

Appendix A
Review of Alternative Substation Locations

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A. Review of Alternative Substation Locations

The purpose of an alternatives analysis pursuant to the California Environmental Quality Act (CEQA) is to identify options that would feasibly attain most of the basic project objectives while reducing significant effects of the proposed project. However, CEQA does not require the inclusion of an alternatives analysis in a Mitigated Negative Declaration (MND). This is because the results of the Initial Study supporting an MND, by definition, would show that with incorporation of mitigation measures, the proposed project would not result in significant adverse environmental impacts. Nonetheless, the California Public Utilities Commission (CPUC) did review information about alternatives during preparation of the Initial Study for the Triton Substation project in response to public concern that additional alternative substation locations be considered.

Pursuant to Section IX.B.1.c of CPUC General Order 131-D, Southern California Edison (the applicant) provided an analysis of the proposed substation location (Site A), two alternative substation locations (Site B and Site C), and a system alternative as part of its application and Proponent's Environmental Assessment (PEA). During the initial planning phases of the project, the applicant also considered several other potential substation locations and rejected them for a variety of reasons, including their ability to meet project objectives, environmental impacts, design and engineering concerns, public acceptance, site access, property acquisition, and cost. After the application was filed, the applicant also evaluated the feasibility of two additional potential substation locations at the request of the City of Temecula.

Sites B and C are discussed below and qualitatively compared to the proposed substation location (Site A). Table A-1 summarizes information for 17 substation locations that the applicant considered. These include the three substation locations the applicant analyzed in the PEA (Sites A, B, and C), along with preliminary information on the other substation locations that the applicant considered and rejected. Figure A-1 shows their locations. Some of the information presented in the table is based on the applicant's preliminary assessment and is not sufficient for a detailed analysis of each alternative. However, the summary presents the applicant's rationale for rejecting them.

Site B

Site B is an approximately 9.9-acre unimproved property in the City of Temecula at the southwest corner of Nicolas Road and Choras Ranch Road, about 0.25 miles west of the proposed substation site (Figure A-1). Land use and zoning designations for Site B are the same as for the proposed substation location (low density residential; Rural Preservation Area). In addition, both sites are located about 1.5 miles from the nearest airport and similarly situated from residential neighborhoods.

Site B is directly adjacent to the existing subtransmission line, so construction of the subtransmission line loop-in along Nicolas Road would not be required. The property slopes up from Nicolas Road slightly, which generally would allow better screening of the substation from most public views.

Site B is located in a 100-year floodplain (Figure 3.8-1) and would require additional grading and possibly the need for imported soil to raise the substation above flood-zone levels. Alternatively, a retention basin could be built, but this could lead to the creation of unwanted biological habitat and additional visual impacts.

The site slope in some areas could lead to increased water runoff, drainage issues, or erosion. Slope excavation would be required in some areas. The proposed substation site, by comparison, is relatively flat. Additionally, the existing access road for Site B is unimproved and would be shared with local

residents who access properties adjacent to the site. The applicant does not own the site, and the landowner has expressed reluctance to sell.

Site C

Site C is located on an approximately 4.4-acre property in an unincorporated area of Riverside County, just north of the City of Temecula. The property is located on the northwest corner of Commerce Court and Calistoga Drive, about 1 mile northwest of the proposed substation site (Figure A-1). The property is not located within a 100-year floodplain and would require minimal grading. The property has a land use designation of Mixed Use Planning Area and is within a Specific Plan area.

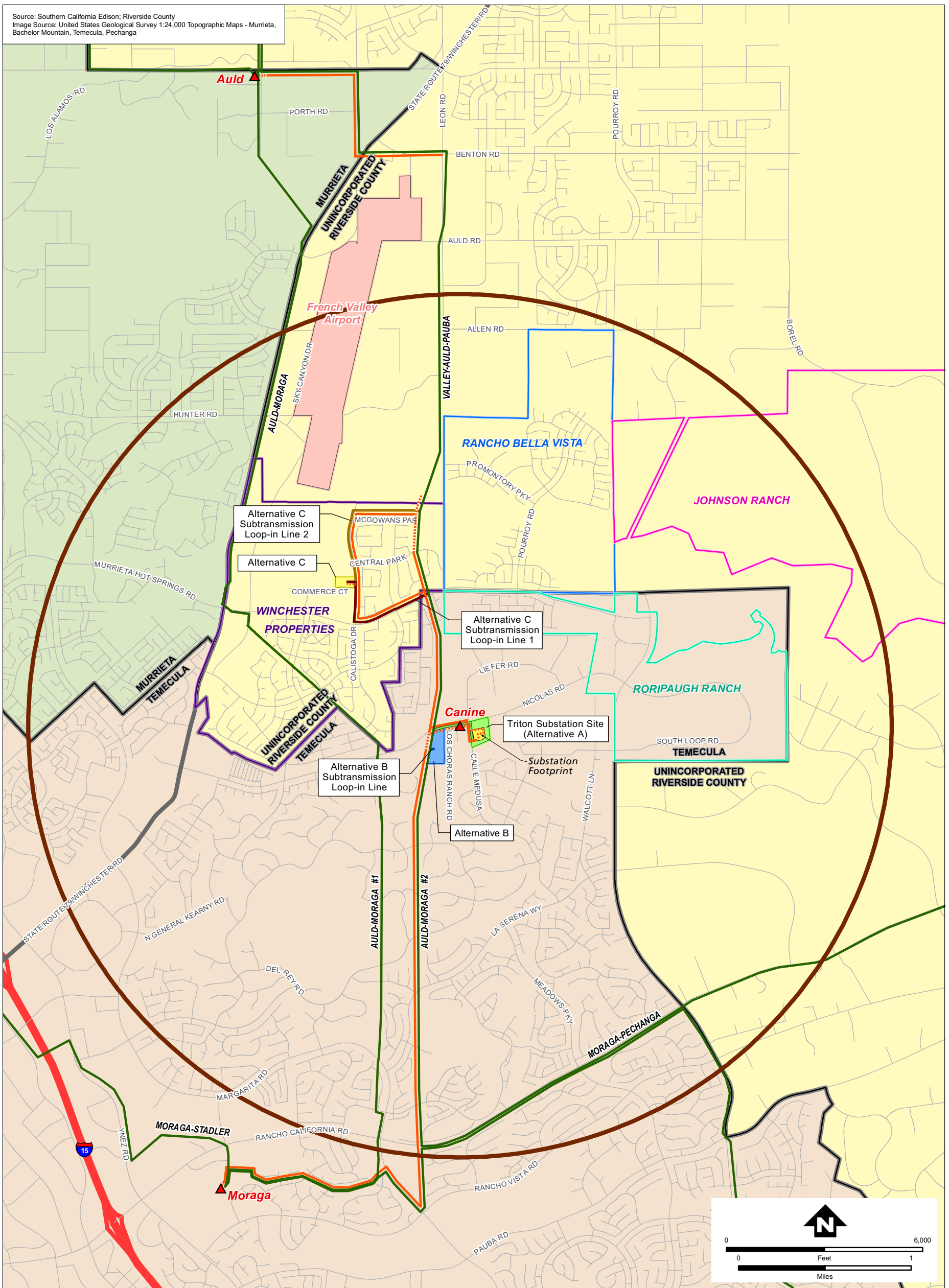
Site C would require the installation of a longer subtransmission line loop-in (more than 3,500 feet), with more than 30 new tubular steel poles on two approximately 0.75-mile lines, as opposed to seven to eight for the proposed substation. Site C is also closer to the French Valley airport (less than 0.5 miles) and residential neighborhoods (directly across Calistoga Drive). According to the applicant's biological study, some of the new poles would be required within or near restored high-quality coastal sage scrub habitat with the potential for special-status plants and wildlife, and a few pole locations would be immediately adjacent to a jurisdictional drainage that supports southern willow scrub habitat (BonTerra Consulting 2008).

In addition, a commercial center has already been proposed for the site; there could be difficulty with acquiring the additional land or right-of-way necessary for the subtransmission line loop-in; and the site is within or near a fault rupture zone (Figure 3.6-1).

Other Substation Locations Considered

The applicant conducted preliminary biological and cultural/archaeological resources evaluations of fifteen of the substation locations that were considered (Figure A-1 and Figure A-2). Though the number of acres reviewed in the biological and archaeological reports varies, for the purposes of the comparison presented in this appendix, the sites from the biological and archaeological reports have been grouped. The site numbering system used in the biological report was used to group the sites. In addition, the following two substation sites were proposed by the City of Temecula after the project application was filed: the Seraphina and Garrett/Boy Scout sites (Figure A-1). The applicant's rationale for rejecting each site is summarized in Table A-1.

Sources: Southern California Edison; Riverside County
 Image Source: United States Geological Survey 1:24,000 Topographic Maps - Murrieta, Bachelor Mountain, Temecula, Pechanga



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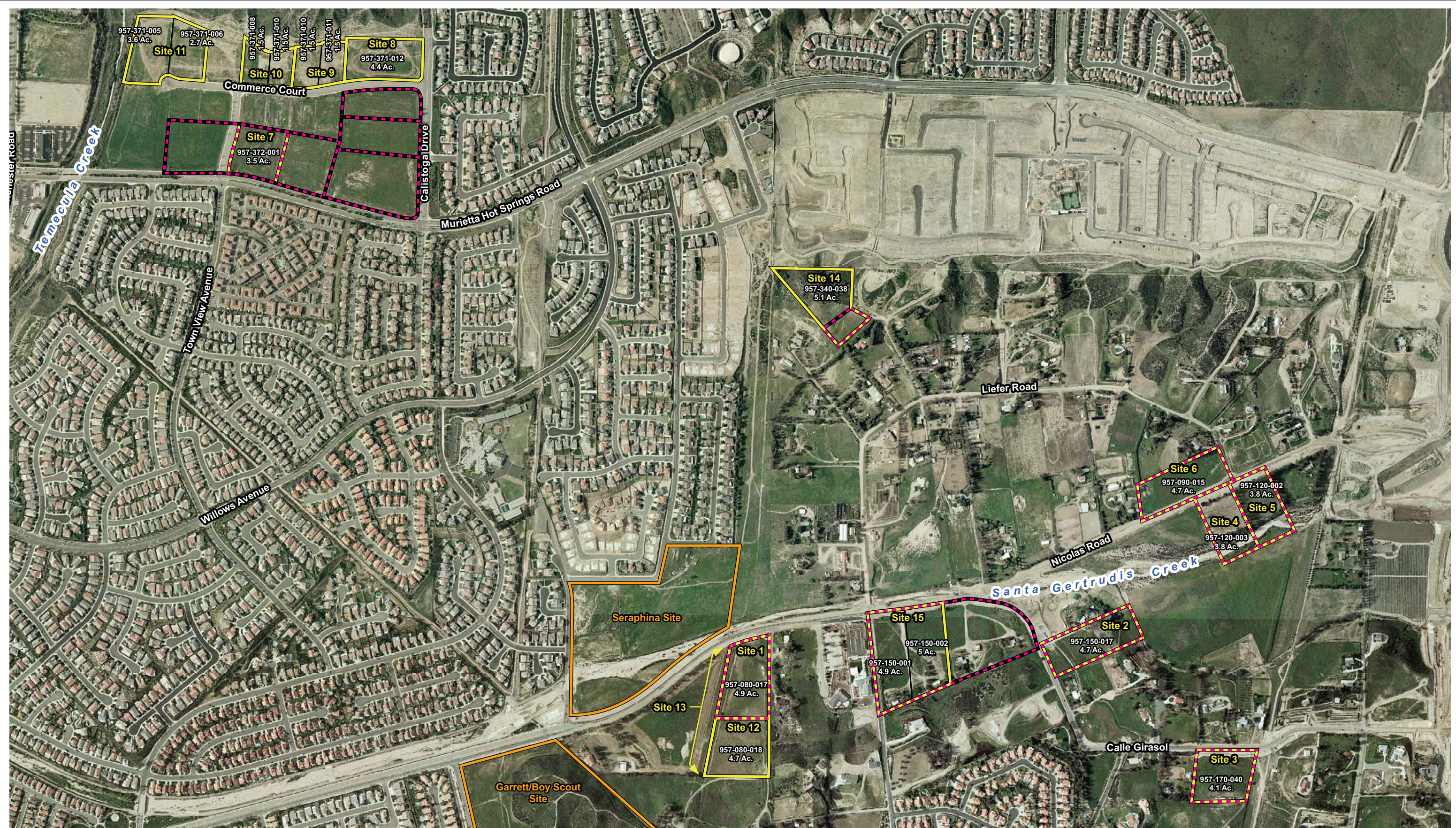
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|--|---|--|
| Existing Substation | Triton Substation site (Alternative A) | Subtransmission Line Loop-ins¹ |
| Existing SCE 115 kV Subtransmission Line | Alternative B | Alternative A - Line |
| French Valley Airport | Alternative C | Alternative B - Line |
| Electrical Needs Area | | Alternative C - Line 1 |
| City of Temecula | Telecommunication Routes¹ | Alternative C - Line 2 |
| City of Murrieta | Aboveground | |
| Unincorporated Riverside County | Belowground | |

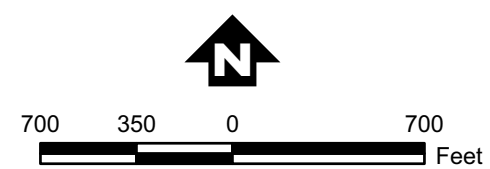
¹ - Subtransmission line loop-ins and telecommunication routes are offset for graphical purposes only. Aboveground telecommunication cables would be located on subtransmission structures. Belowground telecommunication cables would be located in underground conduit.

Figure A-1
Alternatives A, B, and C

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- Sites reviewed in Biological Report
- Other sites reviewed
- Approximate location of sites reviewed in Archaeological Report

Figure A-2
**Site Alternatives 1 – 15 and
 Seraphina and Garrett/Boy Scout Sites**

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Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres ⁽¹⁾	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
Sites Reviewed in Biological and Archaeological Reports				
1. Merged with Site 12 to create Site 13	4.9	Temecula; southwest of intersection of Nicolas Road and Choras Ranch Road	<ul style="list-style-type: none"> - Potential easement issue with nearby home - Adjacent to or within 100-year flood zone ⁽⁴⁾ - Unimproved access road - Property shape conflict with substation design plan 	<ul style="list-style-type: none"> - Potential for four special-status plant species to occur - Potential special-status wildlife habitat - No archaeological resources identified
2.	4.7	Temecula; southeast of the intersection of Nicolas and Calle Girasol Roads	<ul style="list-style-type: none"> - Natural drainage crosses site - Distance from subtransmission line - Property shape conflict with substation design plan 	<ul style="list-style-type: none"> - Potential special-status wildlife habitat - No archaeological resources identified
3.	4.1	South of Calle Girasol Road and west of Calle Chapos	<ul style="list-style-type: none"> - Distance from subtransmission line - Applicant identified potential fault line crossing under or near site 	<ul style="list-style-type: none"> - No archaeological resources identified
4.	3.8	South of Nicolas Road past intersection with Calle Girasol	<ul style="list-style-type: none"> - Crossed by Santa Gertrudis Creek - Distance from subtransmission line - Property shape conflict with substation design plan 	<ul style="list-style-type: none"> - Potential for nine special-status plant species to occur - Special-status wildlife species may occur - Potential special-status wildlife habitat - No archaeological resources identified
5.	3.8	South of Nicolas Road and east of Site 4	<ul style="list-style-type: none"> - Crossed by Santa Gertrudis Creek - Distance from subtransmission line - Property shape conflict with substation design plan 	<ul style="list-style-type: none"> - Potential for nine special-status plant species to occur - Special-status wildlife species may occur - Potential special-status wildlife habitat - No archaeological resources identified
6.	4.7	North across Nicolas Road from Sites 4 and 5	<ul style="list-style-type: none"> - Distance from subtransmission line - Property shape conflict with substation design plan 	<ul style="list-style-type: none"> - No archaeological resources identified
7.	3.5 ⁽²⁾	Northeast of intersection of Murrieta Hot Springs Road and Town View Avenue	<ul style="list-style-type: none"> - Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Small basin of water onsite - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone ⁽⁵⁾ 	<ul style="list-style-type: none"> - Potential special-status wildlife habitat - No archaeological resources identified

Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres ⁽¹⁾	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
8. Same as Alternative C	4.4 ⁽²⁾	Northwest of intersection of Commerce Court and Calistoga Drive	<ul style="list-style-type: none"> - Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone ⁽⁵⁾ 	<ul style="list-style-type: none"> - Potential for one special-status plant species to occur - No archaeological resources identified
9.	3.0 ⁽²⁾	North of Commerce Court and west of Site 8	<ul style="list-style-type: none"> - Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone ⁽⁵⁾ 	<ul style="list-style-type: none"> - Potential for one special-status plant species to occur - No archaeological resources identified
10.	3.0 ⁽²⁾	North of Commerce Court and west of Site 9	<ul style="list-style-type: none"> - Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone ⁽⁵⁾ 	<ul style="list-style-type: none"> - No archaeological resources identified
11.	6.3 ⁽²⁾	North of Commerce Court and west of Site 10	<ul style="list-style-type: none"> - Near high-density residential development - Commercial center already proposed for site - Distance from subtransmission line - Small basin of water onsite - Potential land or right-of-way acquisition problem - Near French Valley Airport - Within or near fault rupture zone ⁽⁵⁾ - Temecula creek near site border - Dam inundation area on or adjacent to site 	<ul style="list-style-type: none"> - Potential special-status wildlife habitat - No archaeological resources identified

Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres ⁽¹⁾	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
12. Merged with Site 1 to create Site 13	4.7	South of Nicolas Road and Site 1	<ul style="list-style-type: none"> - Potential land acquisition problem - Sloped areas - Potential drainage and erosion issues - Increased amount of grading - Potential easement issue with nearby home - Adjacent to or within 100-year flood zone ⁽⁴⁾ - Unimproved access road 	<ul style="list-style-type: none"> - Potential for four special-status plant species to occur - Potential special-status wildlife habitat - No archaeological resources identified
13. Same as Alternative B	9.9	Combines Site 1, Site 12, and additional land south of Nicolas Road	<ul style="list-style-type: none"> - Potential land acquisition problem - Sloped areas - Potential drainage and erosion issues - Increased amount of grading - Potential easement issue with nearby home - Adjacent to or within 100-year flood zone ⁽⁴⁾ - Unimproved access road 	<ul style="list-style-type: none"> - Potential for four special-status plant species to occur - Potential special-status wildlife habitat - No archaeological resources identified
14.	5.1	Northwest of intersection of Liefer Road and Greenwood Lane	<ul style="list-style-type: none"> - Natural drainage crosses site - Unimproved access road - Potential for increased visual impacts - Access to distribution circuits 	<ul style="list-style-type: none"> - Potential for four special-status plant species to occur - Special-status wildlife species observed and expected - Potential special-status wildlife habitat - No archaeological resources identified
15. Site A	9.9 ⁽³⁾	Southeast of intersection Nicolas Road and Calle Medusa	<ul style="list-style-type: none"> - Two churches adjacent to site - Residences on southern portion of site 	<ul style="list-style-type: none"> - Potential special-status wildlife habitat - No archaeological resources identified
Additional Sites Proposed by the City of Temecula				
Seraphina property	30.1	Northwest of intersection of Nicolas Road and Choras Ranch Road	<ul style="list-style-type: none"> - Substation would potentially be visible to greater number of residences - Majority of site within 100-year flood plain ⁽⁴⁾ 	<ul style="list-style-type: none"> - Known population of San Diego ambrosia (ambrosia umila) and area proposed as critical habitat - Applicant identified potential to support numerous special-status plant and wildlife species, but field studies were not conducted

Table A-1 Alternative Substation Location Summary—Triton Substation Project

Site	Acres ⁽¹⁾	Location	Concerns	Vegetation, Wildlife, and Cultural Significance
Garrett/Boy Scout property ³⁾	72.3	South of intersection of Nicolas Road and Joseph Road	<ul style="list-style-type: none"> - Drainage channel on portion of site - Hilly areas on portion of site - Northern area along Nicolas Road is within 100-year flood plain ⁽⁴⁾ 	- Applicant identified potential to support numerous special-status plant and wildlife species, but field studies were not conducted

Source: BonTerra Consulting 2008; City of Temecula 2009; Earth Tech 2007; Earth Tech 2008; 74 Federal Register 165

Notes:

⁽¹⁾ The number of acres reviewed in the biological and archaeological reports varies for some sites. Some sites were initially larger or smaller in total acres, and the site boundaries were later refined.

⁽²⁾ The number of acres reviewed in the biological and archaeological reports differ considerably for these sites. The locations of these sites are roughly the same but differ to some degree. For the purposes of this comparison, however, the sites from the biological and archaeological reports have been grouped.

⁽³⁾ The biological report included only the western half of the 20-acre property. The eastern half of the property would not be used for the Triton Substation.

⁽⁴⁾ See Figure 3.8-1.

⁽⁵⁾ See Figure 3.6-1.

References

- BonTerra Consulting. 2008. *Biological Technical Report: Triton Substation Project*. Prepared for Southern California Edison. November 4.
- City of Temecula. 2009. *Seraphina and Garrett/Boy Scout Property*. City of Temecula Geographic Information System Map. February 11.
- Earth Tech. 2007. *Archaeological Survey Report for Southern California Edison's Triton Substation: Temecula and Murrieta Hot Springs Areas, Riverside County, California*. Prepared for Southern California Edison. May 16. Draft.
- Earth Tech. 2008. *Archaeological Survey Report for Southern California Edison's Triton Substation: Temecula and Murrieta Hot Springs Areas, Riverside County, California*. Prepared for Southern California Edison. August 5. Final.
- Federal Register*. 2009. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Ambrosia pumila* (San Diego ambrosia). Vol. 74, No. 165 (August 27), 44238–44267.

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