

## 3.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION STRATEGIES

### INTRODUCTION

This purpose of this chapter is to describe existing environmental conditions in the areas that would be affected by the No Build Alternative and the Build Alternative; evaluate potential environmental impacts associated with the No Build Alternative and with constructing and operating the Build Alternative; and present potential program-level mitigation strategies to avoid or reduce those impacts.

The analysis presented in this chapter addresses the general effects of a program of actions that would make up the proposed Coast Corridor Improvements project. This chapter describes the general differences in potential environmental consequences between the No Build Alternative and the Build Alternative. The description of environmental issues among various components will help to guide possible future design refinements and/or project-level studies.

This chapter will provide the technical environmental analysis for each resource topic. Each section in this chapter will discuss the existing conditions of the study area, with regard to the resource topic, and how each alternative would potentially affect the environment.

Much of this analysis was facilitated through the use of geographic information system (GIS) spatial data. **Appendix D** is a compilation of the data gathered for this analysis.

## HOW THIS CHAPTER IS ORGANIZED

This chapter is divided into several sections, roughly grouped by resource topic. The resource topic groups are as follows

- Transportation and related topics (air quality, noise and vibration, energy)
- Human Environment (land use and community impacts, visual resources, agricultural resources, public utilities and services, hazardous materials/wastes)
- Cultural Resources (historic architecture, archaeological resources, paleontological resources)
- Natural Environment (geology and soils, mineral resources, hydrology and water resources, and biological resources)

Each resource topic discussion will contain the following information:

- **Regulatory Requirements**
  - An overview of relevant federal, state, and local policies within the study area.
- **Methods of Evaluation**
  - An identification of the proposed study area relative to the resource, approaches taken to evaluate each resource topic, and potential issues that may occur.
- **Affected Environment**
  - Background information and discusses the existing conditions within the study area defined for the resource topic analysis.
- **Environmental Consequences**
  - A comparison of the existing conditions of the study area to the Build Alternative and No Build Alternative. For each resource topic, the environmental consequences section analyzes potential effects that might occur if any of the Build Alternative improvements are implemented. The Council on Environmental Quality (CEQ) section 1508.8 defines “effects” as the following:  
*Direct effects:* are caused by the action and occur at the same time and place. Such direct effects, which may potentially result from construction and operation of the Build Alternative improvements, are discussed for each resource topic.

*Indirect effects:* are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Such indirect effects are discussed, as necessary, for the resource topics with pertinent indirect effects.

- **Avoidance, Minimization, and Mitigation Strategies**
  - These sections will outline potential measures to fully avoid, minimize the effects of, or compensate for substantial environmental impacts. The discussion will include design and construction practices that would be developed into project-specific mitigation measures to avoid or minimize impacts as project-level plans are advanced in subsequent stages.
- **Subsequent Analysis**
  - This discussion will define studies that would be required for project-level environmental documentation in the future.

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