficult to repair to pre-project conditions post-construction. Such impacts would likely be permanent.

1
2 The highest level of intensity of daily construction activities under VIG Alternative M would be the same
3 as for the proposed project. As shown in Appendix B,⁷ the undergrounding activities of the proposed
4 project would create the greatest Peak Daily Emissions. Thus, daily emissions impacts under VIG
5 Alternative M would be the same as the proposed project. Under VIG Alternative M, NO_x and PM_{2.5}
6 emissions would be less than significant with mitigation similar to that developed for the proposed
7 Valley Ivyglen Project. However, project commitments and mitigation measures would not reduce PM₁₀
8 emissions to less than significant. Similar to the proposed project, VIG Alternative M would have
9 significant and unavoidable impacts from PM₁₀ emissions. VIG Alternative M would, however, result in
10 increased total emissions over the lifetime of project construction. The most emissions-intensive activities
11 would occur for a longer period of time under VIG Alternative M due to undergrounding 26.4 miles of
12 the VIG Alternative M alignment compared to 1.9 miles for the proposed project. Although VIG
13 Alternative M would result in about 24 percent⁷ less ground disturbance than the proposed project, and
14 helicopters would not be used, the total emissions associated with the aboveground construction activities
15 of the proposed project would be substantially less than undergrounding construction activities associated
16 with VIG Alternative M. The construction timeline would also likely be longer than the aboveground
17 construction timeline. The increased construction intensity on more days than the proposed project would
18 result in greater total emissions of criteria pollutants under VIG Alternative M than the proposed project.
19

20 Biological Resources

21 VIG Alternative M would require ~~more~~ approximately 155 fewer acres of additional ground disturbance
22 than the proposed Valley-Ivyglen Project. The alignment for this alternative is the same as the proposed
23 project; therefore, the same type of species would be affected under this alternative as the proposed
24 project. Though the same alignment would be followed under the proposed project and under VIG
25 Alternative M, it would be more difficult and ~~potentially~~ infeasible to avoid sensitive biological resources
26 under VIG Alternative M when compared to the proposed project. Mitigation for the proposed project
27 requires avoiding sensitive resources as a first line of mitigation, whereas it ~~would not~~ may be
28 ~~feasible~~ infeasible to avoid sensitive resources under VIG Alternative M due to the nature of trenching.
29

30 Trenching for VIG Alternative M does not allow for avoidance of resources, while poles could be used
31 for the proposed project to span sensitive resources such as riparian areas. Therefore, the potential to
32 impact a particular sensitive species or habitat is greater under this alternative, ~~despite the 24 percent~~
33 ~~reduction in ground disturbance~~. The higher potential may result in greater need for restoration, which
34 would mitigate impacts but is more impactful than the total avoidance that could occur under the
35 proposed project. VIG Alternative M would include more construction in areas that would potentially
36 affect jurisdictional waters. Where the proposed project may span a jurisdictional water or riparian area,
37 trenches would need to be excavated through the jurisdictional waters or horizontal directional drilling
38 (HDD) may alternatively be utilized, which would require larger disturbance areas to accommodate HDD
39 equipment. Alternatively, VIG Alternative M would reduce potential biological impacts during
40 operation as underground electrical equipment would avoid risk of avian electrocution. However,
41 overall Overall, VIG Alternative M's impacts on biological resources impacts would be greater than for
42 the proposed project, ~~due to the potential for more unavoidable impacts to biological resources~~. Impacts
43 ~~would are not likely to still be significant but would be reduced to less than significant with~~

⁷ This number assumes approximately 478 acres of disturbance, which assumes 26.4 miles of 50-foot wide trench, 125 vaults, 8.3 miles of 22-foot wide access roads, and no installation of poles. Otherwise, all disturbance is the same as for the proposed project.

1 implementation of the mitigation measures developed for the proposed Valley-Ivyglen Project. Even with
2 implementation of mitigation measures, impacts would likely be significant.

4 **Cultural Resources**

5 VIG Alternative M would require ~~greater~~approximately 24 percent less ground disturbance than the
6 proposed Valley-Ivyglen Project, ~~which. However, this significant decrease in disturbance would~~
7 ~~increase only somewhat decrease~~ the probability of encountering a significant previously undiscovered
8 cultural resource along the project alignment, given that ground disturbance under this alternative would
9 involve excavation for trenching. In addition, VIG Alternative M would require ground disturbance
10 within the known cultural resource site located along 115-kV Segment VIG1, which is avoided by the
11 proposed Valley-Ivyglen Project. This would result in a significant impact to the cultural resource along
12 115-kV Segment VIG1. Other resources that would be spanned by the proposed project may be directly
13 impacted via trenching. Impacts to cultural resources under VIG Alternative M would be greater than the
14 proposed project and would be significant because ~~underground~~-avoidance of these resources within the
15 proposed alignment is ~~likely assumed not to be feasible. Mitigation requiring the subtransmission line to~~
16 ~~be placed aboveground in order to span these resources would reduce impacts to cultural resources under~~
17 ~~this alternative to less than significant.~~

19 **Geology, Soils, and Mineral Resources**

20 VIG Alternative M would result in ~~greater~~about 24 percent less ground disturbance than the proposed
21 Valley-Ivyglen Project. This would result in ~~an increase a substantial decrease~~ in the potential for erosion
22 and loss of topsoil compared to the proposed project. VIG Alternative M would therefore have
23 ~~greater~~substantially smaller impacts to geology and soils compared to the proposed project. Impacts
24 would be ~~significant but could be reduced to less than significant with implementation of the mitigation~~
25 ~~measures developed similar to that designed~~ for the proposed Valley-Ivyglen Project.

27 **Hazards and Hazardous Materials**

28 Construction of VIG Alternative M would utilize the same construction equipment, methods, and
29 materials as the proposed Valley-Ivyglen Project, with the exception of helicopters. The disturbance area
30 under this alternative would be ~~greater~~24 percent smaller than that associated with the proposed project
31 ~~because it but~~ would involve more excavation, ~~which would necessitate transporting excavation equipment~~
32 ~~through areas that are otherwise less likely to be disturbed by the proposed project.~~ Increased excavation
33 would result in the potential for discovering contaminated soils. The longer construction period may also
34 slightly increase the chance of a spill or accident during the construction period. VIG Alternative M
35 would likely require more blasting sites than the proposed Valley-Ivyglen Project, particularly along 115-
36 kV Segments VIG1 and VIG6, which occur along undeveloped areas. In some places, residences are
37 within 20 feet of the proposed alignment, which means blasting could occur very close to residences.
38 Overall, under Alternative M, hazards and hazardous materials ~~impacts~~impact would be ~~greater~~
39 ~~than increased as compared to~~ the proposed project. However, impacts from hazardous materials under
40 VIG Alternative M would be ~~reduced to less than significant with the implementation of the mitigation~~
41 ~~measures similar to those developed for the proposed Valley-Ivyglen Project.~~

43 **Hydrology and Water Quality**

44 VIG Alternative M would include more construction in areas that would potentially affect jurisdictional
45 waters, as discussed for biological resources. VIG Alternative M would involve ~~greater~~about 24 percent
46 ~~less~~ ground disturbance than the proposed Valley-Ivyglen Project. This would result in a
47 ~~greater~~substantially lower potential for sedimentation than the proposed project. The potential for

1 drainage alteration impacts would be ~~slightly greater~~ under VIG Alternative M than the proposed project,
 2 since more drainages and waterways ~~including the San Jacinto River~~ would be crossed rather than
 3 spanned. In some cases, HDD is expected to be used to cross resources such as the San Jacinto River;
 4 which would require large disturbance areas on either side of the river to accommodate HDD equipment.
 5 In addition, there would be greater potential to interfere with subsurface hydrogeology. Impacts would be
 6 greater than~~moderately reduced from~~ those associated with the proposed project and would be~~but still~~
 7 significant for VIG Alternative M. Implementation of the mitigation measures~~Mitigation similar to that~~
 8 developed for the proposed Valley-Ivyglen Project would not necessarily reduce these impacts to less
 9 than significant.

10 11 **Land Use and Planning**

12 VIG Alternative M would have impacts on land use similar to those described for the proposed Valley-
 13 Ivyglen Project. Undergrounding the entire alignment would neither create nor avoid a land use conflict
 14 that would result in significant environmental impacts. Impacts would be the same under this alternative
 15 as for the proposed project.

16 17 **Noise**

18 Construction of VIG Alternative M would utilize the same construction equipment, methods, and
 19 materials as the proposed Valley-Ivyglen Project, with the exception of helicopters. VIG Alternative M
 20 would require more blasting and trenching. Sensitive receptors would be the same distance from the
 21 construction activities as identified for the proposed project. Noise levels associated with trenching
 22 activities would be significant and unavoidable in some places, as for the proposed project. Blasting near
 23 sensitive receptors would increase noise impacts. Overall, impacts of VIG Alternative M would likely be
 24 greater than those of the proposed project, and since noise would take place in a linear project area rather
 25 than in interstitial areas along the alignment. Thus, sensitive receptors would be exposed to noise for a
 26 longer period of time. Impacts from noise would be reduced with implementation of the mitigation
 27 measures similar to that developed for the proposed Valley-Ivyglen Project, but noise impacts would
 28 remain not to less than significant and unavoidable.

29 30 **Transportation and Traffic**

31 Traffic patterns and distribution would be the same under VIG Alternative M as for the proposed project,
 32 since the same alignment would be used. The construction period would be longer than that of the
 33 proposed project, meaning that traffic impacts would last longer. The intensity of construction would
 34 likely be about the same as for the proposed project, resulting in the same impacts to LOS. Since
 35 trenching would occur in more places along roadways, ~~a substantial amount of additional road and lane~~
 36 ~~closures would be necessary, even though the proposed project would require road closures for stringing~~
 37 ~~across roads and highways.~~ The road closures would increase ~~safety~~ impacts, but these impacts would be
 38 reduced to less than significant with implementation of the mitigation measures developed for the
 39 proposed project. Overall, VIG Alternative M would result in greater traffic impacts than the proposed
 40 Valley-Ivyglen Project.

41 42 **Cumulative Impacts**

43 VIG Alternative M would follow the same alignment as the proposed project, but all segments would be
 44 undergrounded. This would result in greater cumulative impacts than for the proposed project resulting
 45 from additional ground disturbance associated with undergrounding activities.

1
2 **Other Resource Areas**

- 3 • **Agriculture and Forestry:** VIG Alternative M would impact about 3.9 acres of Farmland of
4 Statewide Importance and about 0.3 acres of Prime Farmland during trenching. These impacts
5 and would be permanent because agricultural operations permanently impact about 0.01 acre of
6 Farmland of Statewide Importance. The proposed Valley-Ivyglen Project would be restricted
7 within the ROW post-impact 2.2 acres of Farmland of Statewide Importance, 0.2 acres of Prime
8 Farmland, and 0.69 acres of Unique Farmland during construction. For example, while certain
9 crops could be planted within the ROW on top of the underground vaults, other crops and would
10 be restricted depending upon root structure and other factors. This could result in a reduction in
11 agricultural productivity on the affected parcels permanently disturb 0.05 acres of Prime
12 Farmland and 0.55 acres of Farmland of Statewide Importance. VIG Alternative M would
13 therefore have greater fewer permanent impacts onto farmland than the proposed project.
- 14 • **Greenhouse Gases:** VIG Alternative M would result in a decrease of greenhouse gas emissions
15 due to less helicopter use, and equipment use. However, under VIG Alternative M excavation the
16 decrease would be only slight because equipment would be used for longer periods of time in
17 order to excavate deeper for 26.4 miles as opposed to the 1.9 miles of excavation required for
18 than under the proposed project. The increased emissions from excavation equipment would
19 likely offset any decrease in greenhouse gas emission from reduced helicopter use. Thus, overall
20 emissions of VIG Alternative M would be greater than greenhouse gas impacts of the proposed
21 project.
- 22 • **Population and Housing:** VIG Alternative M would require the same crew sizes as the proposed
23 Valley-Ivyglen Project for a somewhat longer construction period, so impacts would be slightly
24 greater than those associated with the proposed project.
- 25 • **Public Services and Utilities:** VIG Alternative M would involve 26.4 miles of excavation
26 compared to 1.9 miles for about 24 percent less ground disturbance than the proposed
27 project Valley-Ivyglen Project, which would increase reduce the amount of water needed to
28 control fugitive dust. In addition However, the construction period would last somewhat longer,
29 which could slightly increase the potential need for police and fire services. The risk of
30 encountering unmapped utilities would also be greater. Therefore Overall, since the reduction in
31 water is substantial, impacts would be greater than the proposed project reduced.
- 32 • **Recreation:** VIG Alternative M could slightly increase impacts on recreational facilities, since
33 parts of VIG Alternative M would require trenching in public parks and regional trails, including
34 a community trail near Bundy Canyon Road; the Lake Elsinore Lake, River, Levee Regional
35 Trail; and a regional trail near Temescal Canyon Road. Temporary closures of these areas would
36 be longer than would be needed for construction of the proposed project, but any correlated
37 increase in use of other recreational facilities would be negligible. Overall, VIG Alternative M
38 would result in greater impacts to recreation than the proposed project.
39
40

5.2.6 No Project Alternative

Under the No Project Alternative, the proposed Valley-Ivyglen Project would not be implemented. The No Project Alternative would avoid the environmental impacts of the proposed Valley-Ivyglen Project discussed in Chapter 4 of the EIR because no construction would occur. The No Project Alternative would, however, potentially impact provision of electricity because the Valley-Elsinore-Fogarty-Ivyglen 115-kV Subtransmission Line may exceed designed operating limit. The Electrical Needs Area may experience 115-kV system overloads from the loss of a single 115-kV element.

5.2.7 Valley-Ivyglen Environmentally Superior Alternative

The No Project Alternative (Section 5.2.6) would be environmentally superior for all environmental resources. When the Environmentally Superior Alternative is the No Project Alternative, CEQA requires the identification of an Environmentally Superior Alternative, if any, among the other alternatives (CEQA Guidelines § 15126.6). ~~VIG Alternative C is superior for several resource areas; however, this alternative could have severe impacts on biology and hydrology, which would by far outweigh the slight decreases in the impact levels of other resources. Similarly, although VIG Alternatives A, VIG B1, and B2 appear to be superior for some resource areas, none would reduce the significant and unavoidable noise impact and, in fact, would increase the severity of the impact in favor of slight reductions in other impacts that would already be less than significant with mitigation. In addition, VIG B1 and B2 could affect vernal pool habitat. Finally, VIG Alternative M would have much greater impacts across all resource areas and likely would be difficult to implement without a detailed engineering analysis, which is beyond the scope of this review. As a result, none of the alternatives would be environmentally superior to the proposed project among the other alternatives (CEQA Guidelines § 15126.6). The five alternatives considered were environmentally superior in the following resource areas:~~

- ~~VIG Alternative A~~
 - ~~— Biological Resources (equally superior with VIG Alternative C)~~
 - ~~— Hazards and Hazardous Materials (equally superior with VIG Alternative C)~~
 - ~~— Hydrology and Water Quality (equally superior with VIG Alternative C)~~
- ~~VIG Alternative C~~
 - ~~— Biological Resources (equally superior with VIG Alternative A)~~
 - ~~— Cultural Resources~~
 - ~~— Greenhouse Gases~~
 - ~~— Hazards and Hazardous Materials (equally superior with VIG Alternative A)~~
 - ~~— Hydrology and Water Quality (equally superior with VIG Alternative A)~~
- ~~VIG Alternative M~~
 - ~~— Aesthetics~~
 - ~~— Agriculture and Forestry~~
 - ~~— Public Services and Utilities~~

VIG Alternatives B1 and B2 are not environmentally superior for any resources and are therefore not considered for the Environmentally Superior Alternative. No alternative is superior for air quality, land use and planning, noise and vibration, population and housing, recreation, or transportation and traffic.

VIG Alternative M would be environmentally superior for long term impacts on aesthetics and agriculture and forestry and short term impacts on geology and soils, and public services and utilities. Short term impacts on geology and soils, and public services and utilities, are given less weight in selection of an Environmentally Superior Alternative because temporary impacts would not extend beyond the construction period of the project. Furthermore, the temporary impacts on geology and soils, and public services and utilities, are all less than significant or can be mitigated to less than significant. Agriculture impacts of VIG Alternatives A and C would be negligible, meaning that VIG Alternative M's slight reduction of permanent long term agricultural impacts is not given substantial weight in determination of an environmentally superior alternative. VIG Alternative M would avoid all long term impacts on visual quality and scenic resources within an eligible scenic highway and elsewhere. These long term impacts, where significant, can be mitigated to less than significant under VIG Alternatives A and C; therefore, this reduction only carries moderate weight in determining the Environmentally Significant Alternative.

VIG Alternatives A and C would be equally superior regarding short term impacts on biological resources, hazards and hazardous material, and hydrology and water quality. VIG Alternatives A and C would reduce short term impacts on biological resources because the alternatives would locate the project in developed areas that would have less potential to impact biological resources, including waterways (e.g., San Jacinto River), during construction. Conservation of biological resources in this area of Riverside County is given considerable weight, since urbanization in the area has resulted in a "significant loss of important biological resources" in Southern California (Riverside County 2003). The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is one of the largest plans created, and there are 347,000 acres of lands set aside as habitat in Riverside County as a result (Riverside County 2003; RCA undated). Therefore, VIG Alternative A and C's reduction of probability to impact biological resources and hydrology and water quality is given substantial weight in determining the Environmentally Superior Alternative.

VIG Alternative C would be environmentally superior for short term impacts on greenhouse gases and long term impacts on cultural resources. Recent California greenhouse gas policy (Executive Order B-30-15) indicates that California has determined the reduction of greenhouse gases to be an important goal for the state. Conductor installation (i.e., helicopter use), retaining wall work, and road and landing work are the three largest greenhouse gas contributing activities of the proposed project (Appendix B). VIG Alternatives C and M would substantially reduce the amount of helicopter use and access road work. However VIG Alternative C would not generate significant greenhouse gas emissions from the one additional mile of undergrounding. Due to the potentially grave impacts of greenhouse gas emissions, as recognized in the state's latest aggressive policy action to reduce greenhouse gases, VIG Alternative C's slight reduction in greenhouse gas emissions is given some additional weight in determining the potentially Environmentally Superior Alternative.

VIG Alternative C would reduce long term impacts on cultural resources, as ground disturbance would occur within a previously disturbed area with a low probability of encountering a previously undiscovered cultural resource. VIG Alternative M would have the potential to impact known significant cultural resources; however, mitigation could avoid impacts these resources. Additionally, the increased intensity of construction activities under VIG Alternative M would create a higher probability of encountering a sensitive cultural resource or a previously undiscovered resource. VIG Alternative C would reduce long-

1 term impacts on cultural resources in comparison to VIG Alternative M. As a long-term impact to a
2 resource of higher sensitivity, this reduction is given more weight in determining the Environmentally
3 Superior Alternative.

4
5 The substantial short-term benefits of VIG Alternative C on biological resources and hydrology and water
6 quality, in addition to moderate and minor long- and short-term benefits on cultural and greenhouse gases,
7 and reduction of hazards, outweighs the moderate long-term benefits of VIG Alternative M on aesthetics
8 and minor short-term benefits on agriculture, geology and soils, and public services and utilities. VIG
9 Alternative C is found to be the Environmentally Superior Alternative.

10 11 **5.3 Analysis of Alberhill Project Alternatives**

12
13 This section evaluates whether the ASP alternative would be more or less impactful than the proposed
14 Alberhill Project with respect to resource areas for which a significant impact was identified in Section
15 4.0, "Environmental Analysis." Table 5-2 summarizes the analysis and determinations for the Alberhill
16 Project. Each alternative is ranked from 1 to 3 according to its ability to reduce an impact relative to the
17 proposed project, as follows: (1) reduced impact (environmentally superior to proposed project as to that
18 resource area); (2) similar impact ; and (3) greater impact (proposed project would be environmentally
19 superior to the alternative for that resource area).

20
21 ~~This section analyzes the advantages and disadvantages of each ASP alternative in comparison to the~~
22 ~~proposed Alberhill Project. It evaluates whether the ASP alternative would be more or less impactful than~~
23 ~~the proposed Alberhill Project with respect to resource areas for which a significant impact was identified~~
24 ~~in Section 4.0, "Environmental Analysis." Table 5-2 summarizes the analysis and determinations for the~~
25 ~~Alberhill Project. It ranks each alternative according to its ability to reduce an impact of the proposed~~
26 ~~project, from environmentally superior (1) to least environmentally superior (3). A ranking is not~~
27 ~~provided when the impacts of an alternative would be comparable or greater, since that alternative would~~
28 ~~not be environmentally superior for that resource area.~~
29

Table 5-2 Summary of the Alberhill Project Alternatives Analyses and Determination

Resource Area	Proposed Alberhill Project	ASP Alternative B* (Rank)	ASP Alternative DD* (Rank)	No Project Alternative (Rank)	Environmentally Superior Alternative ^{(**)(†)}
Aesthetics	Significant and unavoidable	Similar (2) Reduced (3)	Similar (2) Reduced (2)	No Impact (1)	<u>None</u> ASP Alternative DD
Agriculture and Forestry	Less than significant	Similar (2)	Similar (2)	No Impact (1)	None
Air Quality	Significant and unavoidable	Similar (2)	Greater (3)	No Impact (1)	None
Biological Resources	Less than significant with mitigation	Similar (2) Reduced (3)	Similar (2) Reduced	No Impact (1)	<u>None</u> ASP Alternative DD
Cultural Resources	Less than significant with mitigation	Similar (2) Reduced (2)	Similar (2) Reduced (3)	No Impact (1)	<u>None</u>
Geology, Soils, and Mineral Resources	Less than significant with mitigation	Similar (2) Reduced (2)	Greater (3) Reduced (3)	No Impact (1)	<u>None</u> ASP Alternative B
Greenhouse Gases	Less than significant	Greater (3)	Similar (2) Reduced	No Impact (1)	<u>None</u> ASP Alternative DD
Hazards and Hazardous Materials	Less than significant with mitigation	Similar (2) Reduced (2)	Similar (2) Reduced (3)	No Impact (1)	<u>None</u> ASP Alternative B
Hydrology and Water Quality	Less than significant with mitigation	Similar (2) Reduced (2)	Greater (3) Reduced	No Impact (1)	<u>None</u> ASP Alternative B
Land Use and Planning	Less than significant with mitigation	Similar (2)	Similar (2)	No Impact (1)	None
Noise and Vibration	Significant and unavoidable	Similar (2) Reduced (3)	Similar (2) Reduced (2)	No Impact (1)	<u>None</u> ASP Alternative DD
Population and Housing	Less than significant	Similar (2)	Similar (2)	No Impact (1)	None
Public Services and Utilities	Less than significant	Similar (2) Reduced (3)	Greater (3) Reduced (2)	No Impact (1)	<u>None</u> ASP Alternative DD
Recreation	Less than significant	Similar (2)	Similar (2)	No Impact (1)	None
Transportation and Traffic	Less than significant with mitigation	Similar (2) Reduced (3)	Reduced (1) (2)	No Impact (1)	ASP Alternative DD
Cumulative		Similar (2)	Greater (3)	No Impact (1)	<u>None</u>

* Slightly smaller footprint than the proposed project

** Notes

†—CEQA Guidelines section 15126.6(e)(2) requires that the lead agency identify an environmentally superior alternative among the other alternatives analyzed in the EIR if the EIR identifies the No Project Alternative as the Environmentally Superior Alternative. Since the No Project Alternative would result in No Impact for all resource areas, it would be the Environmentally Superior Alternative. Therefore, this column identifies the environmentally superior alternative among the other alternatives for each resource area.

Key:

ASP Alberhill System Project
CEQA California Environmental Quality Act
EIR Environmental Impact Report

1
2
3 **5.3.1 ASP Alternative B—All Gas-Insulated Switchgear at Proposed Substation**
4 **Site**
5

6 ASP Alternative B would include construction of a 500/115-kV substation with all gas-insulated
7 switchgear on a 22.2-acre site. The number of 115-kV subtransmission lines, 500-kV transmission lines,
8 and microwave antenna components would be the same as for the proposed Alberhill Project.
9

10 **Aesthetics**

11 The gas-insulated switchgear substation used for ASP Alternative B would require a slightly smaller
12 footprintsite than the proposed Alberhill Substation. Structures at the substation would also likely be
13 shorter under this alternative than for the proposed project, somewhat reducing skylining. The slight
14 reduction in skylining, however, would not result in an appreciable difference in visual quality from the
15 proposed project, given that the 500-kV transmission structures and 115-kV subtransmission structures
16 would remain under this alternative and would still result in substantial skylining. The substation would
17 remain visible to motorists traveling along I-15, which is an Eligible Scenic Highway. The current visual
18 sensitivity at the substation site is moderately high. The substation, though reduced in size, as well as the
19 associated transmission and subtransmission lines, would remain visible to drivers on I-15. The substation
20 and transmission and subtransmission lines would still be visually dominant on the parcel that is
21 otherwise mostly open space. The size and scale of these elements would draw viewers' attention from
22 the open space area to the large, human-made industrial structures. The form, line, color, and texture of
23 the view would have a greater contrast. ASP Alternative B would therefore still reduce vividness from
24 moderate to low, intactness from high to moderately low, and unity from moderately high to low at the
25 substation site. Impacts would be similar or negligibly only slightly reduced compared to the proposed
26 project. However, even with implementation of mitigation developed for the proposed project, impacts
27 would remain significant at the substation site. Impacts elsewhere would remain the same as for the
28 proposed project and, other than the impacts of the 500-kV transmission lines, would be significant and
29 unavoidablecould be reduced to less than significant with mitigation similar to that developed for the
30 proposed Alberhill Project.
31

32 **Air Quality**

33 As the same general construction activities would occur under ASP Alternative B and the proposed
34 project, ASP Alternative B would have the same level of intensity of daily construction activities as the
35 proposed project. Thus, daily emissions impacts under ASP Alternative B would be similar to the same as
36 the proposed project. Daily pollutant emissions would still be significant, given that the significance
37 threshold is a daily emissions threshold, and the intensity of construction would stay the same under this
38 alternative. ASP Alternative B would have significant impacts on air quality from NO_x, PM₁₀, and PM_{2.5}
39 emissions. Similar to the proposed Alberhill Project, NO_x and PM_{2.5} emissions would be less than
40 significant with the implementation of the mitigation measures similar to that developed for the proposed
41 Alberhill Project. Additionally, impacts from PM₁₀ emissions would remain significant and unavoidable
42 under ASP Alternative B, similar to the proposed Alberhill Project. Under ASP Alternative B, ground
43 disturbance would be about 5.5 percent⁸ less than for the proposed Alberhill Project. Therefore, ASP
44 Alternative B would result in a slight decrease in total emissions over the lifetime of project construction,
45 but overall, the impacts would be similar.

⁸ This number assumes approximately 357 acres of disturbance (see Tables 2-6 and 2-7).

1
2 **Biological Resources**

3 ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project, with
4 the sole difference being the slightly smaller substation footprint. The substation footprint under ASP
5 Alternative B would be about 22.2 acres instead of 40 acres ~~a 42.9-acre site~~, resulting in a disturbance
6 area 17.8 ~~20.7~~ acres smaller than that of the proposed project. This 17.8 ~~20.7~~ acres is located in an area
7 covered by the Riverside County Habitat Conservation Agency Stephens Kangaroo Rat Habitat
8 Conservation Plan and contains MSHCP-designated sensitive soils, and lands designated as critical
9 habitat for California coastal gnatcatcher. The substation site also serves as habitat for other sensitive
10 wildlife species, including Quino checkerspot butterfly, orange-throated whiptail, least Bell’s vireo,
11 Southern California rufous-crowned sparrow, golden eagle, white-tailed kite, and Dulzura kangaroo rat. It
12 is also possible ~~likely~~ that this alternative would require fewer coast live oak trees to be removed from the
13 substation site. Depending on the configuration of the substation, impacts to Riversidean sage scrub (on
14 the eastern portion of the substation site) and southern willow scrub (on the northern portion of the
15 substation site) at the substation site could potentially be avoided under ASP Alternative B.

16
17 Note that while the ASP Alternative B substation design is estimated to require 17.8 fewer acres of
18 permanent ground disturbance, it is unclear whether or not this reduction would correspond to a 17.8-acre
19 reduction in sensitive habitat disturbance. For example, effective substation design requires contiguous
20 disturbance and component placement, and therefore, it is unclear whether the substation could avoid
21 areas containing sensitive habitat on-site. It cannot be definitively stated that impacts on biological
22 resources would be significantly reduced without detailed engineering and design studies, which are
23 beyond the scope of this alternatives analysis. Thus, impacts on biological resources would be similar to
24 the proposed project, and impacts on biological resources under ASP Alternative B would still be
25 significant. Thus, impacts to these biological resources would be substantially reduced at the substation
26 site under ASP Alternative B. Though substantially reduced, impacts to biological resources under ASP
27 Alternative B would still be significant. Significant impacts could be reduced to less than significant with
28 the implementation of the mitigation measures similar to those developed for the proposed project;
29 however, ASP Alternative B would result in similar impacts on biological resources compared to the
30 proposed project Alberhill Project.

31
32 **Cultural Resources**

33 ASP Alternative B would occur within the same environmental setting as the proposed Alberhill Project.
34 The substation under ASP Alternative B would require about 17.8~~20.7~~ fewer acres of disturbance than the
35 proposed substation’s ~~40~~42.9-acre disturbance area, which would slightly reduce the potential of
36 encountering a previously unidentified cultural resource at the substation site. However, if a previously
37 unidentified cultural resource was discovered, it would not necessarily be less significant than a resource
38 discovered on the full site because the boundaries of a significant archaeological site are likely to cover a
39 wider area. Therefore, impacts on cultural resources would be similar to the proposed project and would
40 be less than significant with implementation of the mitigation measures developed for the proposed
41 Alberhill Project. Though reduced, the potential for encountering a cultural resource would still result in a
42 significant impact. Impacts on cultural resources under ASP Alternative B would be reduced to less than
43 significant with the mitigation measures developed for the proposed Alberhill Project.

44
45 **Geology, Soils, and Mineral Resources**

46 ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but
47 would require slightly less ground disturbance. The removal of land from the disturbance area at the

1 substation site would slightly reduce the chance of erosion and topsoil loss in that area; however, the
 2 applicant would implement a SWPPP as part of their project design, and all of the same mitigation
 3 measures would be required. ASP Alternative B would therefore result in a similar potential for soil
 4 erosion and loss of topsoil. Overall impacts to this resource area under ASP Alternative B would be
 5 similar than for the proposed project.

6
 7 ~~ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but~~
 8 ~~would require 5.5 percent less ground disturbance than the proposed project. The reduction would be~~
 9 ~~concentrated at the substation site due to the smaller substation footprint. The removal of a contiguous 20-~~
 10 ~~acre area of land from the disturbance area at the substation site would reduce the chance of erosion and~~
 11 ~~topsoil loss in that area. ASP Alternative B would therefore result in a reduced potential for soil erosion~~
 12 ~~and loss of topsoil. Overall impacts to this resource area under ASP Alternative B would be slightly less~~
 13 ~~than for the proposed project but still potentially significant. The significant impacts could be reduced to~~
 14 ~~less than significant with mitigation measures similar to those developed for the proposed project.~~

15 **Greenhouse Gas**

17 Under ASP Alternative B, there would be about a ~~slight~~5.5 percent reduction in ground disturbance
 18 compared to the proposed Alberhill Project. Greenhouse gas emissions during construction would be
 19 ~~similar or slightly reduced~~as compared to the proposed project due to reduction in disturbance area,
 20 which involves reduced equipment use. However, greenhouse gas impacts related to construction of ASP
 21 Alternative B would be less than significant.

22
 23 Greenhouse gas emissions during operation would be greater under ASP Alternative B than for the
 24 proposed project because this alternative would involve more sulfur hexafluoride (SF₆) as a result of all of
 25 the switchracks being gas insulated. Under this alternative, the applicant estimates that an additional
 26 13,800 pounds of SF₆ would be required for operation of the substation. Gas-insulated switchgear leak as
 27 a matter of normal operation. At an estimated leak rate of 0.1 percent per year (Siemens 2013), ASP
 28 Alternative B would result in an additional 149.6 metric tons of carbon dioxide equivalency (MTCO_{2e})
 29 per year emitted during operation of the substation. Total annual greenhouse gas emissions would be
 30 about 3,699 MTCO_{2e} per year, which would be ~~greater~~higher than those associated with the proposed
 31 project, but below the significance threshold of 10,000 MTCO_{2e} per year.

32 **Hazards and Hazardous Materials**

34 ~~Risk~~Overall risk of hazards would be ~~similar~~lower under ASP Alternative B ~~as~~than for the proposed
 35 Alberhill Project. Under this alternative, ground disturbance would be ~~about 5.5 percent~~less than that
 36 associated with the proposed project, but in general, similar quantities ofwhich means that: ~~slightly fewer~~
 37 hazardous materials overall would be used, transported, and disposed of; there would be a ~~similar~~slightly
 38 ~~smaller~~chance of an accident; and there would be ~~similar~~slightly less potential for encountering
 39 contaminated soils at the substation site. Operation of ASP Alternative B would include the use of
 40 additional SF₆ but would not result in an appreciable increase of SF₆ exposure risk when compared to the
 41 proposed project. Impacts from hazardous materials under ASP Alternative B would be ~~similar~~reduced as
 42 compared to the project but still potentially significant. Impacts from hazardous materials under ASP
 43 Alternative B would be reduced to less than significant with the implementation of themitigation
 44 measures ~~similar to those~~developed for the proposed Alberhill Project.

45 **Hydrology and Water Quality**

46
 47 ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but
 48 would result in ~~slightly~~5.5 percent less ground disturbance than the proposed project. The reduction

1 would occur at the substation site due to the smaller substation footprint. ~~However~~ Compared to the
 2 ~~proposed project~~, ASP Alternative B would ~~therefore~~ result in a similar ~~lower~~ potential as the proposed
 3 project for sedimentation and hazardous materials spills that could affect water quality at the substation
 4 site. Overall impacts related to hydrology and water quality would be similar ~~reduced~~ under Alternative B
 5 as compared to the proposed project, and due to the reduced ground disturbance; however, impacts would
 6 remain potentially significant. Impacts ~~on~~ to hydrology and water quality under ASP Alternative B would
 7 be ~~reduced to~~ less than significant with ~~the~~ implementation of the mitigation measures ~~similar to those~~
 8 developed for the proposed Alberhill Project.

9
 10 **Land Use and Planning**

11 ASP Alternative B would have impacts on land use similar to those described for the proposed Alberhill
 12 Project. ASP Alternative B's slightly smaller substation than the proposed project's substation, to be
 13 located in the same location, would neither create nor avoid any land use conflict. Furthermore, there
 14 would be no environmental impacts from any land use conflicts under this alternative.

15
 16 **Noise and Vibrations**

17 ASP Alternative B's construction locations would be in potentially the same proximity to sensitive
 18 receptors as the proposed Alberhill Project, depending on the location of the ASP Alternative B
 19 substation on the site. Thus, peak noise levels for both the alternative and the proposed project would be
 20 about the same for sensitive receptors. The smaller substation area might take slightly less time to
 21 construct, but daily noise impacts would be about the same as the proposed project. ~~The smaller~~
 22 ~~substation area would take less time to construct, however, meaning that noise impacts would not last as~~
 23 ~~long as for the proposed project. Overall, impacts would be slightly reduced when compared to the~~
 24 ~~proposed project.~~ Noise impacts from substation construction under ASP Alternative B would therefore
 25 be less than significant, as they would be under the proposed project. Impacts from other components of
 26 ASP Alternative B would also be the same as for the proposed project and would be significant, and in
 27 some cases (e.g., use of helicopters, construction areas located close to receptors) would ~~could not~~ be
 28 mitigated to less than significant and unavoidable.

29
 30 **Transportation and Traffic**

31 The daily level of traffic generated during construction of ASP Alternative B would be about the same as
 32 for the proposed project given that the daily intensity of construction would remain the same under this
 33 alternative. Impacts to LOS are analyzed for the peak hour. Peak hour traffic generated would be the same
 34 for both the alternative and the proposed project and would be distributed across the same roads since
 35 ASP Alternative B would be in the same location as the proposed project substation. Thus, impacts to
 36 LOS would be the same as for the proposed project. However, the reduced disturbance area indicates that
 37 the construction period for ASP Alternative B would be shorter than for the proposed project due to fewer
 38 construction activities, which means that the overall traffic generated during construction of ASP
 39 Alternative B would be less than that generated by the proposed project. Air traffic impacts would be the
 40 same, since this alternative would have the same potential helicopter use as the proposed project. Overall,
 41 traffic impacts under ASP Alternative B would be similar or slightly reduced as compared to the proposed
 42 project but would remain significant. However, these impacts would be ~~could be reduced to~~ less than
 43 significant with implementation of mitigation measures developed for the proposed project.

44
 45 **Cumulative Impacts**

46 Cumulative impacts associated with ASP Alternative B would be similar to the proposed project. If the
 47 LEAPS project is approved, it is unclear whether or not the Alternative B configuration would support the

1 LEAPS 500-kV interconnection. The space requirements required to connect additional lines, such as
2 another 500-kV transmission line, could require significant substation reconstruction, which would cancel
3 any of the potential benefits associated with constructing the substation within a smaller footprint.
4

5 Other Resource Areas

- 7 • **Agriculture and Forestry:** The impacts to farmland and forestry would be the same for both
8 ASP Alternative B and the proposed Alberhill Project.
- 9 • **Population and Housing:** Impacts related to population and housing would be similarly
10 reduced under ASP Alternative B as compared to the proposed Alberhill Project because, since
11 the same peak workforce would be needed. Although the construction, but it would be
12 slightly needed for a shorter, it construction period. It is unlikely that there this slight reduction in
13 workforce need would result in a noticeable change in population and housing impacts.
14 Overall, impacts under ASP Alternative B are expected to be the same as for the proposed
15 project.
- 16 • **Public Services and Utilities:** The shorter construction timeframe required for ASP Alternative
17 B would result in a slightly lower potential for need of police and fire services than for the
18 proposed Alberhill Project, but this reduction would be negligible. Water use for dust control
19 would be slightly about 5.5 percent lower for the alternative than for the proposed project
20 due to the decrease in disturbance area; however, the. The overall decrease in water use would be
21 similarly slight. Overall, impacts would be reduced compared to the proposed project.
- 22 • **Recreation:** Impacts to recreation would be the same under ASP Alternative B as for the
23 proposed Alberhill Project because the alternative substation configuration would not affect
24 recreational facilities.
25

26 5.3.2 ASP Alternative DD—Serrano Commerce Center Substation Site

27
28 The ASP Alternative DD Substation site is located approximately 5 miles northwest of the proposed
29 Alberhill Substation site on the Serrano Commerce Center site. Alternative DD would include
30 construction of a 500/115-kV substation, which would be similar to the proposed Alberhill Substation
31 except that the 500-kV switchrack would be all open air. The initial build of the Alternative DD
32 Substation would connect the 500-kV transmission lines from the substation directly north and tie into the
33 existing Serrano-Valley 500-kV transmission line. The substation likely not be able to support the same
34 number of future transmission lines, including the LEAPS project, which would limit future expansion if
35 additional generation is determined to be necessary during a planning window beyond that evaluated in
36 this EIR. 115-kV Segment ASP1 and ASP1.5 would not be built as proposed. Alternative DD would
37 involve constructing 115-kV Segment ASP2 aboveground along the path of 115-kV Segments VIG6 and
38 VIG7. 115-kV Segment ASP2 would be placed below ground with 115-kV Segment VIG8 to the planned
39 extension of Temescal Canyon Road where it would transition to an aboveground single-circuit power
40 line to the Alternative DD substation site. The planned extension of Temescal Canyon Road would be
41 constructed as part of ASP Alternative DD in order to access the site during construction and operation.
42

43 In addition to 115-kV Segment ASP2, four new approximately 1.3-mile 115-kV subtransmission lines
44 (one double-circuit and two single-circuit power lines) would extend above ground near the planned
45 extension of Temescal Canyon Road to the Alternative DD Substation site. New fiber optic cable would
46 be installed along one of the four 115-kV power lines from the planned extension of Temescal Canyon
47 Road to the Alternative DD Substation site. Approximately 2 miles of new access roads would be

1 required for the 115-kV lines under ASP Alternative DD. Up to 10 115-kV subtransmission lines may
2 ultimately extend from the substation, as needed.

3
4 Two additional staging areas would be located near the alternative substation site; one would be located
5 on the west side of Temescal Canyon Road, approximately 800 feet north of Dawson Canyon Road and
6 one would be located on the southwest side of Mayhew Road and Orange Grove Place. A water line
7 would be extended from Temescal Canyon Road to the Alternative DD Substation site.

8
9 Prior to construction, SCE would select a nearby 12 kV distribution circuit to serve as the temporary
10 power source during construction activities at the Alternative DD Substation site. The wood poles
11 installed for temporary power would be approximately 40-50 feet tall. It is estimated that 30 wood poles
12 would extend from a nearby 12 kV distribution circuit to the substation construction site. Temporary
13 power would be in place for the duration of construction at the substation site. This alternative would
14 require approximately 1,700 to 1,870 feet of duct bank, 5 to 6 vaults, 3 to 4 TSP risers, 63 to 70 LWS
15 poles, 57 to 63 TSPs, 4 wood pole removals, 8 LSTs, and 2 LST removals.⁹

16
17 ~~ASP Alternative DD would include construction of a 500/115-kV substation, similar to the proposed~~
18 ~~Alberhill Substation, in an area covered by Riverside County Specific Plan No. 353 (see Figure 3-3). The~~
19 ~~500-kV transmission lines would extend from the substation directly north and tie into the existing~~
20 ~~Serrano Valley 500-kV transmission line. 115-kV Segment ASP1 would not be built as proposed. 115-~~
21 ~~kV Segment ASP1.5 would be expanded to approximately 2 to 4 miles. ASP Alternative DD would~~
22 ~~involve constructing 115-kV Segment ASP2 aboveground along the path of 115-kV Segments VIG6 and~~
23 ~~VIG7 instead of crossing I-15. 115-kV Segment ASP2 would be placed below ground with 115-kV~~
24 ~~Segment VIG8. 115-kV Segment ASP2 would transition to an aboveground power line and would be~~
25 ~~constructed to follow the planned extension of Temescal Canyon Road, as proposed in Specific Plan No.~~
26 ~~353, to the Alberhill substation site.~~

27 28 **Aesthetics**

29 Under ASP Alternative DD, the substation would have similar aesthetic impacts to the proposed project
30 because, although the substation will be set back further from I-15—an Eligible Scenic Highway,—the
31 higher topographic area between I-15 and the alternative substation site would be partially excavated to
32 obtain fill to level to site. In addition, the extended 115-kV subtransmission lines required to connect to
33 the ASP Alternative DD would be visible from I-15 and would encroach into the sky dominating views
34 from I-15. Additionally, taller poles (minimum 10 feet) would be required to accommodate a double-
35 circuit along Segments VIG6 and VIG7. Under the proposed project, the visibility of the substation, as
36 well as the 500-kV transmission lines and 115-kV subtransmission lines near the substation, would result
37 in a significant, unavoidable aesthetic impact to I-15. Therefore, ASP Alternative DD would result in
38 similar aesthetic impacts on I-15 when compared to the proposed project.

39
40 Under ASP Alternative DD, an additional subtransmission line would need to be installed on Temescal
41 Canyon Road near Indian Truck Trail, so that for about 2,000 feet there would be transmission line on
42 either side of the roadway. There is existing power line infrastructure along this segment of Temescal
43 Canyon Road. The short additional power line infrastructure would only slightly increase aesthetic
44 impacts above those associated with the proposed project.

45
⁹ Note that previous ground disturbance estimates did not include access road construction or cut/fill to level the
site for the substation pad. As a result, ground disturbance would be similar to the proposed project.

1 Under ASP Alternative DD, a new 185-foot communications tower may need to be installed at Johnstone
2 Peak. There is an existing communications tower at the site, such that any aesthetic impact would be
3 incremental but not rise to the level of significant.

4
5 Therefore, the aesthetic impacts of ASP Alternative DD would remain significant under this alternative
6 and similar to the proposed project.

7
8 ~~Under ASP Alternative DD, the substation would be mostly shielded from I-15, an Eligible Scenic~~
9 ~~Highway, due to a higher topographic area between I-15 and the alternative substation site. The 500-kV~~
10 ~~transmission line near the alternative substation site would be shorter and located near the existing 500-~~
11 ~~kV Serrano Valley Transmission Line. One crossing of I-15 near the proposed Alberhill Project's~~
12 ~~substation site would be eliminated. Under the proposed project, the visibility of the substation, as well as~~
13 ~~the 500-kV transmission lines and 115-kV subtransmission lines near the substation, would result in a~~
14 ~~significant, unavoidable aesthetic impact to I-15. Some of the extended 115-kV subtransmission line of~~
15 ~~ASP Alternative DD would be visible from I-15, but it would be far enough away from I-15 and would~~
16 ~~not encroach into the sky, so unlike the proposed project it would not dominate views from I-15.~~
17 ~~Therefore, ASP Alternative DD would result in substantially fewer aesthetic impacts on I-15 than those~~
18 ~~associated with the proposed project.~~

19
20 ~~Under ASP Alternative DD, an additional subtransmission line would need to be installed on Temescal~~
21 ~~Canyon Road near Indian Truck Trail, so that for about 2,000 feet there would be transmission line on~~
22 ~~either side of the roadway. There is existing power line infrastructure along this segment of Temescal~~
23 ~~Canyon Road. The short additional power line infrastructure would only slightly increase aesthetic~~
24 ~~impacts above those associated with the proposed project.~~

25
26 ~~Under ASP Alternative DD, a new 185-foot communications tower may need to be installed at Johnstone~~
27 ~~Peak. There is an existing communications tower at the site, such that any aesthetic impact would be~~
28 ~~incremental but not rise to the level of significant.~~

29
30 ~~Other aesthetic impacts of ASP Alternative DD would remain significant under this alternative but could~~
31 ~~be reduced through the mitigation measures developed for the proposed project.~~

32
33 ~~Overall, aesthetic impacts under ASP Alternative DD would be reduced as compared to the proposed~~
34 ~~project.~~

35 **Air Quality**

36
37 The same general construction activities would occur under ASP Alternative DD; however, ASP
38 Alternative DD would have greater emissions than the proposed project due to additional ground
39 disturbance required to construct a longer access road and longer subtransmission lines. In addition, the
40 site is less level than the proposed site, and would require significantly more grading and more cut and fill
41 than the proposed project. Thus, daily emissions impacts under ASP Alternative DD would be greater
42 than the proposed project. Helicopter use would be similar or slightly reduced under this alternative,
43 since the 500-kV transmission line would be shorter than the proposed project's 500-kV transmission line
44 and would be more accessible to vehicles; however, this benefit would be negligible compared to the
45 higher emissions associated with other components. The communications tower to be constructed at
46 Johnstone Peak Communication Site under ASP Alternative DD, would also generate greater emissions
47 than the communications work at the Santiago Peak Communications site for the proposed project
48 because additional ground disturbance would be required in order to construct the communications tower.

1 Therefore, the total criteria pollutant and fugitive dust emissions over the whole construction period of
2 ASP Alternative DD would be greater when compared to the proposed project.

3
4 ~~As the same general construction activities would occur under ASP Alternative DD and the proposed~~
5 ~~project, ASP Alternative DD would have the same level of intensity of daily construction activities as the~~
6 ~~proposed project. Thus, daily emissions impacts under ASP Alternative DD would be the same as the~~
7 ~~proposed project. Daily pollutant emissions would still be significant, given that the significance~~
8 ~~threshold is a daily emissions threshold, and the intensity of construction would stay the same under this~~
9 ~~alternative. ASP Alternative DD would have significant impacts on air quality from NO_x, PM₁₀, and~~
10 ~~PM_{2.5} emissions. Similar to the proposed Alberhill Project, NO_x and PM_{2.5} emissions would be less than~~
11 ~~significant with the implementation of mitigation similar to that developed for the proposed Alberhill~~
12 ~~Project. Additionally, impacts from PM₁₀ emissions would remain significant and unavoidable under ASP~~
13 ~~Alternative DD, similar to the proposed Alberhill Project. Under ASP Alternative DD, ground~~
14 ~~disturbance would be about 8 percent¹⁰ less than for the proposed Alberhill Project. Helicopter use would~~
15 ~~be substantially reduced under this alternative, since the 500-kV transmission line would be much shorter~~
16 ~~than the proposed project's 500-kV transmission line and would be more accessible to vehicles. If a~~
17 ~~communications tower is constructed at Johnstone Peak Communication Site under ASP Alternative DD,~~
18 ~~emissions would be greater than emissions associated with the communications work at the Santiago Peak~~
19 ~~Communications site for the proposed project because ground disturbance would be required in order to~~
20 ~~construct the communications tower. Therefore, the total criteria pollutant and fugitive dust emissions~~
21 ~~over the whole construction period of ASP Alternative DD would be substantially decreased when~~
22 ~~compared to the proposed project.~~

23 24 **Biological Resources**

25 Construction of ASP Alternative DD would result in ~~similar~~substantially fewer impacts on biological
26 resources ~~to than~~ the proposed Alberhill Project. Both the proposed Alberhill Project and ASP Alternative
27 DD would impact MSHCP ARL. These impacts would be similar or slightly greater under ASP
28 Alternative DD because its components would impact riparian/riverine areas already committed for
29 conservation under the MSHCP (per JPR No. 05-08-31-01).

30
31 The 500-kV transmission lines associated with ASP Alternative DD would ~~avoid work in and near the~~
32 ~~MSHCP Core Reserve. They would also be shorter and would not require as many access roads, resulting~~
33 ~~in slightly~~substantially less disturbance of natural vegetation and potential special-status and common
34 species habitat for this component. This alternative would reduce work occurring in critical California
35 coastal gnatcatcher habitat, ~~SKR~~Stephens' kangaroo rat habitat, and areas with MSHCP-designated
36 sensitive soils. This would ~~substantially~~ reduce biological resource impacts from construction of the 500-
37 kV transmission line component lines as compared to the proposed project. Neither the proposed Alberhill
38 500-kV lines nor the 500-kv lines associated with Alternative DD would directly impact SKR Core
39 Reserve.

40
41 The proposed project's substation site also serves as habitat for other sensitive wildlife species, including
42 Quino checkerspot butterfly, orange-throated whiptail, least Bell's vireo, Southern California rufous-
43 crowned sparrow, golden eagle, white-tailed kite, and Dulzura kangaroo rat; construction at the substation
44 site would not occur under this alternative. ~~It is also likely that the alternative would require fewer coast~~
45 ~~live oak trees to be removed.~~ Impacts to Riversidean sage scrub (on the eastern portion of the substation

¹⁰ This number assumes approximately 346 acres of disturbance (substation: 42.9 acres, 500 kV transmission line: 9 acres, and 115 kV: 294 acres).

1 site) and southern willow scrub (on the northern portion of the substation site) at the substation site would
 2 be avoided under ASP Alternative DD. Less of ASP Alternative DD's substation site (and associated 115-
 3 kV subtransmission line route) would be located in critical California coastal gnatcatcher habitat.
 4 ~~However, the ASP~~The Alternative DD substation site contains some areas of sensitive habitat, including
 5 coastal sage/chaparral scrub (Riverside County 2010), and it is not clear that all of ~~it~~, but these areas
 6 ~~would~~may be avoidable through substation configuration, ~~as most of the site is disturbed/ ruderal~~
 7 ~~vegetation (Riverside County 2010)~~. The ASP Alternative DD substation parcel and vicinity also contains
 8 habitat for black-tailed jackrabbit, loggerhead shrike, orange-throated whiptail, western whiptail, yellow
 9 warbler, white-tailed kite, and Cooper's hawk (Riverside County 2010). Thus, impacts on sensitive
 10 species and vegetation due to substation construction and 115-kV subtransmission line construction under
 11 ASP Alternative DD would be similar to~~about the same as~~ under the proposed project.

12
 13 ASP Alternative DD may result in greater impacts to jurisdictional waters and riparian habitat due to
 14 more components, including the substation itself, the 500-kV transmission lines, and the extended portion
 15 of the 115-kV subtransmission line being built near Temescal Wash. The 500-kV transmission lines
 16 would cross Temescal Wash, and the extended 115-kV subtransmission lines would be sited along the
 17 extension of Temescal Canyon Road and cross a tributary to the wash, which may require a new bridge or
 18 an upgrade to an existing bridge. Furthermore, bank protection may be needed along the eastern
 19 substation boundary to stabilize the bank of Temescal Wash, depending on how close the substation pad
 20 is located to the wash, which may cause greater impacts to riparian habitat than the proposed project. It is
 21 possible the substation could be set back from the wash far enough to avoid impacts to the wash;
 22 however, exact placement cannot be determined without final engineering. Therefore, greater impacts on
 23 the wash are assumed. Impacts such as the potential for sedimentation would be temporary and occur
 24 during construction, while there would be some permanent impacts to waters should bank protection be
 25 needed. These impacts would be subject to federal and state permit conditions to reduce impacts to
 26 waters, wildlife, and plants.

27
 28 Overall, impacts to biological resources under ASP Alternative DD would be ~~similar~~substantially reduced
 29 when compared to the proposed Alberhill Project, though potentially significant. Implementation of
 30 mitigation~~Mitigation~~ measures developed for the proposed project would reduce the impacts of ASP
 31 Alternative DD to less than significant.

32 33 **Cultural Resources**

34 Some areas where ASP Alternative DD would be located have previously been surveyed for cultural
 35 resources, with only one cultural resource present along the 115-kV line alignment (SCE 2011). This
 36 cultural resource would likely be avoidable through pole siting; therefore, this alternative is expected to
 37 have the same impact as the proposed project on known cultural resources. ~~Overall, there would be about~~
 38 ~~8 percent less land disturbed than the proposed project, but much of this reduced disturbance may not~~
 39 ~~involve extensive cut and fill~~. ASP Alternative DD would disturb about the same amount of land at the
 40 alternative substation site as at the proposed project site, and extensive cut and fill may also be required at
 41 ASP Alternative DD's substation site. Therefore, the potential for uncovering undiscovered resources at
 42 the substation site is about the same as the proposed project. The area impacted under ASP Alternative
 43 DD is of similar tribal sensitivity as other portions of the proposed project. Impacts related to cultural and
 44 paleontological resources under Alternative DD would be similar~~only slightly reduced as compared to the~~
 45 ~~proposed project, and and would still be significant. Impacts could be reduced to less than significant~~
 46 ~~with the implementation of mitigation measures developed for the proposed project would reduce impacts~~
 47 of ASP Alternative DD to less than significant~~Alberhill Project~~.

1 **Geology, Soils, and Mineral Resources**

2 ASP Alternative DD would result in ~~similar~~ 8 percent less ground disturbance ~~to~~ than the proposed project.
 3 ~~The reduction in ground disturbance would result from the reconfiguration of the 500-kV transmission~~
 4 ~~line.~~ Given that ground disturbance along the proposed 500-kV transmission line is relatively dispersed
 5 among the line and access roads, ASP Alternative DD would result in ~~only a similar~~ slightly reduced
 6 potential for erosion and topsoil loss. The 500-kV transmission lines would be located on land with a
 7 much less steep grade than under the proposed project, reducing potential risk of landslide damaging
 8 project infrastructure. Impacts related to mineral resources would be greater than the proposed project due
 9 to the closure of the existing mining operation on site. This would result in the loss of availability of a
 10 known mineral resource. Impacts overall would be slightly ~~greater~~ reduced for this resource as compared
 11 to the proposed project, but still potentially significant under ASP Alternative DD. The significant
 12 impacts ~~would~~ could be ~~reduced~~ to less than significant with implementation of the mitigation measures
 13 developed for the proposed project.

14
15 **Greenhouse Gas Emissions**

16 ASP Alternative DD would result in ~~similar~~ about 8 percent less ground disturbance ~~to~~ than the proposed
 17 Alberhill Project. Although helicopter use for the 500-kV transmission line would be slightly lower,
 18 greenhouse ~~Greenhouse~~ gas emissions during construction of ASP Alternative DD would be similar or
 19 slightly greater ~~lower~~ than those associated with the proposed project due to the additional reduction in
 20 disturbance area, which involves less equipment use, as well as less helicopter use for 500-kV
 21 transmission line construction activities associated with the 115-kV subtransmission line construction and
 22 additional work at the Santiago Peak Communications site. Impacts under this alternative would be less
 23 than significant with implementation of the mitigation measures developed for the proposed project. -

24
25 **Hazards and Hazardous Materials**

26 ASP Alternative DD would result in less overall risk of hazards than the proposed project. Under this
 27 alternative, ground disturbance would be similar to ~~about 8 percent less than~~ the proposed project, which
 28 means that: ~~similar~~ slightly fewer hazardous materials overall would be used, transported, and disposed of;
 29 there would be a ~~similar~~ slightly lower chance of an accident; and there would be similar ~~slightly less~~
 30 potential for encountering contaminated soils. Consequences of a hazardous materials spill at ASP
 31 Alternative DD’s substation site would likely be greater than at the proposed project’s substation site
 32 given the close proximity of Temescal Wash. Impacts during operation and maintenance of the proposed
 33 Alberhill Project would be about the same, since the substation under this alternative would involve the
 34 same construction as the proposed project’s substation. Impacts from hazardous materials under ASP
 35 Alternative DD would be similar to ~~lower than~~ for the proposed project but still potentially significant.
 36 Impacts from hazardous materials under ASP Alternative DD would be ~~reduced to~~ less than significant
 37 with implementation of the mitigation measures ~~similar to those~~ developed for the proposed Alberhill
 38 Project.

39
40 **Hydrology and Water Quality**

41 ASP Alternative DD would result in ~~8 percent less~~ ground disturbance similar to ~~than~~ the proposed
 42 project. ASP Alternative DD would therefore result in a ~~similar~~ reduced potential for sedimentation. The
 43 ~~similar~~ lower use of hazardous materials under ASP Alternative DD would result in similar ~~lower~~ potential
 44 for water contamination ~~as~~ than the proposed project. Similar to the proposed Alberhill Project, ASP
 45 Alternative DD would be constructed near Temescal Wash and tributaries of Temescal Wash. ASP
 46 Alternative DD has the potential for greater impacts to Temescal Wash than the proposed project because
 47 it would involve siting of more components near Temescal Wash, including the substation itself, the 500-

1 kV transmission lines, and the extended portion of the 115-kV subtransmission line. The 500-kV
2 transmission lines would cross Temescal Wash, and the extended 115-kV subtransmission lines would
3 cross a tributary to the wash. Furthermore, bank protection may be needed along the eastern substation
4 boundary to stabilize the bank of Temescal Wash, which may cause greater impacts to water quality
5 during construction. The ASP Alternative DD substation site is not as level as the proposed project's
6 substation site, meaning that additional grading would be needed. This would result in ~~slightly~~ more
7 drainage and runoff impacts than the proposed project. Overall impacts to hydrology and water quality
8 would be ~~greater~~ reduced under ASP Alternative DD as compared to the proposed project, ~~due to the~~
9 ~~lower ground disturbance; however, impacts would remain potentially significant.~~ Impacts to hydrology
10 and water quality under ASP Alternative DD would be ~~reduced to~~ less than significant with the
11 implementation of mitigation measures ~~similar to those~~ developed for the proposed Alberhill Project.

13 Land Use and Planning

14 ASP Alternative DD would be located in the Serrano Commerce Center Specific Plan Area, in an area
15 zoned as light industrial. The presence of the substation in this area may result in additional unanticipated
16 setback requirements that may require other planned projects in the Specific Plan Area to be revised to
17 account for the substation. The Specific Plan Area is currently not developed. If that area were to be
18 developed prior to construction of ASP Alternative DD, significant impacts may result from demolition of
19 buildings in the area. Otherwise, ASP Alternative DD would result in less than significant impacts similar
20 ~~to from conflicts with applicable plans, policies, or regulations, as described for the proposed project.~~

22 Noise and Vibrations

23 There is a structure that is potentially a residence located approximately 700 feet north of the substation
24 site and approximately 300 feet from the 500-kV transmission lines under ASP Alternative DD. Noise
25 from substation construction would be about 65 dBA, while noise from transmission line construction
26 would be about 71 dBA. With a significance threshold of 75 dBA, neither impact would be significant,
27 similar to the proposed project's substation construction noise. Helicopter noise at this distance would be
28 significant and unavoidable for receptors in the 500-kV transmission line corridor under ASP Alternative
29 DD. Although the , which would not be impacted under the proposed project. Alternative DD would
30 reduce noise impacts to the receptors near the proposed 500-kV transmission lines would be slightly
31 shorter, indicating a slight reduction in helicopter usage, the line alignment. The overall reduced use of
32 helicopters for 500-kv transmission line construction under ASP Alternative DD, when compared to the
33 proposed project, would still result in an overall reduced duration of significant and unavoidable
34 helicopter noise impacts similar when compared to the proposed project.

35
36 For the 115-kV subtransmission line, work would mostly involve stringing conductor on existing poles or
37 pulling conductor through vaults. This would generate minimal noise, except when helicopters are used
38 for stringing operations. For the portion of the 115-kV subtransmission line extending from Temescal
39 Road toward the substation, SCE would need to install poles and conductor. The closest sensitive receptor
40 is a residence about 900 feet from the 115-kV alignment. At this distance, noise from subtransmission
41 line construction would be about 62 dBA, which is under the significance threshold of 75 dBA. ASP
42 Alternative DD would result in significant and unavoidable noise impacts similar to the proposed project,
43 though in a different location. Noise impacts would therefore be similar to the proposed project, though in
44 a new location. Impacts from other components would be the same as for the proposed project, would be
45 significant, and in some cases (e.g., use of helicopters, construction areas located close to receptors) could
46 not be mitigated to less than significant.

1 **Transportation and Traffic**

2 The daily level of traffic generated during construction of ASP Alternative DD would be about the same
3 as that generated for the proposed project, given that the daily intensity of construction would stay the
4 same under this alternative. Impacts to LOS are analyzed for the peak hour, and peak hour traffic
5 generated would stay the same as under the proposed project. The traffic generated would be distributed
6 across additional locations due to the new location of the substation, 500-kV transmission lines, and 115-
7 kV transmission lines. Traffic and traffic impacts (such as road closures and road damage) would be
8 distributed further along Temescal Canyon Road, De Palma Road, Indian Truck Trail, and the I-15 on-
9 and off-ramps at Indian Truck Trail. Traffic for soil import would be slightly reduced on roadways
10 ~~underbetween ASP Alternative DD relative to DD's substation site and the proposed project~~
11 ~~because Alberhill substation site, as vehicles would not need to travel as far south, and some. However,~~
12 ~~the reduced disturbance area indicates that the construction period for ASP Alternative DD would be~~
13 ~~shorter than for the proposed project due to less construction, which means that the overall traffic~~
14 ~~generated during construction of the cut and fill would be obtained by partially leveling a portion of the~~
15 ~~greater Serrano Commerce Center site. Although ASP Alternative DD would be less than for the proposed~~
16 ~~project. Helicopter use for the 500-kV transmission lines would be slightly shorter, which would result in~~
17 ~~a slight reduction in helicopter use, the reduction line construction would be negligible. Therefore,~~
18 ~~helicopter use would result in a similar substantially less than that associated with the proposed project~~
19 ~~due to the much shorter length of the 500-kV transmission line. This would reduce the potential for air~~
20 ~~traffic hazards. The shorter length of the 500-kV transmission line would also reduce the potential for air~~
21 ~~traffic hazards since there would be fewer tall structures built. Traffic impacts under ASP Alternative DD~~
22 ~~would, overall, be reduced as compared to the proposed project but would remain significant. However,~~
23 ~~these impacts could be reduced to less than significant with implementation of mitigation measures~~
24 ~~developed for the proposed project.~~

25 **Cumulative Impacts**

27 ASP Alternative DD would have greater cumulative impacts than both the proposed project and ASP
28 Alternative B due to the LEAPS project and development associated with the Serrano Commerce Center
29 (see Chapter 6.0, Cumulative Impacts, for a description of the LEAPS project). Although the route of the
30 LEAPS 500-KV transmission line is unknown, according to the LGIA between Nevada Hydro and SCE,
31 the LEAPS project would interconnect to the Alberhill Substation, if the Alberhill Substation is
32 constructed. If Alberhill Substation is not constructed, and the ASP Alternative DD Substation is
33 constructed instead, the LEAPS interconnection and transmission route would be expected to be
34 redesigned to connect to the ASP Alternative DD Substation.

36 The ASP Alternative DD site is located approximately 5 miles northwest of the proposed Alberhill
37 Substation site on the Serrano Commerce Center site; therefore, in the event that the LEAPS transmission
38 line could connect to the ASP Alternative DD site, there would be a corresponding increase in impacts
39 across various resource areas related to the increased ground disturbance associated with the construction
40 of a longer 500-kV transmission line. Further, given the timing of construction for the Alberhill Project
41 and the LEAPS project, it is possible that commercial or industrial projects could be proposed and
42 constructed on the Serrano Commerce Center site prior to LEAPS project approval, thus restricting the
43 transmission corridor along the new Temescal Canyon Road alignment that would be constructed as part
44 of ASP Alternative DD. Therefore, at this time, it is not possible to determine whether or not the 500-kV
45 transmission components could be sited within or near the same corridor as the rerouted ASP Alternative
46 DD 115-kV subtransmission lines. As a result, the LEAPS 500-kV transmission line components might
47 require a much longer, more circuitous route to connect to the ASP Alternative DD substation from the
48 northwest. Given the siting constraints in the project vicinity as a whole—such as the presence of SKR

1 habitat, U.S. Forest Service land, and extensive new housing developments currently proposed or under
 2 construction—it is speculative whether or not the 500-kV transmission lines could be connected to the
 3 ASP Alternative DD Substation site at all. If it is not possible to connect the 500-kV transmission line to
 4 the ASP Alternative DD Substation, a new substation would be required to meet the terms of the LEAPS
 5 LGIA. Presumably, such a substation would be constructed at the Lee Lake switchyard site, the original
 6 Alberhill Substation site, or another site altogether. Therefore, while the nature and extent of the
 7 cumulative impacts associated with ASP Alternative DD cannot be quantified, the cumulative impacts are
 8 expected to be greater than those associated with the proposed project.

9
10 **Other Resource Areas**

- 11 • **Agriculture and Forestry:** The impacts to farmland and forestry would be the same for both
12 ASP Alternative DD and the proposed Alberhill Project.
- 13 • **Population and Housing:** Impacts related to population and housing would be negligibly less
14 under ASP Alternative DD than for the proposed Alberhill Project, since the same peak
15 workforce would be needed, but for a shorter construction period. It is unlikely that this slight
16 reduction in the duration of workforce employment would result in a noticeable change in
17 population and housing impacts.
- 18 • **Public Services and Utilities:** The significant amount of grading associated with ASP
19 Alternative DD’s substation site and the additional 2 miles of access roads required for the 115-
20 kV subtransmission lines would require substantially more water. Impacts to public services and
21 utilities would be the greater under ASP Alternative DD compared to the proposed project. ~~The~~
22 ~~shorter construction timeframe under ASP Alternative DD would result in slightly less potential~~
23 ~~need for police and fire services than the proposed Alberhill Project. Water use for dust control~~
24 ~~could be about 8 percent lower under ASP Alternative DD than for the proposed Alberhill Project~~
25 ~~due to the smaller disturbance area associated with the alternative. Overall, impacts would be~~
26 ~~reduced when compared to the proposed project.~~
- 27 • **Recreation:** Impacts to recreation would be the same for both ASP Alternative DD and the
28 proposed project because the alternative substation configuration would not affect recreational
29 facilities.
30

31 **5.3.3 No Project Alternative**

32
33 Under the No Project Alternative, the proposed Alberhill Project would not be implemented. The No
34 Project Alternative would avoid the environmental impacts of the proposed Alberhill Project discussed in
35 Chapter 4 of this EIR because no foreseeable construction would occur. The No Project Alternative could,
36 however, result in impacts related to provision of electricity because there may be overloads on the two
37 560-megavolt-ampere transformers that serve the Valley South 115-kV System as soon as summer 2019.
38

39 **5.3.4 Environmentally Superior Alternative**

40
41 The No Project Alternative (Section 5.3.5) would be environmentally superior for all environmental
42 resources. When the Environmentally Superior Alternative is the No Project Alternative, CEQA requires
43 the identification, if possible, of an Environmentally Superior Alternative among the other alternatives
44 (CEQA Guidelines § 15126.6). Although Alternative DD would result in reduced traffic impacts due to
45 the assumption that cut/fill would be obtained from the Serrano Commerce Center site, increased impacts
46 on other resource areas would far outweigh the reduction. In addition, Alternative DD could potentially
47 include the construction of two substations, which would essentially result in a doubling of impacts and

1 thus significantly increased cumulative impacts. While Alternative B would require less ground
 2 disturbance, without significant additional engineering, it is speculative to assume that impacts on certain
 3 resources would be reduced. Therefore, Alternative B would be similar to the proposed project, and
 4 neither of these two alternatives would be environmentally superior to the proposed project. The two
 5 alternatives considered were environmentally superior in the following resources:

- 6
- 7 • ~~ASP Alternative B~~
 - 8 ~~— Cultural Resources~~
 - 9 ~~— Geology, Soils, and Mineral Resources~~
 - 10 ~~— Hazards and Hazardous Materials~~
 - 11 ~~— Hydrology and Water Quality~~
- 12 • ~~ASP Alternative DD~~
 - 13 ~~— Aesthetics~~
 - 14 ~~— Biological Resources~~
 - 15 ~~— Greenhouse Gases~~
 - 16 ~~— Noise and Vibration~~
 - 17 ~~— Public Services and Utilities~~
 - 18 ~~— Transportation and Traffic~~

19

20 ~~Neither alternative is superior for agriculture and forestry, air quality, land use and planning, population~~
 21 ~~and housing, or recreation.~~

22

23 ~~Environmental benefits associated with ASP Alternative B over ASP Alternative DD are slight and are~~
 24 ~~associated with long term impacts on cultural resources and short term impacts on geology, soils, and~~
 25 ~~mineral resources; hazards and hazardous materials; and hydrology and water quality. Both alternatives~~
 26 ~~would reduce short term impacts to these resource areas, but ASP Alternative B would result in only a~~
 27 ~~slightly greater reduction in short term impacts compared to ASP Alternative DD. Reduction in short-~~
 28 ~~term impacts is given less weight because they are temporary and less than significant.~~

29

30 ~~ASP Alternative DD would be environmentally superior for long term impacts on aesthetics and~~
 31 ~~biological resources, and greenhouse gases and short term impacts on noise, public services and utilities,~~
 32 ~~and transportation and traffic. The reduction of short term impacts is generally given less weight in~~
 33 ~~selection of an Environmentally Superior Alternative because temporary impacts would not extend~~
 34 ~~beyond the construction period of the project. However, the proposed project would have significant~~
 35 ~~impacts from noise during construction, therefore ASP Alternative DD's reduction of noise impacts are~~
 36 ~~given substantial weight in determining the Environmental Superior Alternative. The temporary impacts~~
 37 ~~on public services and utilities and transportation and traffic, are all less than significant or can be~~
 38 ~~mitigated to less than significant and are given less weight.~~

39

40 ~~ASP Alternative DD would be greatly superior to ASP Alternative B in terms of long term aesthetic~~
 41 ~~impacts. ASP Alternative DD would avoid the significant, unavoidable long term visual impact of the~~
 42 ~~substation and nearby 500-kV transmission lines and 115-kV subtransmission lines associated with ASP~~
 43 ~~Alternative B. ASP Alternative DD would be mostly shielded from I-15, an Eligible Scenic Highway.~~
 44 ~~Given that the aesthetic impacts of ASP Alternative B would be significant, unavoidable, and long term,~~

1 ASP Alternative B's adverse aesthetic impacts are given substantial weight in determining the
2 Environmentally Superior Alternative.

3
4 The long-term biological resources benefits of ASP Alternative DD are associated with reduced long-term
5 impacts to habitat at the proposed Alberhill Substation site. The Western Riverside County MSHCP is
6 one of the largest habitat conservation plans created, and there are 347,000 acres of lands set aside as
7 habitat in Riverside County as a result (Riverside County 2003; RCA undated), indicating the importance
8 of conserving biological resources in Riverside County. ASP Alternative DD would involve no work in or
9 near the MSHCP Core Reserve and would involve slightly less work and disturbance in Stephens'
10 kangaroo rat habitat than ASP Alternative B. The benefits of ASP Alternative DD when compared to ASP
11 Alternative B are slight for biological resources, but the slight benefits of ASP Alternative DD are given
12 considerable weight, since urbanization in the Riverside County has resulted in a "significant loss of
13 important biological resources" in Southern California (Riverside County 2003).

14
15 ASP Alternative B would result in an incremental increase in greenhouse gas emissions compared to ASP
16 Alternative DD—about 149.6 MTCO₂e per year, or 4 percent. Recent California greenhouse gas policy
17 indicates that California has determined the reduction of greenhouse gases to be an important goal for the
18 state. Executive Order B-30-15, signed by the Governor on April 29, 2015, set an aggressive greenhouse
19 gas reductions goal—40 percent below 1990 levels by 2030. The 2030 goal ultimately is an interim
20 benchmark to the 2050 goal of 80 percent below 1990 levels. The Executive Order is only the latest state
21 greenhouse gas reduction policy of many, including the California Global Warming Solutions Act of
22 2006. The Executive Order recognizes several severe, adverse impacts of global warming, including loss
23 of snowpack, drought, increased wildfires, increased smog, and heat waves (State of California 2015).
24 Due to the potentially grave impacts of greenhouse gas emissions, as recognized in the state's latest
25 aggressive policy action to reduce greenhouse gases, ASP Alternative DD's decrease in greenhouse gas
26 emissions is given substantial weight in determining the potentially Environmentally Superior
27 Alternative.

28
29 On balance, ASP Alternative DD's superiority in more resource areas as well as its superiority in key
30 long-term impacts when compared to ASP Alternative B result in a determination that ASP Alternative
31 DD is the Environmentally Superior Alternative.

32 33 5.4 References

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