

3.0 Introduction

Organized by environmental resource area, this chapter provides an integrated discussion of the regulatory setting, environmental setting, and impact analyses, including mitigation measures for potentially significant impacts, associated with construction, operation, and maintenance of the Proposed Valley Link Project (Proposed Project), including all track variants, technology variants, and the Greenville and Mountain House initial operating segments (IOS); and the alternatives analyzed at an equal level of detail [Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy Operation and Maintenance Facility (OMF) Alternative, Mountain House Station Alternative, and Downtown Tracy Station Parking Alternatives 1 and 2].

This analysis is based on the environmental footprint for the Proposed Project and the alternatives analyzed at an equal level of detail (Appendix B, *Environmental Footprint*), the 15 percent preliminary engineering plans (Appendix E, *15% Preliminary Engineering Plans*), and the projected ridership report (Appendix F, *Valley Link Ridership Technical Memorandum - Revised*). The analysis presented in this section uses a “reasonable worst-case” approach to analyzing potential impacts (i.e., the greatest level of impact).

3.0.1 Chapter Organization

This chapter is organized into the following environmental resource sections:

- 3.1, *Aesthetics*
- 3.2, *Agricultural Resources*
- 3.3, *Air Quality*
- 3.4, *Biological Resources*
- 3.5, *Cultural Resources*
- 3.6, *Energy*
- 3.7, *Geology and Soils*
- 3.8, *Greenhouse Gas Emissions*
- 3.9, *Hazardous Materials*
- 3.10, *Hydrology and Water Quality*
- 3.11, *Land Use and Planning*
- 3.12, *Noise and Vibration*
- 3.13, *Population and Housing*
- 3.14, *Public Services*
- 3.15, *Recreation*

- 3.16, *Safety and Security*
- 3.17, *Transportation and Traffic*
- 3.18, *Utilities and Service Systems*

Each environmental resource section in this chapter includes the information listed below.

- **Introduction**—Presents an overview of the environmental resource and cross-references related issues addressed elsewhere in the environmental impact report (EIR).
- **Regulatory Setting**—Identifies the federal, state, regional, and local laws, regulations, ordinances, and policies that are relevant to each environmental resource area and applicable to construction, operation, and maintenance of the Proposed Project and the alternatives analyzed at an equal level of detail. Appendix I, *Regional Plans and Local General Plans*, provides a list of applicable goals, policies, and objectives from regional and local plans of the jurisdictions spanned by the Proposed Project and the alternatives analyzed at an equal level of detail.
- **Environmental Setting**—Provides an overview of the existing physical considerations of an environmental resource in the area at the time of, or prior to, publication of the notice of preparation that could be affected by implementation of the Proposed Project and the alternatives analyzed at an equal level of detail. A specific *study area* is identified for each environmental resource because the extent of the study area varies with each resource. The study area is defined as the limits within which impacts could be expected to occur. The environmental setting provides the basis of analysis of potential impacts related to each environmental resource.
- **Impact Analysis**—Describes the methodology used for the analysis, identifies the criteria used to determine the significance of potential impacts, and provides a corresponding discussion of impacts associated with implementation of the Proposed Project and the alternatives analyzed at an equal level of detail. For each potential impact, a significance determination is made (e.g., no impact, less than significant, less than significant with mitigation, or significant and unavoidable). If required, feasible mitigation measures are identified to reduce significant impacts. The *Approach to Impact Analysis* section describes the contents of the impact analysis discussion in detail.

A discussion of the Proposed Project's, and the alternatives analyzed at an equal level of detail, contributions to cumulative impacts are discussed separately in Chapter 4, *Other CEQA-Required Analysis*.

3.0.2 Approach to Impact Analysis

3.0.2.1 Significance Criteria

The significance criteria used in this EIR to define the level at which an impact would be considered significant, in accordance with the California Environmental Quality Act (CEQA), are presented under the subheading *Thresholds of Significance* in each environmental resource section. In accordance with Section 15022(a) of the CEQA Guidelines, the Tri-Valley–San Joaquin Valley Regional Rail Authority uses significance criteria that are based on CEQA Guidelines Appendix G, factual and scientific information and data, and the regulatory standards of the federal, state, regional, and local jurisdictions in which the Proposed Project and the alternatives analyzed at an equal level of detail are proposed.

3.0.2.2 Impact Identification and Levels of Significance

Each environmental resource section identifies impacts and lists them sequentially. For example, CUL-1 denotes the presentation of the first impact in the cultural resources section. An impact statement precedes the discussion of each impact and provides a summary of the impact topic.

The level of significance associated with an impact is determined by comparing the environmental effects of constructing, operating, and maintaining the Proposed Project and the alternatives analyzed at an equal level of detail on existing environmental conditions and applying the identified significance threshold.

This EIR uses a variety of terms to describe the levels of significance for the impacts identified in the environmental analysis. Each impact is categorized as one of the following:

- **No impact**—Implementation would not cause any adverse change in the environment.
- **Less-than-significant impact**—Implementation would not cause a substantial adverse change in the environment because the specified standard of significance would not be exceeded; therefore, mitigation measures would not be required.
- **Potentially significant impact**—Implementation would cause a substantial adverse change in the physical conditions of the environment that would be in excess of the specified standard. This is typically the level of significance for an impact prior to application of feasible mitigation measures.
- **Less than significant with mitigation**—Implementation would cause a substantial adverse change in the physical conditions of the environment that would be in excess of the specified standard of significance; however, one or more feasible mitigation measures would reduce environmental effects to levels that would be below the specified standard of significance.
- **Significant and unavoidable**—Implementation would cause a substantial adverse change in the physical condition of the environment because there is no feasible mitigation available or, even with implementation of feasible mitigation measures, the Proposed Project or the alternatives analyzed at an equal level of detail would have a significant adverse effect on the environment that would be in excess of the specified standard of significance.

3.0.2.3 Mitigation Measures

CEQA Guidelines Section 15126.4(a)(1) states that an EIR “shall describe feasible measures which could minimize significant adverse impacts.” Mitigation measures identified in this EIR were developed during the analysis and designed to reduce, minimize, or avoid potential environmental impacts associated with construction, operation, and maintenance of the Proposed Project and the alternatives analyzed at an equal level of detail. The mitigation measures are numbered to correspond to the impacts they address. For example, Mitigation Measure CUL-2.1 refers to the first mitigation measure for Impact CUL-2 in the cultural resources section. The description of the mitigation measure identifies which specific components or activities the measure applies to (i.e., the proposed alignment; the proposed or alternative station; or the proposed or alternative OMF).

3.0.2.4 Other CEQA Considerations

Hazardous Materials/Other Hazards

Existing hazardous materials as well as hazardous materials associated with the Proposed Project and the alternatives analyzed at an equal level of detail are discussed in Section 3.9, *Hazardous Materials*. This section discusses potential impacts associated with hazardous materials such as contaminated soil, sediments, or groundwater, but does not address unrelated hazards. Other hazards are discussed in detail in Section 3.16, *Safety and Security*, which evaluates existing site conditions and potential impacts associated with wildfires, nearby airports, and railway lines.

Mineral Resources, Paleontological Resources

The existing environmental setting with respect to mineral resources at the Proposed Project site and at the locations of alternatives analyzed at an equal level of detail and present within the broader environmental vicinity are discussed in Section 3.7, *Geology and Soils*, along with potential impacts on mineral resources. Section 3.7 covers geologic and soil conditions, paleontological resources, and mineral resources as they pertain to the Proposed Project and the alternatives analyzed at an equal level of detail under CEQA.

3.0.2.5 Topics Considered but Dismissed from Further Analysis

Although forestry resources are identified in Appendix G of the CEQA Guidelines, this EIR does not include the topic because there would be no impacts on forestry resources, as described below.

Forestry Resources

The Proposed Project and the alternatives analyzed at an equal level of detail would not be located in forestlands, nor would they intersect forestlands within identified timberland production zones, which are lands that have been dedicated to timber growing for a 10-year period. In addition, no timberland production zones have been identified in the broader vicinity of the Proposed Project and the alternatives analyzed at an equal level of detail. The Proposed Project and the alternatives analyzed at an equal level of detail are generally within or adjacent to transportation corridors and within areas where forestry resources would most likely not occur. Therefore, there would be no impact on forestry resources.