

# CHAPTER 4

## Environmental Setting, Impacts, and Mitigation Measures

### 4.1 Overview

This chapter provides a project-level impact analysis of the physical environmental effects of implementing the Monterey Peninsula Water Supply Project (MPWSP or proposed project). This chapter describes the environmental setting, assesses impacts, and identifies mitigation measures for significant impacts.

#### 4.1.1 Scope of Analysis

This chapter is organized by environmental resource topic, as follows:

Sections	
4.2 Geology, Soils, and Seismicity	4.11 Greenhouse Gases
4.3 Surface Water Hydrology and Water Quality	4.12 Noise and Vibration
4.4 Groundwater Resources	4.13 Public Services and Utilities
4.5 Marine Resources	4.14 Aesthetics
4.6 Terrestrial Biological Resources	4.15 Cultural and Paleontological Resources
4.7 Hazards and Hazardous Materials	4.16 Agriculture and Forest Resources
4.8 Land Use, Land Use Planning, and Recreation	4.17 Mineral Resources
4.9 Traffic and Transportation	4.18 Energy Resources
4.10 Air Quality	4.19 Population and Housing

Each section of Chapter 4 contains the following elements, based on requirements of the California Environmental Quality Act (CEQA):

- **Setting.** This subsection presents a description of the existing physical environmental conditions in the vicinity of the project with respect to each resource topic at an appropriate level of detail to allow the reader to understand the impact analysis.
- **Regulatory Framework.** This subsection describes the relevant laws and regulations that apply to protecting the environmental resources within the proposed project area, and the governmental agencies responsible for enforcing those laws and regulations.

- **Impacts and Mitigation Measures.** This subsection evaluates the potential for the proposed project to adversely affect the physical environment described in the setting. Significance criteria for evaluating environmental impacts are defined at the beginning of each impact analysis section, followed by a discussion (the Approach to Analysis) that explains how the significance criteria are applied in evaluating the proposed project. The conclusion of each impact analysis is expressed in terms of impact significance, which is discussed further in Section 4.1.2 below.

This subsection also identifies mitigation measures for all of the impacts considered significant or potentially significant, consistent with the CEQA Guidelines (Section 15126.4[a][1]), which state that an environmental impact report (EIR), “shall describe feasible measures which could minimize significant adverse impacts...”

The analyses of cumulative impacts is presented in Chapter 5.

## 4.1.2 Significance Determinations

The significance criteria used in this EIR are based on Appendix G of the CEQA Guidelines with some minor modifications. In certain sections it was necessary to develop additional significance criteria to capture the specific environmental impacts of the proposed project. The significance criteria used to analyze the various environmental resource topics are presented in each section of Chapter 4 before the discussion of impacts. An impact described as “potentially” significant indicates there is a potential for the impact to occur, but there is either not enough project information or site-specific information to determine definitively whether or not it qualifies under the significance criteria as significant; an impact identified as “potentially significant” is treated the same as significant impacts in this EIR. The categories used to designate impact significance are:

- **No Impact (NI).** An impact is considered not applicable (no impact) if there is no potential for impacts or the environmental resource does not occur within the project area or the area of potential effect. For example, there would be no impacts related to tree removal if there is no tree removal proposed at a project site.
- **Less than Significant impact, no mitigation required (LS).** This determination applies if there is a potential for some limited impact, but not a substantial adverse effect that qualifies under the significance criteria as a significant impact.
- **Less than Significant impact with Mitigation (LSM).** This determination applies if the project would result in an adverse effect that meets the significance criteria, but feasible mitigation is available that would reduce the impact to a less-than-significant level.
- **Significant and Unavoidable impact even with implementation of Mitigation (SUM).** This determination applies if it is certain that the proposed project would result in an adverse effect that meets the significance criteria and mitigation is available to lessen the impact, but the residual effect after implementation of the measure would remain significant. Therefore, the impact is significant and unavoidable with mitigation.

Within each environmental resource section in this chapter, a summary table is provided at the beginning of the impact discussion to summarize the potential impacts and indicate the level of impact significance. Environmental impacts are numbered throughout this EIR, using the section number followed by sequentially numbered impacts. Mitigation measures are numbered to correspond with the impact numbers; for example, Mitigation Measure 4.3-1 addresses Impact 4.3-1.

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