

2.0 PROJECT ALTERNATIVES

CEQA and the CEQA Guidelines -- Section 15126.6(a) -- require that an environmental impact report describe a reasonable range of alternatives to a proposed project or the location of the proposed project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. CEQA Guidelines Section 15126.6(d) requires that sufficient information about each alternative be included to allow meaningful evaluation and analysis.

SCE first evaluates whether the existing electrical infrastructure can be modified to meet the project objectives. If not, then SCE evaluates what new infrastructure is required and where it would be located in order to meet project objectives. If there are significant environmental impacts from modifying or adding new infrastructure, site alternatives and/or mitigation measures will be considered to reduce the significant impacts. Proposed Banducci Substation Project (Proposed Project) for the proposed Banducci Substation site and subtransmission line route.

2.1 Substation Site and Subtransmission Line Route Evaluation Methodology

SCE defined a portion of the Electrical Needs Area as the Substation Study Area as indicated in Chapter 1 of this Proponent's Environmental Assessment (PEA). The Substation Study Area was developed so that a new substation operating within the Substation Study Area would maximize electrical benefits to serve the purpose and need for the project and be consistent with the basic objectives. The Substation Study Area is shown in Figure 1.2: Electrical Needs Area and Substation Study Area in Chapter 1 of this PEA.

After an evaluation of the Substation Study Area, SCE analyzed potential sites in the Substation Study Area for the proposed Banducci Substation location and the subtransmission line routes. Two potential substation sites and one potential subtransmission line route that would connect the new substation to SCE's existing electrical system were identified for further consideration in this chapter. The preferred and alternative substation sites are located in close proximity to the existing Correction-Cummings-Kern River 1 66 kilovolt (kV) Subtransmission Line. Additional subtransmission line routes were not evaluated because construction of any other source route would cause additional environmental impacts.

2.1.1 Substation Site Alternatives Considered

Each substation site would have a similar substation design and specifications; however, substation configurations would be different due to specific characteristics of each site. These alternatives are shown on Figure 2.1: Alternative Substation Sites.

2.1.1.1 Site Alternative A

Site Alternative A would involve approximately 6.3 acres situated on the northwesterly portion of an 80-acre parcel that is privately owned. The parcel is located on the southeast corner of Pelliser Road and unimproved Dale Road in unincorporated Kern County. The General Plan land use designation of Site Alternative A is “Intensive Agriculture,” and the site is zoned “Exclusive Agriculture.” Both the General Plan and Zoning Ordinance allow for the development of a utility substation within these land use designations. Site Alternative A is surrounded by similar agricultural type land use designations to the north, west, and east, and a “Resource Reserve” land use designation to the south. In addition, Site Alternative A is located east of the existing transmission ROW which contains the existing Correction-Cummings-Kern River 1 66 kV Subtransmission Line. SCE would establish vehicular access to Site Alternative A from Pelliser Road. Site Alternative A is currently vacant and would not require the removal or demolition of any existing structures.

2.1.1.2 Site Alternative B

Site Alternative B would involve approximately five to eight acres situated on the southerly portion of a privately-owned 20-acre parcel. The parcel is located on the northeast corner of Pelliser Road and unimproved Highline Road in unincorporated Kern County. Currently, the General Plan land use designation for Site Alternative B is “[Residential] 20 Minimum Gross Acres/Unit” and is zoned “Exclusive Agriculture.” Both the General Plan and Zoning Ordinance allow for the development of a utility substation within these land use designations. Site Alternative B is surrounded by similar residential and agricultural land use designations. Additionally, Site Alternative B is located north of the existing transmission right-of-way (ROW) which contains the existing Correction-Cummings-Kern River 1 66 kV Subtransmission Line. SCE would establish vehicular access to Site Alternative B from Pelliser Road. The site contains certain ancillary or appurtenant facilities which include an above ground fuel tank, truck washing rack and a computer networking room, all of which would require removal/demolition prior to construction.

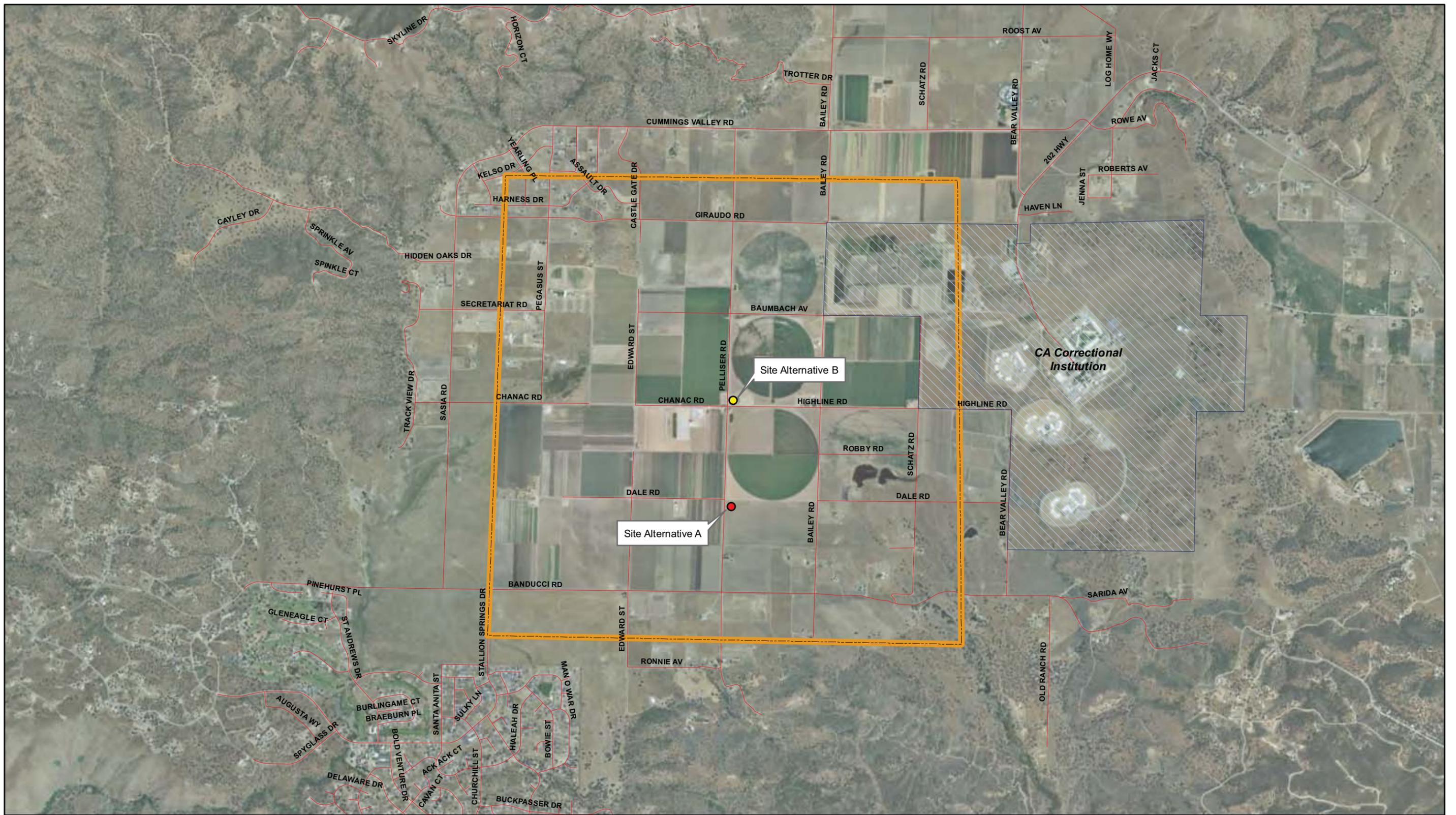
Unlike Site Alternative A, Site Alternative B would require demolition of an existing housing structure which is currently used as an office, as well as the appurtenant structures associated with its current uses.

2.1.2 Subtransmission Line Route Alternatives Considered

The Proposed Project would involve creation of two new 66 kV subtransmission source line segments, which would connect the new Banducci Substation with the existing Correction Substation, Cummings Substation, and Kern River 1 Substation by looping in the existing Correction-Cummings-Kern River 1 66 kV Subtransmission Line. The alternative substation sites are located in close proximity to the existing 66 kV subtransmission line so additional subtransmission line routes were not evaluated.

2.1.1.3 Subtransmission Line Route Alternative 1

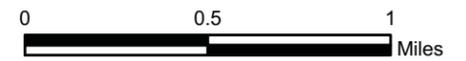
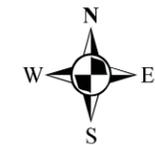
The proposed Banducci Substation would require connections to one existing source line: the Correction-Cummings-Kern River 1 66 kV Subtransmission Line. This 66 kV subtransmission line would be looped into and out of the new 66/12 kV Banducci Substation by constructing two new 66 kV subtransmission line segments. This would create a new Banducci-Kern River 1 66 kV Subtransmission Line and a new Banducci-Correction-Cummings 66 kV Subtransmission Line.



Environmental Intelligence. 19 August 2011. Q:\SCE\Banducci05_GIS_Data\maps_figures_tables\workspace\Ex02_1_Substation_Site_Alternative_EI09_20111212.mxd

Legend

- Site Alternative A
- Site Alternative B
- ▭ Substation Study Area
- ▨ CA Correctional Institution



**FIGURE 2.1: ALTERNATIVE SUBSTATION SITES
PROPOSED BANDUCCI SUBSTATION PROJECT**



2.1.3 Substation Site and Subtransmission Line Route Recommendation

Both of the substation site alternatives under evaluation meet all of SCE's engineering constructability and electrical needs criteria for a 66/12 kV substation. In addition, each site alternative contains General Plan land use and zoning designations that allow for the development of a utility substation.

Site Alternative A and Site Alternative B exhibit several similarities: both sites are in close proximity to the source 66 kV subtransmission line and would allow for the proposed Banducci Substation to be screened from Pelliser Road with landscaping.

Development of a utility substation at Site Alternative A would not require the removal of any known or appurtenant facilities or structures.

SCE proposes to construct Banducci 66/12 kV Substation to add capacity to meet forecasted electrical demands, maintain system reliability, resolve anticipated service delivery voltage problems, and enhance operational flexibility in the unincorporated Cummings Valley area of Kern County. SCE proposes to construct Banducci Substation on Site Alternative A, in conjunction with Subtransmission Line Route Alternative 1. The Proposed Project meets the project objectives and is described in detail in Chapter 3, Project Description.

Site Alternative B, in conjunction with Subtransmission Line Route Alternative 1 are evaluated together in this PEA as an alternative to the Proposed Project.

2.1.4 Alternatives Eliminated from Further Consideration

The alternatives listed below are those that have been eliminated from detailed analysis. These alternatives were not included for PEA consideration because they would not meet the basic project objectives, would not be feasible, or would not avoid or substantially reduce potential environmental effects of the Proposed Project.

Using the methodology described in Section 2.1 – Substation Site and Route Evaluation Methodology, the proposed Banducci Substation would require connections to a single source line: the Correction-Cummings-Kern River 1 66 kV subtransmission line. This subtransmission line would be looped into the new Banducci 66/12 kV Substation by constructing two new 66 kV subtransmission line segments. This would create a new Kern River 1-Banducci 66 kV subtransmission line and a new Banducci-Correction-Cummings 66 kV subtransmission line.

The substation sites were located in close proximity to the source line so additional routes were not considered; therefore, there were no additional segments or routes to eliminate.

Twenty-six additional substation sites were analyzed using the methodology described in Section 2.1 – Substation Site and Route Evaluation Methodology. The 26 substation sites were all located within the Cummings Valley area located in the unincorporated area of Kern County. Most of the sites were located adjacent to the existing Correction-Cummings-Kern River 1 66 kV subtransmission line along Banducci, Pelliser, and Highline Roads within the Project Study Area. These substation sites were eliminated due to the concerns of significant constraints. Of the 26 substation sites, one was eliminated due lack of proximity to subtransmission lines, ten were eliminated due to physical issues constraining locations for potential distribution getaways, six were eliminated due to procedural concerns associated with property acquisitions, and nine were eliminated after consideration of public input. Additional concerns also played a role in the elimination of the 26 substation sites such as, location of high pressured gas lines, proximity to Williamson Act contracted land, drainage issues and excessive street improvements.