Chapter 3
Settings, Impacts, and Mitigation Measures

3.0 Approach to Impact Analysis

This chapter provides environmental analyses of the physical impacts that could occur as a result of implementation of the Proposed Project. The analyses are based on the Proposed Project's 35 percent design (completed in 2008 and refreshed in 2013) and uses a "reasonable worst-case" approach to analyzing potential impacts. There is a separate section for each resource analyzed, as listed below. In each section, there is a description of the environmental and regulatory setting, significance criteria and methodology used in the impact analysis, and the potential impacts and required mitigation measures. Both construction and operational impacts are discussed, as appropriate in each subject section. Cumulative impacts are discussed separately in Chapter 4, *Other CEQA-Required Analysis*.

This chapter is organized with the following sections.

- 3.1, *Aesthetics*
- 3.2, *Air Quality*
- 3.3, *Biological Resources*
- 3.4, *Cultural Resources*
- 3.5, *Electromagnetic Fields and Electromagnetic Interference*
- 3.6, *Geology, Soils, and Seismicity*
- 3.7, *Greenhouse Gas Emissions and Climate Change*
- 3.8, *Hazards and Hazardous Materials*
- 3.9, *Hydrology and Water Quality*
- 3.10, *Land Use and Recreation*
- 3.11, *Noise and Vibration*
- 3.12, *Population and Housing*
- 3.13, *Public Services and Utilities*
- 3.14, *Transportation and Traffic*

3.0.1 Topics Considered but Dismissed from Further Analysis

Although agricultural and mineral resources are identified in Appendix G of the State CEQA Guidelines, this EIR does not include these topics because there would be no impact, as described below.

3.0.1.1 Agricultural Resources

There are no farmlands within or near the project corridor that would be affected by the Proposed Project. Using mapping from the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP), it was determined that the Proposed Project would not cross through any significant farmland (defined as prime farmland, farmland of statewide importance, or unique farmland). The majority of the project corridor runs through urban and built-up land, which is defined as land occupied by structures with a building density of at least 1 unit to 1.5 acres, or 6 structures to a 10-acre parcel. Examples of urban and built-up land are residential, industrial, commercial, and institutional facilities. A portion of the project corridor that runs through northern San Mateo County and the southern terminus of the project corridor runs through areas defined as other land. This is land that is not included in any other FMMP mapping category. Land use examples of other land include low-density rural developments, wetlands, and riparian areas not suitable for livestock grazing. The two traction power substations included in the Proposed Project would be located in commercial or industrial areas, not in farmland areas and thus would not result in conversion of farmland to urban uses. All other facilities would be within or immediately adjacent to the Caltrain right-of-way and, thus, would not result in conversion of farmland.

Because there are no significant farmlands within or near the project corridor, there would be no impact on agricultural resources.

3.0.1.2 Mineral Resources

The Caltrain ROW does not contain mineral resources of any developable value, nor would the project facilities have any potential to affect mineral resources. Therefore, there would be no impact on mineral resources, and impacts are not discussed further.