5.0 ENVIRONMENTAL IMPACT ASSESSMENT

This section of the PEA evaluates the potential impacts of the Proposed Project for identified environmental resource areas in accordance with CPUC requirements, Public Utilities Code Sections 1001-1013, and CEQA requirements (PRC Sections 21000 *et seq*).

For each resource area, the analysis describes the existing environment and evaluates potential adverse and beneficial environmental consequences (also referred to as environmental impacts or effects) associated with the construction, operation and maintenance of the Proposed Project. In general, construction-related impacts discussed within the PEA are those temporary impacts that could occur as a result of construction activities. Operations and maintenance-related impacts discussed within the PEA are those permanent (or ongoing) impacts that result from the operation and maintenance of the Proposed Project facilities following completion of construction. To the extent operation and maintenance of the Proposed Project will be substantially similar to operation and maintenance of the existing SDG&E facilities, such activities are considered part of the existing condition and are part of the baseline from which impacts are assessed. The analysis of cumulative impacts considers whether the Proposed Project, together with other activities in the area, could potentially compound or increase environmental impacts to a significant level.

The analyses presented in this section are based on the following: (1) details of the Proposed Project as presented in Section 3.0, Proposed Project Description; (2) requirements under CEQA and the *CEQA Guidelines;* (3) CPUC requirements, including General Order 131-D and guidance materials; and (4) consideration of input from responsible agencies, where applicable.

Potential impacts are identified and evaluated based upon the significance criteria outlined in Appendix G of the *CEQA Guidelines*. A completed CEQA checklist for each resource area is provided at the beginning of each resource chapter. Furthermore, applicant proposed measures, or APMs, to minimize and avoid impacts are outlined at the end of each impact assessment section and have been incorporated into the design of the Proposed Project where potentially significant impacts are found to be present for a particular resource area. The complete list of APMs included as part of the Proposed Project is provided in Table 3-13, Applicant Proposed Measures.

The individual impact assessments for each of the resource areas are organized within Section 5 of this PEA as follows:

- 5.1 – Aesthetics
- 5.2 – Agriculture and Forestry Resources
- 5.3 – Air Quality
- 5.4 – Biological Resources
- 5.5 – Cultural Resources

- 5.6 – Geology & Soils
- 5.7 – Greenhouse Gases
- 5.8 – Hazards and Hazardous Materials
- 5.9 – Hydrology and Water Quality
- 5.10 – Land Use and Planning
- 5.11 – Mineral Resources
- 5.12 – Noise
- 5.13 – Population and Housing
- 5.14 – Public Services
- 5.15 – Recreation
- 5.16 – Transportation and Traffic
- 5.17 – Utilities and Service Systems
- 5.18 – Cumulative Impacts

Technical support and reference for the impact assessments are provided in the following technical appendices:

- Appendix 5.3-A: Air Quality Construction Emissions Calculations
- Appendix 5.4-A: Biological Technical Report
- Appendix 5.4-B: SDG&E Subregional NCCP Operational Protocols
- Appendix 5.4-C: SDG&E Low-Effect Habitat Conservation Plan for Quino Checkerspot
- Appendix 5-5-A: Archaeological Survey Report Artesian 230 kV Substation Project, San Diego County, California (CONFIDENTIAL)
- Appendix 5-5-B: Paleontological Resources Record Search (CONFIDENTIAL)
- Appendix 5.6-A: Geotechnical Investigation – Artesian Substation Expansion (PARTIALLY CONFIDENTIAL)
- Appendix 5.7-A: SF_6 Emissions Calculations
- Appendix 5.8-A: EDR Radius Report
- Appendix 5.9-A: SDG&E BMP Manual
- Appendix 5.12-A: Project Noise Analysis: Artesian Substation