

**REVIEW OF ESCONDIDO MATERIALS  
AB2588 HEALTH RISK ASSESSMENT (HRA)**

March 2, 2022

Emissions Inventory Facility ID: 10158

Toxics Emissions Inventory Year: 2019

Review Conducted by: Stephen Amberg, SDAPCD

A Health Risk Assessment (HRA) was performed for Escondido Asphalt, 500 N Tulip Street, Escondido, California 92024 by Sespe Consulting, Inc. for emissions in calendar year 2019 and submitted to the District for review on June 15, 2021 (Submittal HRA). The District provided District's comments on the HRA along with comments provided from the Office of Environmental Health Hazard Assessment (OEHHA) to Robertson's Ready Mix on December 2, 2021. Escondido Asphalt submitted a revised HRA (Revised HRA) to the District on January 31, 2022.

The following are the District's comments on the Revised HRA.

**Approved HRA Results**

Point of Maximum Impact (PMI) Cancer Risk	55.0 in a million
Maximum Exposed Individual Resident Cancer Risk	6.75 in a million
Maximum Exposed Individual Worker Cancer Risk	2.96 in a million
Maximum Non-Cancer Chronic Health Hazard Index (PMI)	3.39
Maximum Residential Non-Cancer Chronic Health Hazard Index	0.0765
Maximum Worker Non-Cancer Chronic Health Hazard Index	0.425
Maximum Worker 8-Hour Non-Cancer Chronic Health Hazard Index	0.10
Maximum Acute Health Hazard Index (PMI)	1.10
Maximum Residential Acute Health Hazard Index	0.32
Maximum Worker Acute Health Hazard Index	1.08
Population Excess Cancer Burden	0.11
Sub-Chronic Lead Exposure Risk	<0.12 ug/m3

The 30-day lead concentration at the Maximum Offsite Concentration (MOC), using EPA's AERMOD model, is estimated to be 0.048  $\mu\text{g}/\text{m}^3$ , which is below the High Exposure Scenario approval level of 0.12  $\mu\text{g}/\text{m}^3$  in the ARB Risk Management Guidelines for Lead, 2001. Lead emissions were estimated based on annual emissions being emitted in a 30-day period.

## Major Pollutant and Source Contributions for Selected Risks

### *Maximum Worker Non-Cancer Acute Health Hazard Index*

<b>Pollutant</b>	<b>Contribution</b>
Nickel	96%
Benzene	4%

<b>Source</b>	<b>Contribution</b>
Asphalt Stack	95%
Haul Roads	2%

The Revised HRA concludes that the worker non-cancer acute health hazard index exceeds the public notification levels specified in District Rule 1210.

### **Locations of Receptors at Maximum Exposure Points**

<b>Receptor - Cancer Risk</b>	<b>Risk (1 in 1 million)</b>	<b>x (m)</b>	<b>y (m)</b>
Point of Maximum Impact Cancer Risk (PMI)	55.0	491020.61	3638510.3
Maximum Exposed Individual Resident Cancer Risk (MEIR)	6.75	491490	3664380
Maximum Exposed Individual Worker Cancer Risk (MEIW)	2.96	491140	3664580

<b>Receptor - Non-Cancer Chronic Health Hazard Index</b>	<b>Health Hazard Index</b>	<b>x (m)</b>	<b>y (m)</b>
Maximum Non-Cancer Chronic Health Hazard Index (PMI)	5.84	491020.61	3638510.3
Maximum Residential Non-Cancer Chronic Health Hazard Index (MEIR)	0.0765	491490	3664380
Maximum Worker Non-Cancer Chronic Health Hazard Index (MEIW)	0.425	491140	3664580
Maximum Worker 8-Hour Non-Cancer Chronic Health Hazard Index (MEIW)	0.10	491040	3664630

<b>Receptor - Acute Health Hazard Index</b>	<b>Health Hazard Index</b>	<b>x (m)</b>	<b>y (m)</b>
Maximum Acute Health Hazard Index (PMI)	1.10	490886.52	3664515.61
Maximum Residential Acute Health Hazard Index (MEIR)	0.32	491190	3664130
Maximum Worker Acute Health Hazard Index (MEIW)	1.08	490990	3664630

\*coordinates represent center receptor for spatial averaging

The geographic coordinate system for the locations is the North American Datum of 1983.

## **Contours for Selected Risk and Health Hazard Index Calculations**

Contours for selected risk and health hazard index calculations are on the following pages.

1. Non-Cancer Acute Health Hazard Index