

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 Project. This chapter describes the environmental setting, assesses impacts, and identifies mitigation measures for significant impacts.

Scope of Analysis

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

Sections	
4.2 Aesthetics	4.10 Hydrology Resources – Groundwater
4.3 Air Quality	4.11 Hydrology Resources – Surface Water
4.4 Biological Resources	4.12 Land Use and Recreation
4.5 Cultural Resources	4.13 Noise and Vibration
4.6 Energy Conservation	4.14 Population and Housing
4.7 Geology and Paleontology	4.15 Transportation
4.8 Greenhouse Gas Emissions	4.16 Tribal Cultural Resources
4.9 Hazards and Hazardous Materials	4.17 Utilities and Service Systems

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 Project area, and the governmental agencies responsible for enforcing those laws and regulations.
- **Impacts and Mitigation Measures.** This subsection evaluates the potential for the 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 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...”

Each subsection identifies impacts of mitigation measures for those mitigation measures that could cause secondary environmental impacts, consistent with CEQA Guidelines Section 15126.4, which states that “if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed.” The analyses of cumulative impacts are presented in Chapter 5.

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 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. 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 there is a potential for the project to result in an adverse effect that meets the significance criteria, or if there is certainty that the project would result in an adverse effect that meets the significance criteria, but feasible mitigation is available that would reduce the impact on a less-than-significant level. An impact described as “potentially” significant indicates there is a potential for this 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. Impacts identified as “potentially significant” are treated the same as significant impacts in this EIR.
- **Significant and Unavoidable (SU).** This determination applies if the project would result in an adverse effect that meets the significance criteria, but for which there appears to be no feasible mitigation available to reduce the impact on a less-than-significant level.
- **Significant and Unavoidable impact with implementation of Mitigation (SUM).** This determination applies if it is certain that the 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.

According to CEQA Guidelines Section 15128, effects determined not to be significant do not need to be discussed in detail in an EIR. Where one or more significance criteria were found to be not applicable or to have no impact, they are discussed in the approach to analysis section for each resource topic. However, in the course of this evaluation, the District determined that the Project would have no impact on some resource sections in their entirety, including agricultural and forestry resources, mineral resources, and public services. These resource topics and explanations for why there would be no impacts are discussed below.

Agricultural and Forestry Resources

The Project components would be located in urban areas. There are no agricultural uses on the Project sites or in the Project area. Further, the Project sites are not zoned for such uses. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies the Project sites as Urban and Built-Up Land, defined as "...land [that] is used for residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures" (California Department of Conservation, 2016). The Project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and would not conflict with existing agricultural land uses, zoning for agricultural land use, or a Williamson Act contract. Therefore, the Project would have no impact on agricultural resources.

The Project sites do not include any lands zoned or managed for forest or timber uses. Implementation of the Project would also not affect any tracts of land with a high density of trees. Although construction activities could require the removal of mature trees to accommodate the proposed facilities, the removal of these isolated trees is not considered a loss or conversion of forest land. The impacts of tree removal are evaluated in Section 4.4, *Biological Resources*. No further consideration of this topic is required in this EIR.

Mineral Resources

There are no known mineral resources in or adjacent to the Project sites. The potential for impacts to mineral resources and the identification of their potential locations was completed using available data from the California Geological Survey (CGS) formerly the Division of Mines and Geology (CDMG), the Division of Oil, Gas & Geothermal Resources (DOGGR), and County of Santa Cruz GIS database information (CDMG, 1987; DOGGR, 2018; County of Santa Cruz, 2018). CGS is responsible for preparing Mineral Land Classification Maps that designate Mineral Resource Zones (MRZ). MRZs define areas where important mineral deposits occur, based on the

value of the mineral resource. The Project area is predominantly within areas designated as MRZ-4, areas where available information is inadequate for assignment to any other MRZ zone (CDMG, 1987). The Project area is entirely developed urban land that would be inaccessible for classification or use. Some smaller areas are classified as MRZ-1, areas designated as having no significant or unlikely mineral deposits. The only area designated as MRZ-2, areas where adequate information indicates that significant mineral deposits are present, is the corridor of San Lorenzo River, which some of the pipeline routes would pass through. However, this area is also entirely within the urban area and is not currently used for extraction of mineral resources. Finally, the County of Santa Cruz GIS database indicates that there are no mineral resources in or near the Project area (County of San Cruz, 2018). The DOGGR well finder website indicated that there are no oil or gas production wells at or near any of the Project components (DOGGR, 2018). Accordingly, this significance criterion is not applicable to the Project and is not discussed further.

Public Services

The Project would not include the construction of new housing, nor would it increase the number of workers in the area such that new governmental facilities would be necessary. The Project would add six additional staff positions (five full-time, and one half-time) to support existing District staff with Project operations. It is expected that additional staff and Project construction workers would primarily be from within the Santa Cruz region. This small increase in employees, and the short-term use of construction workers for the Project may result in some need for additional public services, but not to the extent that would require any new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for any public services, including fire protection, police protection, schools, and other services. Therefore, the Project would not have any impacts related to public services. Impacts related to emergency service providers are addressed in Section 4.15, *Transportation*.

4.1.1 References

California Department of Conservation, 2016, California Important Farmland Finder. Available at <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed on April 4, 2018.

California Division of Mines and Geology (CDMG), 1987, *Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area, Special Report 146, Part IV*.

County of San Cruz, 2018, Mineral Resource Zones in Santa Cruz County. Available at <http://gis.co.santa-cruz.ca.us/PublicGISWeb/>. Accessed on February 2, 2018.

Division of Oil, Gas & Geothermal Resources (DOGGR), 2018, Division of Oil, Gas & Geothermal Resources - Well Finder. Available at <https://maps.conservation.ca.gov/doggr/wellfinder/#close>. Accessed on February 2, 2018.