

Appendix A-1

Air Quality and Greenhouse Gas Emission Calculations

**Health Risk Assessment Report
for the Perris Boulevard and Morgan Street Industrial Park Project
City of Perris, California**

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
ASF	age-sensitivity factors
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
DPM	diesel particulate matter
HARP2	Hotspots Analysis and Reporting Program Version 2
HRA	health risk assessment
OEHHA	Office of Environmental Health Hazard Assessment
PM ₁₀	particulate matter with a diameter less the 10 microns
REL	reference exposure level
SCAQMD	South Coast Air Quality Management District
TAC	toxic air contaminant

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Summary

The purpose of this health risk assessment (HRA) is to determine the potential cancer risk and non-cancer health impacts to existing sensitive receptors in proximity to the proposed Perris Boulevard and Morgan Street Industrial Park Project (project) due to toxic air contaminant emissions (diesel particulate matter [DPM] emissions) from operation of the project.

Air dispersion modeling was conducted using the American Meteorological Society/Environmental Protection Agency Regulatory Model Version 19191 and the Hotspots Analysis and Reporting Program Version 2. The South Coast Air Quality Management District's (SCAQMD) Modeling Guidance for AERMOD (SCAQMD 2018a) and the Office of Environmental Health Hazard Assessment's Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015) were used to prepare this HRA. For the operational health risk, the HRA assumes residential exposure from operation-generated toxic air contaminant emissions would start in the 3rd trimester of pregnancy and occur for 30 years (OEHHA 2015).

This HRA finds that unmitigated project operation would result in potential chronic health risk at the maximally exposed sensitive receptor of 0.0004, which would be less than the SCAQMD threshold of 1.0. The unmitigated potential cancer risk at the maximally exposed sensitive receptor would be 1.10 in 1 million, which would be less than the SCAQMD threshold of 10 in 1 million. No short-term, acute relative exposure values are established and regulated for DPM and are therefore not addressed in this assessment.

Since the maximum cancer risk would exceed 1 in 1 million, the cancer burden (increase in cancer cases in the population) was also estimated at 0.02 persons, which would not exceed the SCAQMD threshold of 0.5. Risk impacts from project operation would be less than significant. The project would also result in less-than-significant cancer burden impact.

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1 Introduction

1.1 Purpose

In support of the air quality assessment, the health risk assessment (HRA) modeling analysis was prepared to estimate health risk impacts to existing sensitive receptors from exposure to toxic air contaminant (TAC) emissions from operation of the proposed Perris Boulevard and Morgan Street Industrial Park Project (project). The analysis in this HRA uses air dispersion modeling and Hotspots Analysis and Reporting Program Version 2 (HARP2) to evaluate potential health risks associated with the project. Results of the modeling analysis are compared with the most recent California Environmental Quality Act (CEQA) significance thresholds established by the South Coast Air Quality Management District (SCAQMD). Per CEQA Guidelines, Appendix G (14 CCR 15000 et seq.), the HRA directly addresses question (c): Would the project expose sensitive receptors to substantial pollutant concentrations?

1.2 Project Location

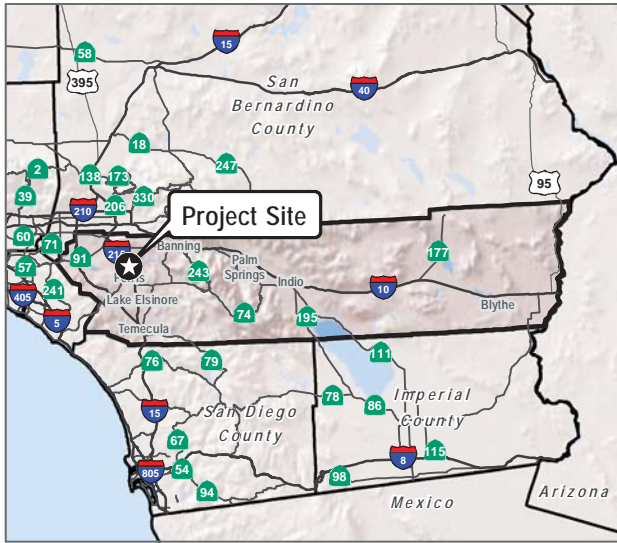
The project is located on a 15.4-acre (gross) property at the southeast corner of North Perris Boulevard and Morgan Street in the City of Perris (City), California (Figure 1, Project Location). The project site is zoned for Light Industrial per the City's Zoning Map, and is located within the Perris Valley Commerce Center Specific Plan area. The proposed project is consistent with the zoned land use for the site and growth assumptions anticipated in the Perris Valley Commerce Center Specific Plan. The Light Industrial zone correlates with the City's 'Light Industrial' General Plan Land Use designation.

The project site is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties.

1.3 Project Description

The project is located on a 15.4-acre (gross) property at the southeast corner of North Perris Boulevard and Morgan Street (Figure 1, Project Location). The project includes construction of four single industrial/warehouse buildings equaling approximately 316,496 square feet, inclusive of an office/mezzanine. Associated improvements include loading docks, truck and vehicle parking, and landscape areas.

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 Project Boundary

SOURCE: Riverside County 2020; Bing Maps



FIGURE 1

Project Location

Perris Boulevard and Morgan Street Industrial Park Project