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
5.0 COMPARISON OF ALTERNATIVES

5.1 Comparison Methodology

5.1.2 Comparison Methodology

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

- **Step 1: Identification of Alternatives and Potential Environmental Effects.** A screening process was used to identify a number of alternatives to the proposed projects. An Alternatives Screening Report (Appendix D) was prepared during this process to document the criteria used to evaluate and select alternatives for further analysis, including their feasibility, the extent to which they would meet most of the basic objectives of the proposed projects (Section 1.2, “Objectives of the Proposed Projects”), and their potential to avoid or substantially lessen a potentially significant effect of the proposed projects. The potentially significant effects utilized for the screening report were identified based on the applicant’s Project Modification Report, Proponent’s Environmental Assessment, and a preliminary review of the proposed projects and environmental setting in the proposed projects’ areas.

- **Step 2: Evaluation of Environmental Impacts.** Environmental impacts from construction and operation of the proposed projects are evaluated by resource area in Chapter 4 of this EIR. Chapter 4 contains a much more detailed evaluation than that presented in the Alternatives Screening Report and covers more resource areas. Table ES-1 in the Executive Summary provides a detailed summary of the impacts anticipated to result from the proposed projects. Once the EIR’s analysis of the proposed projects’ impacts was completed, the range of alternatives considered in the Alternatives Screening Report was refined.

- **Step 3: Comparison of the Proposed Project and Alternatives.** This chapter compares the environmental impacts of the proposed projects to those of each alternative, including the No Project Alternative. An Environmentally Superior Alternative is then identified for each proposed project.

5.2 Comparison of Valley–Ivyglen Project Alternatives

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

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<td>Aesthetics</td>
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<td>Similar (2)</td>
<td>Greater (3)</td>
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<td>Similar (2)</td>
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<td>Greater (3)</td>
<td>Reduced (2)</td>
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<tr>
<td>Air Quality</td>
<td>Significant and unavoidable</td>
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<td>Similar (2)</td>
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<tr>
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<td>Reduced (4)</td>
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<td>Reduced (2)</td>
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<tr>
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<td>Similar (2)</td>
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</tr>
<tr>
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<td>Greater (3)</td>
<td>Greater (3)</td>
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<td>Similar (2)</td>
<td>Greater (3)</td>
<td>No Impact (1)</td>
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</tr>
</tbody>
</table>

Notes:
- Reduced (a) indicates mitigation is required.
- Greater (3) indicates the project impacts are greater than the baseline.
- Reduced (3) indicates the project impacts are reduced from the baseline.
- Similar (2) indicates no significant change.
### Table 5-1  Summary of the Valley–Ivyglen Project Alternatives Analyses and Determination

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<td>and Traffic</td>
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<td></td>
<td></td>
<td>No Impact (1)</td>
<td>None</td>
</tr>
<tr>
<td>Cumulative</td>
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<td>Greater (3)</td>
<td>Greater (3)</td>
<td>Greater (3)</td>
<td>Greater (3)</td>
<td>Greater (3)</td>
<td>No Impact (1)</td>
<td>None</td>
</tr>
</tbody>
</table>

**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
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, 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 (NOx), 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 (PM2.5). Similar to the proposed Valley–Ivyglen Project, NOx and PM2.5 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 a 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, 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

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

VIG Alternative A would include involve less construction than the proposed project in areas that would
potentially affect jurisdictional waters. Along the VIG Alternative A 115-kV Segment VIG8 alignment,
the National Wetlands Inventory (NWI) shows Sycamore Creek near the intersection of Campbell Ranch
Road and Mayhew Canyon Road, and the intersection of Campbell Ranch Road and Indian Truck Trail. Sycamore Creek parallels Campbell Ranch Road for a total of about 210 feet. There is also a mapped
wetland near Alternative A 115-kV Segment VIG8’s intersection with 115-kV Segment VIG7
that parallels De Palma Road for about 140 feet. VIG Alternative A’s 115-kV Segment VIG8 would cross
two drainages. In comparison, the proposed 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 this segment would cross six drainages.

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

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

Geology, Soils, and Mineral Resources
VIG Alternative A would increase ground disturbance by less than 0.5 percent^2 above that associated with
the proposed project. This would result in a somewhat higher potential for erosion and loss of topsoil than
the proposed project. VIG Alternative A would therefore have somewhat greater impacts to geology and
soils compared to the proposed Valley–Ivyglen Project.

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^2 This number assumes 636 acres of disturbance.
Hazards and Hazardous Materials

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

Hydrology and Water Quality

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

Land Use and Planning

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

Noise

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

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

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

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

Cumulative Impacts

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

Other Resource Areas

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

5.2 Comparison of Alternatives

5.2.1 VIG Alternative A—Underground along Temescal Canyon Road (115-kV Segment VIG8)

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 the same as the proposed project. VIG Alternative B1 would therefore also have significant impacts on air quality resulting from NOX, PM10, and PM2.5 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, NOX Valley–Ivyglen Project, NOX and PM2.5 emissions would be less than significant with implementation of the mitigation measures similar to that developed for the proposed Valley–Ivyglen Project. However, project. Additionally, 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 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 B1 than the proposed project. Therefore, VIG Alternative B1
would result in a negligible increase in total emissions over the lifetime of project construction when
compared to the proposed project.

### Biological Resources

VIG Alternative B1 would require approximately 8,000 feet more disturbance than the proposed Valley–
Ivyglen Project along 115-kV Segment VIG8. This additional disturbance would occur within the ROWs
of several local roadways. The potential to impact special status species along VIG Alternative B1 is
generally lower since the route is either developed or very disturbed. However, the VIG Alternative
B1 route would be located on the edges of potential vernal pool habitat. The proposed VIG Alternative B1
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 an underground transmission
line along the edge of a steep pit, which could result in relocating the route closer to vernal pool habitat
(see Figure 5-1). VIG Alternative B1 would include less construction in areas that would potentially
affect jurisdictional waters. Along the VIG Alternative B1 115-kV Segment VIG8 alignment, the NWI
shows that VIG Alternative B1 would parallel mapped waters for about 0.5 miles within 15 to 180 feet of
the alignment. VIG Alternative B1’s 115-kV Segment VIG8 would cross three drainages. In comparison,
the proposed 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 six drainages.
Potential impacts to waters under VIG Alternative B1 would be substantially less than those associated
with the proposed project. Overall, impacts to biological resources under VIG Alternative B1 would be
reduced similar as compared to the proposed project along 115-kV Segment VIG8 but and still would be
significant. Significant impacts would be reduced to less than significant with implementation of the
mitigation measures similar to those developed for the proposed Valley–Ivyglen Project.

### Cultural Resources

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

### Geology, Soils, and Mineral Resources

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

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3 This number assumes approximately 643 acres of disturbance.
Hazards and Hazardous Materials

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

Hydrology and Water Quality

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

Land Use and Planning

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

Noise

Construction of VIG Alternative B1’s 115-kV Segment VIG8 would utilize the same construction equipment, methods, and materials as the proposed Valley–Ivyglen Project’s 115-kV Segment VIG8. Construction activities would generate significant short-term increases in ambient noise levels 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 road. There are also more sensitive receptors along VIG Alternative B1’s 115-kV Segment VIG8 than for the proposed project. Sensitive receptors would be closer under VIG Alternative B1; the closest receptors would be about 18 feet away from 115-kV Segment VIG8 on Santiago Canyon Road, whereas under the proposed project the closest sensitive receptor would be 158 feet from 115-kV Segment VIG8. Noise at the closest sensitive receptor under VIG Alternative B1 would be over 97 dBA, which is above the significance threshold of 75 dBA. Though blasting would not be needed for this alternative alignment, impacts would be greater than the proposed project and would be significant. The mitigation measures developed for the proposed project mitigation would be implemented.
but could not reduce noise levels to under 75 dBA, and therefore, noise impacts would remain significant and unavoidable.

### Transportation and Traffic

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

### Cumulative Impacts

VIG Alternative B1 includes construction of 115-kV Segments VIG1 through VIG7 as described for the proposed Valley–Ivyglen Project. However, for Segment VIG8 the 115-kV power line 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. This would result in greater cumulative impacts than the proposed project resulting from additional ground disturbance from undergrounding and modification of existing aboveground and belowground infrastructure along the route to accommodate the new 115-kV segments. In addition, this area contains extensive surface mining operations. Therefore, trenching and construction in this location would contribute to greater cumulative effects related to erosion and fugitive dust that would not otherwise occur with the proposed project. In addition, a large segment of the proposed ROW is located along a dirt road adjacent to vernal pool habitat. Because it might not be practical to install underground vaults along a dirt road in an isolated area, it is assumed that this private, unnamed dirt road would need to be paved. This could have the unanticipated effect of attracting members of the community into the area, which could exacerbate impacts on vernal pool habitat or could result in an increase in hazardous situations for the public. Currently, there is no road allowing easy vehicle access to this area, and current users of the dirt road include heavy vehicles and work trucks engaged in mining or other industrial operations. Figure 5-1 depicts a portion of the VIG Alternative B1 route, which would be located along the unpaved road between an open mining pit and vernal pool habitat. The route would continue to the east, presumably giving vehicle access to the residential neighborhood.
Other Resource Areas

- **Agriculture and Forestry**: The impacts to farmland and forestry would be similar 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.

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)
5.0 COMPARISON OF ALTERNATIVES

• **Population and Housing:** The same crew sizes would be needed under VIG Alternative B1 as for the proposed Valley–Ivyglen Project for a negligibly longer construction period, so impacts of the alternative and the proposed project would be similar about the same.

• **Public Services and Utilities:** The alternative 115-kV VIG8 alignment would be only 8,000 feet longer than the proposed alignment, so the increase in water use needed for fugitive dust control would be negligible. The construction period for VIG Alternative B1 would be negligibly longer than that of the proposed Valley–Ivyglen Project, resulting in similar the same impacts to those of public services as the proposed project.

• **Recreation:** Alternative VIG B1 would not result in impacts to recreation, which is the same as the proposed project.

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

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

**Aesthetics**

Construction activities and equipment for VIG Alternative B2 would be temporarily visible to motorists along about 500 feet of I-15, an Eligible Scenic Highway. This is comparable to the proposed project’s impact, 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 in a different location. The underground portions of VIG Alternative B2 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.

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

Aboveground portions of VIG Alternative B2 would also be visible to the west of Santiago Canyon Road and the Deleo Regional Sports Park. There is currently no electric transmission infrastructure in this area and none proposed under the proposed project. Thus, LWSPs and TSPs may substantially reduce the visual quality of the views from Santiago Canyon Road and the Diablo Regional Sports Park. The land where the segment would be located is relatively flat, so it would likely not be feasible to screen or camouflage the color or finish of the TSPs and LWSPs. This may result in a significant, unavoidable visual impacts aesthetic impact. Compared to the proposed project’s 115-kV Segment VIG8, VIG 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, NOX and PM2.5 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 NOX, PM2.5, and PM10. Similar to the proposed Valley–Ivyglen Project, NOX and PM2.5 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. 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 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.
Overall, impacts to biological resources under VIG Alternative B2 would be similar as compared to the proposed project along 115-kV Segment VIG8 and would be significant. Significant impacts would be less than significant with implementation of the mitigation measures developed for the proposed Valley–Ivyglen Project.

**Cultural Resources**

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

**Geology, Soils, and Mineral Resources**

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

**Hazards and Hazardous Materials**

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

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

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4 This number assumes approximately 654 acres of disturbance.
Hydrology and Water Quality

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

Land Use and Planning

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

Noise

Construction of VIG Alternative B2’s 115-kV Segment VIG8 would require the same construction equipment, methods, and materials as the proposed Valley–Ivyglen Project’s 115-kV Segment VIG8. Construction activities would generate significant short-term increases in ambient noise levels 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 road. There are also more sensitive receptors along VIG Alternative B2’s 115-kV Segment VIG8. Sensitive receptors would also be closer under VIG Alternative B2; the closest receptors are about 18 feet away from 115-kV Segment VIG8 on Santiago Canyon Road, whereas for the proposed project the closest sensitive receptor is 158 feet from 115-kV Segment VIG8. Noise at the closest sensitive receptor under VIG Alternative B2 would be over 97 dBA, which is above the significance threshold of 75 dBA. Though blasting would not be needed on this alternative alignment, impacts to sensitive receptors would be greater than with the proposed project and would be significant. Mitigation would be implemented, but noise levels could not be reduced to under 75 dBA and would remain significant and unavoidable.

Transportation and Traffic

Construction of VIG Alternative B2 would require a similar number of workers and include the use of the same construction equipment, methods, and materials as the proposed Valley–Ivyglen Project. Trips would be distributed slightly differently than the proposed project, since more construction equipment and vehicles would be routed south of I-15 from Indian Truck Trail rather than north of I-15. This change would cause a negligible decrease in LOS impacts to intersections also used to access other project components, such as the intersection of Temescal Canyon Road with Indian Truck Trail. Traffic might instead negligibly increase at the intersection of Indian Truck Trail Road and Campbell Ranch Road. The proposed project would maintain the existing overall LOS D at Indian Truck Trail Road and Campbell Ranch Road, with a delay of 39.5 seconds (an increase of 0.8 seconds) in the AM peak hour and 45.7 seconds (an increase of 8.5 seconds) in the PM peak hour. Signalized delay can be up to 55 seconds to stay within the acceptable threshold of LOS D. Even if delay doubled on this intersection when compared...
to the proposed project, delay would still be less than 55 seconds and would be within the acceptable LOS. The mitigation measures developed for the proposed project impacts would be implemented, and therefore, impacts would be similar to those of about the same as the proposed project. Under VIG Alternative B2, impacts would remain less than significant for intersections near 115-kV Segment VIG8.

**Cumulative Impacts**

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

**Other Resource Areas**

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

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

VIG Alternative C includes construction of 115-kV Segments VIG1 through VIG5 and VIG7 through VIG 8, as described for the proposed Valley–Ivyglen Project; however, wood poles along a 0.75-mile section of the Valley–Elsinore–Fogarty–Ivyglen 115-kV line along Temescal Canyon Road near the western corner of the proposed Alberhill Substation site would be removed, and new underground conduit capable of supporting two 115-kV circuits (the Valley–Elsinore–Fogarty–Ivyglen 115-kV line and proposed Valley–Ivyglen 115-kV line) would be installed along Temescal Canyon Road from Concordia.
Ranch Road to Horsethief Canyon Road to De Palma Road in lieu of Segment 115-kV VIG6 (see Figure 3-2).

Aesthetics

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

Air Quality

The highest level of intensity of daily construction activities under VIG Alternative C would be similar to 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 (2.9 miles as opposed to 1.9 miles for the proposed project), the highest level of intensity of daily construction activities is expected to be similar to the proposed project. Due to these minimal differences in construction activity, daily emissions under VIG Alternative C would be similar to the proposed project because the minor amount of additional trenching is not expected to significantly alter construction phasing, although it could slightly lengthen the construction period. Under VIG Alternative C, similar to the proposed project, NOX and PM2.5 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. The decrease in helicopter use would be negligible due to the additional one mile of undergrounding, since helicopter use would be needed for the rest of the aboveground construction. In addition, the benefit of reduced helicopter construction would be offset by increased trenching. Therefore, VIG Alternative C would result in similar total emissions over the lifetime of project construction.

The highest level of intensity of daily construction activities under VIG Alternative C would be 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. Thus, daily emissions impacts under VIG Alternative C would be the same as the proposed project. Under VIG Alternative C, NOX emissions would be less than significant with mitigation similar to that developed for the proposed Valley–Ivyglen Project. VIG Alternative C would have significant impacts on air quality from NOX, PM10, and PM2.5 emissions. Similar to the proposed Valley–Ivyglen Project, NOX and PM2.5 emissions under VIG Alternative C would be less than significant with implementation of mitigation similar to that developed for the proposed project. Additionally, impacts from PM10 emissions would be less than for the proposed Valley–Ivyglen Project but would remain significant and unavoidable under VIG Alternative C. VIG Alternative C would, however, result in increased total emissions over the lifetime of project construction. The most emissions-intensive activities would occur for a longer period of time under VIG Alternative C due to undergrounding approximately 2.9 miles of the VIG Alternative C alignment compared to 1.9
miles for the proposed project. The decrease in helicopter use would be negligible due to the additional one mile of undergrounding, since helicopter use would be needed for the rest of the aboveground construction. Assuming a negligibly longer construction period to account for the additional undergrounding, there would be more days of peak daily emissions under VIG Alternative C than under the proposed project. Therefore, VIG Alternative C would result in a negligible increase in total emissions over the lifetime of project construction.

Biological Resources

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

Cultural Resources

VIG Alternative C is located along previously disturbed areas as compared to the Valley–Ivyglen Project along 115-kV Segment VIG6, which is located in an undeveloped area. Even if new ROW is required outside of the Temescal Road ROW, the areas along Temescal Road are generally more developed than VIG 6. The potential of discovering a significant cultural resource along VIG Alternative C is therefore presumed to be lower than the proposed project. However, the potential to encounter and impact paleontological resources would increase due to trenching activity associated with the underground...
construction required for VIG Alternative C. On balance, VIG Alternative C’s potential for impacts to cultural resources would be similar to the proposed project. Impacts to cultural resources under VIG Alternative C would be reduced to less than significant with implementation of the mitigation measures developed for the proposed Valley–Ivyglen Project.

VIG Alternative C would require approximately 6.5 percent
less ground disturbance than the proposed Valley–Ivyglen Project along 115-kV Segment VIG6. The reduced disturbance performed under VIG Alternative C would occur within the ROW of Temescal Road. The potential of discovering a significant cultural resource along VIG Alternative C is low since the road is either paved or very disturbed. Therefore, VIG Alternative C’s potential for impacts to cultural resources would be reduced as compared to the proposed project. Impacts to cultural resources under VIG Alternative C would be reduced to less than significant with mitigation measures similar to those developed for the proposed Valley–Ivyglen Project.

Geology, Soils, and Mineral Resources

VIG Alternative C would be located in a more developed area than the decrease ground disturbance by about 6.5 percent compared to the proposed Valley–Ivyglen Project along 115-kV Segment VIG6. This could result in a slight decrease in the potential for erosion and loss of topsoil as compared to the proposed project. VIG Alternative C would therefore have slightly reduced impacts to geology and soils as compared to the proposed Valley–Ivyglen Project. 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.

Hazards and Hazardous Materials

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

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

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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.
significant with implementation of the mitigation measures developed for the proposed Valley–Ivyglen Project.

Hydrology and Water Quality

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

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

Land Use and Planning

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

Noise

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

Transportation and Traffic

Construction of VIG Alternative C would require a similar number of workers and utilize the same construction equipment, methods, and materials as the proposed Valley–Ivyglen Project. Trips would be distributed slightly differently than the proposed project since more construction equipment and vehicles would be routed north of I-15 from Horsethief Canyon Road and Temescal Canyon Road rather than
south of I-15. This change would cause a negligible increase in LOS impacts at intersections also used
to access other project components, such as the intersection of Temescal Canyon Road with Horsethief
Canyon Road. That intersection operates at LOS B. Traffic to construct VIG Alternative C would not be
of sufficient volume to decrease the intersection’s operation from LOS B to LOS D, and the intersection
would operate above the acceptable LOS of LOS D. More road closures would be needed under VIG
Alternative C than for the proposed project, since this alternative would be constructed along a public roadway, and the proposed project would not. This would result in significant safety impacts, but these impacts would be reduced to less than significant with implementation of the
mitigation measures developed for the proposed project. Overall, traffic impacts under VIG Alternative C
would be greater than similar to those likely to result from the proposed project.

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

Other Resource Areas

- **Agriculture and Forestry:** The new ROW required along Temescal Canyon Road would not
  affect Prime or otherwise Important Farmland, similar impacts to the proposed VIG6 segment.
  Therefore, farmland and forestry would be the same under VIG Alternative C would have similar
  impacts on agriculture than the proposed project Valley–Ivyglen Project.

- **Greenhouse gases:** VIG Alternative C would be constructed along a public roadway and
  therefore would require the construction of fewer access roads resulting in about 6.5 percent less
ground disturbance, and less helicopter use than that associated with the proposed Valley–Ivyglen
  Project; this indicates a slight decrease in equipment use and therefore a slight decrease in
  greenhouse gas emissions.

- **Population and Housing:** The same crew sizes would be needed for VIG Alternative C as for the
  proposed Valley–Ivyglen Project for a negligibly longer construction period, so impacts
  would be similar to about the same as the proposed project.

- **Public Services and Utilities:** VIG Alternative C would not require access road construction.
  While additional trenching would be required, this is not expected to significantly increase the
  amount of water needed for fugitive dust control because greater emissions associated with
trenching would be offset by the lack access road construction. Therefore, impacts would be
  similar to public services as the proposed Valley–Ivyglen Project. The alternative 115-kV VIG6
  alignment disturbance area would be about 41 acres less than that of the proposed alignment, so
  the decrease in water use to control fugitive dust would be negligible. The construction period
  would be negligibly shorter, resulting in about the same impacts to public services as the
  proposed Valley–Ivyglen Project.
5.0 COMPARISON OF ALTERNATIVES

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.

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, NOX, PM_{2.5}, and PM_{10} 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.

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.
The highest level of intensity of daily construction activities under VIG Alternative M would be 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. Thus, daily emissions impacts under VIG Alternative M would be the same as the proposed project. Under VIG Alternative M, NO\textsubscript{X} and PM\textsubscript{2.5} emissions would be less than significant with mitigation similar to that developed for the proposed Valley–Ivyglen Project. However, project commitments and mitigation measures would not reduce PM\textsubscript{10} emissions to less than significant. Similar to the proposed project, VIG Alternative M would have significant and unavoidable impacts from PM\textsubscript{10} emissions. VIG Alternative M would, however, result in increased total emissions over the lifetime of project construction. The most emissions-intensive activities would occur for a longer period of time under VIG Alternative M due to undergrounding 26.4 miles of the VIG Alternative M alignment compared to 1.9 miles for the proposed project. Although VIG Alternative M would result in about 24 percent less ground disturbance than the proposed project, and helicopters would not be used, the total emissions associated with the aboveground construction activities of the proposed project would be substantially less than undergrounding construction activities associated with VIG Alternative M. The construction timeline would also likely be longer than the aboveground construction timeline. The increased construction intensity on more days than the proposed project would result in greater total emissions of criteria pollutants under VIG Alternative M than the proposed project.

### Biological Resources

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

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

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\[1\text{This number assumes approximately 478 acres of disturbance, which assumes 26.4 miles of 50-foot wide trench, 125 vaults, 8.3 miles of 22-foot wide access roads, and no installation of poles. Otherwise, all disturbance is the same as for the proposed project.}\]
implementation of the mitigation measures developed for the proposed Valley–Ivyglen Project. Even with implementation of mitigation measures, impacts would likely be significant.

Cultural Resources

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

Geology, Soils, and Mineral Resources

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

Hazards and Hazardous Materials

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

Hydrology and Water Quality

VIG Alternative M would include more construction in areas that would potentially affect jurisdictional waters, as discussed for biological resources. VIG Alternative M would involve greater about 24 percent less ground disturbance than the proposed Valley–Ivyglen Project. This would result in a greater substantially lower potential for sedimentation than the proposed project. The potential for...
drainage alteration impacts would be slightly greater under VIG Alternative M than the proposed project, since more drainages and waterways— including the San Jacinto River—would be crossed rather than spanned. In some cases, HDD is expected to be used to cross resources such as the San Jacinto River, which would require large disturbance areas on either side of the river to accommodate HDD equipment. In addition, there would be greater potential to interfere with subsurface hydrogeology. Impacts would be greater than moderately reduced from those associated with the proposed project and would be but still significant for VIG Alternative M. Implementation of the mitigation measures similar to that developed for the proposed Valley–Ivyglen Project would not necessarily reduce these impacts to less than significant.

**Land Use and Planning**

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

**Noise**

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

**Transportation and Traffic**

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

**Cumulative Impacts**

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

- **Agriculture and Forestry:** VIG Alternative M would impact about 3.9 acres of Farmland of Statewide Importance and about 0.3 acres of Prime Farmland during trenching. These impacts would be permanent because agricultural operations permanently impact about 0.01 acre of Farmland of Statewide Importance. The proposed Valley–Ivyglen Project would be restricted within the ROW post-impact 2.2 acres of Farmland of Statewide Importance, 0.2 acres of Prime Farmland, and 0.69 acres of Unique Farmland during construction. For example, while certain crops could be planted within the ROW on top of the underground vaults, other crops would be restricted depending upon root structure and other factors. This could result in a reduction in agricultural productivity on the affected parcels. VIG Alternative M would therefore have fewer permanent impacts onto farmland than the proposed project.

- **Greenhouse Gases:** VIG Alternative M would result in a decrease of greenhouse gas emissions due to less helicopter use. However, under VIG Alternative M excavation, the decrease would be only slight because equipment would be used for longer periods of time in order to excavate deeper for 26.4 miles as opposed to the 1.9 miles of excavation required for the proposed project. The increased emissions from excavation equipment would likely offset any decrease in greenhouse gas emission from reduced helicopter use. Thus, overall emissions of VIG Alternative M would be greater than greenhouse gas impacts of the proposed project.

- **Population and Housing:** VIG Alternative M would require the same crew sizes as the proposed Valley–Ivyglen Project for a somewhat longer construction period, so impacts would be slightly greater than those associated with the proposed project.

- **Public Services and Utilities:** VIG Alternative M would involve 26.4 miles of excavation compared to 1.9 miles for about 24 percent less ground disturbance than the proposed Valley–Ivyglen Project, which would increase the amount of water needed to control fugitive dust. In addition, however, the construction period would last somewhat longer, which could slightly increase the potential need for police and fire services. The risk of encountering unmapped utilities would also be greater. Therefore, overall, since the reduction in water is substantial, impacts would be greater than the proposed project.

- **Recreation:** VIG Alternative M could slightly increase impacts on recreational facilities, since parts of VIG Alternative M would require trenching in public parks and regional trails, including a community trail near Bundy Canyon Road; the Lake Elsinore Lake, River, Levee Regional Trail; and a regional trail near Temescal Canyon Road. Temporary closures of these areas would be longer than would be needed for construction of the proposed project, but any correlated increase in use of other recreational facilities would be negligible. Overall, VIG Alternative M would result in greater impacts to recreation than the proposed project.
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-
term impacts on cultural resources in comparison to VIG Alternative M. As a long–term impact to a resource of higher sensitivity, this reduction is given more weight in determining the Environmentally Superior Alternative.

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

5.3 Analysis of Alberhill Project Alternatives

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

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

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<td>Similar (2) Reduced (2)</td>
<td>No Impact (1)</td>
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</tr>
<tr>
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<td>Similar (2) Reduced (2)</td>
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<td>Greater (3)</td>
<td>Similar (2) Reduced (3)</td>
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<td>Hazards and Hazardous Materials</td>
<td>Less than significant with mitigation</td>
<td>Similar (2) Reduced (2)</td>
<td>Similar (2) Reduced (3)</td>
<td>No Impact (1)</td>
<td>None ASP Alternative B</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Less than significant with mitigation</td>
<td>Similar (2) Reduced (2)</td>
<td>Greater (3) Reduced (3)</td>
<td>No Impact (1)</td>
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<td>Significant and unavoidable</td>
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<td>None ASP Alternative DD</td>
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</tr>
<tr>
<td>Recreation</td>
<td>Less than significant</td>
<td>Similar (2)</td>
<td>Similar (2)</td>
<td>No Impact (1)</td>
<td>None</td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td>Less than significant with mitigation</td>
<td>Similar (2) Reduced (2)</td>
<td>Reduced (1) (2)</td>
<td>No Impact (1)</td>
<td>ASP Alternative DD</td>
</tr>
<tr>
<td><strong>Cumulative</strong></td>
<td><strong>Similar (2)</strong> <strong>Greater (3)</strong></td>
<td><strong>No Impact (1)</strong></td>
<td><strong>None</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[^1]: Slightly smaller footprint than the proposed project
[^2]: Notes
[^3]: 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
5.3.1 ASP Alternative B—All Gas-Insulated Switchgear at Proposed Substation Site

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

Aesthetics

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

Air Quality

As the same general construction activities would occur under ASP Alternative B and the proposed project, ASP Alternative B would have the same level of intensity of daily construction activities as the proposed project. Thus, daily emissions impacts under ASP Alternative B would be similar to the same as the proposed project. Daily pollutant emissions would still be significant, given that the significance threshold is a daily emissions threshold, and the intensity of construction would stay the same under this alternative. ASP Alternative B would have significant impacts on air quality from NOX, PM10, and PM2.5 emissions. Similar to the proposed Alberhill Project, NOX and PM2.5 emissions would be less than significant with the implementation of the mitigation measures similar to that developed for the proposed Alberhill Project. Additionally, impacts from PM10 emissions would remain significant and unavoidable under ASP Alternative B, similar to the proposed Alberhill Project. Under ASP Alternative B, ground disturbance would be about 5.5 percent\(^8\) less than for the proposed Alberhill Project. Therefore, ASP Alternative B would result in a slight decrease in total emissions over the lifetime of project construction, but overall, the impacts would be similar.

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

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

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

Cultural Resources

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

Geology, Soils, and Mineral Resources

ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but would require slightly less ground disturbance. The removal of land from the disturbance area at the
substation site would slightly reduce the chance of erosion and topsoil loss in that area; however, the applicant would implement a SWPPP as part of their project design, and all of the same mitigation measures would be required. ASP Alternative B would therefore result in a similar potential for soil erosion and loss of topsoil. Overall impacts to this resource area under ASP Alternative B would be similar than for the proposed project.

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

Greenhouse Gas

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

Greenhouse gas emissions during operation would be greater under ASP Alternative B than for the proposed project because this alternative would involve more sulfur hexafluoride (SF₆) as a result of all of the switchracks being gas insulated. Under this alternative, the applicant estimates that an additional 13,800 pounds of SF₆ would be required for operation of the substation. Gas-insulated switchgear leak as a matter of normal operation. At an estimated leak rate of 0.1 percent per year (Siemens 2013), ASP Alternative B would result in an additional 149.6 metric tons of carbon dioxide equivalency (MTCO₂e) per year emitted during operation of the substation. Total annual greenhouse gas emissions would be about 3,699 MTCO₂e per year, which would be greater than those associated with the proposed project, but below the significance threshold of 10,000 MTCO₂e per year.

Hazardous Materials

Overall risk of hazards would be similar to that for the proposed project but still potentially significant with the implementation of the mitigation measures similar to those developed for the proposed Alberhill Project.

Hydrology and Water Quality

ASP Alternative B would occur within the same disturbance area as the proposed Alberhill Project but would result in slightly less ground disturbance than the proposed project. The reduction
would occur at the substation site due to the smaller substation footprint. However, compared to the proposed project, ASP Alternative B would therefore result in a similar or lower potential for sedimentation and hazardous materials spills that could affect water quality at the substation site. Overall impacts related to hydrology and water quality would be similar or reduced under Alternative B as compared to the proposed project, and due to the reduced ground disturbance, however, impacts would remain potentially significant. Impacts on hydrology and water quality under ASP Alternative B would be reduced to less than significant with the implementation of the mitigation measures similar to those developed for the proposed Alberhill Project.

### Land Use and Planning

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

### Noise and Vibrations

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

### Transportation and Traffic

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

### Cumulative Impacts

Cumulative impacts associated with ASP Alternative B would be similar to the proposed project. If the LEAPS project is approved, it is unclear whether or not the Alternative B configuration would support the
LEAPS 500-kV interconnection. The space requirements required to connect additional lines, such as another 500-kV transmission line, could require significant substation reconstruction, which would cancel any of the potential benefits associated with constructing the substation within a smaller footprint.

5.3.2 ASP Alternative DD—Serrano Commerce Center Substation Site

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

In addition to 115-kV Segment ASP2, four new approximately 1.3-mile 115-kV subtransmission lines (one double-circuit and two single-circuit power lines) would extend above ground near the planned extension of Temescal Canyon Road to the Alternative DD Substation site. New fiber optic cable would be installed along one of the four 115-kV power lines from the planned extension of Temescal Canyon Road to the Alternative DD Substation site. Approximately 2 miles of new access roads would be...
required for the 115-kV lines under ASP Alternative DD. Up to 10 115-kV subtransmission lines may ultimately extend from the substation, as needed.

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

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

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

Aesthetics

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

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

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

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

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

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

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

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

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

Air Quality

The same general construction activities would occur under ASP Alternative DD; however, ASP Alternative DD would have greater emissions than the proposed project due to additional ground disturbance required to construct a longer access road and longer subtransmission lines. In addition, the site is less level than the proposed site, and would require significantly more grading and more cut and fill than the proposed project. Thus, daily emissions impacts under ASP Alternative DD would be greater than the proposed project. Helicopter use would be similar or slightly reduced under this alternative, since the 500-kV transmission line would be shorter than the proposed project’s 500-kV transmission line and would be more accessible to vehicles; however, this benefit would be negligible compared to the higher emissions associated with other components. The communications tower to be constructed at Johnstone Peak Communication Site under ASP Alternative DD, would also generate greater emissions than the communications work at the Santiago Peak Communications site for the proposed project because additional ground disturbance would be required in order to construct the communications tower.
Therefore, the total criteria pollutant and fugitive dust emissions over the whole construction period of ASP Alternative DD would be greater when compared to the proposed project.

As the same general construction activities would occur under ASP Alternative DD and the proposed project, ASP Alternative DD would have the same level of intensity of daily construction activities as the proposed project. Thus, daily emissions impacts under ASP Alternative DD would be the same as the proposed project. Daily pollutant emissions would still be significant, given that the significance threshold is a daily emissions threshold, and the intensity of construction would stay the same under this alternative. ASP Alternative DD would have significant impacts on air quality from NOx, PM10, and PM2.5 emissions. Similar to the proposed Alberhill Project, NOx and PM2.5 emissions would be less than significant with the implementation of mitigation similar to that developed for the proposed Alberhill Project. Additionally, impacts from PM10 emissions would remain significant and unavoidable under ASP Alternative DD, similar to the proposed Alberhill Project. Under ASP Alternative DD, ground disturbance would be about 8 percent less than for the proposed Alberhill Project. Helicopter use would be substantially reduced under this alternative, since the 500-kV transmission line would be much shorter than the proposed project’s 500-kV transmission line and would be more accessible to vehicles. If a communications tower is constructed at Johnstone Peak Communication Site under ASP Alternative DD, emissions would be greater than emissions associated with the communications work at the Santiago Peak Communications site for the proposed project because ground disturbance would be required in order to construct the communications tower. Therefore, the total criteria pollutant and fugitive dust emissions over the whole construction period of ASP Alternative DD would be substantially decreased when compared to the proposed project.

Biological Resources

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

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

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

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This number assumes approximately 346 acres of disturbance (substation: 42.9 acres, 500-kV transmission line: 9 acres, and 115-kV: 294 acres).
site) and southern willow scrub (on the northern portion of the substation site) at the substation site would be avoided under ASP Alternative DD. Less of ASP Alternative DD’s substation site (and associated 115-kV subtransmission line route) would be located in critical California coastal gnatcatcher habitat.

However, the ASP Alternative DD substation site contains some areas of sensitive habitat, including coastal sage/chaparral scrub (Riverside County 2010), and it is not clear that all of these areas would be avoidable through substation configuration, as most of the site is disturbed/ ruderal vegetation (Riverside County 2010). The ASP Alternative DD substation parcel and vicinity also contains habitat for black-tailed jackrabbit, loggerhead shrike, orange-throated whiptail, western whiptail, yellow warbler, white-tailed kite, and Cooper’s hawk (Riverside County 2010). Thus, impacts on sensitive species and vegetation due to substation construction and 115-kV subtransmission line construction under ASP Alternative DD would be similar to about the same as under the proposed project.

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

Overall, impacts to biological resources under ASP Alternative DD would be similar to about the same as under the proposed project, though potentially significant. Implementation of mitigation measures developed for the proposed project would reduce the impacts of ASP Alternative DD to less than significant.

**Cultural Resources**

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

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

Greenhouse Gas Emissions

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

Hazards and Hazardous Materials

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

Hydrology and Water Quality

ASP Alternative DD would result in similar slightly less ground disturbance than the proposed project. ASP Alternative DD would therefore result in a similar slightly reduced potential for sedimentation. The similar slightly lower use of hazardous materials under ASP Alternative DD would result in similar slightly lower potential for water contamination than the proposed project. Similar to the proposed Alberhill Project, ASP Alternative DD would be constructed near Temescal Wash and tributaries of Temescal Wash. ASP Alternative DD has the potential for greater impacts to Temescal Wash than the proposed project because it would involve siting of more components near Temescal Wash, including the substation itself, the 500-
kV transmission lines, and the extended portion of the 115-kV subtransmission line. The 500-kV transmission lines would cross Temescal Wash, and the extended 115-kV subtransmission lines would cross a tributary to the wash. Furthermore, bank protection may be needed along the eastern substation boundary to stabilize the bank of Temescal Wash, which may cause greater impacts to water quality during construction. The ASP Alternative DD substation site is not as level as the proposed project’s substation site, meaning that additional grading would be needed. This would result in slightly more drainage and runoff impacts than the proposed project. Overall impacts to hydrology and water quality would be greater reduced under ASP Alternative DD as compared to the proposed project due to the lower ground disturbance; however, impacts would remain potentially significant. Impacts to hydrology and water quality under ASP Alternative DD would be reduced to less than significant with the implementation of mitigation measures similar to those developed for the proposed Alberhill Project.

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

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

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

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

Cumulative Impacts

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

The ASP Alternative DD site is located approximately 5 miles northwest of the proposed Alberhill Substation site on the Serrano Commerce Center site; therefore, in the event that the LEAPS transmission line could connect to the ASP Alternative DD site, there would be a corresponding increase in impacts across various resource areas related to the increased ground disturbance associated with the construction of a longer 500-kV transmission line. Further, given the timing of construction for the Alberhill Project and the LEAPS project, it is possible that commercial or industrial projects could be proposed and constructed on the Serrano Commerce Center site prior to LEAPS project approval, thus restricting the transmission corridor along the new Temescal Canyon Road alignment that would be constructed as part of ASP Alternative DD. Therefore, at this time, it is not possible to determine whether or not the 500-kV transmission components could be sited within or near the same corridor as the rerouted ASP Alternative DD 115-kV submarine transmission lines. As a result, the LEAPS 500-kV transmission line components might require a much longer, more circuitous route to connect to the ASP Alternative DD substation from the northwest. Given the siting constraints in the project vicinity as a whole—such as the presence of SKR...
habitat, U.S. Forest Service land, and extensive new housing developments currently proposed or under
construction—it is speculative whether or not the 500-kV transmission lines could be connected to the
ASP Alternative DD Substation site at all. If it is not possible to connect the 500-kV transmission line to
the ASP Alternative DD Substation, a new substation would be required to meet the terms of the LEAPS
LGIA. Presumably, such a substation would be constructed at the Lee Lake switchyard site, the original
Alberhill Substation site, or another site altogether. Therefore, while the nature and extent of the
cumulative impacts associated with ASP Alternative DD cannot be quantified, the cumulative impacts are
expected to be greater than those associated with the proposed project.

Other Resource Areas

- **Agriculture and Forestry**: The impacts to farmland and forestry would be the same for both
  ASP Alternative DD and the proposed Alberhill Project.

- **Population and Housing**: Impacts related to population and housing would be negligibly less
  under ASP Alternative DD than for the proposed Alberhill Project, since the same peak
  workforce would be needed, but for a shorter construction period. It is unlikely that this slight
  reduction in the duration of workforce employment would result in a noticeable change in
  population and housing impacts.

- **Public Services and Utilities**: The significant amount of grading associated with ASP
  Alternative DD’s substation site and the additional 2 miles of access roads required for the 115-
  kV subtransmission lines would require substantially more water. Impacts to public services and
  utilities would be the greater under ASP Alternative DD compared to the proposed project. The
  shorter construction timeframe under ASP Alternative DD would result in slightly less potential
  need for police and fire services than the proposed Alberhill Project. Water use for dust control
  could be about 8 percent lower under ASP Alternative DD than for the proposed Alberhill Project
  due to the smaller disturbance area associated with the alternative. Overall, impacts would be
  reduced when compared to the proposed project.

- **Recreation**: Impacts to recreation would be the same for both ASP Alternative DD and the
  proposed project because the alternative substation configuration would not affect recreational
  facilities.

### 5.3.3 No Project Alternative

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

### 5.3.4 Environmentally Superior Alternative

The No Project Alternative (Section 5.3.5) would be environmentally superior for all environmental
resources. When the Environmentally Superior Alternative is the No Project Alternative, CEQA requires
the identification, if possible, of an Environmentally Superior Alternative among the other alternatives
(CEQA Guidelines § 15126.6). Although Alternative DD would result in reduced traffic impacts due to
the assumption that cut/fill would be obtained from the Serrano Commerce Center site, increased impacts
on other resource areas would far outweigh the reduction. In addition, Alternative DD could potentially
include the construction of two substations, which would essentially result in a doubling of impacts and
thus significantly increased cumulative impacts. While Alternative B would require less ground
disturbance, without significant additional engineering, it is speculative to assume that impacts on certain
resources would be reduced. Therefore, Alternative B would be similar to the proposed project, and
neither of these two alternatives would be environmentally superior to the proposed project. The two
alternatives considered were environmentally superior in the following resources:

- ASP Alternative B
  - Cultural Resources
  - Geology, Soils, and Mineral Resources
  - Hazards and Hazardous Materials
  - Hydrology and Water Quality

- ASP Alternative DD
  - Aesthetics
  - Biological Resources
  - Greenhouse Gases
  - Noise and Vibration
  - Public Services and Utilities
  - Transportation and Traffic

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

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

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

ASP Alternative DD would be greatly superior to ASP Alternative B in terms of long-term aesthetic
impacts. ASP Alternative DD would avoid the significant, unavoidable long-term visual impact of the
substation and nearby 500-kV transmission lines and 115-kV subtransmission lines associated with ASP
Alternative B. ASP Alternative DD would be mostly shielded from I-15, an Eligible Scenic Highway.
Given that the aesthetic impacts of ASP Alternative B would be significant, unavoidable, and long term,
ASP Alternative B’s adverse aesthetic impacts are given substantial weight in determining the Environmentally Superior Alternative.

The long-term biological resources benefits of ASP Alternative DD are associated with reduced long-term impacts to habitat at the proposed Alberhill Substation site. The Western Riverside County MSHCP is one of the largest habitat conservation 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), indicating the importance of conserving biological resources in Riverside County. ASP Alternative DD would involve no work in or near the MSHCP Core Reserve and would involve slightly less work and disturbance in Stephens’ kangaroo rat habitat than ASP Alternative B. The benefits of ASP Alternative DD when compared to ASP Alternative B are slight for biological resources, but the slight benefits of ASP Alternative DD are given considerable weight, since urbanization in the Riverside County has resulted in a “significant loss of important biological resources” in Southern California (Riverside County 2003).

ASP Alternative B would result in an incremental increase in greenhouse gas emissions compared to ASP Alternative DD—about 149.6 MTCO$_2$e per year, or 4 percent. Recent California greenhouse gas policy indicates that California has determined the reduction of greenhouse gases to be an important goal for the state. Executive Order B-30-15, signed by the Governor on April 29, 2015, set an aggressive greenhouse gas reductions goal—40 percent below 1990 levels by 2030. The 2030 goal ultimately is an interim benchmark to the 2050 goal of 80 percent below 1990 levels. The Executive Order is only the latest state greenhouse gas reduction policy of many, including the California Global Warming Solutions Act of 2006. The Executive Order recognizes several severe, adverse impacts of global warming, including loss of snowpack, drought, increased wildfires, increased smog, and heat waves (State of California 2015). Due to the potentially grave impacts of greenhouse gas emissions, as recognized in the state’s latest aggressive policy action to reduce greenhouse gases, ASP Alternative DD’s decrease in greenhouse gas emissions is given substantial weight in determining the potentially Environmentally Superior Alternative.

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

### 5.4 References


SCE (Southern California Edison). 2011. Proponent’s Environmental Assessment: Alberhill System Project (April 11), as amended by responses from SCE to CPUC requests for additional information.
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