

CHAPTER 4

Environmental Analysis

Introduction to Environmental Analysis

This chapter provides discussion and full public disclosure of the significant environmental impacts of the Proposed Project and alternatives, including the No Project Alternative. This chapter examines the potential environmental impacts associated with the Proposed Project and alternatives as they relate to the following 16 areas of environmental analysis:

4.1 Aesthetics	4.9 Land Use, Planning and Policies
4.2 Agriculture Resources	4.10 Mineral Resources
4.3 Air Quality	4.11 Noise
4.4 Biological Resources	4.12 Population and Housing
4.5 Cultural Resources	4.13 Public Services
4.6 Geology and Soils	4.14 Recreation
4.7 Hazards and Hazardous Materials	4.15 Transportation and Traffic
4.8 Hydrology and Water Quality	4.16 Utilities and Service Systems

Analysis within each issue area includes consideration of the following components of the Proposed Project:

- Removal of 138 single-circuit wood poles between the Farrell and Garnet Substations and installation of approximately 15 tubular steel poles (TSPs) and 142 double-circuit light-weight steel (LWS) poles within existing SCE ROW with the exception of a 0.8-mile segment north of UPRR that would be constructed within new SCE ROW. For the existing circuit, transfer 5.3 miles of existing conductor and install 0.5 mile of new conductor on new double-circuit poles. To create the new Farrell-Garnet 115 kV subtransmission line, install 5.8 miles of new conductor on new double-circuit poles;
- Removal of 29 wood poles south of the Mirage Substation and installation of approximately seven TSPs, approximately 37 double-circuit LWS poles, and approximately 11 wood poles with existing SCE ROW to support the reconfigured Mirage-Concho 115 kV subtransmission line, the reconfigured Mirage-Santa Rosa-Tamarisk 115 kV subtransmission line, and the new Mirage-Santa Rosa 115 kV subtransmission line;
- Removal of four lattice steel towers (LSTs) and installation of six new double-circuit LSTs and two new single-circuit LSTs between the Devers-Coachella Valley 220 kV

transmission line and the Mirage Substation to support the new Devers-Mirage No. 1 and Devers Mirage No. 2 220 kV transmission lines;

- Replacement of existing four poles with seven new poles at the intersection of Bob Hope Drive and Dinah Shore Drive;
- Replacement of one wood pole with a new double-circuit TPS at the intersection of Portola Avenue and Gerald Ford Drive;
- Replacement of six wood poles with one new TSP and four wood poles at the intersection of Date Palm Drive and Varner Road;
- Installation of a new 280 megavolt amperes (MVA) 200/115 kV transformer, five new 220 kV circuit breakers, and five new 115 kV circuit breakers at the Mirage Substation; and
- Installation of additional electrical and communications equipment and relays at the Mirage, Devers, Concho, Indian Wells, Santa Rosa, Eisenhower, Farrell, Garnet, Thornhill, and Tamarisk substations and the Edom Hill Communication Site.

Within each of the environmental areas listed above, the discussion of project impacts is provided in the following format:

- Environmental Setting
- Regulatory Setting (i.e., applicable regulations, plans, and standards)
- Significance Criteria
- Applicant Proposed Measures
- Environmental Impacts and Mitigation Measures for the Proposed Project
- Cumulative Impacts for the Proposed Project
- Environmental Impacts and Mitigation Measures for the alternatives including the No Project Alternative

In addition to the No Project Alternative, the following alternatives are fully analyzed in this EIR (refer to Chapter 3 for a description of each alternative):

- Alternative 2
- Alternative 3
- Alternative 5
- Alternative 6
- Alternative 7

Each environmental issue area analyzed in this document provides background information and describes the environmental setting (baseline conditions) to help the reader understand the conditions that would cause an impact to occur. In addition, each section describes how an impact is determined to be “significant” or “less than significant”. Finally, the individual sections recommend mitigation measures, where appropriate, to reduce significant impacts. Throughout

Chapter 4, both impacts and the corresponding mitigation measures are identified by a bold letter-number designation (e.g., **Impact 4.1-1** and **Mitigation Measure 4.1-1a**).

In performing the analysis for this EIR, the EIR preparers relied on available published studies and reports and conducted independent investigations as needed. Information provided by SCE in its application and accompanying environmental documentation was also considered in the EIR analysis after independent review and assessment by the EIR preparers. The specific documents considered and relied upon are cited for each issue area in Sections 4.1 through 4.16.

Environmental Assessment Methodology

Environmental Baseline

The analysis of each issue area begins with an examination of the existing physical setting (baseline conditions as determined pursuant to section 15125(a) of the State CEQA Guidelines) that may be affected by the Proposed Project and alternatives. The effects of the Proposed Project and alternatives are defined as changes to the environmental setting that are attributable to project components or operation. Pursuant to CEQA Guidelines (Section 15125[a]), the environmental setting used to determine the impacts associated with the Proposed Project and alternatives is based on the environmental conditions that existed in the study area in April 2008 at the time the Notice of Preparation was published.

Impact Significance Criteria

Significance criteria are identified for each environmental issue area. The significance criteria serve as benchmarks for determining if a component action would result in a significant adverse environmental impact when evaluated against the baseline. According to the State CEQA Guidelines section 15382, a significant effect on the environment means "...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project..."

Environmental Consequences

The EIR evaluates the environmental consequences and potential impacts that the Proposed Project and the alternatives would create. The impacts identified were compared with predetermined, specific significance criteria, and were classified according to significance categories listed in each issue area. The same methodology was applied systematically to each alternative. The cumulative impacts of the Proposed Project taken together with the related cumulative projects (listed in Section 3.6) were assessed, and mitigation measures for each impact were identified, if applicable. The focus in the cumulative impact analyses was to identify those project impacts that might not be significant when considered alone, but contribute to a significant impact when viewed in conjunction with past, current, and reasonably foreseeable future projects. A comparative analysis of the Proposed Project and the alternatives is provided in Chapter 5 of this document.

Impact Analysis

The EIR evaluates the potential environmental impacts that the Proposed Project and alternatives would create. Impacts are classified as:

Class I: Significant; cannot be mitigated to a level that is less than significant

Class II: Significant; can be mitigated to a level that is less than significant

Class III: Less than significant, no mitigation required

Class IV: Beneficial impact

No Impact: No impact identified.

When significant impacts are identified, feasible mitigation measures are formulated to eliminate or reduce the intensity of the impacts and focus on the protection of sensitive resources. The effectiveness of a mitigation measure is subsequently determined by evaluating the impact remaining after its application. Those impacts meeting or exceeding the impact significance criteria after mitigation are considered residual impacts that remain significant (Class I). Implementation of more than one mitigation measure may be needed to reduce an impact below a level of significance. The mitigation measures recommended in this document are identified within each issue area section (Sections 4.1 through 4.16) and are presented in the Mitigation Monitoring, Reporting, and Compliance Program in Chapter 8 of this document.

Cumulative Projects Impact Analysis

Section 6.4 presents the cumulative impact scenario. The focus in the cumulative impact analysis was to identify those project impacts that might not be significant when considered alone, but may contribute to a significant impact when viewed in conjunction with past, current, and reasonably foreseeable future projects.

Impacts of Alternatives

Chapter 3 provides a list, description, and maps that identify alternatives to the Proposed Project. Each issue area section (Sections 4.1 through 4.16) presents the impact analysis for each alternative, while Chapter 5 provides a summary of the collective impacts of each alternative in comparison with the impacts of the Proposed Project.