

FORM A	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AB 2588 Program, 21865 COPLEY DR., DIAMOND BAR CA 91765-0949	INVENTORY YEAR 20 <u>21</u>
-------------------	--	--------------------------------

AB 2588 AIR TOXICS DOCUMENT CERTIFICATION & SUBMITTAL FORM

Please check the appropriate boxes for purpose of submittal:

<input type="checkbox"/> INITIAL INFORMATION for ATIR	<input type="checkbox"/> EARLY ACTION REDUCTION PLAN (EARP)	<input checked="" type="checkbox"/> INITIAL
<input type="checkbox"/> AIR TOXICS INVENTORY REPORT (ATIR)	<input type="checkbox"/> VOLUNTARY RISK REDUCTION PLAN (VRRP)	<input type="checkbox"/> REVISION
<input checked="" type="checkbox"/> HEALTH RISK ASSESSMENT (HRA)	<input type="checkbox"/> IMPLEMENTATION PROGRESS REPORT for VRRP/RRP	<input type="checkbox"/> FINAL
<input type="checkbox"/> RISK REDUCTION PLAN (RRP)	<input type="checkbox"/> OTHER: _____	

Does your facility participate or wish to participate in VRRP program pursuant to Rule 1402(h)? YES

Please provide the following information:

Facility name	South Coast AQMD ID	Facility SIC/NAICS CODE
<input type="text" value="Snow Summit, LLC"/>	<input type="text" value="185352"/>	<input type="text" value="7999/713920"/>
Facility Location Address	Mailing Address	
<input type="text" value="880 Summit Blvd."/>	<input type="text" value="P.O. Box 77"/>	
<input type="text" value="Big Bear Lake, CA 92315"/>	<input type="text" value="Big Bear Lake, CA 92315"/>	

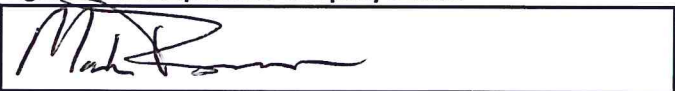
Contact Person (Company Official)

Name: Mark Burnett	Title: VP, Facilities
Telephone: (909) 939-7156	eMail: MBurnett@BBMR.com

Preparer (if different from above)

Name: James Adams	Title: Senior Engineer
Company: Yorke Engineering, LLC	
Telephone: (949) 248-8490	eMail: JAdams@YorkeEngr.com

FAILURE TO SUBMIT REQUIRED INFORMATION OR KNOWINGLY SUPPLYING FALSE INFORMATION IS PUNISHABLE TO THE EXTENT DEFINED IN HEALTH AND SAFETY CODE SECTIONS 44381(a) AND 44381(b), WHICH INCLUDES MINIMUM FINES OF NOT LESS THAN FIVE HUNDRED DOLLARS.

Signature Of Responsible Company Official 	Date <input type="text" value="7/10/23"/>
Name Of Responsible Company Official <input type="text" value="Mark Burnett"/>	Title <input type="text" value="VP, Facilities"/>

Snow Summit, LLC.

**880 Summit Blvd
Big Bear Lake, CA
92315**

**SCAQMD Facility ID:
185352**

July 13, 2023

Prepared by:

Yorke
ENGINEERING, LLC
www.YorkeEngr.com

Office Locations:

Los Angeles, Orange County, Riverside, Ventura,
San Diego, Fresno, Berkeley, San Jose, Bakersfield

Tel: (949) 248-8490

Fax: (949) 248-8499

Copyright ©2023, Yorke Engineering, LLC

**AB2588 Health Risk Assessment for
Calendar Year 2021**

Snow Summit, LLC. AB2588 Health Risk Assessment for Calendar Year 2021

Prepared for:

**Snow Summit, LLC.
880 Summit Blvd
Big Bear Lake, CA 92315**

SCAQMD Facility ID 185352

July 13, 2023

Table of Contents

AB2588 Air Toxics Document Certification & Submittal Form

Health Risk Assessment Summary Form

1.0 EXECUTIVE SUMMARY	13
1.1 Facility Identification and Operations	14
1.2 TAC Emissions Summary	14
1.3 Multipathway Substances	15
1.4 Overview of Dispersion Modeling and Exposure Assessment.....	15
1.5 Dose-Response Assessment for Cancer and Non-Cancer Health Impacts.....	16
1.5.1 Carcinogenic Effects	16
1.5.2 Non-Carcinogenic Effects	16
1.5.3 Substances with Carcinogenic and Non-Carcinogenic Effects	17
1.6 Summary of Results	17
1.6.1 Cancer Risk	17
1.6.2 Non-Cancer Chronic Risk	18
1.6.3 8-Hour Non-Cancer Chronic Risk	19
1.6.4 Off-Site Non-Cancer Acute Risk.....	20
1.6.5 Cancer Burden	21
1.6.6 On-Site Non-Cancer Acute Risk.....	21
1.6.7 Other Population Exposure Assessments	21
1.6.8 Lead Non-Carcinogenic Assessment	21
1.7 Computer Models.....	22
1.8 Executive Summary Conclusion	22
2.0 INTRODUCTION	23
3.0 HAZARD IDENTIFICATION.....	24
3.1 Description of Operations and Emission Inventory.....	24
3.2 Emission Summary	25
4.0 EXPOSURE ASSESSMENT	26
4.1 Facility Description	26
4.2 Release Parameters.....	26
4.3 Air Dispersion Modeling	27
4.3.1 Modeling Options	27
4.3.2 Receptor Grids	27
4.3.3 Terrain Options	28
4.3.4 Building Downwash	29
4.3.5 Meteorology.....	29
4.3.6 Deposition	29
4.3.7 Urban / Rural Dispersion.....	29
4.4 Ground-Level Concentrations.....	29
5.0 RISK CHARACTERIZATION	30
5.1 HRA Methodology.....	30

5.1.1	<i>Cancer Risk</i>	30
5.1.2	<i>Non-Cancer Chronic Risk</i>	31
5.1.3	<i>Non-Cancer Acute Risk</i>	31
5.1.4	<i>Cancer Burden</i>	31
5.2	HARP2 Model Options.....	31
5.3	HRA Results	32
5.3.1	<i>Cancer Risk</i>	32
5.3.2	<i>Non-Cancer Chronic Risk</i>	33
5.3.3	<i>8-Hour Non-Cancer Chronic Risk</i>	34
5.3.4	<i>Off-Site Non-Cancer Acute Risk</i>	35
5.3.5	<i>Cancer Burden</i>	36
5.3.6	<i>On-Site Non-Cancer Acute Risk</i>	36
5.3.7	<i>Other Population Exposure Assessments</i>	36
5.3.8	<i>Lead Non-Carcinogenic Assessment</i>	36
5.4	Uncertainty Analysis	37
5.5	Control Alternatives and Remedial Measures	37
6.0	REFERENCES	38

Table of Appendices

REPORT TABLES

REPORT FIGURES

APPENDIX A – EMISSION INVENTORY

APPENDIX B – BUILDING DATA

APPENDIX C – RELEASE PARAMETERS

APPENDIX D – WIND ROSE FOR REDLANDS MET STATION

APPENDIX E – GROUND-LEVEL CONCENTRATIONS

APPENDIX F – RISK CHARACTERIZATION (DETAILED RESULTS)

APPENDIX G – SCAQMD CORRESPONDENCE

APPENDIX H – MODELING FILES

Report Tables

Table Number	Table Title
ES-1	Facility-Wide Emissions
ES-2	Multipathway Substances
ES-3	HRA Exposure Pathways
ES-4	Substances with Carcinogenic and Non-Carcinogenic Health Effects
ES-5	Summary of Results
ES-6	Summary of Results – Cancer Risk by Exposure Pathway
ES-7	Summary of Results – Cancer Risk by Substance and Emission Source
ES-8	Summary of Results – Non-Cancer Chronic Risk by Exposure Pathway
ES-9	Summary of Results – Non-Cancer Chronic Risk by Substance and Emission Source
ES-10	Summary of Results – 8-Hour Non-Cancer Chronic Risk by Substance and Emission Source
ES-11	Summary of Results – Off-Site Non-Cancer Acute Risk by Substance and Emission Source
ES-12	Summary of Results – Cancer Burden
5-1	HARP2 Model Options

Report Figures

Figure Number	Figure Title
ES-1	Summary of Results – Residential / Sensitive Cancer Risk
ES-2	Summary of Results – Worker Cancer Risk
ES-3	Summary of Results – Non-Cancer Chronic Risk
ES-4	Summary of Results – 8-Hour Non-Cancer Chronic Risk
ES-5	Summary of Results – Off-Site Non-Cancer Acute Risk
ES-6	Summary of Results – Cancer Burden
ES-7	Summary of Results – On-Site Non-Cancer Acute Risk (Elevated)
ES-8	Summary of Results – On-Site Non-Cancer Acute Risk (Flat)
4-1	Snow Summit and Surrounding Area
4-2	Area Topography
4-3	Point Source Locations (1 of 3) – Facility North
4-4	Point Source Locations (2 of 3) – Facility Center
4-5	Point Source Locations (3 of 3) – Facility South
4-6	Area Source Locations – Facility North
4-7	Volume Source Locations – Facility North
4-8	Rectangular Building Locations (1 of 3) – Facility North
4-9	Rectangular Building Locations (2 of 3) – Facility Center
4-10	Rectangular Building Locations (3 of 3) – Facility South
4-11	Polygonal Building Locations – Facility North
4-12	Fenceline Receptor Grid
4-13	Off-Site Uniform Cartesian Receptor Grid
4-14	On-Site Uniform Cartesian Receptor Grid
4-15	Census Receptors
4-16	Nearest MET Stations

List of Acronyms and Abbreviations

AB2588	Air Toxics "Hot Spots" Information and Assessment Act
acfm	Actual Cubic Feet per Minute
ADMRT	Air Dispersion Modeling and Risk Tool
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AMS	American Meteorological Society
A/N	Application Number
AP-42	[United States] Environmental Protection Agency's Compilation of Air Emissions Factors
APU	Auxiliary Power Unit
ARB	[California] Air Resources Board
ATIR	Air Toxics Inventory Report
ATIR Notice	The SCAQMD's August 17, 2022, <i>Notice to Prepare an Air Toxics Inventory Report or Voluntary Risk Reduction Plan for Snow Summit, LLC (South Coast AQMD ID# 185352)</i> [Provided in Appendix G]
BPIPPRM	Building Profile Input Program for PRIME
CAS No.	Chemical Abstracts Service Number
CAPCOA	California Air Pollution Control Officers Association
deg	Degrees
Deg F	Degrees Fahrenheit
DICE	Diesel-Fueled Internal Combustion Engine
DPF	Diesel Particulate Filter
DPM	Diesel Particulate Matter
EPA	[United States] Environmental Protection Agency
FAH	Fraction of Time at Home
fps	Feet per Second
ft	Foot
g	Gram
g/s	Gram per Second
GLC	Ground Level Concentration
HARP2	Hotspots Analysis and Reporting Program (Version 2)
HI	Hazard Index
HIA	Non-Cancer Acute Hazard Index
HIC	Non-Cancer Chronic Hazard Index
HIC-8	8-Hour Non-Cancer Chronic Hazard Index
hr	Hour
HRA	Health Risk Assessment

HRA Notice	The SCAQMD's March 31, 2023, <i>Approval of Air Toxics Inventory Report and Notice to Prepare a Health Risk Assessment for Snow Summit, LLC (South Coast AQMD Facility ID No.: 185352)</i> [Provided in Appendix G]
lb	Pound
LOAEL	Lowest Observed Adverse Effects Level
m	Meter
M&T	Maintenance & Testing
MCH	Main Compressor House
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
MET	Meteorological
MICR	Maximum Individual Cancer Risk
mgal	Thousand Gallons
ug/m ³	Microgram per cubic meter
mg/kg-d	Milligram per kilogram-day
mmBtu	Million British Thermal Units
mmscf	Million Standard Cubic Feet
NAAQS	National Ambient Air Quality Standard
NED	National Elevation Dataset
NOAEL	No Observed Adverse Effects Level
OEHHA	[California] Office of Environmental Health Hazard Assessment
OEHHA HRA Guidelines	OEHHA's February 2015 <i>Air Toxics Hot Spots Program Risk Assessments Guidelines</i>
OxCat	Oxidation Catalyst
PMI	Point of Maximum Impact
REL	Reference Exposure Level
RMP	Risk Management Policy
SCAQMD	South Coast Air Quality Management District
SCAQMD Supplemental Guidelines	SCAQMD's October 2020 <i>AB2588 and Rule 1402 Supplemental Guidelines</i>
SCR	Selective Catalytic Reduction
Snow Summit	Snow Summit, LLC; SCAQMD Facility ID 185352
TAC	Toxic Air Contaminant
ug	Microgram
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
WAF	Worker Adjustment Factor
WAF-8	Worker Adjustment Factor for 8-Hour Non-Cancer Chronic Hazard Index

WGS84	World Geodetic System 1984
X/Q	Average Pollutant Concentration Normalized by Source Strength
yr	Year
Yorke	Yorke Engineering, LLC
ZOI	Zone of Impact

Definitions

Action Risk Level	[Rule 1402(c)(2)] For the purpose of Rule 1402, the Action Risk Level is a "... Maximum Individual Cancer Risk of twenty-five in one million (25×10^{-6}), cancer burden of one half (0.5), a total acute or chronic Hazard Index of three (3.0) for any target organ system at any receptor location, or the National Ambient Air Quality Standard (NAAQS) for lead."
Acute Health Impact	An acute health impact is an adverse health effect that may occur, even in sensitive members of the general population, as a result of infrequent one-hour exposures. Unlike cancer health effects, non-cancer health effects are generally assumed to have thresholds for adverse effects and each substance may affect different target organ systems.
Cancer Burden	Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to Maximum Individual Cancer Risk of greater than or equal to 1 in one million resulting from exposure to Toxic Air Contaminants.
Cancer Health Impact	Cancer health impact (cancer risk) is the estimated probability of a potential exposed individual contracting cancer as a result of exposure to Toxic Air Contaminants.
Chronic Health Impact	A chronic health impact is an adverse health effect that may occur, even in sensitive members of the general population, as a result of continuous exposure over a significant fraction of a lifetime. Unlike cancer health effects, non-cancer health effects are generally assumed to have thresholds for adverse effects and each substance may affect different target organ systems.
8-Hour Chronic Health Impact	An 8-hour chronic health impact is an adverse health effect that may occur, even in sensitive members of the general population, as a result of repeated 8-hour exposures over a significant fraction of a lifetime. Unlike cancer health effects, non-cancer health effects are generally assumed to have thresholds for adverse effects and each substance may affect different target organ systems.
Notification Risk Level	[Rule 1402(c)(12)] For the purpose of Rule 1402, the Notification Risk Level is a "... Maximum Individual Cancer Risk of ten in one million (10×10^{-6}), a total acute or chronic Hazard Index of one (1.0) for any target organ system at any receptor location, or the more stringent of either the National Ambient Air Quality Standard (NAAQS) for lead or ambient lead concentration limit in an applicable SCAQMD rule."

Receptor Location

[Rule 1402(c)(15)] “Receptor Location means:

- (A) For the purpose of calculating acute Hazard Index, any location outside the boundaries of the facility at which a person could experience acute exposure: and
- (B) For the purpose of calculating chronic Hazard Index, Maximum Individual Cancer Risk, or cancer burden, any location outside the boundaries of the facility at which a person could experience chronic exposure.

The Executive Officer shall consider the possibility of potential exposure at a location in determining whether the location will be considered a receptor location.”

Significant Risk Level

[Rule 1402(c)(19)] For the purpose of Rule 1402, the Significant Risk Level is a “... Maximum Individual Cancer Risk of one hundred in one million (100×10^{-6}) or a total acute or chronic Hazard Index of five (5.0) for any target organ system at any receptor location.”



HEALTH RISK ASSESSMENT SUMMARY FORM

(Required in Executive Summary of HRA)

Facility Name : Snow Summit, LLC
Facility Address: 880 Summit Boulevard
Big Bear Lake, CA 92315
Type of Business: Skiing Facility with Other Recreational Activities (NAICS 713920)
SCAQMD ID No.: 185352

A. Cancer Risk

(One in a million means one chance in a million of getting cancer from being constantly exposed to a certain level of a chemical over a period of time)

- 1. Inventory Reporting Year : 2021
2. Maximum Cancer Risk to Receptors : (Offsite and residence = 30-year exposure, worker = 25-year exposure)
a. Offsite 3.81 in a million Location: 510,263 m E ; 3,788,335 m N
b. Residence 2.73 in a million Location: 510,382 m E ; 3,788,336 m N
c. Worker 0.04 in a million Location: 509,736 m E ; 3,788,630 m N
3. Substances Accounting for 90% of Cancer Risk: DPM, PAH (CAS No. 1151)
Processes Accounting for 90% of Cancer Risk: MCH DICE, R219-Exempt NG, R219-Exempt DICE, APU (Gasoline)
4. Cancer Burden for a 70-yr exposure: (Cancer Burden = [cancer risk] x [# of people exposed to specific cancer risk])
a. Cancer Burden 0.00005
b. Number of people exposed to >1 per million cancer risk for a 70-yr exposure 20
c. Maximum distance to edge of 70-year, 1 x 10^-6 cancer risk isopleth (meters) 300

B. Hazard Indices

[Long Term Effects (chronic) and Short Term Effects (acute)]
(non-carcinogenic impacts are estimated by comparing calculated concentration to identified Reference Exposure Levels, and expressing this comparison in terms of a "Hazard Index")

- 1. Maximum Chronic Hazard Indices:
a. Residence HI: 0.002 Location: 510,382 m E ; 3,788,336 m N toxicological endpoint: Respiratory System
b. Worker HI : 0.0004 Location: 509,736 m E ; 3,788,630 m N toxicological endpoint: Respiratory System
2. Substances Accounting for 90% of Chronic Hazard Index: Ammonia, Acrolein, DPM, Formaldehyde, Chlorine
3. Maximum 8-hour Chronic Hazard Index:
8-Hour Chronic HI: 0.0007 Location: 510,203 m E ; 3,788,360 m N toxicological endpoint: Respiratory System
4. Substances Accounting for 90% of 8-hour Chronic Hazard Index: Formaldehyde, Acrolein
5. Maximum Acute Hazard Index:
PMI: 0.30 Location: 510,297 m E ; 3,786,682 m N toxicological endpoint: Immune System
6. Substances Accounting for 90% of Acute Hazard Index: Benzene, Nickel

C. Public Notification and Risk Reduction

- 1. Public Notification Required? ___ Yes X No
a. If 'Yes', estimated population exposed to risks > 10 in a million for a 30-year exposure, or an HI >1
2. Risk Reduction Required? ___ Yes X No

Snow Summit, LLC.

AB2588 Health Risk Assessment for Calendar Year 2021 Executive Summary

1.0 EXECUTIVE SUMMARY

In accordance with the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill 2588 (AB2588), this report presents the Health Risk Assessment (HRA) for the Snow Summit, LLC (Snow Summit) facility, located in Big Bear Lake, California. Snow Summit, which operates under South Coast Air Quality Management District (SCAQMD) Facility ID 185352, received a letter from the SCAQMD on August 17, 2022, that required Snow Summit to prepare an Air Toxics Inventory Report (ATIR) (ATIR Notice). The ATIR, based on Calendar Year 2021 emissions of Toxic Air Contaminants (TAC), was prepared and submitted to the SCAQMD on January 16, 2023. The SCAQMD approved the January 16, 2023, version of the ATIR and provided Snow Summit with a notice to prepare an HRA on March 31, 2023 (HRA Notice). The HRA report is due to be submitted to the SCAQMD within 90 days of March 31, 2023. Yorke Engineering, LLC (Yorke) requested an extension from the SCAQMD on behalf of Snow Summit. An extension of two weeks was approved by the SCAQMD, resulting in a final due date of July 13, 2023. The HRA report is submitted before the July 13, 2023, due date.

The HRA was prepared in accordance with both the State of California Office of Environmental Health Hazard Assessment’s (OEHHA) February 2015 *Air Toxics Hot Spots Program Risk Assessments Guidelines* (OEHHA HRA Guidelines) and the SCAQMD’s October 2020 *AB2588 and Rule 1402 Supplemental Guidelines* (SCAQMD Supplemental Guidelines). The HRA Notice states that:

- If the results show that the facility poses a Maximum Individual Cancer Risk (MICR) of ten in one million (10×10^{-6}) or greater, or the non-cancer health effects hazard index exceeds one (1.0), Snow Summit must provide public notice to all individuals exposed above notification levels; and [Notification Risk Levels]
- If the results show that the facility poses a MICR of 25 in one million (25×10^{-6}) or greater, cancer burden of 0.5 or greater, or non-cancer health effects hazard index of three (3.0) or greater, Snow Summit will also be subject to the risk reduction provisions of Rule 1402(f). [Action Risk Levels]

The HRA demonstrates that all health risk indices are below the Notification Risk Levels (see Section 1.6). At the Point of Maximum Impact (PMI), cancer risk is 3.81; cancer burden is estimated to be 0.00005; non-cancer chronic risk is 0.004; 8-hour non-cancer chronic risk is 0.0007; and (off-site) non-cancer acute risk is 0.30. The HRA results are well below the Action Risk Levels and Significant Risk Levels from Rule 1402. Public Notice and preparation of a Risk Reduction Plan are not required.

This HRA report was prepared by Yorke on behalf of Snow Summit. The report presents the methodology used for preparing the HRA as well as the results and follows the outline from Appendix B of the SCAQMD Supplemental Guidelines.

All geographical coordinates referenced herein are Universal Transverse Mercator (UTM), World Geodetic System 1984 (WGS84).

1.1 Facility Identification and Operations

Snow Summit (SCAQMD Facility ID 185352) is located at 880 Summit Boulevard in Big Bear Lake, California. Snow Summit established Ski Resort Operations in 1952 and has one of the largest skiable resort boundaries in Southern California of 240 acres, with a 1,209ft topographic vertical drop. Snow Summit in fall and winter months operates eleven (11) ski lifts and, in the summer, operates limited lifts for a mountain bike park.

To supplement natural snowfall, Snow Summit conducts snow making operations in the fall and winter months. Snow cannons or snow guns are positioned strategically across the resort so that in a few days of their continuous operation, 95% of all trails can be covered with snow. The snow making operations are driven by six (6) Diesel-Fueled Internal Combustion Engine (DICE) generators which provide power to the majority of the equipment associated with the snow making operations such as but not limited to compressors, water pumps, monitoring equipment, etc. Water, drawn from Big Bear Lake, and compressed air are routed to the snow cannons where the cannon's nozzle atomizes the water creating snow. Each of these six (6) engines is equipped with Selective Catalytic Reduction (SCR) for NO_x control, Oxidation Catalyst (OxCat) for CO/VOC control, and Diesel Particulate Filter (DPF) for Diesel Particulate Matter (DPM) control. Three (3) engines are located in a building near the base lodge known as the Main Compressor House (MCH). The other three (3) engines, known internally as the SOKO engines, are located in the Soko building, which is situated at the top of the ski resort.

To access the skiable terrain, Snow Summit operates eleven (11) ski lifts and several people mover conveyors (conveyors) providing access to any of the thirty-one ski runs, beginner through advanced. The estimated maximum lift occupancy capacity is 18,550 passengers an hour spread across the eleven (11) ski lifts and five (5) conveyors. The eleven (11) lifts each require an emergency engine, known as an Auxiliary Power Unit (APU), so in the case of a power outage (Bear Valley Electric Service, Inc.), the lifts' passengers can be unloaded safely. Normal APU operations are for Maintenance & Testing (M&T) purposes to ensure readiness. Two (2) APU's are diesel-fueled; nine (9) APU's are gasoline-fueled. Additionally, there are several food/lodge facilities located around the resort for customer use.

Miscellaneous sources evaluated in the HRA include permit-exempt portable DICE (operated in the on-site maintenance shop), permit-exempt natural gas-fueled combustion equipment (conservatively associated with the base lodge in the HRA), permit-exempt propane-fueled heaters and food preparation equipment (conservatively associated with the base lodge in the HRA), and gasoline dispensing equipment.

1.2 TAC Emissions Summary

The HRA evaluates risk associated with the TAC emissions identified in the approved ATIR. Facility-wide TAC emissions used in the HRA are provided in Table ES-1.

1.3 Multipathway Substances

All TACs enter the body through inhalation. However, some TACs also enter the body through other pathways. For example, a substance may be deposited on the ground in particulate form and contribute to risk through ingestion of soil or backyard garden vegetables. TACs from Table ES-1 with multipathway effects are shown in Table ES-2.

Table ES-3 lists the potential non-inhalation exposure pathways and whether each was evaluated for residential/sensitive, and/or worker receptors. As shown in Table ES-3, the HRA includes the default exposure pathways for all receptors as identified in Section 4.4 of the SCAQMD Supplemental Guidelines. The exposure pathways of drinking water consumption, fish ingestion, dairy milk ingestion, and meat ingestion are excluded since Snow Summit does not impact a local water reservoir, a local fishable body of water, a dairy, or grazing land, respectively.

1.4 Overview of Dispersion Modeling and Exposure Assessment

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emission sources. The models calculate the concentration of selected pollutants at specific downwind ground-level points, such as residential or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and by meteorological and environmental conditions. Factors such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations affect the predicted concentration of an air pollutant. Air dispersion models take all of these factors into consideration when calculating downwind ground-level pollutant concentrations.

The air dispersion model used for this HRA is the American Meteorological Society (AMS) / U.S. Environmental Protection Agency (EPA) **Regulatory Model** (AERMOD). AERMOD is a steady-state plume dispersion model that incorporates air dispersion calculations based on planetary boundary layer turbulence structure and scaling concepts. AERMOD includes the treatment of both surface and elevated sources and simple and complex terrain. AERMOD, like most dispersion models, uses mathematical algorithms to characterize the atmospheric processes that disperse pollutants emitted by a source. Using emission rates, exhaust parameters, terrain characteristics, and meteorological inputs, AERMOD calculates downwind pollutant concentrations at specified receptor locations. The results from the AERMOD runs were imported into the Hotspots Analysis and Reporting Program (Version 2) (HARP2) Air Dispersion Modeling and Risk Tool (ADMRT), an HRA software tool, for further processing and analysis.

1.5 Dose-Response Assessment for Cancer and Non-Cancer Health Impacts

Dose-response assessment is the process of characterizing the relationship between exposure to an agent and incidence of an adverse health effect in exposed populations.

1.5.1 *Carcinogenic Effects*

In quantitative carcinogenic risk assessment, the dose-response relationship is expressed in terms of a potency slope that is used to calculate the probability or risk of cancer associated with an estimated exposure. Cancer potency factors are expressed as the 95th percent upper confidence limit of the slope of the dose response curve estimated assuming continuous lifetime exposure to a substance at a dose of one milligram per kilogram of body weight-day and commonly expressed in units of inverse dose (i.e., (mg/kg/day)⁻¹).

It is assumed in cancer risk assessments that risk is directly proportional to dose and that there is no threshold for carcinogenesis. OEHHA has compiled cancer potency factors, which are used in risk assessments for the Hot Spots program. Cancer potency factors were derived either by the EPA or by OEHHA. For a detailed description of cancer potency factors, refer to The Air Toxics Hot Spots Program Risk Assessment Guidelines; Part II; Technical Support Document for Describing Available Cancer Potency Factors (OEHHA, 1999b and 2002).

1.5.2 *Non-Carcinogenic Effects*

For noncarcinogenic effects, dose-response data developed from animal or human studies are used to develop acute and chronic noncancer Reference Exposure Levels (RELs). The acute and chronic RELs are defined as the concentration at which no adverse noncancer adverse health effects are anticipated. The most sensitive health effect is chosen to determine the REL if the chemical affects multiple organ systems. Unlike cancer health effects, noncancer acute and chronic health effects are generally assumed to have thresholds for adverse effects. In other words, acute or chronic injury from a pollutant will not occur until exposure to that pollutant has reached or exceeded a certain concentration (i.e., threshold). The acute and chronic RELs are intended to be below the threshold for health effects for the general population. The actual threshold for health effects in the general population is generally not known with any precision. Uncertainty factors are applied to the Lowest Observed Adverse Effects Level (LOAEL) or No Observed Adverse Effects Level (NOAEL) or Benchmark Concentration values from animal or human studies to help ensure that the chronic and acute REL values are below the threshold for human health for nearly all individuals. Some substances that pose a chronic inhalation hazard may also present a chronic hazard via non-inhalation routes of exposure (e.g., ingestion of contaminated water, foods, or soils, and dermal absorption). The methodology and derivations for acute and chronic RELs are described in the Air Toxics Hot Spots Program Risk Assessment Guidelines; Part I; The Determination of Acute Reference Exposure Levels for Airborne Toxicants (Part I TSD) (OEHHA 1999a) and Air Toxics Hot Spots Program Risk Assessment Guidelines; Part III; Technical Support Document for the Determination of Chronic Reference Exposure Levels (Part III TSD)(OEHHA 2000a).

1.5.3 Substances with Carcinogenic and Non-Carcinogenic Effects

Table ES-4 identifies each TAC from Table ES-1 as a carcinogen, or as having annual non-cancer chronic, 8-hour non-cancer chronic, or non-cancer acute health effects on a particular target organ system.

1.6 Summary of Results

Table ES-5 summarizes the HRA results and presents the MICR and Hazard Index (HI) for non-cancer health effects for the Point of Maximum Impact, the Maximally Exposed Individual Resident (MEIR), the highest exposed Sensitive Receptor, and the Maximally Exposed Individual Worker (MEIW). Some receptors may have base elevation below source base elevation; some receptors may have elevation above source elevation: The HRA considers both elevated and flat terrain. Results described herein represent the highest of the two terrain options.

The cancer burden is estimated to be 0.00005. This is less than the 0.5 Action Risk Level. An estimated 20 persons may be exposed to MICR greater than 1 in one million over a 70-year lifetime.

Since the general public has access to the facility during business hours, the HRA also evaluates short-term (acute) health risk for on-site receptors.

1.6.1 Cancer Risk

The receptors identified in Table ES-5 with 30-year exposure duration are shown in Figure ES-1.

The PMI (MICR = 3.81 in one million) is located at Receptor No. 11234 to the southeast of the base lodge. The MEIR (MICR = 2.73 in one million) is located at Receptor No. 11240, on the northern facility boundary.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the Zone of Impact (ZOI). The ZOI for cancer risk is defined as 1 in one million. There are no sensitive receptors within the ZOI for cancer risk. However, Figure ES-1 includes the Big Bear Middle School receptor with highest cancer risk. The estimated MICR at this receptor, Receptor No. 6023, is 0.29 in one million.

There are no residential/sensitive receptors with an estimated MICR that exceeds 10 in one million.

The MEIW (MICR = 0.04 in one million) is located at Receptor No. 5736 on the grounds of The Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-2. There are no worker receptors with an estimated MICR that exceeds 10 in one million.

The relative contribution of each exposure pathway to the totals is provided in Table ES-6. The non-inhalation exposure pathways contribute less than 10% of the cancer risk at each receptor identified in Table ES-6.

The TACs that account for at least 90% of the totals are provided in Table ES-7. DPM accounts for at least 90% of the cancer risk at the PMI, the MEIR, and the MEIW. DPM and 1,3-Butadiene account for at least 90% of the cancer risk at the highest exposed sensitive receptor.

The emission sources that account for at least 90% of the totals are provided in Table ES-7. A combination of the MCH DICE, gasoline-fueled APU, permit-exempt portable DICE, and permit-exempt natural gas-fueled combustion equipment account for at least 90% of the cancer risk at each of the identified receptors.

1.6.2 Non-Cancer Chronic Risk

Although residential and worker non-cancer chronic risk are evaluated over the same exposure duration, multipathway exposure effects can create different results for the same receptor. The PMI, MEIR, and highest exposed Sensitive receptors identified in Table ES-5 are shown in Figure ES-3.

The PMI (HIC = 0.004) is located at Receptor No. 10105 near the base lodge. The MEIR (HIC = 0.002) is located at Receptor No. 11240, on the northern facility boundary. The primary target organ for the PMI and the MEIR is the Respiratory System.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the ZOI. The ZOI for non-cancer chronic risk is defined as 0.5. There are no sensitive receptors within the ZOI for non-cancer chronic risk. However, Figure ES-3 includes the Big Bear Middle School receptor with highest HIC. The estimated HIC at this receptor, Receptor No. 6023, is 0.0003. The primary target organ for the highest exposed sensitive receptor is the Respiratory System.

The MEIW (HIC = 0.0004) is located at Receptor No. 5736 on the grounds of the Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-3. The primary target organ for the MEIW is the Respiratory System.

The relative contribution of each exposure pathway to the totals is provided in Table ES-8. The non-inhalation exposure pathways contribute less than 1% of the non-cancer chronic risk at each receptor identified in Table ES-8.

The TACs that account for at least 90% of the totals are provided in Table ES-9. A combination of Ammonia, Acrolein, DPM, Formaldehyde, and Chlorine account for at least 90% of the non-cancer chronic risk at the identified receptors.

The emission sources that account for at least 90% of the totals are provided in Table ES-9. A combination of the MCH DICE, gasoline-fueled APU, permit-exempt propane-fueled equipment, and permit-exempt natural gas-fueled combustion equipment account for at least 90% of the non-cancer chronic risk at each of the identified receptors.

1.6.3 8-Hour Non-Cancer Chronic Risk

The 8-hour non-cancer chronic risk calculation is identical for both residential and worker receptors. The PMI, MEIR, highest exposed Sensitive receptor, and MEIW identified in Table ES-5 are shown in Figure ES-4.

The PMI (HIC-8 = 0.0007) is located at Receptor No. 10105 near the base lodge. The MEIR (HIC-8 = 0.0002) is located at Receptor No. 10176, near the northern facility boundary. The primary target organ for the PMI and the MEIR is the Respiratory System.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the ZOI. The ZOI for 8-hour non-cancer chronic risk is defined as 0.5. There are no sensitive receptors within the ZOI for 8-hour non-cancer chronic risk. However, Figure ES-4 includes the Big Bear Middle School receptor with highest HIC-8. The estimated HIC-8 at this receptor, Receptor No. 6023, is 0.00008. The primary target organ for the highest exposed sensitive receptor is the Hematologic System.

The MEIW (HIC-8 = 0.00009) is located at Receptor No. 5736 on the grounds of the Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-4. The primary target organ for the MEIW is the Hematologic System.

The TACs that account for at least 90% of the totals are provided in Table ES-10. Formaldehyde and Acrolein account for at least 90% of the 8-hour non-cancer chronic risk at the PMI and the MIER; Benzene accounts for 100% of the 8-hour non-cancer chronic risk at the highest exposed sensitive receptor and the MEIW.

The emission sources that account for at least 90% of the totals are provided in Table ES-10. A combination of the gasoline-fueled APU, permit-exempt propane-fueled equipment, and permit-exempt natural gas-fueled combustion equipment account for at least 90% of the 8-hour non-cancer chronic risk at each of the identified receptors.

1.6.4 Off-Site Non-Cancer Acute Risk

The non-cancer acute risk calculation is identical for both residential and worker receptors. The PMI, MEIR, highest exposed Sensitive receptor, and MEIW identified in Table ES-5 are shown in Figure ES-5.

The PMI (HIA = 0.30) is located at Receptor No. 11030 on the southern facility boundary. The MEIR (HIA = 0.25) is located at Receptor No. 11242 on the northern facility boundary. The primary target organ for the PMI and the MEIR is the Immune System.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the ZOI. The ZOI for non-cancer acute risk is defined as 0.5. There are no sensitive receptors within the ZOI for non-cancer acute risk. However, Figure ES-5 includes the Big Bear Middle School receptor with highest HIA. The estimated HIA at this receptor, Receptor No. 6023, is 0.06. The primary target organ for the highest exposed sensitive receptor is the Immune System.

The MEIW (HIA = 0.08) is located at Receptor No. 5736 on the grounds of the Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-5. The primary target organ for the MEIW is the Immune System.

The TACs that account for at least 90% of the totals are provided in Table ES-11. Benzene and Nickel account for 100% of the non-cancer acute risk at each of the identified receptors.

The emission sources that account for at least 90% of the totals are provided in Table ES-11. The gasoline-fueled APU's account for essentially 100% of the non-cancer acute risk at each of the identified receptors.

1.6.5 Cancer Burden

The 70-year MICR is shown in Figure ES-6. As shown in Figure ES-6, there are four (4) census receptors with non-zero population with 70-year MICR that exceeds 1 in one million. The cancer burden calculation is shown in Table ES-12.

The maximum distance from the center of the facility to the edge of the 1.0 in one million isopleth is approximately 980 feet (300 meters).

Please note that the receptor numbering for the cancer burden analysis is different from the receptor numbering for the other analyses.

1.6.6 On-Site Non-Cancer Acute Risk

On-site non-cancer acute risk is evaluated assuming elevated and flat terrain. The PMI with elevated terrain is shown in Figure ES-7; the PMI with flat terrain is shown in Figure ES-8.

The PMI (HIA = 0.57) with elevated terrain is located at Receptor No. 144, near a gasoline-fueled APU. The PMI (HIA = 0.63) is also located at Receptor No. 144. The primary target organ for both terrain scenarios is the Immune System. Benzene and nickel associated with combustion of gasoline in gasoline-fueled APU's account for 100% of the non-cancer acute risk at the PMI.

Please note that the receptor numbering for the on-site non-cancer acute risk analysis is different from the receptor numbering for the other analyses.

1.6.7 Other Population Exposure Assessments

There are no residential receptors with non-cancer HI greater than 0.5. The HRA does not include an assessment of population exposure for non-cancer risk.

1.6.8 Lead Non-Carcinogenic Assessment

Lead is unique among TACs because of the way it accumulates in the blood stream. The California Air Resources Board (ARB) developed methods to assess non-carcinogenic impacts from lead. The methods are outlined in the Risk Management Guidelines for Lead (ARB 2001).

Lead emissions are not included in the HRA since it is not expected to be emitted by SCAQMD-regulated equipment at the facility; therefore, the HRA does not assess non-carcinogenic impacts from lead.

1.7 Computer Models

Dispersion Modeling Software

The Lakes Environmental Software implementation/user interface, AERMOD View™, Version 11.2.0, was used for this project. This version of AERMOD View™ implements Version 22112 of AERMOD.

Health Risk Assessment Software

Health risk calculations were performed using HARP2's Air Dispersion Modeling and Risk Tool (ADMRT, version 22118; Health Database, version 23118). The HARP2 model uses OEHHA equations and algorithms to calculate health risks based on input parameters, such as emissions, ground-level concentrations, and toxicological data, as presented in the OEHHA risk assessment guidelines.

1.8 Executive Summary Conclusion

The HRA results from Section 1.6 demonstrate that the health risk from Snow Summits' Calendar Year 2021 operations is below the applicable Notification Risk Levels, Action Risk Levels, and Significant Risk Levels from Rule 1402. Public Notice and preparation of a Risk Reduction Plan are not required.

AB2588 Health Risk Assessment Report

2.0 INTRODUCTION

In accordance with the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill 2588 (AB2588), this report presents the Health Risk Assessment (HRA) for the Snow Summit, LLC. (Snow Summit) facility located in Big Bear Lake, California. Snow Summit (SCAQMD Facility ID 185352) received a letter from the SCAQMD on August 17, 2022, that required Snow Summit to prepare an Air Toxics Inventory Report (ATIR) (ATIR Notice). The ATIR, based on Calendar Year 2021 emissions, was submitted to the SCAQMD on January 16, 2023. The SCAQMD approved the January 16, 2023, version of the ATIR and provided Snow Summit with a notice to prepare an HRA on March 31, 2023 (HRA Notice). The HRA report is due to be submitted to the SCAQMD within 90 days of March 31, 2023. Yorke Engineering, LLC (Yorke) requested an extension from the SCAQMD on behalf of Snow Summit. An extension of two weeks was approved by the SCAQMD, resulting in a final due date of July 13, 2023. The HRA report is submitted before the July 13, 2023, due date.

The HRA was prepared in accordance with both the State of California Office of Environmental Health Hazard Assessment’s (OEHHA) February 2015 *Air Toxics Hot Spots Program Risk Assessments Guidelines* (OEHHA HRA Guidelines) and the SCAQMD’s October 2020 *AB2588 and Rule 1402 Supplemental Guidelines* (SCAQMD Supplemental Guidelines). The HRA Notice states that:

- If the results show that the facility poses a Maximum Individual Cancer Risk (MICR) of ten in one million (10×10^{-6}) or greater, or the non-cancer health effects hazard index exceeds one (1.0), Snow Summit must provide public notice to all individuals exposed above notification levels; and
- If the results show that the facility poses a MICR of 25 in one million (25×10^{-6}) or greater, cancer burden of 0.5 or greater, or non-cancer health effects hazard index of three (3.0) or greater, Snow Summit will also be subject to the risk reduction provisions of Rule 1402(f).

This HRA report was prepared by Yorke on behalf of Snow Summit. The report presents the methodology used for preparing the HRA as well as the results and follows the outline from Appendix B of the SCAQMD Supplemental Guidelines.

All geographical coordinates referenced herein are Universal Transverse Mercator (UTM), World Geodetic System 1984 (WGS84).

3.0 HAZARD IDENTIFICATION

The first step in preparing an HRA is to identify the Toxic Air Contaminants (TACs) of concern and the source(s) of emissions of each TAC, and then to estimate the emissions from each source. This process is known as the “hazard identification.”

3.1 Description of Operations and Emission Inventory

Snow Summit (SCAQMD Facility ID 185352) is located at 880 Summit Boulevard in Big Bear Lake, California. Snow Summit established Ski Resort Operations in 1952 and has one of the largest skiable resort boundaries in Southern California of 240 acres, with a 1,209ft topographic vertical drop. Snow Summit in fall and winter months operates eleven (11) ski lifts and, in the summer, operates limited lifts for a mountain bike park.

To supplement natural snowfall, Snow Summit conducts snow making operations in the fall and winter months. Snow cannons or snow guns are positioned strategically across the resort so that in a few days of their continuous operation, 95% of all trails can be covered with snow. The snow making operations are driven by six (6) Diesel-Fueled Internal Combustion Engine (DICE) generators which provide power to the majority of the equipment associated with the snow making operations such as but not limited to compressors, water pumps, monitoring equipment, etc. Water, drawn from Big Bear Lake, and compressed air are routed to the snow cannons where the cannon’s nozzle atomizes the water creating snow. Each engine is equipped with Selective Catalytic Reduction (SCR) for NO_x control, Oxidation Catalyst (OxCat) for CO/VOC control, and Diesel Particulate Filter (DPF) for Diesel Particulate Matter (DPM) control. Three (3) engines are located in a building near the base lodge known as the Main Compressor House (MCH). The other three (3) engines, known internally as the SOKO engines, are located in the Soko building, which is situated at the top of the ski resort.

To access the skiable terrain Snow Summit operates eleven (11) ski lifts and several people mover conveyors (conveyors) providing access to any of the thirty-one ski runs, beginner through advanced. The estimated maximum lift occupancy capacity is 18,550 passengers an hour spread across the eleven (11) ski lifts and five (5) conveyors. The eleven (11) lifts each require an emergency engine, known as an Auxiliary Power Unit (APU), so in the case of a power outage (Bear Valley Electric Service, Inc.), the lifts’ passengers can be unloaded safely. Normal APU operations are for Maintenance & Testing (M&T) purposes to ensure readiness. Two (2) APU’s are diesel-fueled; nine (9) APU’s are gasoline-fueled. Additionally, there are several food/lodge facilities located around the resort for customer use.

Miscellaneous sources evaluated in the HRA include permit-exempt portable DICE (operated in the on-site maintenance shop), permit-exempt natural gas-fueled combustion equipment (conservatively associated with the base lodge in the HRA), permit-exempt propane-fueled heaters and food preparation equipment (conservatively associated with the base lodge in the HRA), and gasoline dispensing equipment.

The emission inventory is shown in detail in Appendix A and includes TAC emissions from:

- Combustion of diesel in the MCH DICE [Table A.1];
- Combustion of diesel in the SOKO DICE [Table A.2];
- Combustion of gasoline in APU's [Tables A.3, A.4, and A.5];
- Combustion of diesel in APU's [Table A.6];
- Combustion of diesel in permit-exempt DICE [Table A.7];
- Combustion of natural gas in permit-exempt natural gas-fueled combustion equipment [Table A.8];
- Combustion of propane in permit-exempt propane-fueled heaters and food preparation equipment [Table A.9]; and
- Gasoline dispensing [Table A.10].

3.2 Emission Summary

A summary of the emission inventory is provided in Appendix A, Tables A.11 and A.12. Appendix A, Table A.12 also shows whether each chemical has carcinogenic and/or non-carcinogenic effects and may contribute to health risk through non-inhalation exposure pathways. Cancer potency factors and Reference Exposure Levels (REL), and target organs for non-cancer health effects are shown in Appendix A, Table A.13 and Appendix A, Table A.14, respectively.

4.0 EXPOSURE ASSESSMENT

The second step in preparing an HRA is the “exposure assessment”. The exposure assessment includes modeling of environmental transport, evaluation of environmental fate, identification of exposure routes, determination of exposed population, and estimation of ground-level concentrations at receptors.

4.1 Facility Description

Snow Summit operates under SCAMQD Facility ID 185352 and is located in Big Bear Lake at 880 Summit Boulevard, California. An aerial of Snow Summit and its surroundings is provided in Figure 4-1. The elevation map in Figure 4-2 shows that some areas outside of the facility boundary may have base elevation below source base elevation and some areas outside of the facility boundary may have base elevation above source base elevation.

The MCH DICE, SOKO DICE, gasoline-fueled APU’s, and diesel-fueled APU’s are included in the dispersion model as Point Sources. Point Source locations are shown in Figures 4-3, 4-4, and 4-5.

The permit-exempt propane-fueled heaters and food preparation equipment are included in the dispersion model as Area Sources. Area Source locations are shown in Figure 4-6.

The permit-exempt DICE, permit-exempt natural gas-fueled combustion equipment, and gasoline dispensing are included in the dispersion model as Volume Sources. Volume Source locations are shown in Figure 4-7.

Releases from Point Sources may be affected by nearby buildings through a phenomenon known as building downwash. The dispersion model includes the nearby buildings that may affect the model’s Point Sources. Buildings may be defined as rectangular, circular, or polygonal. Rectangular buildings [twenty-four (24) total] are shown in Figures 4-8, 4-9, and 4-10; polygonal buildings [four (4) total] are shown in Figure 4-11. The dispersion model does not include circular buildings. Rectangular building dimensions are provided in Appendix B, Table B.1 and polygonal building parameters are provided in Appendix B, Table B.2.

The HRA includes the default exposure pathways for all receptors as identified in Section 4.4 of the SCAQMD Supplemental Guidelines. The exposure pathways of drinking water consumption, fish ingestion, dairy milk ingestion, and meat ingestion are excluded since Snow Summit does not impact a local water reservoir, a local fishable body of water, a dairy, or grazing land, respectively.

4.2 Release Parameters

The dispersion model includes twenty-four (24) releases: seventeen (17) Point Sources, two (2) Area Sources, and five (5) Volume Sources. Point Source parameters are provided in Appendix C, Table C.1. Area Source parameters are provided in Appendix C, Table C.2. Volume Source parameters are provided in Appendix C, Table C.3. The assignment of emissions from each emission source to each release and the emission source operating schedule are shown in Appendix C, Table C.4.

4.3 Air Dispersion Modeling

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emission sources. The models calculate the concentration of selected pollutants at specific downwind ground-level points, such as residential or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and by meteorological and environmental conditions. Factors such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations affect the predicted concentration of an air pollutant. Air dispersion models take all these factors into consideration when calculating downwind ground-level pollutant concentrations.

The air dispersion model used for this HRA is the **AMS/EPA Regulatory Model (AERMOD)**. AERMOD is a steady-state plume dispersion model that incorporates air dispersion calculations based on planetary boundary layer turbulence structure and scaling concepts. AERMOD includes the treatment of both surface and elevated sources and simple and complex terrain. AERMOD, like most dispersion models, uses mathematical algorithms to characterize the atmospheric processes that disperse pollutants emitted by a source. Using emission rates, exhaust parameters, terrain characteristics, and meteorological inputs, AERMOD calculates downwind pollutant concentrations at specified receptor locations. For this facility, the results from the AERMOD runs were imported into an HRA program for further processing and analysis. AERMOD is recommended by both the EPA and the SCAQMD for stationary source air dispersion modeling projects. The air dispersion modeling methodology was based extensively on SCAQMD guidance and is described in Sections 4.3.1 through 4.3.7.

The Lakes Environmental Software implementation/user interface, AERMOD View™, Version 11.2.0, was used for this project. AERMOD View™, Version 11.2.0 implements Version 22112 of AERMOD

Electronic modeling files have been provided to the SCAQMD with the HRA report. These files include the AERMOD meteorological files and dispersion model input and output files, including the summary file and the individual source 1-hour and period plot files containing the X/Q (Chi/Q) concentrations.

4.3.1 Modeling Options

AERMOD View™ allows the user to select from a variety of dispersion options. Some receptors may have base elevation below source base elevation; some receptors may have elevation above source elevation: The HRA considers both “Regulatory Default” options with elevated terrain and “Non-Default” flat terrain, and outputs unitized Ground-Level Concentrations (GLC) for each emission source for the period average and the maximum 1-hour average.

4.3.2 Receptor Grids

Satellite maps within the AERMOD View™ program were used for visualizing the results of the HRA and developing the receptor grid.

The modeling domain is sufficiently large to encompass both the cancer risk and non-cancer risk Zones of Impact (ZOI). The ZOI for cancer risk is assumed to be all receptors within the 1×10^{-6} cancer risk isopleth and each ZOI for non-cancer risk (non-cancer chronic, 8-hour non-cancer chronic, and non-cancer acute) is assumed to include all receptors within the 0.5 Hazard Index (HI) isopleths.

The dispersion model contains a combination of a fenceline grid and a uniform cartesian grid. The fenceline grid and uniform cartesian grid capture health effects at and near the fenceline, and within and in the areas surrounding the facility, respectively. All receptors are set at a height of 0 meters, i.e., the dispersion model does not consider flagpole receptors.

The fenceline grid places a receptor every 20 meters along the facility boundary, with additional receptors placed every 25 meters from the facility boundary to a distance of 150 meters.

The uniform cartesian grid is centered on the approximate centroid of the polygon formed by the emission sources. The uniform cartesian grid contains 10,000 total receptors: 100 50-meter spaced receptors in the vertical and horizontal direction.

There are no sensitive receptors within the ZOI for cancer risk or non-cancer risk. Health risk at the nearest sensitive receptor, Big Bear Middle School, is evaluated from the uniform cartesian grid.

The fenceline grid is shown in Figure 4-12; the off-site uniform cartesian grid is shown in Figure 4-13; and the on-site uniform cartesian grid is shown in Figure 4-14.

The population exposure assessment is based on a separate grid of census receptors. The population exposure assessment includes all census receptors within approximately 4,000 meters of the facility boundary. Census receptors are shown in Figure 4-15.

4.3.3 Terrain Options

For the elevated scenario, terrain data is imported directly into AERMOD View™ using the WebGIS import feature. The terrain data is from the United States Geological Survey (USGS) National Elevation Dataset (NED) and has a spatial resolution of approximately 10 meters (1/3 arcsecond). The terrain data file¹ is processed by AERMOD View™ using AERMAP Version 18081, with elevations assigned to receptors, buildings, and emission sources accordingly.

It should be noted that the Snow Summit facility has receptors that are located above the base elevation of the emissions sources and receptors that are located below the base elevation of the emissions sources. Therefore, in accordance with SCAQMD procedures, two sets of modeling runs were prepared: one with elevated terrain and one with flat terrain. For this HRA, flat terrain mode usually produced the highest off-site emissions concentrations and was used in subsequent analysis where appropriate.

¹ USGS_NED_13_n35w117.tif

4.3.4 Building Downwash

Building downwash effects are assessed using Building Profile Input Program for PRIME (BPIPPRM). The dispersion model includes the buildings shown in Figures 4-8 through 4-11.

4.3.5 Meteorology

Meteorological (MET) data is available on the SCAQMD website. Figure 4-16 shows the three MET stations that are closest to Snow Summit, along with a circle of radius three (3) kilometers centered on Snow Summit and each station.

Snow Summit is closest to the Redlands MET station. The HRA is based on data from the Redlands MET station. The base elevation of the station is 481 meters; the files contain data for 2012-2016. A wind rose for the Redlands MET station is provided in Appendix D.

4.3.6 Deposition

Deposition is accounted for in the multipathway exposure assessment, as necessary, but not in the air dispersion modeling.

4.3.7 Urban / Rural Dispersion

AERMOD allows for the use of urban or rural dispersion coefficients. The determination of whether a facility is in an urban or rural area follows the Auer method noted in the References section of 40 CFR Part 51 Appendix W. The Auer method requires drawing a circle with a 3-kilometer radius centered on the centroid of the emission source locations and classifying the land use types within the circle as urban or rural according to a set of criteria. Although the SCAQMD Supplemental Guidelines state that the default assumption is urban, rural is used for this HRA since nearly all of the areas within a 3-kilometer radius are rural.

4.4 Ground-Level Concentrations

GLCs are provided in Appendix E for the Point of Maximum Impact (PMI), the Maximally Exposed Individual Resident (MEIR), the highest exposed Sensitive receptor, and the Maximally Exposed Individual Worker (MEIW) for cancer risk and non-cancer risk for both the elevated and flat terrain scenarios.

5.0 RISK CHARACTERIZATION

The TAC emission inventory is described in Section 3.0. The exposure assessment is conducted through dispersion modeling as described in Section 4.0. Section 5.0 describes how these analyses are combined with the current OEHHA cancer potency factors and RELs from Appendix A, Table A.13 and the target organ data from Appendix A, Table A.14 to calculate health risk.

5.1 HRA Methodology

HARP2 was used to conduct the dose-response assessment and risk characterization. The dose-response assessment is the relationship between pollutant exposure and potential incidence of an adverse health effect in the exposed populations. It is determined for each chemical using the most current OEHHA potency factors for cancer risk and RELs for non-cancer risks, which are incorporated into HARP2. Human doses were calculated for the modeled environmental exposures over specified time periods via multiple environmental pathways using the AERMOD dispersion modeling results. The risk characterization integrates the health effects and public exposure information and provides quantitative estimates of health risks resulting from facility TAC emissions.

The health risk calculations were performed using HARP2's Air Dispersion Modeling and Risk Tool (ADMRT, version 22118; Health Database, version 23118). The HARP2 model uses OEHHA equations and algorithms to calculate health risks based on input parameters, such as emissions, X/Q concentrations, and toxicological data, as presented in the OEHHA risk assessment guidelines.

A description of the health risk indices and associated calculations is provided in Sections 5.1.1 through 5.1.4.

HARP2 input and output files have been provided to the SCAQMD with the HRA report.

5.1.1 Cancer Risk

Cancer risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over an extended period. Per the SCAQMD Supplemental Guidelines, this HRA estimates cancer risk over a 30-year period for residential, sensitive, and PMI grid receptor locations, and a 25-year period for off-site worker receptor locations.

Residential/sensitive/grid receptor cancer risk estimates were calculated using the California Air Resources Board's (ARB's) Risk Management Policy (RMP), "RMP Using the Derived Method," and off-site workplace cancer risk estimates used the "OEHHA Derived" calculation method. The RMP uses high-end breathing rates (95th percentile) for children from the 3rd trimester through age 2 and 80th percentile breathing rates for all other ages for residential exposures (ARB/CAPCOA 2015). The "OEHHA Derived" method uses high-end exposure parameters for the top two exposure pathways and mean exposure parameters for the remaining pathways for cancer risk estimates. The "RMP Using the Derived Method" combines the two approaches.

5.1.2 Non-Cancer Chronic Risk

Long-term (chronic) exposure to some TACs may be associated with non-cancer health effects. The non-cancer chronic Hazard Index (HIC) is the sum of the individual substance HICs for all TACs affecting the same target organ system. Chronic risk was calculated using the “OEHHA Derived” Method at all receptors for an annual exposure duration.

To ensure potential offsite worker exposure is fully assessed, an 8-hour non-cancer chronic Hazard Index (HIC-8) was estimated in a similar manner to the annual HIC. The 8-hour RELs were developed principally for exposure of individuals during 8-hour work schedules. OEHHA recommends estimating the HIC-8 from daily average 8-hour exposure for those chemicals with 8-hour RELs at worker receptors. The HRA conservatively calculates HIC-8 from the annual average GLC.

5.1.3 Non-Cancer Acute Risk

Short-term (acute) exposure to some TACs may be associated with non-cancer health effects. The non-cancer acute Hazard Index (HIA) is the sum of the individual substance HIAs for all TACs affecting the same target organ system. Acute risk was calculated at all receptors from the maximum 1-hour average GLC of each TAC.

5.1.4 Cancer Burden

Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a cancer risk of greater than or equal to one in one million (1×10^{-6}) based on a 70-year exposure to TACs. The cancer burden is determined for the population located within the ZOI, which is defined as the area within the 1 in one million cancer risk isopleth for a 70-year exposure.

Since the cancer risk based on a 70-year exposure was predicted to be greater than 1 in one million, the HRA includes an estimate of cancer burden. A separate grid of specific “census receptors” was developed in HARP2. For each “census” location, the corresponding population represented by the receptor is from the 2010 census. At the receptors where the 70-year cancer risk was predicted to be greater than 1 in one million, the cancer risk was multiplied by the population, then the cancer burden was calculated as the sum of these values.

5.2 HARP2 Model Options

The HRA includes a multipathway assessment. The relevant HARP2 model options are shown in Table 5-1. Residential and sensitive receptors are evaluated using the residential exposure assumptions. Worker receptors are evaluated using the worker exposure assumptions.

5.3 HRA Results

Table ES-5 summarizes the HRA results and presents the MICR and Hazard Index (HI) for non-cancer health effects for the Point of Maximum Impact, the Maximally Exposed Individual Resident (MEIR), the highest exposed Sensitive Receptor, and the Maximally Exposed Individual Worker (MEIW). Some receptors may have base elevation below source base elevation; some receptors may have elevation above source elevation: The HRA considers both elevated and flat terrain. Results described herein represent the highest results of the two terrain options.

The cancer burden is estimated to be 0.00005. This is less than the 0.5 Action Risk Level. An estimated 20 persons may be exposed to MICR greater than 1 in one million over a 70-year lifetime.

Since the general public has access to the facility during business hours, the HRA also evaluates short-term (acute) health risk for on-site receptors.

5.3.1 Cancer Risk

The receptors identified in Table ES-5 with 30-year exposure duration are shown in Figure ES-1.

The PMI (MICR = 3.81 in one million) is located at Receptor No. 11234 to the southeast of the base lodge. The MEIR (MICR = 2.73 in one million) is located at Receptor No. 11240, on the northern facility boundary.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the Zone of Impact (ZOI). The ZOI for cancer risk is defined as 1 in one million. There are no sensitive receptors within the ZOI for cancer risk. However, Figure ES-1 includes the Big Bear Middle School receptor with highest cancer risk. The estimated MICR at this receptor, Receptor No. 6023, is 0.29 in one million.

There are no residential/sensitive receptors with an estimated MICR that exceeds 10 in one million.

The MEIW (MICR = 0.04 in one million) is located at Receptor No. 5736 on the grounds of The Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-2. There are no worker receptors with an estimated MICR that exceeds 10 in one million.

The relative contribution of each exposure pathway to the totals is provided in Table ES-6. The non-inhalation exposure pathways contribute less than 10% of the cancer risk at each receptor identified in Table ES-6.

The TACs that account for at least 90% of the totals are provided in Table ES-7. DPM accounts for at least 90% of the cancer risk at the PMI, the MEIR, and the MEIW. DPM and 1,3-Butadiene account for at least 90% of the cancer risk at the highest exposed sensitive receptor.

The emission sources that account for at least 90% of the totals are provided in Table ES-7. A combination of the MCH DICE, gasoline-fueled APU, permit-exempt portable DICE, and permit-exempt natural gas-fueled combustion equipment account for at least 90% of the cancer risk at each of the identified receptors.

Appendix F, Tables F.1 (elevated terrain) and F.2 (flat terrain) contain a detailed breakdown of contribution by substance; Appendix F, Tables F.3 (elevated terrain) and F.4 (flat terrain) contain a detailed breakdown of contribution by emission source.

5.3.2 Non-Cancer Chronic Risk

Although residential and worker non-cancer chronic risk are evaluated over the same exposure duration, multipathway exposure effects can create different results for the same receptor. The PMI, MEIR, and highest exposed Sensitive receptors identified in Table ES-5 are shown in Figure ES-3.

The PMI (HIC = 0.004) is located at Receptor No. 10105 near the base lodge. The MEIR (HIC = 0.002) is located at Receptor No. 11240, on the northern facility boundary. The primary target organ for the PMI and the MEIR is the Respiratory System.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the ZOI. The ZOI for non-cancer chronic risk is defined as 0.5. There are no sensitive receptors within the ZOI for non-cancer chronic risk. However, Figure ES-3 includes the Big Bear Middle School receptor with highest HIC. The estimated HIC at this receptor, Receptor No. 6023, is 0.0003. The primary target organ for the highest exposed sensitive receptor is the Respiratory System.

The MEIW (HIC = 0.0004) is located at Receptor No. 5736 on the grounds of the Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-3. The primary target organ for the MEIW is the Respiratory System.

The relative contribution of each exposure pathway to the totals is provided in Table ES-8. The non-inhalation exposure pathways contribute less than 1% of the non-cancer chronic risk at each receptor identified in Table ES-8.

The TACs that account for at least 90% of the totals are provided in Table ES-9. A combination of Ammonia, Acrolein, DPM, Formaldehyde, and Chlorine account for at least 90% of the non-cancer chronic risk at the identified receptors.

The emission sources that account for at least 90% of the totals are provided in Table ES-9. A combination of the MCH DICE, gasoline-fueled APU, permit-exempt propane-fueled equipment, and permit-exempt natural gas-fueled combustion equipment account for at least 90% of the non-cancer chronic risk at each of the identified receptors.

Appendix F, Tables F.5 (elevated terrain) and F.6 (flat terrain) contain a detailed breakdown of contribution by substance; Appendix F, Tables F.7 (elevated terrain) and F.8 (flat terrain) contain a detailed breakdown of contribution by emission source.

5.3.3 8-Hour Non-Cancer Chronic Risk

The 8-hour non-cancer chronic risk calculation is identical for both residential and worker receptors. The PMI, MEIR, highest exposed Sensitive receptor, and MEIW identified in Table ES-5 are shown in Figure ES-4.

The PMI (HIC-8 = 0.0007) is located at Receptor No. 10105 near the base lodge. The MEIR (HIC-8 = 0.0002) is located at Receptor No. 10176, near the northern facility boundary. The primary target organ for the PMI and the MEIR is the Respiratory System.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the ZOI. The ZOI for 8-hour non-cancer chronic risk is defined as 0.5. There are no sensitive receptors within the ZOI for 8-hour non-cancer chronic risk. However, Figure ES-4 includes the Big Bear Middle School receptor with highest HIC-8. The estimated HIC-8 at this receptor, Receptor No. 6023, is 0.00008. The primary target organ for the highest exposed sensitive receptor is the Hematologic System.

The MEIW (HIC-8 = 0.00009) is located at Receptor No. 5736 on the grounds of the Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-4. The primary target organ for the MEIW is the Hematologic System.

The TACs that account for at least 90% of the totals are provided in Table ES-10. Formaldehyde and Acrolein account for at least 90% of the 8-hour non-cancer chronic risk at the PMI and the MIER; Benzene accounts for 100% of the 8-hour non-cancer chronic risk at the highest exposed sensitive receptor and the MEIW.

The emission sources that account for at least 90% of the totals are provided in Table ES-10. A combination of the gasoline-fueled APU, permit-exempt propane-fueled equipment, and permit-exempt natural gas-fueled combustion equipment account for at least 90% of the 8-hour non-cancer chronic risk at each of the identified receptors.

Appendix F, Tables F.9 (elevated terrain) and F.10 (flat terrain) contain a detailed breakdown of contribution by substance; Appendix F, Tables F.11 (elevated terrain) and F.12 (flat terrain) contain a detailed breakdown of contribution by emission source.

5.3.4 Off-Site Non-Cancer Acute Risk

The non-cancer acute risk calculation is identical for both residential and worker receptors. The PMI, MEIR, highest exposed Sensitive receptor, and MEIW identified in Table ES-5 are shown in Figure ES-5.

The PMI (HIA = 0.30) is located at Receptor No. 11030 on the southern facility boundary. The MEIR (HIA = 0.25) is located at Receptor No. 11242 on the northern facility boundary. The primary target organ for the PMI and the MEIR is the Immune System.

The SCAQMD Supplemental Guidelines require identification of all sensitive receptors within the ZOI. The ZOI for non-cancer acute risk is defined as 0.5. There are no sensitive receptors within the ZOI for non-cancer acute risk. However, Figure ES-5 includes the Big Bear Middle School receptor with highest HIA. The estimated HIA at this receptor, Receptor No. 6023, is 0.06. The primary target organ for the highest exposed sensitive receptor is the Immune System.

The MEIW (HIA = 0.08) is located at Receptor No. 5736 on the grounds of the Salvation Army's Pine Summit Christian Camp. This receptor is shown in Figure ES-5. The primary target organ for the MEIW is the Immune System.

The TACs that account for at least 90% of the totals are provided in Table ES-11. Benzene and Nickel account for 100% of the non-cancer acute risk at each of the identified receptors.

The emission sources that account for at least 90% of the totals are provided in Table ES-11. The gasoline fueled APU's account for essentially 100% of the non-cancer acute risk at each of the identified receptors.

Appendix F, Tables F.13 (elevated terrain) and F.14 (elevated terrain) contain a detailed breakdown of contribution by substance; Appendix F, Tables F.15 (elevated terrain) and F.16 (flat terrain) contain a detailed breakdown of contribution by emission source.

5.3.5 Cancer Burden

The 70-year MICR is shown in Figure ES-6. As shown in Figure ES-6, there are four census receptors with non-zero population with 70-year MICR that exceeds 1 in one million. The cancer burden calculation is shown in Table ES-12.

The maximum distance from the center of the facility to the edge of the 1.0 in one million isopleth is approximately 980 feet (300 meters).

Please note that the receptor numbering for the cancer burden analysis is different from the receptor numbering for the other analyses.

Appendix F, Table F.17 shows the cancer burden calculation in detail.

5.3.6 On-Site Non-Cancer Acute Risk

On-site non-cancer acute risk is evaluated assuming elevated and flat terrain. The PMI with elevated terrain is shown in Figure ES-7; the PMI with flat terrain is shown in Figure ES-8.

The PMI (HIA = 0.57) with elevated terrain is located at Receptor No. 144, near a gasoline-fueled APU. The PMI (HIA = 0.63) is also located at Receptor No. 144. The primary target organ for both terrain scenarios is the Immune System. Benzene and nickel associated with combustion of gasoline in gasoline-fueled APU's account for 100% of the non-cancer acute risk at the PMI.

Appendix F, Tables F.13 (elevated terrain) and F.14 (elevated terrain) contain a detailed breakdown of contribution by substance; Appendix F, Tables F.15 (elevated terrain) and F.16 (flat terrain) contain a detailed breakdown of contribution by emission source.

Please note that the receptor numbering for the on-site non-cancer acute risk analysis is different from the receptor numbering for the other analyses.

5.3.7 Other Population Exposure Assessments

There are no residential receptors with non-cancer HI greater than 0.5. The HRA does not include an assessment of population exposure for non-cancer risk.

5.3.8 Lead Non-Carcinogenic Assessment

Lead is unique among TACs because of the way it accumulates in the blood stream. The California Air Resources Board (ARB) developed methods to assess non-carcinogenic impacts from lead. The methods are outlined in the Risk Management Guidelines for Lead (ARB 2001).

Lead emissions are not included in the HRA since it is not expected to be emitted by SCAQMD-regulated equipment at the facility; therefore, the HRA does not assess non-carcinogenic impacts from lead.

5.4 Uncertainty Analysis

Yorke used appropriate engineering and scientific methods in the health risk analysis presented in this report. However, there is a certain amount of uncertainty associated with the process of risk assessments. Uncertainty may be defined as what is not known and may be reduced with further scientific studies. The uncertainty arises from a lack of data in many areas, which necessitates the use of assumptions. Sources of uncertainty, which may either underestimate or more likely overestimate the off-site impact, include:

- Exposure Estimates – These uncertainties are typically associated with the air dispersion model, which uses mathematical equations to simulate pollutant dispersion in ambient air.
- Toxicity Data – This area represents great uncertainty due to a lack of human data. Toxicologists use various assumptions, safety factors, and uncertainty factors to adjust the toxicity data from animal studies to human.
- Health Risk Characterization – Various assumptions are used in the health risk calculations that overestimate the potential risks; however, OEHHA recommends the use of these parameters in preparing AB2588 HRAs to allow comparisons of different facilities in the AB2588 program.
- Operating Schedule – The actual equipment operating schedule is variable, but the HRA assumes the equipment could emit TACs in any hour. It is unlikely that all equipment operates during every hour without shutdown periods for maintenance, outages, etc.

In general, a conservative approach was used throughout the risk assessment.

In summary, the risk estimates generated by this HRA should not be interpreted as the expected rates of disease in the exposed population, but rather as estimates of potential risks, based on current knowledge and several conservative assumptions.

5.5 Control Alternatives and Remedial Measures

The HRA results from Section 5.3 demonstrate that the health risk from Snow Summit's Calendar Year 2021 operations is below the applicable Notification Risk Levels, Action Risk Levels, and Significant Risk Levels from Rule 1402. Public Notice and preparation of a Risk Reduction Plan are not required.

6.0 REFERENCES

California Air Resource Board (ARB) and California Air Pollution Control Officers Association (CAPCOA). 2015. Risk Management Guidance for Stationary Sources of Air Toxics. July 23.

California Air Resource Board (ARB). 2001. Risk Management Guidelines for New, Modified, and Existing Sources of Lead. March 2001.

California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. February 2015.

South Coast Air Quality Management District (SCAQMD). 2020. AB2588 and Rule 1402 Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics “Hot Spots” Information and Assessment Act). October 2020.

REPORT TABLES

Table Number	Table Title
ES-1	Facility-Wide Emissions
ES-2	Multipathway Substances
ES-3	HRA Exposure Pathways
ES-4	Substances with Carcinogenic and Non-Carcinogenic Health Effects
ES-5	Summary of Results
ES-6	Summary of Results – Cancer Risk by Exposure Pathway
ES-7	Summary of Results – Cancer Risk by Substance and Emission Source
ES-8	Summary of Results – Non-Cancer Chronic Risk by Exposure Pathway
ES-9	Summary of Results – Non-Cancer Chronic Risk by Substance and Emission Source
ES-10	Summary of Results – 8-Hour Non-Cancer Chronic Risk by Substance and Emission Source
ES-11	Summary of Results – Off-Site Non-Cancer Acute Risk by Substance and Emission Source
ES-12	Summary of Results – Cancer Burden
5-1	HARP2 Model Options

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-1

Facility-Wide Emissions

CAS No.	Chemical Name	Sources Generating Emissions ¹	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	Rule 219-Exempt NG, Rule 219-Exempt Propane	8.6789E-04	2.9804E-07
9901	Diesel engine exhaust, particulate matter (Diesel PM)	MCH, SOKO, APU (Diesel), Rule 219-Exempt DICE	2.1723E+02	1.2373E+00
50000	Formaldehyde	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane	6.6454E+00	2.6548E-01
67561	Methanol	APU (Gasoline)	1.4578E+00	5.9552E-02
71432	Benzene	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane, Gasoline Dispensing	7.2958E+00	2.9270E-01
75070	Acetaldehyde	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane	1.5993E+00	6.3819E-02
78933	Methyl ethyl ketone (2-Butanone)	APU (Gasoline)	1.2496E-01	5.1045E-03
91203	Naphthalene	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane	2.7335E-01	1.1061E-02
95476	o-Xylene	APU (Gasoline)	3.2281E+00	1.3187E-01
95636	1,2,4-Trimethylbenzene	APU (Gasoline)	2.6241E+00	1.0719E-01
100414	Ethyl benzene	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane, Gasoline Dispensing	3.2629E+00	1.2766E-01
100425	Styrene	APU (Gasoline)	2.7074E-01	1.1060E-02
106990	1,3-Butadiene	APU (Gasoline)	1.7286E+00	7.0612E-02
107028	Acrolein	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane	3.9831E-01	1.5321E-02
108383	m-Xylene	APU (Gasoline)	9.2678E+00	3.7858E-01
108883	Toluene	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane	1.4459E+01	5.7776E-01
110543	Hexane	APU (Gasoline), Rule 219-Exempt NG, Rule 219-Exempt Propane	2.7829E+00	1.1147E-01
1330207	Xylenes (mixed)	Rule 219-Exempt NG, Rule 219-Exempt Propane	2.3607E-01	8.1067E-05
1634044	Methyl tert-butyl ether	APU (Gasoline)	3.8737E+00	1.5824E-01

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-1

Facility-Wide Emissions

CAS No.	Chemical Name	Sources Generating Emissions ¹	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
7439965	Manganese	APU (Gasoline)	6.1176E-03	2.4990E-04
7440020	Nickel	APU (Gasoline)	6.1176E-03	2.4990E-04
7440508	Copper	APU (Gasoline)	6.1176E-03	2.4990E-04
7664417	Ammonia	MCH, SOKO, Rule 219-Exempt NG, Rule 219-Exempt Propane	1.9198E+02	4.3766E-01
7782505	Chlorine	APU (Gasoline)	8.5646E-01	3.4986E-02

Notes: 1. MCH = Main Compressor House DICE, SOKO = SOKO DICE, APU (Diesel) = Diesel-Fueled APU, APU (Gasoline) = Gasoline-Fueled APU, Rule 219-Exempt Diesel = Permit-Exempt Portable DICE, Rule 219-Exempt NG = Permit-Exempt Natural Gas-Fueled Combustion Equipment, Rule 219-Exempt Propane = Permit-Exempt Propane-Fueled Heaters and Food Preparation Equipment, Gasoline Dispensing = Gasoline Dispensing Equipment

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021
Executive Summary | Table ES-2

Multipathway Substances

CAS No.	Chemical Name	Multipathway Substance?	Soil Ingestion	Dermal	Mother's Milk	Drinking Water ¹	Fish ¹	Homegrown Produce	Beef / Dairy ¹	Pigs, Chickens, and/or Eggs ¹
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	Yes	X	X		X		X	X	X
9901	Diesel engine exhaust, particulate matter (Diesel PM)	No								
50000	Formaldehyde	No								
67561	Methanol	No								
71432	Benzene	No								
75070	Acetaldehyde	No								
78933	Methyl ethyl ketone (2-Butanone)	No								
91203	Naphthalene	No								
95476	o-Xylene	No								
95636	1,2,4-Trimethylbenzene	No								
100414	Ethyl benzene	No								
100425	Styrene	No								
106990	1,3-Butadiene	No								
107028	Acrolein	No								
108383	m-Xylene	No								
108883	Toluene	No								
110543	Hexane	No								
1330207	Xylenes (mixed)	No								
1634044	Methyl tert-butyl ether	No								
7439965	Manganese	No								
7440020	Nickel	Yes	X	X	X	X	X	X	X	X
7440508	Copper	No								
7664417	Ammonia	No								
7782505	Chlorine	No								

Notes: Please refer to Table ES-3. Although some substances included in the HRA may contribute to risk through these exposure pathways, these exposure pathways are excluded since Snow Summit does not impact applicable land uses that could lead to exposure through these pathways.

Reference: HARP2 Health Database, Version 23118.

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021
Executive Summary | Table ES-3

HRA Exposure Pathways

Exposure Pathway	Residential / Sensitive Receptors	Worker Receptors
Soil Ingestion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dermal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mother's Milk	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Drinking Water	<input type="checkbox"/>	<input type="checkbox"/>
Fish	<input type="checkbox"/>	<input type="checkbox"/>
Homegrown Produce	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Beef / Dairy	<input type="checkbox"/>	<input type="checkbox"/>
Pigs, Chickens, and/or Eggs	<input type="checkbox"/>	<input type="checkbox"/>

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021
Executive Summary | Table ES-4

Substances with Carcinogenic and Non-Carcinogenic Health Effects

CAS No.	Chemical Name	Carcinogen ¹	BLOOD ^{2,3}	BONE ^{2,3}	CNS ^{2,3}	CV ^{2,3}	ENDO ^{2,3}	EYE ^{2,3}	GILV ^{2,3}	IMMUN ^{2,3}	KIDNEY ^{2,3}	REPRO_DEVEL ^{2,3}	RESP ^{2,3}	SKIN ^{2,3}
1151	PAHs, total, w/o indiv. components reported [Treated as B(a)P for HRA]	X												
9901	Diesel engine exhaust, particulate matter (Diesel PM)	X											C	
50000	Formaldehyde	X						A					C 8	
67561	Methanol				A							C		
71432	Benzene	X	C 8 A							A		A		
75070	Acetaldehyde	X						A					C 8 A	
78933	Methyl ethyl ketone (2-Butanone)							A					A	
91203	Naphthalene	X											C	
95476	o-Xylene				C A			C A					C A	
95636	1,2,4-Trimethylbenzene													
100414	Ethyl benzene	X					C		C		C	C	A	
100425	Styrene				C			A					A	
106990	1,3-Butadiene	X										C 8 A		
107028	Acrolein							A					C 8 A	
108383	m-Xylene				C A			C A					C A	
108883	Toluene				A			C 8 A					A	
110543	Hexane				C									
1330207	Xylenes (mixed)				C A			C A					C A	
1634044	Methyl tert-butyl ether	X						C	C		C			
7439965	Manganese				C 8									
7440020	Nickel	X	C							8 A		C	C 8	
7440508	Copper												A	
7664417	Ammonia							A					C A	
7782505	Chlorine							A					C A	

- Notes:
- "X" indicates a pollutant is identified as a carcinogen.
 - "C" indicates a pollutant has annual non-cancer chronic health effects; "8" indicates a pollutant has 8-hour non-cancer chronic health effects; and "A" indicates a pollutant has non-cancer acute health effects.
 - BLOOD = Hematologic System; BONE = Bones and Teeth; CNS = Central Nervous System; CV = Cardiovascular System; ENDO = Endocrine System; EYE = Eyes; GILV = Gastrointestinal Tract & Liver or Alimentary Tract; IMMUN = Immune System; KIDNEY = Kidneys; REPRO_DEVEL = Reproductive & Developmental; RESP = Respiratory System; SKIN = Skin

Reference: HARP2 Health Database, Version 23118.

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-5

Summary of Results

Health Risk	Elevated / Flat ⁵	UTM Easting (m)	UTM Northing (m)	Result
MICR (in one million) [Notification Risk Level = 10; Action Risk Level = 25; Significant Risk Level = 100]				
PMI ¹	Elevated	510,263	3,788,335	3.2063E-06
	Flat	510,263	3,788,335	3.8058E-06
MEIR ¹	Elevated	510,382	3,788,336	2.3879E-06
	Flat	510,382	3,788,336	2.7338E-06
Sensitive ¹	Elevated	509,086	3,788,780	2.4007E-07
	Flat	509,086	3,788,780	2.8851E-07
MEIW ²	Elevated	509,736	3,788,630	3.7662E-08
	Flat	509,736	3,788,630	4.2330E-08
Non-Cancer Chronic HI (HIC) (dimensionless) [Notification Risk Level = 1.0; Action Risk Level = 3.0; Significant Risk Level = 5.0]				
PMI ³	Elevated	510,203	3,788,360	3.4869E-03
	Flat	510,203	3,788,360	3.9357E-03
MEIR ³	Elevated	510,382	3,788,336	1.4055E-03
	Flat	510,382	3,788,336	1.5974E-03
Sensitive ³	Elevated	509,086	3,788,780	2.5614E-04
	Flat	509,086	3,788,780	3.2760E-04
MEIW ⁴	Elevated	509,736	3,788,630	3.3068E-04
	Flat	509,736	3,788,630	4.0363E-04

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-5

Summary of Results

Health Risk	Elevated / Flat ⁵	UTM Easting (m)	UTM Northing (m)	Result
8-Hour Non-Cancer Chronic HI (HIC-8) (dimensionless) [Notification Risk Level = 1.0; Action Risk Level = 3.0; Significant Risk Level = 5.0]				
PMI	Elevated	510,203	3,788,360	6.1421E-04
	Flat	510,203	3,788,360	6.7924E-04
MEIR	Elevated	510,084	3,788,384	2.0819E-04
	Flat	510,084	3,788,384	2.0145E-04
Sensitive	Elevated	509,086	3,788,780	6.2692E-05
	Flat	509,086	3,788,780	8.2983E-05
MEIW	Elevated	509,736	3,788,630	6.6536E-05
	Flat	509,736	3,788,630	8.6953E-05
Off-Site Non-Cancer Acute HI (HIA) (dimensionless) [Notification Risk Level = 1.0; Action Risk Level = 3.0; Significant Risk Level = 5.0]				
PMI	Elevated	510,335	3,786,693	2.4668E-01
	Flat	510,297	3,786,682	3.0277E-01
MEIR	Elevated	510,422	3,788,336	1.9177E-01
	Flat	510,422	3,788,336	2.5269E-01
Sensitive	Elevated	509,086	3,788,780	4.5701E-02
	Flat	509,086	3,788,780	6.0936E-02
MEIW	Elevated	509,736	3,788,630	5.6782E-02
	Flat	509,736	3,788,630	7.5698E-02

- Notes:
1. Based on a 30-year exposure duration and Residential/Sensitive exposure pathways.
 2. Based on a 25-year exposure duration and Worker exposure pathways.
 3. Based on Residential/Sensitive exposure pathways.
 4. Based on Worker exposure pathways.
 5. Some receptors may have base elevation below source base elevation; some receptors may have base elevation above source base elevation. The HRA considers both Elevated and Flat terrain.

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-6

Summary of Results - Cancer Risk by Exposure Pathway

Exposure Pathway	PMI	MEIR	Sensitive	MEIW
Inhalation	93.39%	97.37%	97.33%	99.20%
Soil Ingestion	0.64%	0.25%	0.26%	0.43%
Dermal	0.16%	0.06%	0.06%	0.37%
Mother's Milk	1.51%	0.60%	0.61%	--
Homegrown Produce	4.30%	1.71%	1.73%	--
Total Non-Inhalation	6.61%	2.63%	2.66%	0.80%

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-7

Summary of Results - Cancer Risk by Substance and Emission Source

CAS No. - Chemical Name	PMI	MEIR	Sensitive	MEIW
9901 - Diesel engine exhaust, particulate matter (Diesel PM)	90.24%	94.28%	84.78%	90.04%
106990 - 1,3-Butadiene	--	--	6.37%	--
Total Shown	90.24%	94.28%	91.15%	90.04%

Emission Source	PMI	MEIR	Sensitive	MEIW
MCH	87.78%	91.97%	72.95%	79.38%
Rule 219-Exempt NG	6.17%	--	--	--
APU (Gasoline)	--	--	12.15%	8.48%
Rule 219-Exempt DICE	--	--	5.35%	8.32%
Total Shown	93.95%	91.97%	90.45%	96.17%

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-8

Summary of Results - Non-Cancer Chronic Risk by Exposure Pathway

Exposure Pathway	PMI	MEIR	Sensitive	MEIW
Inhalation	99.99%	99.96%	99.91%	99.98%
Soil Ingestion	0.01%	0.02%	0.05%	0.02%
Dermal	0.00%	0.00%	0.00%	0.00%
Mother's Milk	0.00%	0.00%	0.00%	--
Homegrown Produce	0.00%	0.02%	0.04%	--
Total Non-Inhalation	0.01%	0.04%	0.09%	0.02%

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-9

Summary of Results - Non-Cancer Chronic Risk by Substance and Emission Source

CAS No. - Chemical Name	PMI	MEIR	Sensitive	MEIW
7664417 - Ammonia	45.28%	10.36%	5.48%	10.69%
107028 - Acrolein	22.22%	9.55%	13.29%	13.56%
9901 - Diesel engine exhaust, particulate matter (Diesel PM)	20.59%	54.55%	25.24%	30.52%
50000 - Formaldehyde	5.98%	--	7.88%	6.99%
7782505 - Chlorine	--	18.92%	43.08%	34.21%
Total Shown	94.07%	93.38%	94.97%	95.97%

Emission Source	PMI	MEIR	Sensitive	MEIW
MCH	19.83%	53.50%	21.84%	27.05%
Rule 219-Exempt NG	21.47%	14.83%	7.19%	14.68%
APU (Gasoline)	--	29.03%	66.11%	52.50%
Rule 219-Exempt Propane	49.96%	--	--	--
Total Shown	91.26%	97.37%	95.14%	94.23%

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-10

Summary of Results - 8-Hour Non-Cancer Chronic Risk by Substance and Emission Source

CAS No. - Chemical Name	PMI	MEIR	Sensitive	MEIW
5000 - Formaldehyde	34.67%	38.88%	--	--
71432 - Benzene	--	--	100.00%	100.00%
107028 - Acrolein	64.37%	58.57%	--	--
Total Shown	99.04%	97.45%	100.00%	100.00%

Emission Source	PMI	MEIR	Sensitive	MEIW
Rule 219-Exempt NG	27.88%	57.75%	--	7.07%
APU (Gasoline)	--	30.27%	94.85%	88.57%
Rule 219-Exempt Propane	62.66%	12.00%	--	--
Total Shown	90.54%	100.02%	94.85%	95.64%

Facility: Snow Summit, LLC

Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-11

Summary of Results - Off-Site Non-Cancer Acute Risk by Substance and Emission Source

CAS No. - Chemical Name	PMI	MEIR	Sensitive	MEIW
71432 - Benzene	89.66%	89.67%	89.67%	89.67%
7440020 - Nickel	10.34%	10.33%	10.33%	10.33%
Total Shown	100.00%	100.00%	100.00%	100.00%

Emission Source	PMI	MEIR	Sensitive	MEIW
APU (Gasoline)	100.00%	99.94%	99.96%	99.91%
Total Shown	100.00%	99.94%	99.96%	99.91%

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
1	11203	1000	511,871	3,791,324	0	8.35E-08	--
2	11203	1001	511,165	3,791,118	0	9.21E-08	--
3	11203	1002	511,827	3,791,081	0	8.82E-08	--
4	11203	1003	512,190	3,790,856	1	9.11E-08	--
5	11203	1004	511,233	3,790,792	9	9.86E-08	--
6	11203	1005	512,315	3,790,873	0	9.02E-08	--
7	11203	1006	511,741	3,790,749	16	9.59E-08	--
8	11203	1007	510,568	3,790,453	22	1.15E-07	--
9	11203	1008	510,271	3,790,306	10	1.25E-07	--
10	11203	1009	510,686	3,790,711	0	1.06E-07	--
11	11203	1010	510,384	3,790,408	28	1.19E-07	--
12	11203	1011	510,726	3,790,733	0	1.05E-07	--
13	11203	1012	511,674	3,790,457	12	1.04E-07	--
14	11203	1013	511,584	3,790,318	67	1.08E-07	--
15	11203	1014	511,303	3,790,585	8	1.03E-07	--
16	11203	1015	512,101	3,790,075	23	1.12E-07	--
17	11203	1016	511,928	3,790,026	3	1.14E-07	--
18	11203	1017	510,893	3,790,659	6	1.05E-07	--
19	11203	1018	510,817	3,790,305	6	1.18E-07	--
20	11203	1019	512,245	3,790,319	2	1.03E-07	--
21	11203	1020	512,252	3,790,191	8	1.07E-07	--
22	11203	1021	512,131	3,789,940	12	1.17E-07	--
23	11203	1022	512,264	3,790,000	6	1.14E-07	--
24	11203	1023	510,530	3,789,975	0	1.40E-07	--
25	11203	1024	510,124	3,790,012	2	1.44E-07	--
26	11203	1025	510,059	3,789,751	11	1.68E-07	--
27	11203	1026	509,982	3,789,740	5	1.70E-07	--
28	11203	1027	509,293	3,790,071	35	1.44E-07	--
29	11203	1028	509,585	3,789,823	30	1.62E-07	--
30	11203	1029	509,096	3,789,877	14	1.53E-07	--
31	11203	1030	508,882	3,790,213	11	1.36E-07	--
32	11203	1031	509,159	3,789,926	73	1.51E-07	--
33	11203	1032	509,622	3,790,027	4	1.47E-07	--
34	11203	1033	509,340	3,789,762	27	1.64E-07	--
35	11203	1034	509,313	3,789,605	10	1.76E-07	--
36	11203	1035	510,512	3,789,542	21	1.82E-07	--
37	11203	1036	510,059	3,789,616	0	1.83E-07	--
38	11203	1037	510,052	3,789,493	53	2.02E-07	--
39	11203	1038	509,791	3,789,550	46	1.92E-07	--
40	11203	1039	509,490	3,789,579	6	1.83E-07	--
41	11203	1040	509,504	3,789,371	24	2.09E-07	--
42	11203	1041	509,785	3,789,437	42	2.09E-07	--
43	11203	1042	509,594	3,789,357	12	2.16E-07	--
44	11203	1043	509,687	3,789,336	8	2.24E-07	--
45	11203	1044	509,779	3,789,314	12	2.32E-07	--
46	11203	1045	509,872	3,789,287	9	2.42E-07	--
47	11203	1046	510,134	3,789,232	19	2.60E-07	--
48	11203	1047	509,987	3,789,228	18	2.62E-07	--
49	11203	1048	510,103	3,789,212	15	2.67E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
50	11203	1049	510,439	3,789,282	2	2.31E-07	--
51	11203	1050	509,642	3,789,198	13	2.49E-07	--
52	11203	1051	509,456	3,789,200	0	2.34E-07	--
53	11203	1052	509,411	3,789,355	32	2.07E-07	--
54	11203	1053	509,828	3,789,194	9	2.65E-07	--
55	11203	1054	510,836	3,789,968	9	1.35E-07	--
56	11203	1055	511,085	3,789,934	29	1.32E-07	--
57	11203	1056	511,251	3,789,869	5	1.32E-07	--
58	11203	1057	511,428	3,789,850	28	1.29E-07	--
59	11203	1058	511,587	3,789,842	8	1.26E-07	--
60	11203	1059	511,802	3,789,943	11	1.19E-07	--
61	11203	1060	512,223	3,789,897	8	1.19E-07	--
62	11203	1061	511,766	3,789,819	14	1.25E-07	--
63	11203	1062	511,669	3,789,822	5	1.26E-07	--
64	11203	1063	512,114	3,789,850	6	1.21E-07	--
65	11203	1064	512,230	3,789,847	13	1.21E-07	--
66	11203	1065	512,208	3,789,764	15	1.26E-07	--
67	11203	1066	512,055	3,789,808	22	1.24E-07	--
68	11203	1067	511,913	3,789,823	33	1.24E-07	--
69	11203	1068	509,250	3,789,571	1	1.77E-07	--
70	11203	1069	509,803	3,789,863	4	1.59E-07	--
71	11203	1070	510,797	3,790,903	0	9.97E-08	--
72	11203	2000	511,028	3,789,714	46	1.47E-07	--
73	11203	2001	511,076	3,789,486	21	1.63E-07	--
74	11203	2002	510,965	3,789,447	45	1.72E-07	--
75	11203	2003	511,094	3,789,190	0	1.98E-07	--
76	11203	2004	510,778	3,789,326	0	1.98E-07	--
77	11203	2005	510,853	3,788,934	46	2.81E-07	--
78	11203	2006	510,659	3,789,014	9	2.82E-07	--
79	11203	2007	510,749	3,789,008	16	2.70E-07	--
80	11203	2008	510,652	3,789,180	0	2.36E-07	--
81	11203	2009	510,395	3,789,092	0	2.94E-07	--
82	11203	2010	510,095	3,789,091	31	3.15E-07	--
83	11203	2011	510,010	3,788,907	11	4.32E-07	--
84	11203	2012	510,137	3,788,882	12	4.61E-07	--
85	11203	2013	510,234	3,788,926	21	4.11E-07	--
86	11203	2014	510,300	3,788,886	69	4.33E-07	--
87	11203	2015	510,371	3,788,805	4	4.91E-07	--
88	11203	2016	510,420	3,788,936	10	3.67E-07	--
89	11203	2017	510,483	3,788,879	5	3.87E-07	--
90	11203	2018	510,600	3,788,600	15	6.71E-07	--
91	11203	2019	511,148	3,788,626	69	4.52E-07	--
92	11203	2020	511,095	3,788,804	12	3.15E-07	--
93	11203	2021	510,229	3,788,653	29	8.50E-07	--
94	11203	2022	510,099	3,788,609	3	1.06E-06	3.17E-06
95	11203	2023	509,966	3,788,680	10	7.43E-07	--
96	11203	2024	509,660	3,788,606	56	6.12E-07	--
97	11203	2025	510,090	3,788,460	9	2.29E-06	2.06E-05
98	11203	2026	510,925	3,788,390	8	9.66E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
99	11203	2027	510,460	3,788,420	2	1.88E-06	3.75E-06
100	11203	2028	510,294	3,788,620	0	8.93E-07	--
101	11203	2029	510,365	3,788,663	7	7.09E-07	--
102	11203	2030	510,405	3,788,559	5	9.52E-07	--
103	11203	2031	510,482	3,788,556	3	8.84E-07	--
104	11203	2032	510,085	3,788,351	0	3.88E-06	0.00E+00
105	11203	2033	510,080	3,788,390	6	3.39E-06	2.04E-05
106	11203	2034	511,360	3,788,310	0	7.79E-07	--
107	11203	2035	511,536	3,788,376	0	6.66E-07	--
108	11203	2036	509,912	3,788,331	0	2.98E-06	0.00E+00
109	11204	1000	513,556	3,787,985	23	4.62E-07	--
110	11204	1001	513,264	3,787,920	14	4.91E-07	--
111	11204	1002	513,444	3,787,901	22	4.74E-07	--
112	11204	1003	513,108	3,787,944	18	5.07E-07	--
113	11204	1004	513,919	3,787,834	0	4.34E-07	--
114	11204	1005	513,983	3,787,733	7	4.27E-07	--
115	11204	1008	513,024	3,787,746	20	4.96E-07	--
116	11204	1009	513,126	3,787,752	8	4.90E-07	--
117	11204	1014	513,831	3,787,613	5	4.30E-07	--
118	11204	1015	513,712	3,787,488	12	4.22E-07	--
119	11204	1016	513,706	3,787,589	6	4.34E-07	--
120	11204	1017	513,272	3,787,689	36	4.72E-07	--
121	11204	1018	513,458	3,787,293	16	3.96E-07	--
122	11204	1019	513,167	3,787,649	3	4.71E-07	--
123	11204	1020	513,296	3,787,422	13	4.23E-07	--
124	11204	1021	512,784	3,787,284	11	3.84E-07	--
125	11204	1022	512,476	3,787,678	16	4.96E-07	--
126	11204	1023	512,433	3,787,458	4	4.18E-07	--
127	11204	1024	512,467	3,787,837	6	5.45E-07	--
128	11204	1025	512,422	3,787,907	4	5.64E-07	--
129	11204	1026	512,381	3,787,493	1	4.27E-07	--
130	11204	1027	512,386	3,787,995	1	5.82E-07	--
131	11204	1028	513,538	3,787,154	12	3.69E-07	--
132	11204	2000	512,930	3,788,510	35	4.14E-07	--
133	11204	2001	513,003	3,788,654	2	3.55E-07	--
134	11204	2002	512,583	3,788,922	4	2.58E-07	--
135	11204	2003	512,746	3,788,589	19	3.92E-07	--
136	11204	2004	513,279	3,788,344	13	4.38E-07	--
137	11204	2005	513,711	3,788,116	20	4.37E-07	--
138	11204	2006	513,409	3,788,437	8	4.02E-07	--
139	11204	2008	512,911	3,788,379	15	4.62E-07	--
140	11204	2009	512,563	3,788,152	20	5.58E-07	--
141	11204	2010	512,134	3,788,530	8	4.60E-07	--
142	11204	2011	512,162	3,788,457	7	5.03E-07	--
143	11204	2012	512,761	3,788,150	4	5.33E-07	--
144	11204	2013	512,771	3,788,397	8	4.69E-07	--
145	11204	2014	512,755	3,787,712	4	5.01E-07	--
146	11204	2015	512,189	3,788,385	3	5.39E-07	--
147	11204	2016	512,667	3,788,394	17	4.80E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
148	11204	2017	512,450	3,788,605	16	3.98E-07	--
149	11204	2018	511,887	3,788,858	2	2.75E-07	--
150	11204	2019	511,646	3,788,862	5	2.71E-07	--
151	11204	2020	511,878	3,788,804	10	3.00E-07	--
152	11204	2021	511,944	3,788,340	0	6.03E-07	--
153	11204	2022	511,644	3,788,390	30	6.29E-07	--
154	11204	2023	511,641	3,788,462	2	5.67E-07	--
155	11204	2024	511,640	3,788,535	10	4.99E-07	--
156	11204	2025	511,637	3,788,608	14	4.33E-07	--
157	11204	2026	511,635	3,788,681	19	3.75E-07	--
158	11204	2027	511,626	3,788,749	3	3.29E-07	--
159	11204	2028	511,641	3,788,806	8	2.97E-07	--
160	11204	2029	511,812	3,788,754	6	3.27E-07	--
161	11204	2030	511,979	3,788,693	46	3.62E-07	--
162	11204	2031	511,816	3,788,534	10	4.85E-07	--
163	11204	2032	511,813	3,788,607	12	4.27E-07	--
164	11204	2033	511,811	3,788,680	11	3.74E-07	--
165	11204	2034	512,013	3,788,605	6	4.18E-07	--
166	11204	2035	511,999	3,788,533	21	4.70E-07	--
167	11204	2036	512,003	3,788,460	2	5.20E-07	--
168	11204	2037	511,818	3,788,461	9	5.44E-07	--
169	11204	2038	511,819	3,788,389	12	5.97E-07	--
170	11204	2039	512,000	3,788,389	5	5.65E-07	--
171	11204	2040	512,575	3,788,602	20	3.94E-07	--
172	11204	3000	512,210	3,789,591	11	1.37E-07	--
173	11204	3001	512,061	3,789,614	16	1.35E-07	--
174	11204	3002	511,804	3,789,520	95	1.44E-07	--
175	11204	3003	511,902	3,789,371	17	1.57E-07	--
176	11204	3004	511,587	3,789,598	6	1.40E-07	--
177	11204	3005	511,505	3,789,547	21	1.45E-07	--
178	11204	3006	511,350	3,789,548	43	1.49E-07	--
179	11204	3007	511,202	3,789,553	6	1.53E-07	--
180	11204	3008	511,241	3,789,473	8	1.58E-07	--
181	11204	3009	511,854	3,789,125	30	1.93E-07	--
182	11204	3010	511,966	3,789,218	15	1.77E-07	--
183	11204	3011	512,014	3,789,380	30	1.56E-07	--
184	11204	3012	512,097	3,789,405	18	1.53E-07	--
185	11204	3013	512,200	3,789,124	14	1.97E-07	--
186	11204	3014	511,581	3,789,234	7	1.76E-07	--
187	11204	3015	511,666	3,789,359	28	1.60E-07	--
188	11204	3016	511,723	3,789,046	23	2.11E-07	--
189	11204	3017	511,350	3,789,194	47	1.87E-07	--
190	11204	3018	511,406	3,789,262	5	1.76E-07	--
191	11204	3019	512,325	3,789,051	7	2.16E-07	--
192	11204	3020	512,253	3,789,053	3	2.15E-07	--
193	11204	3021	512,090	3,789,020	14	2.21E-07	--
194	11204	3022	512,174	3,788,931	18	2.50E-07	--
195	11204	3023	512,396	3,788,942	0	2.49E-07	--
196	11204	3024	512,442	3,788,911	5	2.61E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
197	11204	3025	512,258	3,788,834	10	2.89E-07	--
198	11204	3026	512,313	3,788,763	15	3.21E-07	--
199	11204	3027	512,619	3,788,786	22	3.10E-07	--
200	11204	3028	511,811	3,788,977	5	2.30E-07	--
201	11205	1000	508,253	3,789,464	0	2.60E-07	--
202	11205	1001	508,047	3,789,256	6	4.45E-07	--
203	11205	1002	508,120	3,788,975	0	5.77E-07	--
204	11205	1003	508,228	3,789,124	7	4.66E-07	--
205	11205	1004	508,228	3,789,019	5	5.29E-07	--
206	11205	1005	508,231	3,788,866	20	5.76E-07	--
207	11205	1006	508,026	3,788,885	11	6.02E-07	--
208	11205	1007	507,941	3,789,089	10	5.79E-07	--
209	11205	1008	507,869	3,789,087	5	6.00E-07	--
210	11205	1009	507,742	3,789,159	2	6.05E-07	--
211	11205	1010	507,528	3,789,108	0	6.68E-07	--
212	11205	1011	507,323	3,789,110	0	6.97E-07	--
213	11205	1012	507,259	3,789,046	9	6.93E-07	--
214	11205	1013	507,371	3,788,950	0	6.60E-07	--
215	11205	1014	507,516	3,788,989	1	6.65E-07	--
216	11205	1015	507,694	3,788,984	0	6.47E-07	--
217	11205	1016	507,790	3,789,057	7	6.27E-07	--
218	11205	1017	507,868	3,788,889	2	6.16E-07	--
219	11205	1018	507,801	3,788,706	2	5.28E-07	--
220	11205	1019	507,708	3,788,452	22	3.54E-07	--
221	11205	1020	507,218	3,788,790	2	5.67E-07	--
222	11205	1021	507,840	3,788,402	15	3.28E-07	--
223	11205	1022	507,299	3,788,855	14	6.13E-07	--
224	11205	1023	508,025	3,788,095	17	2.38E-07	--
225	11205	1024	508,232	3,788,429	31	3.55E-07	--
226	11205	1025	507,184	3,788,657	2	4.75E-07	--
227	11205	1026	508,060	3,788,443	113	3.56E-07	--
228	11205	1027	508,181	3,788,657	23	5.08E-07	--
229	11205	1028	507,199	3,788,898	1	6.32E-07	--
230	11205	1029	508,034	3,789,089	0	5.52E-07	--
231	11205	2000	509,094	3,789,563	0	1.75E-07	--
232	11205	2001	508,572	3,789,383	72	2.27E-07	--
233	11205	2002	508,725	3,789,341	1	2.20E-07	--
234	11205	2003	508,524	3,789,248	46	2.88E-07	--
235	11205	2004	508,485	3,789,336	80	2.59E-07	--
236	11205	2005	508,489	3,789,206	4	3.21E-07	--
237	11205	2006	508,522	3,789,290	10	2.70E-07	--
238	11205	2007	508,450	3,789,277	45	2.94E-07	--
239	11205	2008	508,919	3,789,479	9	1.87E-07	--
240	11205	2009	509,011	3,789,468	14	1.86E-07	--
241	11205	2010	509,107	3,789,443	9	1.88E-07	--
242	11205	2011	509,214	3,789,428	2	1.91E-07	--
243	11205	2012	509,313	3,789,428	13	1.94E-07	--
244	11205	2013	509,313	3,789,275	28	2.14E-07	--
245	11205	2014	509,212	3,789,276	17	2.12E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
246	11205	2015	509,110	3,789,279	16	2.12E-07	--
247	11205	2016	509,012	3,789,280	12	2.14E-07	--
248	11205	2017	508,918	3,789,283	24	2.18E-07	--
249	11205	2018	508,807	3,789,271	12	2.29E-07	--
250	11205	2019	508,779	3,789,377	1	2.08E-07	--
251	11205	2020	508,752	3,789,374	0	2.11E-07	--
252	11205	2021	508,682	3,788,871	120	4.77E-07	--
253	11205	2022	508,773	3,789,060	20	3.22E-07	--
254	11205	2023	508,546	3,789,133	14	3.46E-07	--
255	11205	2024	508,372	3,789,115	14	4.19E-07	--
256	11205	2025	508,452	3,788,905	36	5.22E-07	--
257	11205	2026	508,513	3,789,040	3	4.20E-07	--
258	11205	2027	508,531	3,788,906	2	5.00E-07	--
259	11205	2028	508,675	3,788,582	15	4.91E-07	--
260	11205	2029	508,591	3,788,641	16	5.15E-07	--
261	11205	2030	508,914	3,788,596	11	5.20E-07	--
262	11205	2031	508,919	3,788,902	74	3.84E-07	--
263	11205	2032	508,864	3,789,022	0	3.21E-07	--
264	11205	2033	508,983	3,788,850	4	4.05E-07	--
265	11205	2034	508,834	3,789,117	2	2.78E-07	--
266	11205	2035	508,399	3,788,637	11	5.05E-07	--
267	11205	2036	508,514	3,788,557	0	4.61E-07	--
268	11205	2037	508,554	3,788,422	5	3.71E-07	--
269	11205	2038	508,435	3,788,337	0	3.14E-07	--
270	11205	2039	508,914	3,788,475	3	4.56E-07	--
271	11205	2040	509,136	3,788,537	35	5.40E-07	--
272	11205	2041	509,089	3,788,960	4	3.09E-07	--
273	11205	2042	509,214	3,788,953	16	2.99E-07	--
274	11205	2043	509,391	3,789,000	24	2.81E-07	--
275	11205	2044	509,587	3,789,100	2	2.68E-07	--
276	11205	2045	509,771	3,789,093	8	2.93E-07	--
277	11205	2046	509,734	3,788,989	27	3.29E-07	--
278	11205	2047	509,734	3,788,897	8	3.76E-07	--
279	11205	2048	508,911	3,788,377	4	3.86E-07	--
280	11205	2049	509,351	3,788,531	19	6.00E-07	--
281	11206	2000	506,770	3,789,639	22	6.31E-07	--
282	11206	2001	506,473	3,789,478	9	7.54E-07	--
283	11206	2002	506,815	3,789,457	7	7.04E-07	--
284	11206	2004	507,071	3,789,032	38	6.90E-07	--
285	11206	2005	506,969	3,789,107	6	7.13E-07	--
286	11206	2006	507,033	3,789,107	6	7.12E-07	--
287	11206	2007	507,003	3,789,029	6	6.88E-07	--
288	11206	2008	506,989	3,788,840	5	5.87E-07	--
289	11206	2009	507,099	3,789,315	3	6.97E-07	--
290	11206	2010	506,850	3,789,254	7	7.37E-07	--
291	11206	2011	506,704	3,789,297	65	7.49E-07	--
292	11206	2012	506,598	3,789,325	4	7.57E-07	--
293	11206	2013	506,510	3,789,296	23	7.61E-07	--
294	11206	2027	506,605	3,788,882	46	5.93E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
295	11206	2028	506,491	3,788,899	12	5.97E-07	--
296	11206	2029	506,475	3,789,040	3	6.77E-07	--
297	11206	2030	506,463	3,789,266	7	7.58E-07	--
298	11206	2031	506,728	3,788,907	21	6.14E-07	--
299	11206	2032	506,908	3,788,907	12	6.24E-07	--
300	11206	2033	506,904	3,788,974	11	6.60E-07	--
301	11206	2034	506,844	3,789,090	1	7.09E-07	--
302	11206	2035	506,908	3,789,093	3	7.10E-07	--
303	11206	2036	506,651	3,788,733	1	5.00E-07	--
304	11206	2037	506,680	3,788,640	10	4.45E-07	--
305	11206	2038	506,751	3,788,715	22	4.93E-07	--
306	11206	2039	506,588	3,788,590	45	4.15E-07	--
307	11206	2045	506,915	3,788,639	57	4.52E-07	--
308	11206	2046	506,930	3,788,750	10	5.25E-07	--
309	11206	2047	506,838	3,788,841	6	5.79E-07	--
310	11206	2048	506,727	3,788,821	5	5.60E-07	--
311	11206	2049	506,557	3,788,451	16	3.48E-07	--
312	11206	2050	506,341	3,788,613	16	4.21E-07	--
313	11206	2058	506,181	3,788,562	9	3.94E-07	--
314	11206	2060	506,629	3,789,239	5	7.49E-07	--
315	11206	2061	506,966	3,788,464	14	3.56E-07	--
316	11300	1124	509,780	3,790,738	0	1.14E-07	--
317	11300	1125	510,666	3,790,890	0	1.01E-07	--
318	11300	1126	510,690	3,790,860	0	1.02E-07	--
319	11300	1128	507,828	3,789,623	0	3.04E-07	--
320	11300	1129	507,607	3,789,270	0	5.92E-07	--
321	11300	1130	507,222	3,789,324	0	6.70E-07	--
322	11300	1131	507,528	3,789,199	0	6.46E-07	--
323	11300	2077	510,620	3,791,555	0	8.70E-08	--
324	11300	2078	511,425	3,791,462	4	8.39E-08	--
325	11300	2079	509,180	3,791,844	0	9.18E-08	--
326	11300	2080	511,983	3,791,669	0	7.78E-08	--
327	11300	2081	510,840	3,791,564	0	8.61E-08	--
328	11300	2082	509,202	3,791,531	0	9.75E-08	--
329	11300	2084	509,785	3,791,553	0	9.42E-08	--
330	11300	2085	509,791	3,791,647	0	9.23E-08	--
331	11300	2086	510,737	3,791,395	5	8.96E-08	--
332	11300	2087	512,182	3,791,717	0	7.66E-08	--
333	11300	2088	510,997	3,791,450	0	8.71E-08	--
334	11300	2089	510,024	3,791,447	0	9.44E-08	--
335	11300	2090	512,148	3,791,636	0	7.78E-08	--
336	11300	2091	508,212	3,791,387	0	1.06E-07	--
337	11300	2092	507,935	3,791,327	0	1.07E-07	--
338	11300	2101	511,716	3,791,508	12	8.13E-08	--
339	11300	2102	511,534	3,791,424	9	8.38E-08	--
340	11300	2103	512,180	3,791,605	0	7.82E-08	--
341	11300	2104	512,148	3,791,609	0	7.82E-08	--
342	11300	2105	512,165	3,791,525	0	7.94E-08	--
343	11300	2106	512,318	3,791,575	0	7.84E-08	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
344	11300	2107	512,234	3,791,644	0	7.75E-08	--
345	11300	2108	510,462	3,791,157	0	9.58E-08	--
346	11300	2109	509,758	3,791,239	0	1.01E-07	--
347	11300	2110	508,628	3,791,133	0	1.09E-07	--
348	11300	2111	507,802	3,791,097	0	1.13E-07	--
349	11300	2112	508,000	3,791,067	0	1.12E-07	--
350	11300	2113	508,041	3,791,047	0	1.13E-07	--
351	11300	2114	507,959	3,791,091	0	1.12E-07	--
352	11300	2115	508,130	3,791,065	0	1.12E-07	--
353	11300	2119	507,394	3,791,059	0	1.23E-07	--
354	11300	2120	507,540	3,791,124	0	1.16E-07	--
355	11300	2121	510,843	3,791,230	14	9.22E-08	--
356	11300	2125	511,160	3,791,534	0	8.46E-08	--
357	11401	1017	512,417	3,791,533	17	7.89E-08	--
358	11401	1030	512,365	3,791,401	0	8.10E-08	--
359	11401	2014	512,595	3,791,228	46	8.31E-08	--
360	11401	2020	512,749	3,791,228	34	8.24E-08	--
361	11401	2038	512,882	3,791,154	23	8.27E-08	--
362	11401	2039	512,750	3,791,154	17	8.34E-08	--
363	11401	2040	512,594	3,791,155	41	8.41E-08	--
364	11401	2041	512,413	3,791,157	57	8.48E-08	--
365	11401	2042	512,411	3,791,229	33	8.37E-08	--
366	11401	2043	512,595	3,791,082	20	8.52E-08	--
367	11401	2044	512,750	3,791,080	10	8.44E-08	--
368	11401	2045	512,884	3,791,080	2	8.38E-08	--
369	11401	2048	512,413	3,791,084	23	8.60E-08	--
370	11401	3003	513,260	3,790,734	3	9.02E-08	--
371	11401	3004	513,579	3,790,190	29	1.08E-07	--
372	11401	3005	512,630	3,790,356	0	1.01E-07	--
373	11401	3006	513,414	3,790,480	12	9.73E-08	--
374	11401	3007	512,663	3,789,964	0	1.16E-07	--
375	11401	3008	513,073	3,790,754	30	8.96E-08	--
376	11401	3009	512,884	3,790,707	8	9.08E-08	--
377	11401	3010	513,027	3,790,508	16	9.61E-08	--
378	11401	3011	512,821	3,790,551	48	9.48E-08	--
379	11401	3012	512,931	3,790,461	24	9.74E-08	--
380	11401	3013	512,531	3,790,634	9	9.34E-08	--
381	11401	3014	512,506	3,790,708	22	9.20E-08	--
382	11401	3015	512,751	3,790,706	13	9.11E-08	--
383	11401	3016	512,531	3,790,485	46	9.70E-08	--
384	11401	3017	512,425	3,790,362	33	1.01E-07	--
385	11401	3018	512,326	3,790,164	12	1.08E-07	--
386	11401	3019	512,424	3,789,972	13	1.15E-07	--
387	11401	3020	513,702	3,789,279	84	1.85E-07	--
388	11401	3021	512,449	3,789,085	13	2.10E-07	--
389	11401	3022	512,947	3,788,862	5	2.81E-07	--
390	11401	3023	512,554	3,789,022	2	2.28E-07	--
391	11401	3024	512,261	3,789,327	17	1.64E-07	--
392	11401	3025	512,161	3,789,274	18	1.70E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
393	11401	3026	512,641	3,790,557	0	9.48E-08	--
394	11401	3028	513,705	3,788,520	23	3.61E-07	--
395	11401	3029	513,408	3,788,815	2	2.89E-07	--
396	11401	3030	513,326	3,788,683	23	3.33E-07	--
397	11401	3031	513,132	3,788,509	8	4.01E-07	--
398	11401	3032	513,026	3,789,029	3	2.32E-07	--
399	11401	3033	513,067	3,788,855	4	2.82E-07	--
400	11401	3040	513,949	3,788,259	0	3.97E-07	--
401	11401	3041	514,092	3,788,121	14	4.04E-07	--
402	11401	3042	512,417	3,789,022	0	2.25E-07	--
403	11401	4033	513,006	3,790,826	28	8.80E-08	--
404	11401	4034	513,065	3,790,892	18	8.66E-08	--
405	11401	4035	512,887	3,791,008	11	8.49E-08	--
406	11401	4036	512,751	3,791,008	12	8.55E-08	--
407	11401	4037	512,593	3,791,009	10	8.63E-08	--
408	11401	4038	512,414	3,791,011	13	8.72E-08	--
409	11401	4039	512,414	3,790,936	26	8.85E-08	--
410	11401	4040	512,594	3,790,936	10	8.74E-08	--
411	11401	4041	512,752	3,790,935	16	8.66E-08	--
412	11401	4042	512,885	3,790,934	15	8.62E-08	--
413	11401	4043	512,885	3,790,861	21	8.75E-08	--
414	11401	4044	512,751	3,790,862	11	8.79E-08	--
415	11401	4045	512,592	3,790,863	19	8.87E-08	--
416	11401	4046	512,415	3,790,864	16	8.97E-08	--
417	11401	4047	512,414	3,790,791	19	9.10E-08	--
418	11401	4048	512,593	3,790,791	13	8.99E-08	--
419	11401	4049	512,750	3,790,790	9	8.93E-08	--
420	11401	4050	512,884	3,790,789	18	8.90E-08	--
421	11401	4069	513,260	3,790,788	9	8.89E-08	--
422	11500	2028	512,497	3,786,589	0	2.50E-07	--
423	11500	2029	512,632	3,786,905	0	2.95E-07	--
424	11500	2030	511,874	3,786,511	0	2.24E-07	--
425	11500	2031	510,935	3,787,694	17	4.51E-07	--
426	11500	2032	510,286	3,788,335	0	5.56E-06	0.00E+00
427	11500	2033	512,257	3,787,370	0	3.76E-07	--
428	11500	2034	510,629	3,788,233	0	2.18E-06	0.00E+00
429	11500	2035	510,633	3,788,183	0	1.91E-06	0.00E+00
430	11500	2036	509,212	3,787,965	0	3.17E-07	--
431	11500	2037	509,259	3,788,279	0	4.15E-07	--
432	11500	2038	509,676	3,788,273	0	8.52E-07	--
433	11500	2039	507,881	3,787,456	0	2.42E-07	--
434	11500	2040	506,770	3,787,535	0	2.07E-07	--
435	11500	2041	508,321	3,788,339	0	3.09E-07	--
436	11500	2043	506,461	3,786,818	0	1.35E-07	--
437	11500	2057	506,348	3,788,231	0	2.82E-07	--
438	11500	2058	506,395	3,788,353	0	3.14E-07	--
439	11500	2059	506,294	3,788,191	0	2.73E-07	--
440	11500	2060	506,435	3,788,233	0	2.82E-07	--
441	11500	2061	506,390	3,788,245	0	2.84E-07	--

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021

Executive Summary | Table ES-12

Summary of Results - Cancer Burden

Cancer Burden	4.79E-05
Population	20

Receptor No.	Track No.	Block No.	UTM Easting (m)	UTM Northing (m)	Population	MICR	Cancer Burden ¹
442	11500	2062	506,181	3,788,332	0	3.08E-07	--
443	11500	2063	506,542	3,788,330	2	3.06E-07	--
444	11500	2064	507,056	3,787,968	0	2.40E-07	--
445	11500	2065	506,514	3,788,135	0	2.62E-07	--
446	11500	2067	506,415	3,787,281	0	1.72E-07	--
447	11500	2068	506,504	3,787,734	0	2.19E-07	--
448	11500	2069	506,430	3,787,822	0	2.26E-07	--
449	11500	2089	508,939	3,785,745	0	1.07E-07	--
450	11500	2090	509,966	3,785,172	0	9.14E-08	--
451	11500	2091	510,800	3,786,881	0	2.63E-07	--
452	11500	2096	511,132	3,784,803	0	8.71E-08	--
453	11500	2101	512,093	3,785,491	0	1.25E-07	--
454	11500	2224	509,437	3,787,050	0	2.63E-07	--
455	11500	2225	508,318	3,786,825	0	2.00E-07	--

Note: 1. If Cancer Risk > 1E-06, Cancer Burden = Cancer Risk x Population.

Facility: Snow Summit, LLC
Facility ID: 185352

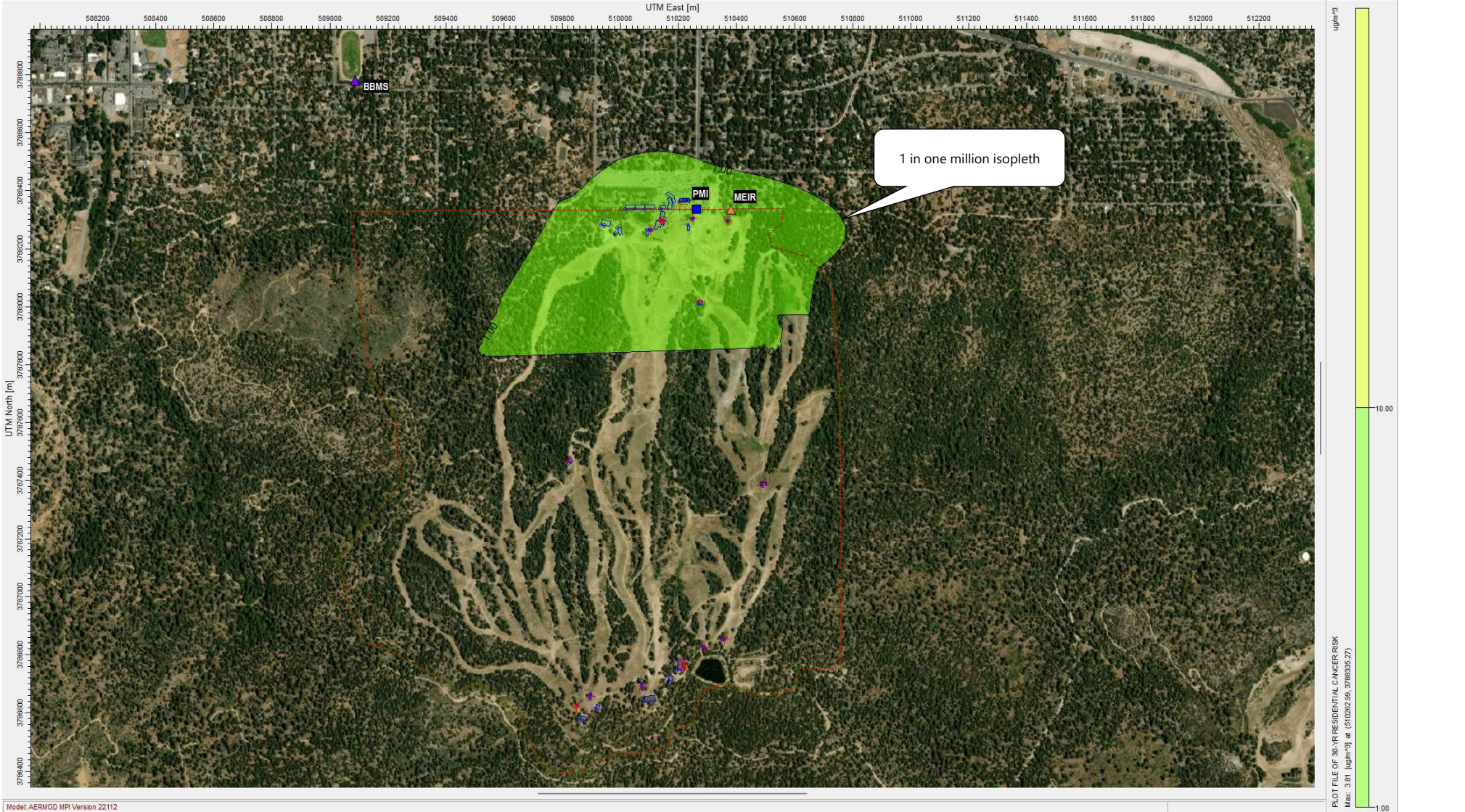
AB2588 Health Risk Assessment | Calendar Year 2021
Section 5.2 | Table 5-1

HARP2 Model Options

Parameter	Value				Comments
Multipathway					
Inhalation	Res & CB	<input checked="" type="checkbox"/>	Work	<input checked="" type="checkbox"/>	--
Soil	Res & CB	<input checked="" type="checkbox"/>	Work	<input checked="" type="checkbox"/>	--
Dermal	Res & CB	<input checked="" type="checkbox"/>	Work	<input checked="" type="checkbox"/>	"Warm" climate.
Mother's Milk	Res & CB	<input checked="" type="checkbox"/>	Work	<input type="checkbox"/>	--
Drinking Water	Res & CB	<input type="checkbox"/>	Work	<input type="checkbox"/>	Snow Summit does not impact a local water reservoir.
Fish	Res & CB	<input type="checkbox"/>	Work	<input type="checkbox"/>	Snow Summit does not impact a local fishable body of water.
Homegrown Produce	Res & CB	<input checked="" type="checkbox"/>	Work	<input type="checkbox"/>	Default for "Households that Garden".
Beef/Dairy	Res & CB	<input type="checkbox"/>	Work	<input type="checkbox"/>	Snow Summit does not impact a dairy or grazing land.
Pigs, Chickens, and/or Eggs	Res & CB	<input type="checkbox"/>	Work	<input type="checkbox"/>	Snow Summit does not impact grazing land.
Deposition Velocity	0.02 m/s				SCAQMD Supplemental Guidelines, Table 8.
Residential Cancer Risk Assumptions					
Exposure Duration	30 years				--
Fraction of Time at Home	3 rd Trimester to 16 years: On 16 years to 30 years: On				With both parameters set to 'Off', there are no schools with cancer risk greater than 1 in one million. Therefore, the HRA has both parameters set to 'On'.
Inhalation Rate Basis	RMP				--
Analysis Option	RMP Using the Derived Method				--
Worker Cancer Risk Assumptions					
Exposure Duration	25 years				--
Analysis Option	OEHHA Derived Method				--
Inhalation Rate Basis	8-hr Breathing Rates, Moderate Intensity				--
Worker Adjustment Factor	1				The HRA does not consider variable emissions in the dispersion model or the health risk calculations.
Residential and Worker Non-Cancer Risk Assumptions					
Analysis Option	OEHHA Derived Method				--
Inhalation Rate Basis	Residential: Long-Term 24-hr Off-Site Worker: 8-hr Breathing Rates, Moderate Intensity				--
Worker Adjustment Factor (8-Hour Non-Cancer Chronic Risk Only)	1				The HRA does not consider variable emissions in the dispersion model or the health risk calculations.
Cancer Burden Risk Assumptions					
Exposure Duration	70 years				--
Fraction of Time at Home	3 rd Trimester to 16 years: Off 16 years to 70 years: Off				Both parameters are set to 'Off' for the cancer burden calculation.
Inhalation Rate Basis	RMP				--
Analysis Option	RMP Using the Derived Method				--

REPORT FIGURES

Figure Number	Figure Title
ES-1	Summary of Results – Residential / Sensitive Cancer Risk
ES-2	Summary of Results – Worker Cancer Risk
ES-3	Summary of Results – Non-Cancer Chronic Risk
ES-4	Summary of Results – 8-Hour Non-Cancer Chronic Risk
ES-5	Summary of Results – Off-Site Non-Cancer Acute Risk
ES-6	Summary of Results – Cancer Burden
ES-7	Summary of Results – On-Site Non-Cancer Acute Risk (Elevated)
ES-8	Summary of Results – On-Site Non-Cancer Acute Risk (Flat)
4-1	Snow Summit and Surrounding Area
4-2	Area Topography
4-3	Point Source Locations (1 of 3) – Facility North
4-4	Point Source Locations (2 of 3) – Facility Center
4-5	Point Source Locations (3 of 3) – Facility South
4-6	Area Source Locations – Facility North
4-7	Volume Source Locations – Facility North
4-8	Rectangular Building Locations (1 of 3) – Facility North
4-9	Rectangular Building Locations (2 of 3) – Facility Center
4-10	Rectangular Building Locations (3 of 3) – Facility South
4-11	Polygonal Building Locations – Facility North
4-12	Fenceline Receptor Grid
4-13	Off-Site Uniform Cartesian Receptor Grid
4-14	On-Site Uniform Cartesian Receptor Grid
4-15	Census Receptors
4-16	Nearest MET Stations



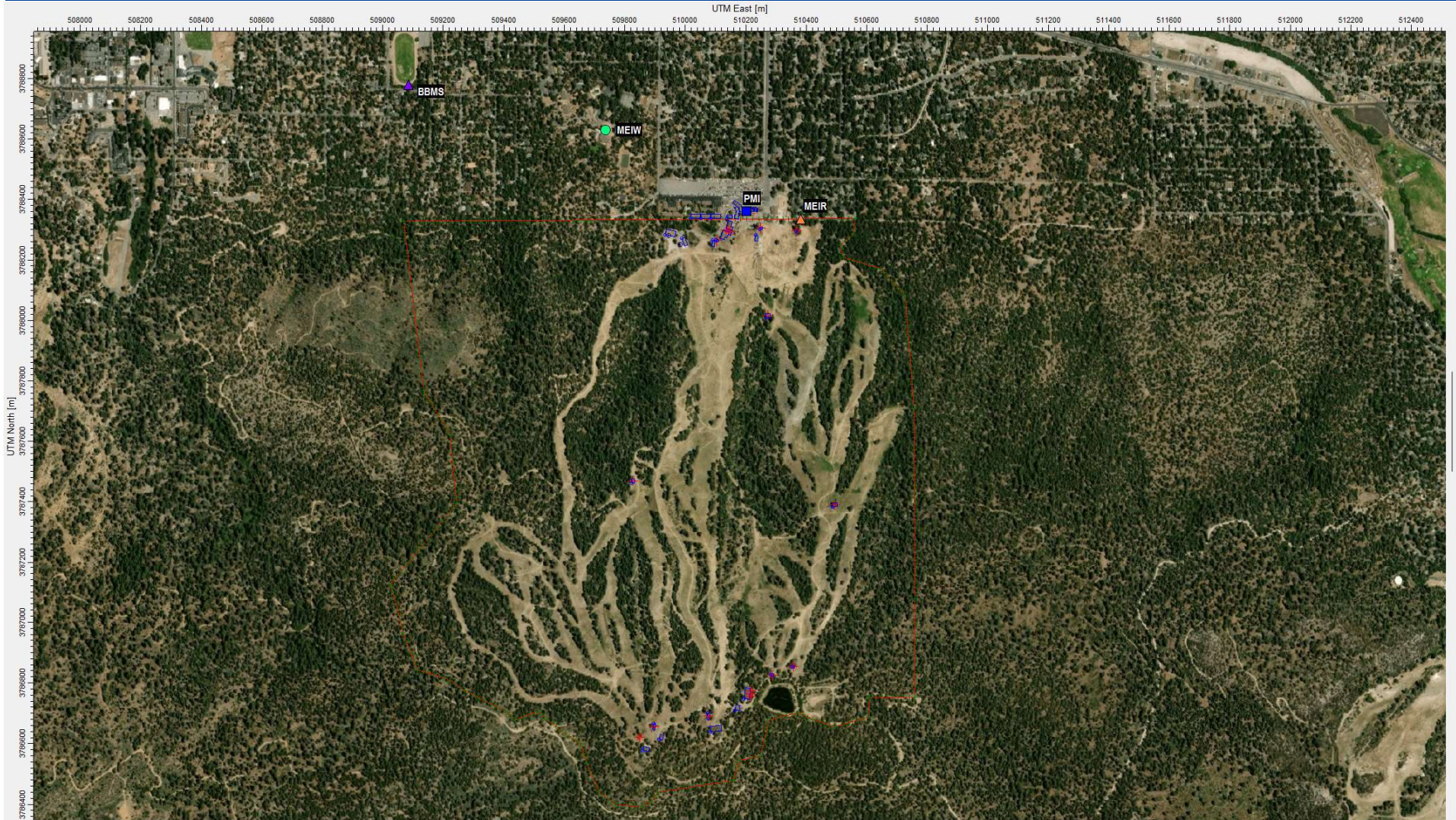
Blue Square PMI; Receptor No. 11234; MICR = 3.81 in one million
 Orange Triangle MEIR; Receptor No. 11240; MICR = 2.73 in one million
 Purple Triangle Sensitive Receptor; Big Bear Middle School; Receptor No. 6023; MICR = 0.29 in one million

There are no on-site receptors. The appearance of isopleth within the facility boundary is associated with image generation.



Green Circle MEIW; Receptor No. 5736; MICR = 0.04 in one million

There are no on-site receptors. The appearance of isopleth within the facility boundary is associated with image generation.

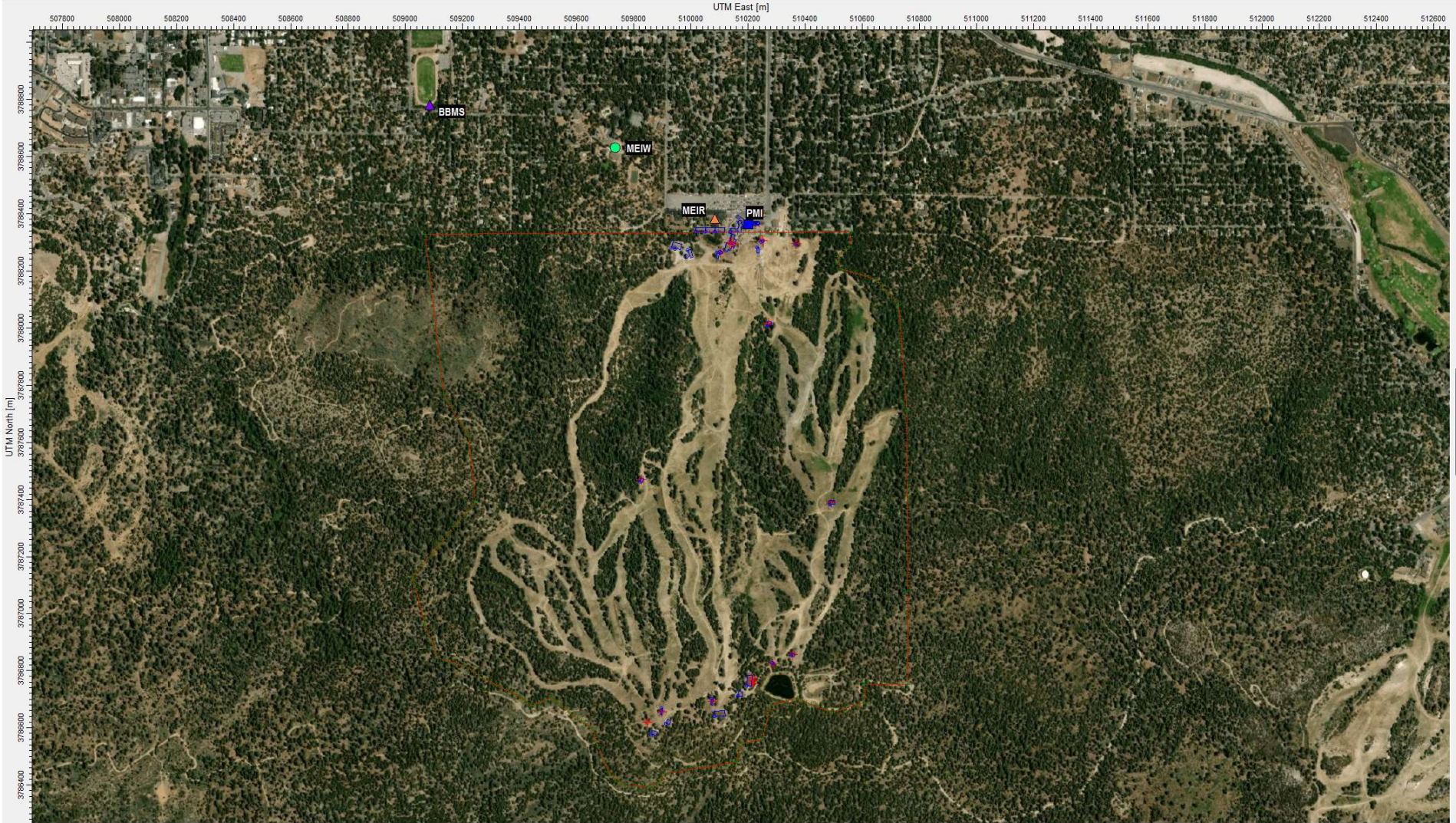


Model: AERMOD MPI Version 22112

X: 507978.27 [m] Y: 3788857.42 [m]

- Blue Square PMI; Receptor No. 10105; HIC = 3.94E-03
- Orange Triangle MEIR; Receptor No. 11240; HIC = 1.60E-03
- Purple Triangle Sensitive Receptor; Big Bear Middle School; Receptor No. 6023; HIC = 3.28E-04
- Green Circle MEIW; Receptor No. 5736; HIC = 4.00E-04

Isopleths not shown since all HIC << 0.5.

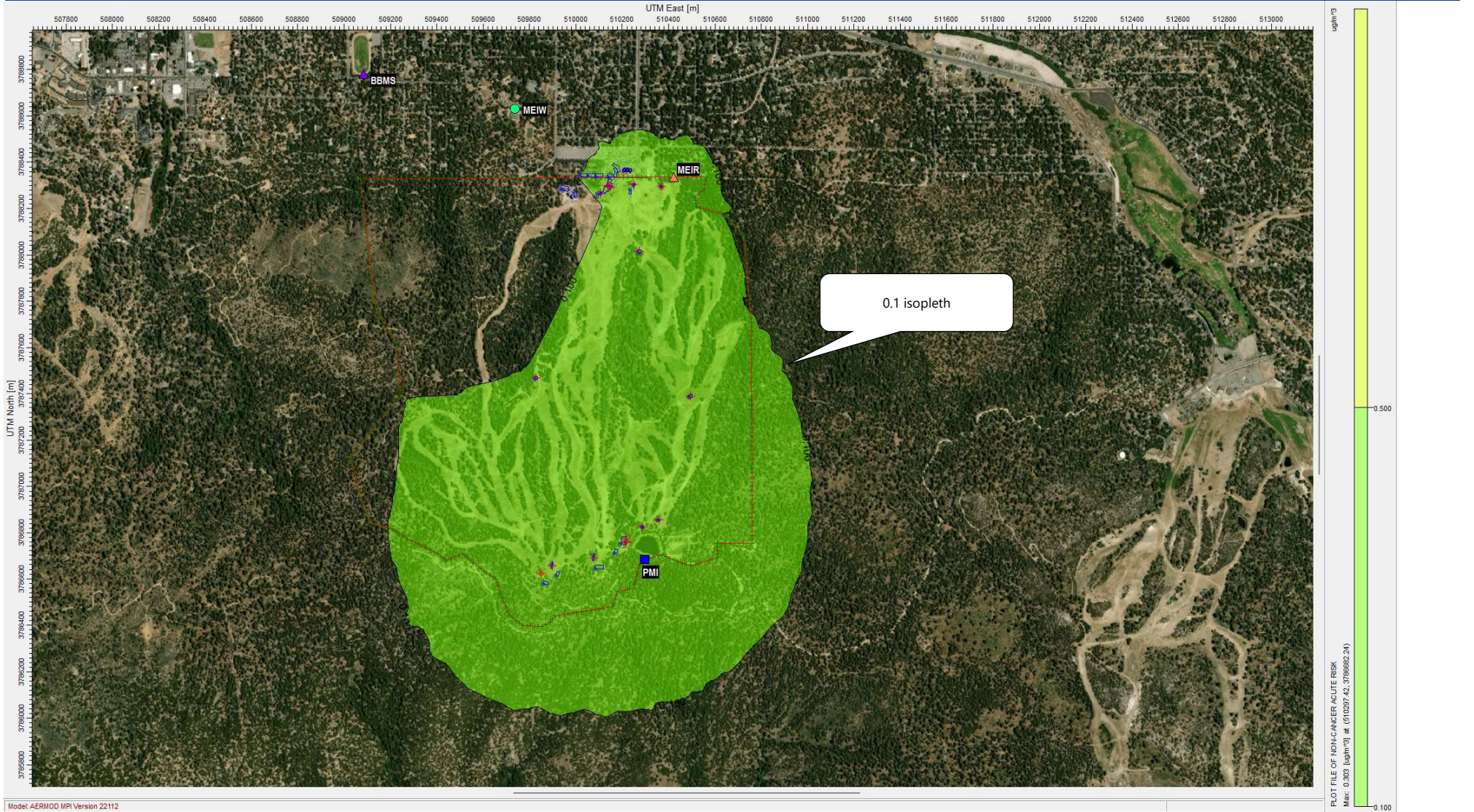


Model: AERMOD MPI Version 22112

X: 507946.34 [m] Y: 3786885.04 [m]

- Blue Square PMI; Receptor No. 10105; 8-hr HIC = 6.79E-04
- Orange Triangle MEIR; Receptor No. 10176; 8-hr HIC = 2.01E-04
- Purple Triangle Sensitive Receptor; Big Bear Middle School; Receptor No. 6023; 8-hr HIC = 8.30E-05
- Green Circle MEIW; Receptor No. 5736; 8-hr HIC = 8.70E-05

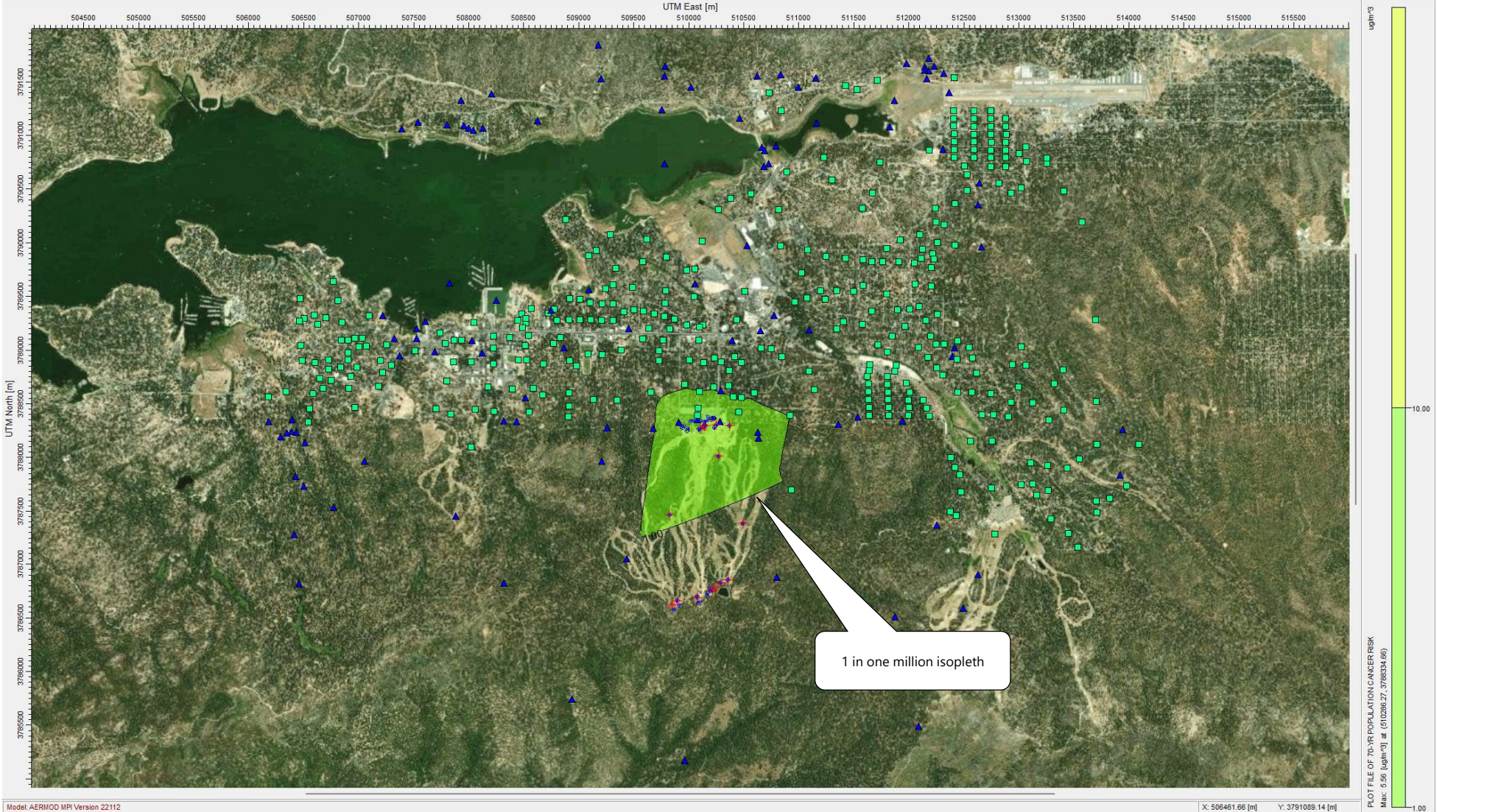
Isopleths not shown since all 8-hr HIC << 0.5.



Model: AERMOD MPI Version 22112

- Blue Square PMI; Receptor No. 11030; HIA = 3.03E-01
- Orange Triangle MEIR; Receptor No. 11242; HIA = 2.53E-01
- Purple Triangle Sensitive Receptor; Big Bear Middle School; Receptor No. 6023; HIA = 6.09E-02
- Green Circle MEIW; Receptor No. 5736; HIA = 7.57E-02

There are no on-site receptors. The appearance of isopleth within the facility boundary is associated with image generation.

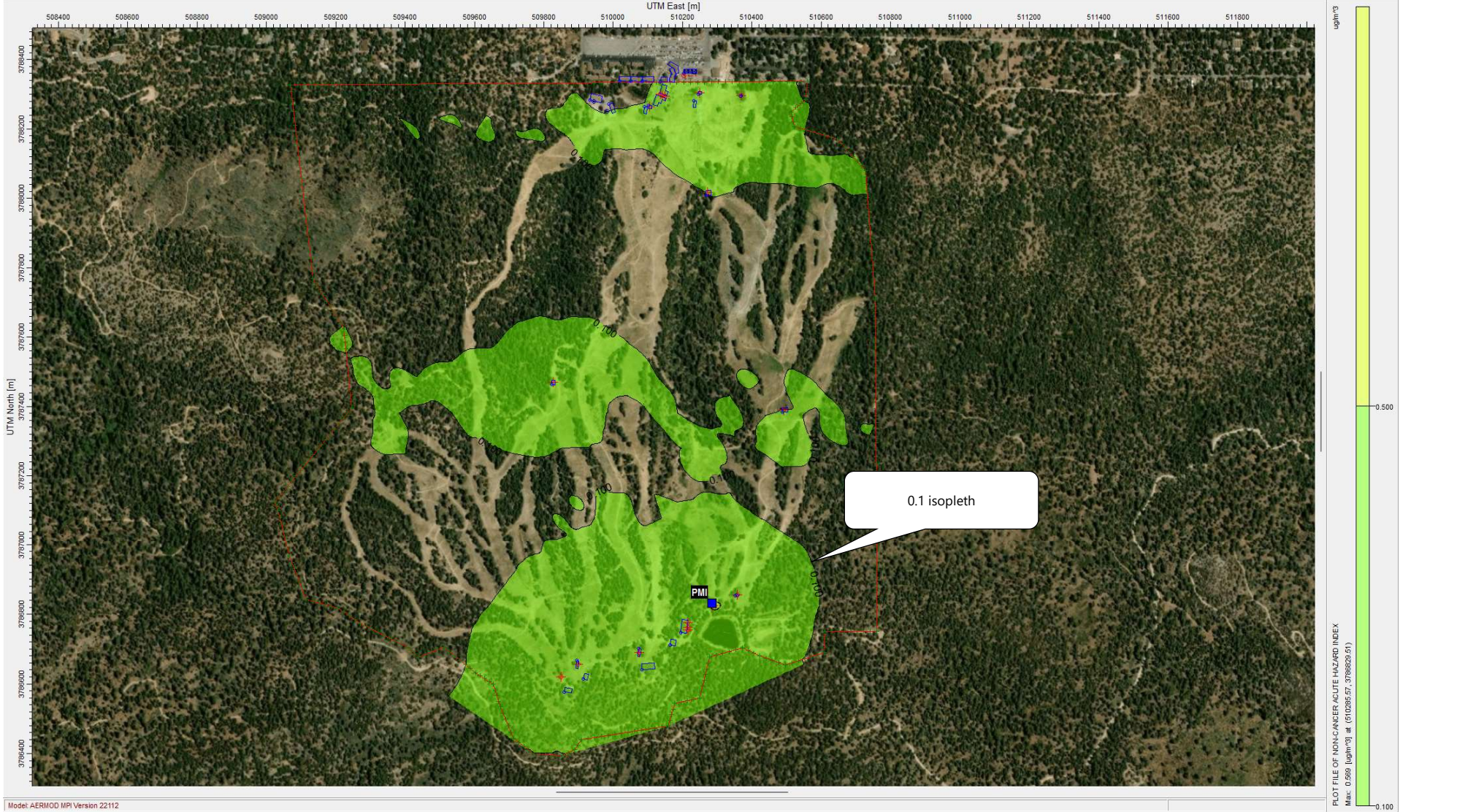


Model: AERMOD MPI Version 22112

X: 506461.66 [m] Y: 3791089.14 [m]

Blue Triangle Census Receptor with Zero Population
Green Square Census Receptor with Non-Zero Population

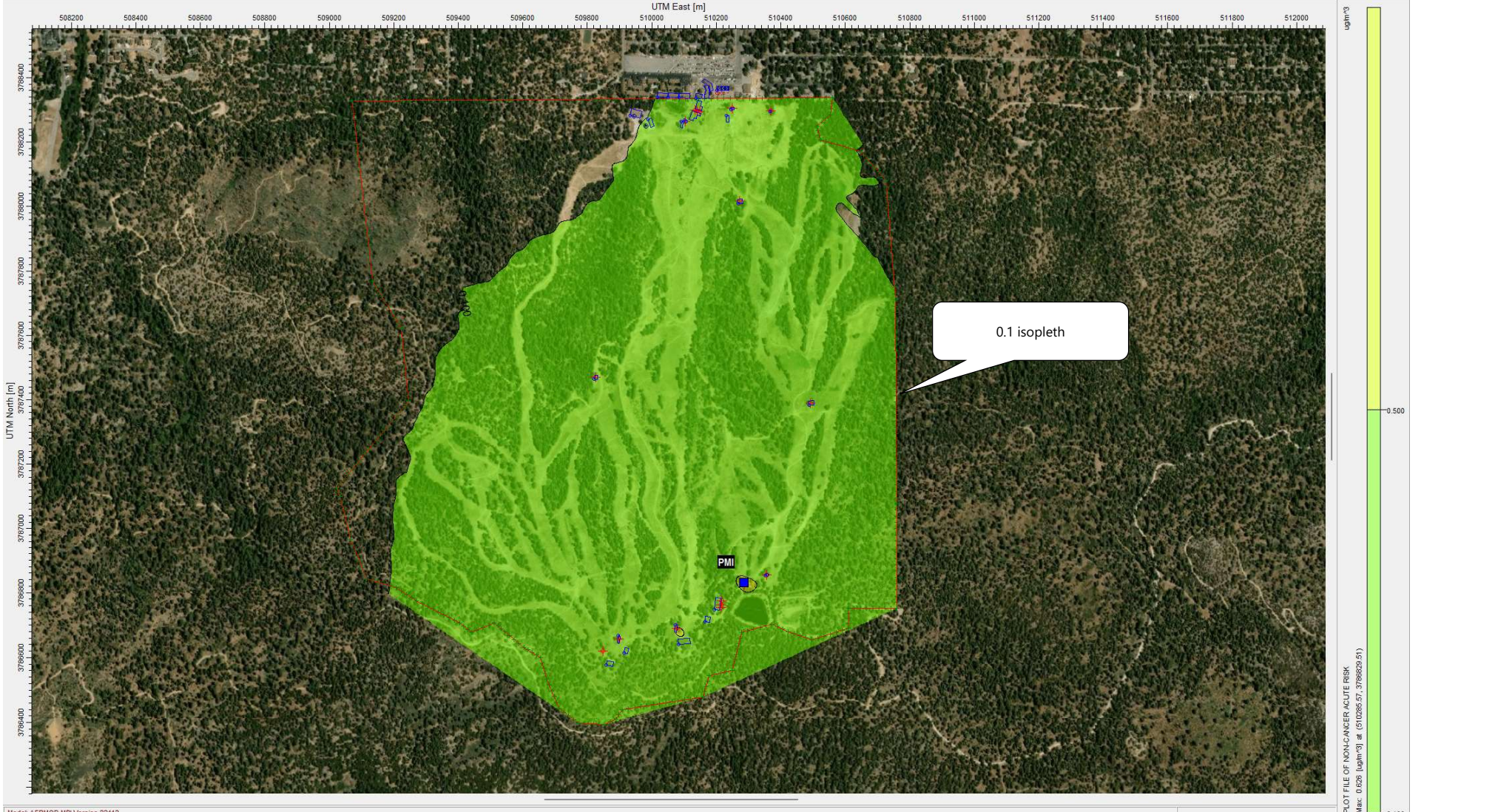
There are no on-site receptors. The appearance of isopleth within the facility boundary is associated with image generation.



Model: AERMOD MPI Version 22112

Blue Square PMI; Receptor No. 144; HIA = 5.69E-01

There are no off-site receptors. The appearance of isopleth outside of the facility boundary is associated with image generation.



Model: AERMOD MPI Version 22112

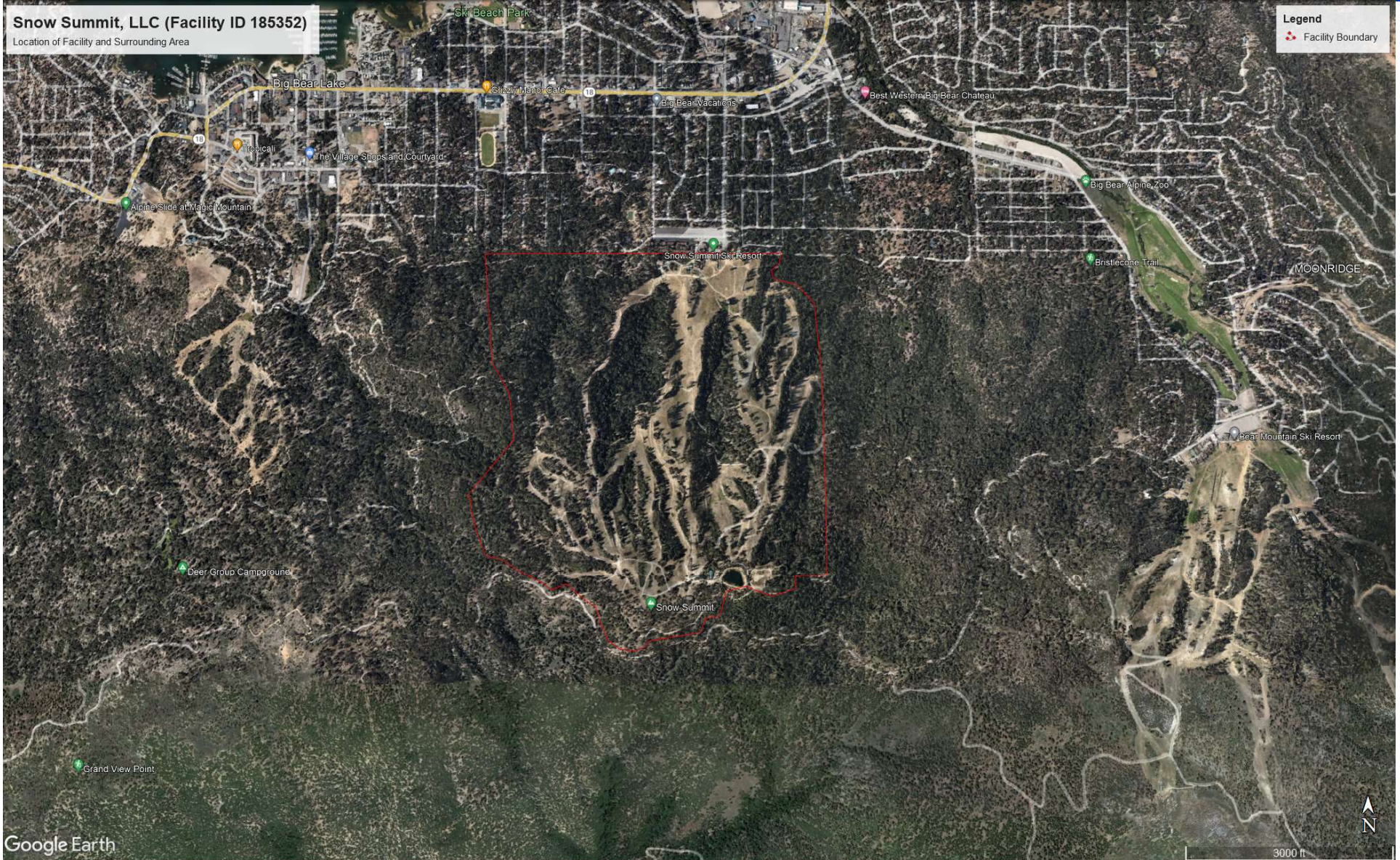
Blue Square

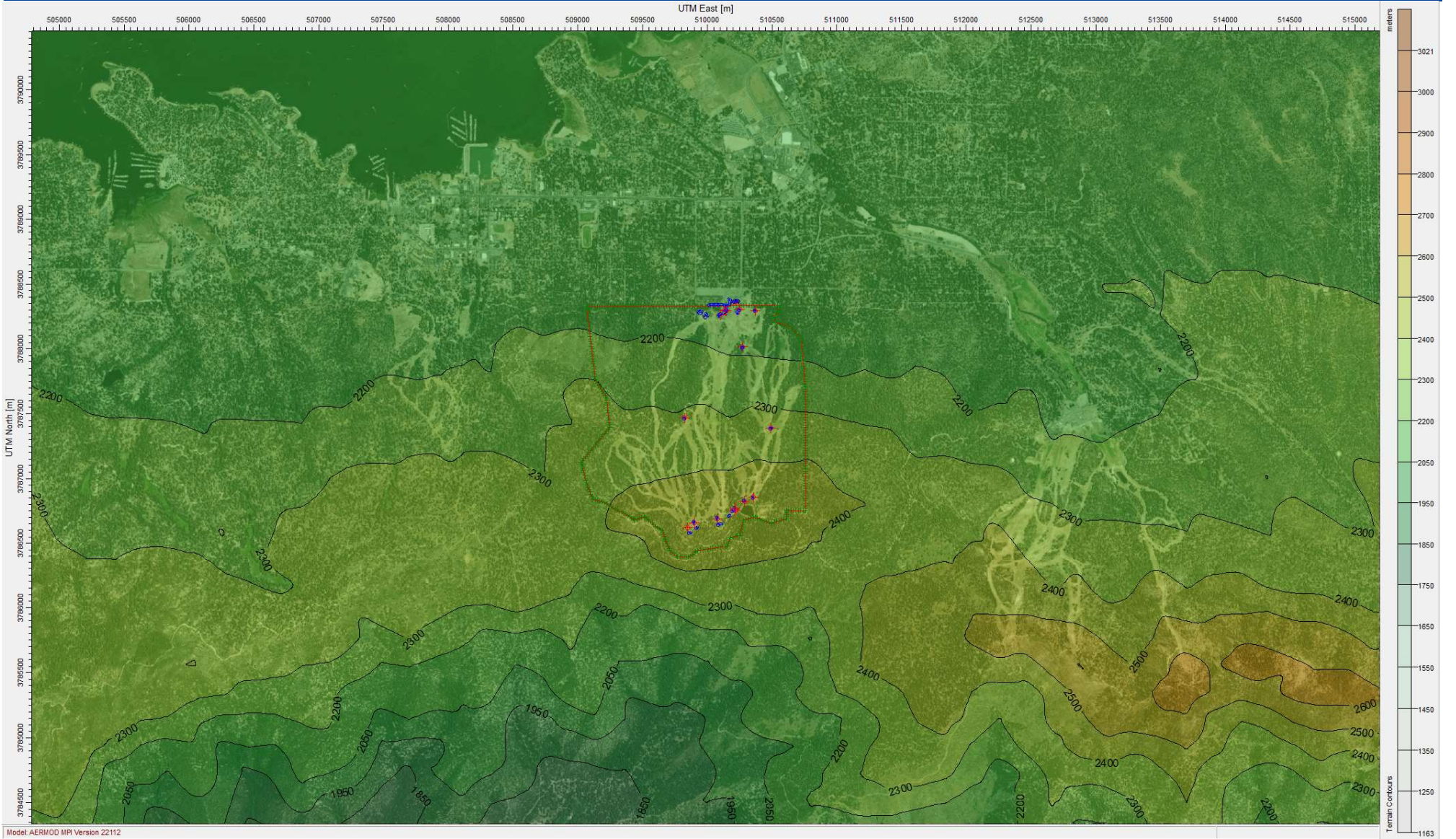
PMI; Receptor No. 144; HIA = 6.26E-01

There are no off-site receptors. The appearance of isopleth outside of the facility boundary is associated with image generation.

Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021
Section 4.1 | Figure 4-1 | Snow Summit and Surrounding Area

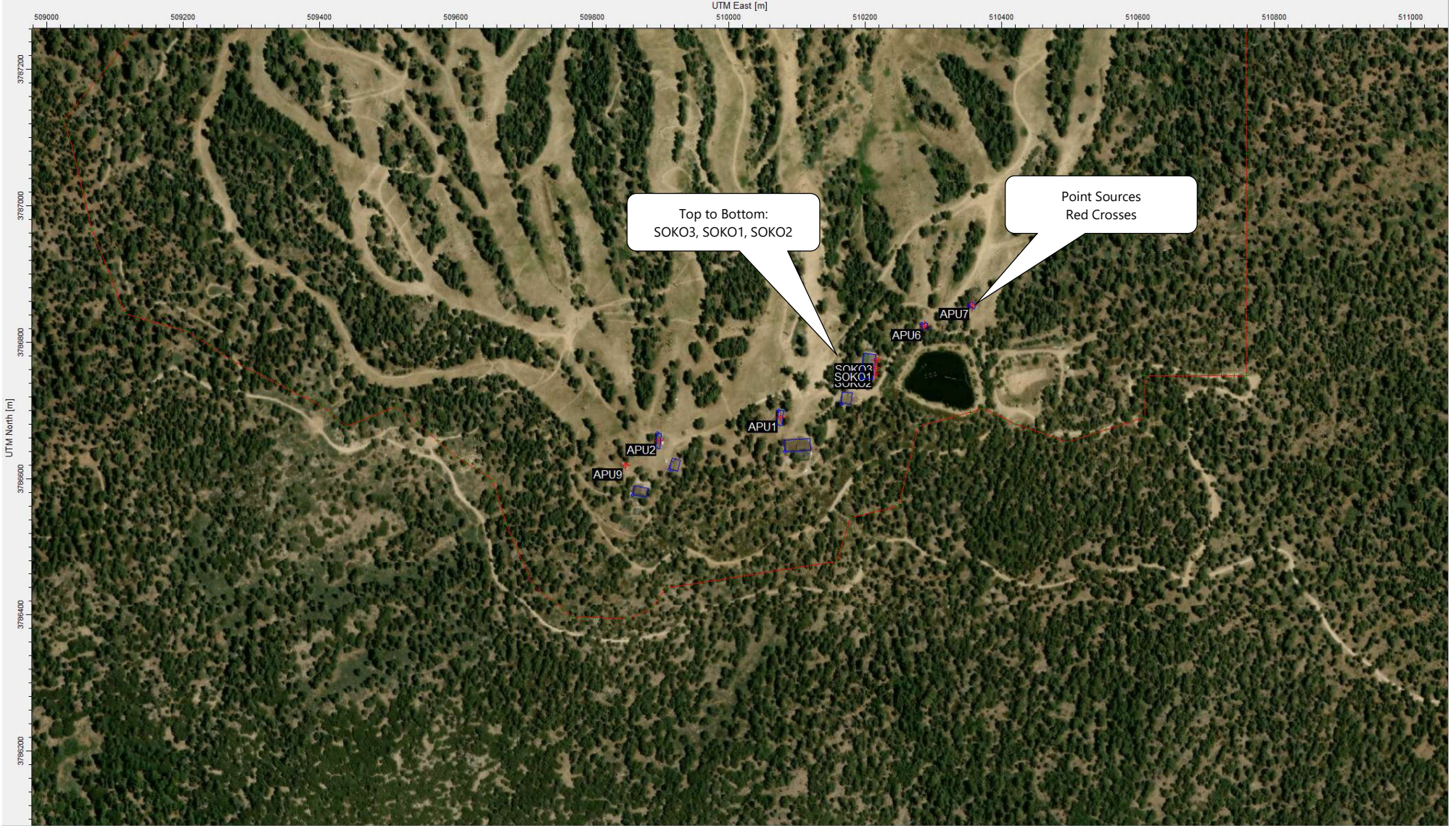








Model: AERMOD MPI Version 22112





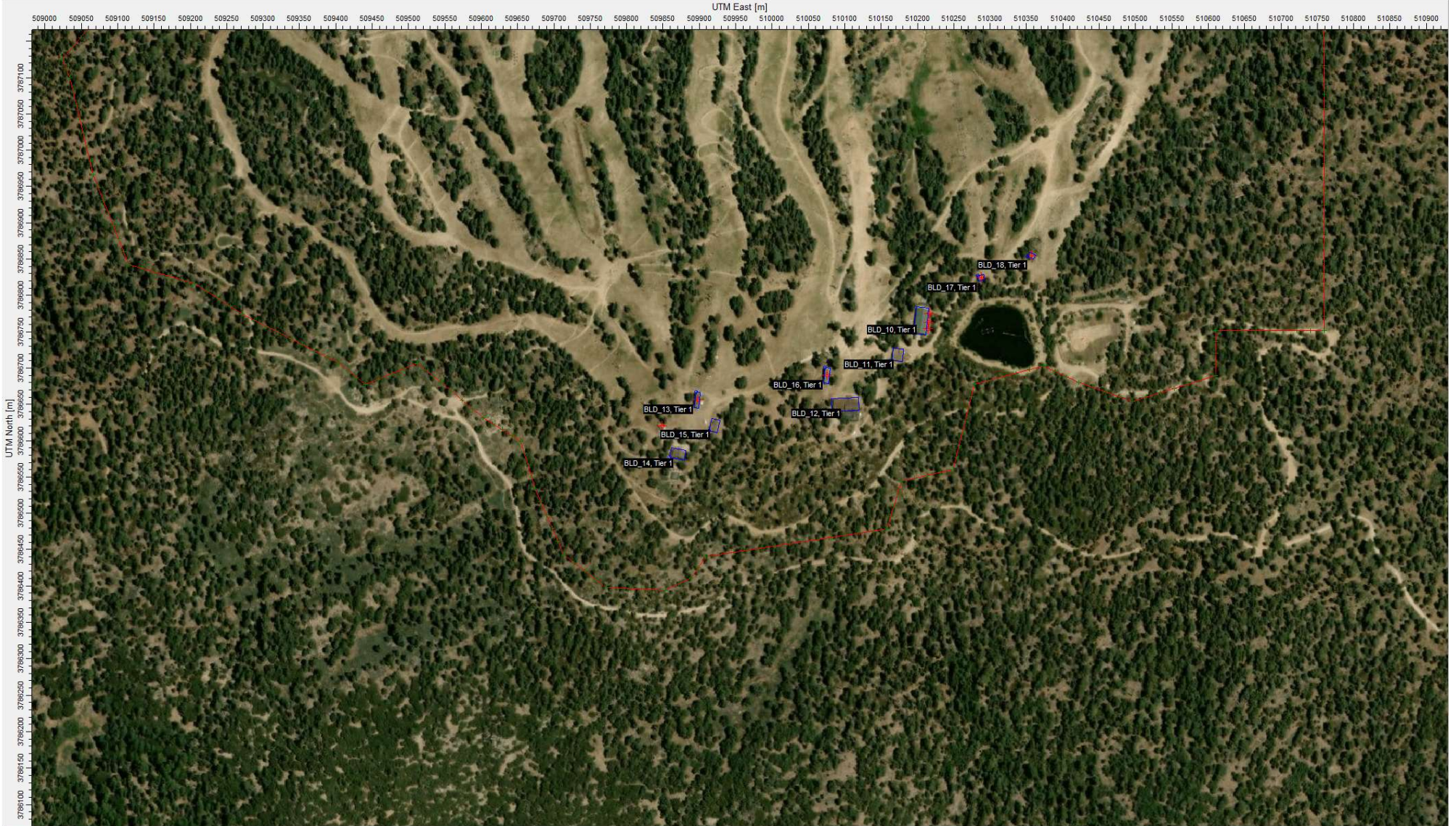
Model: AERMOD MPI Version 22112



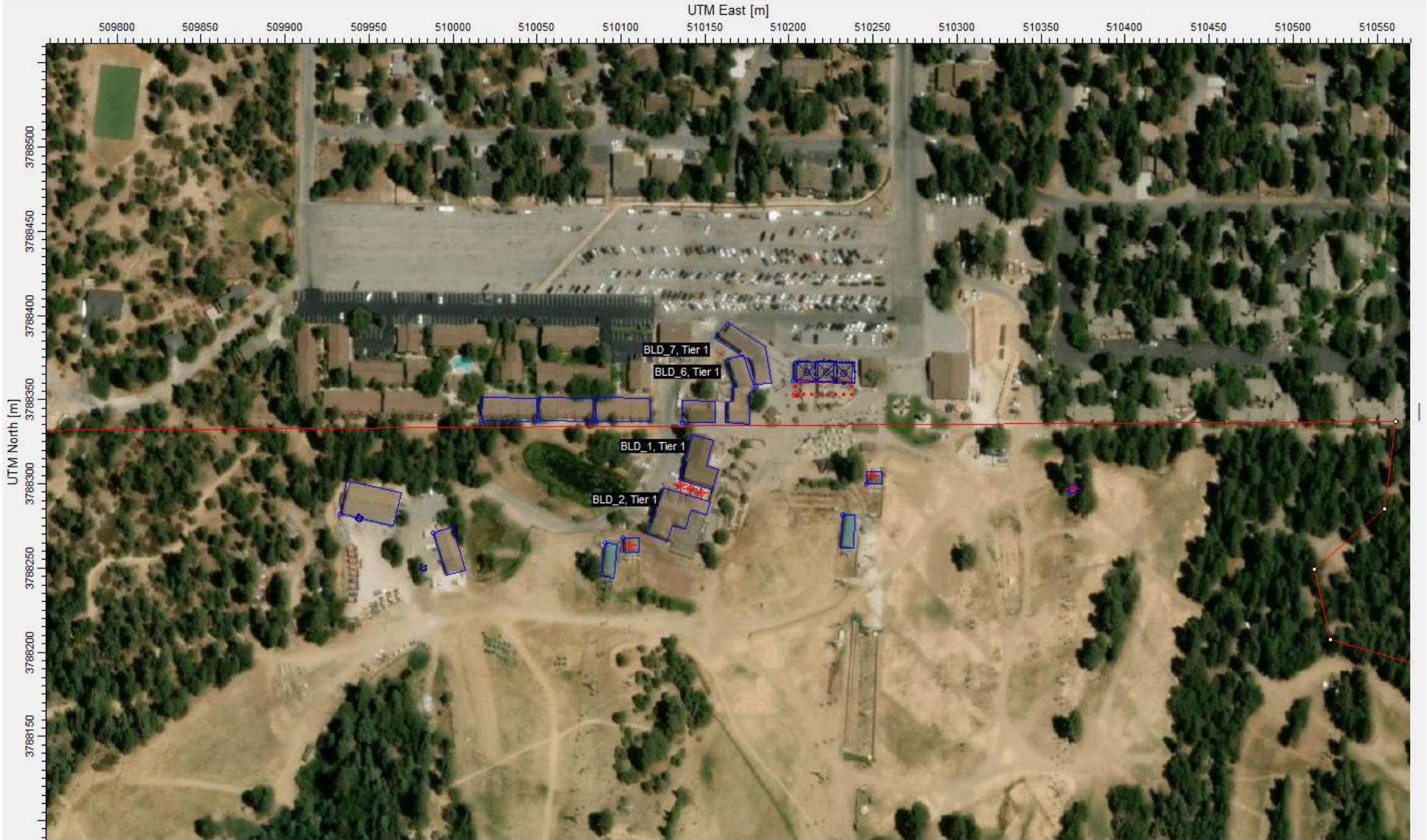


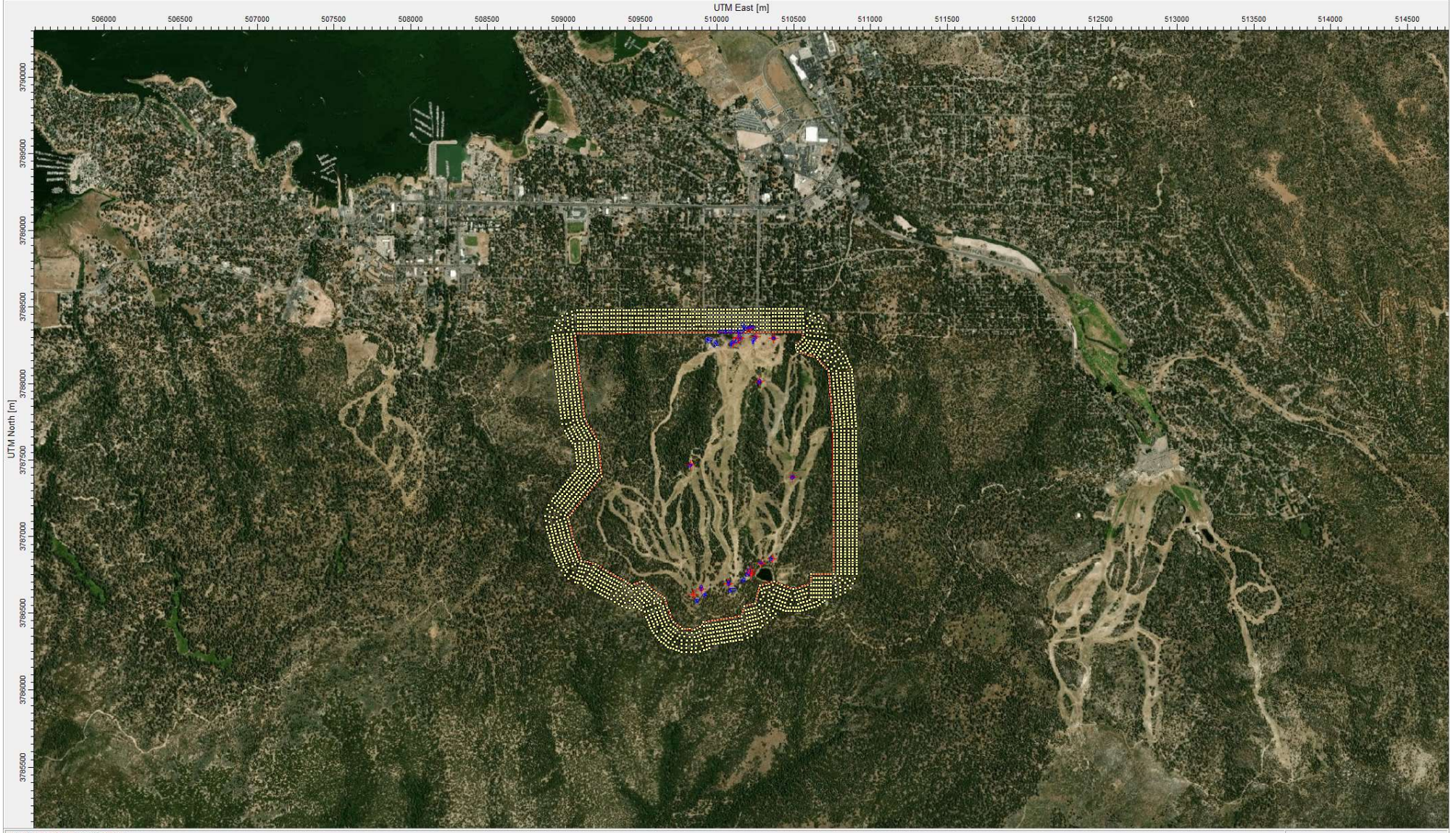


Model: AERMOD MPI Version 22112

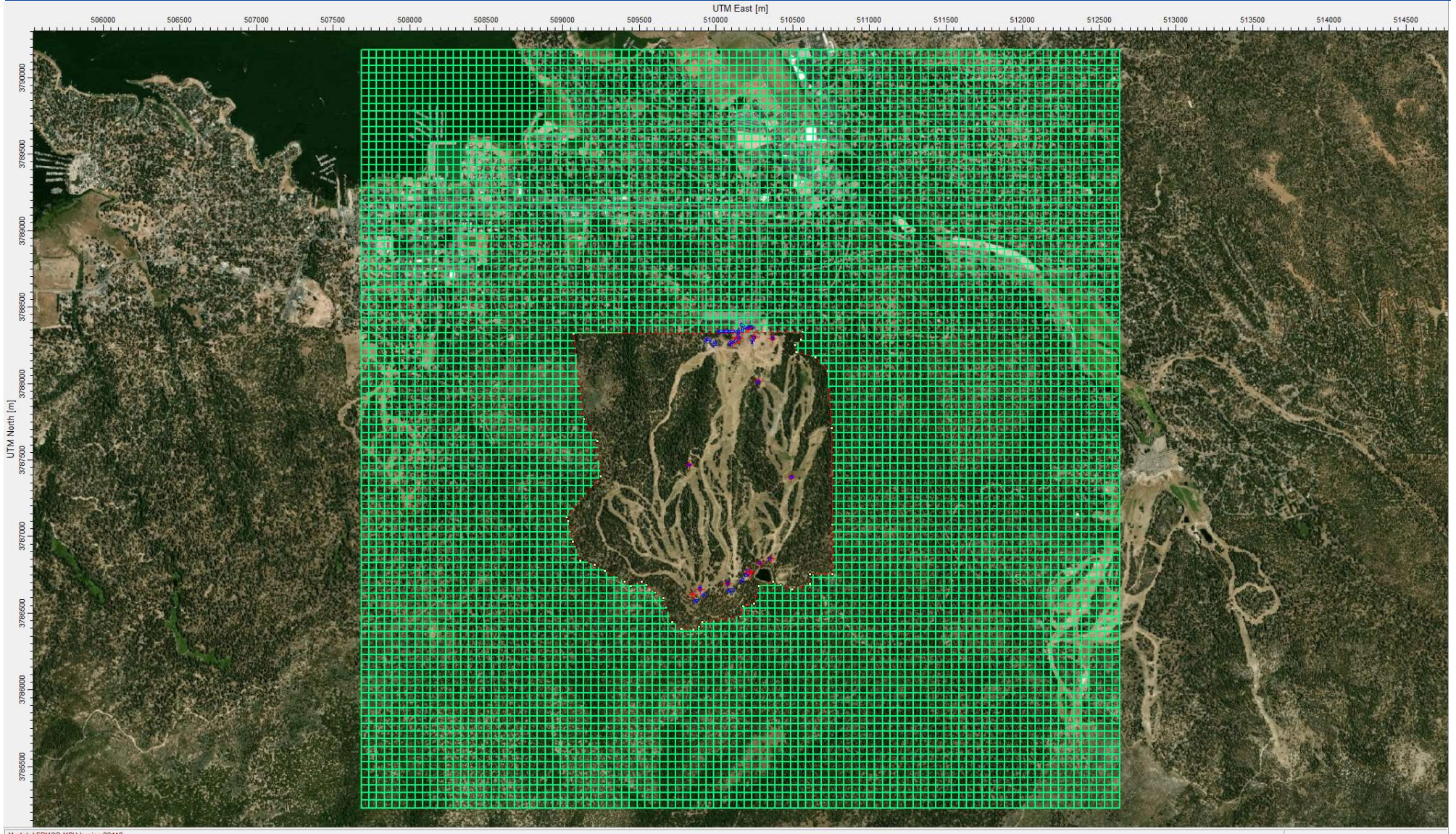


Model: AERMOD MPI Version 22112

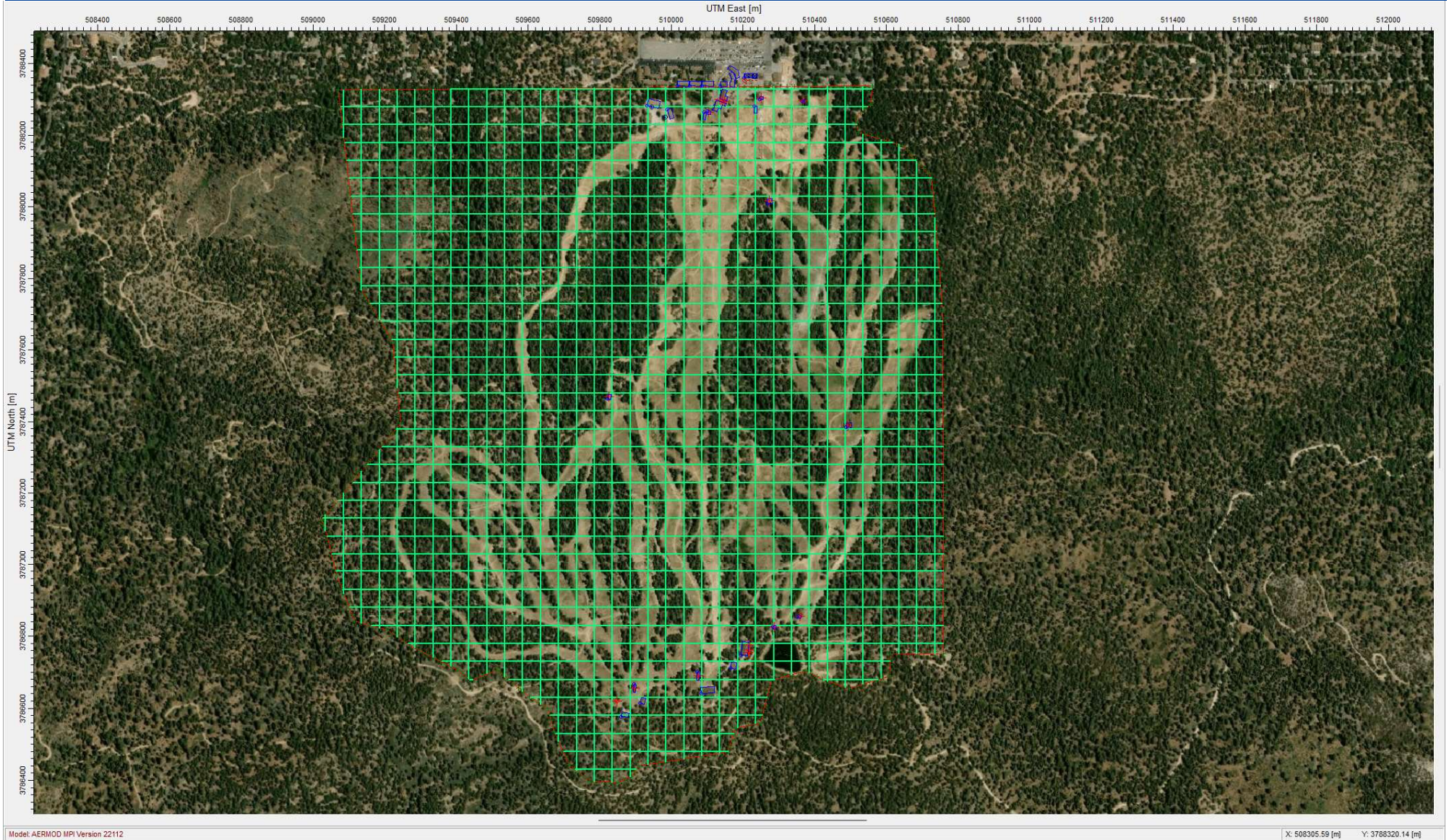


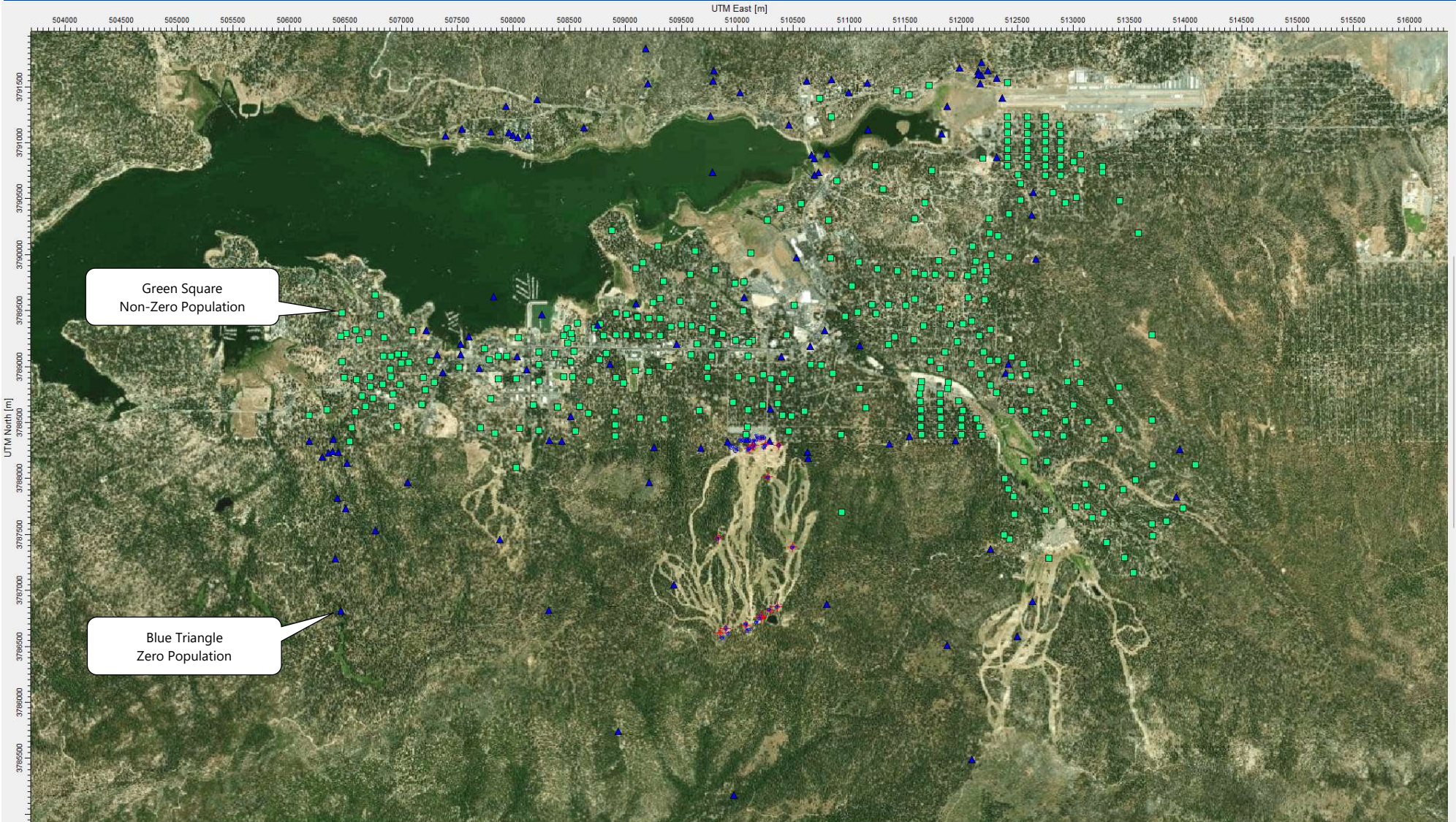


Model: AERMOD MPI Version 22112



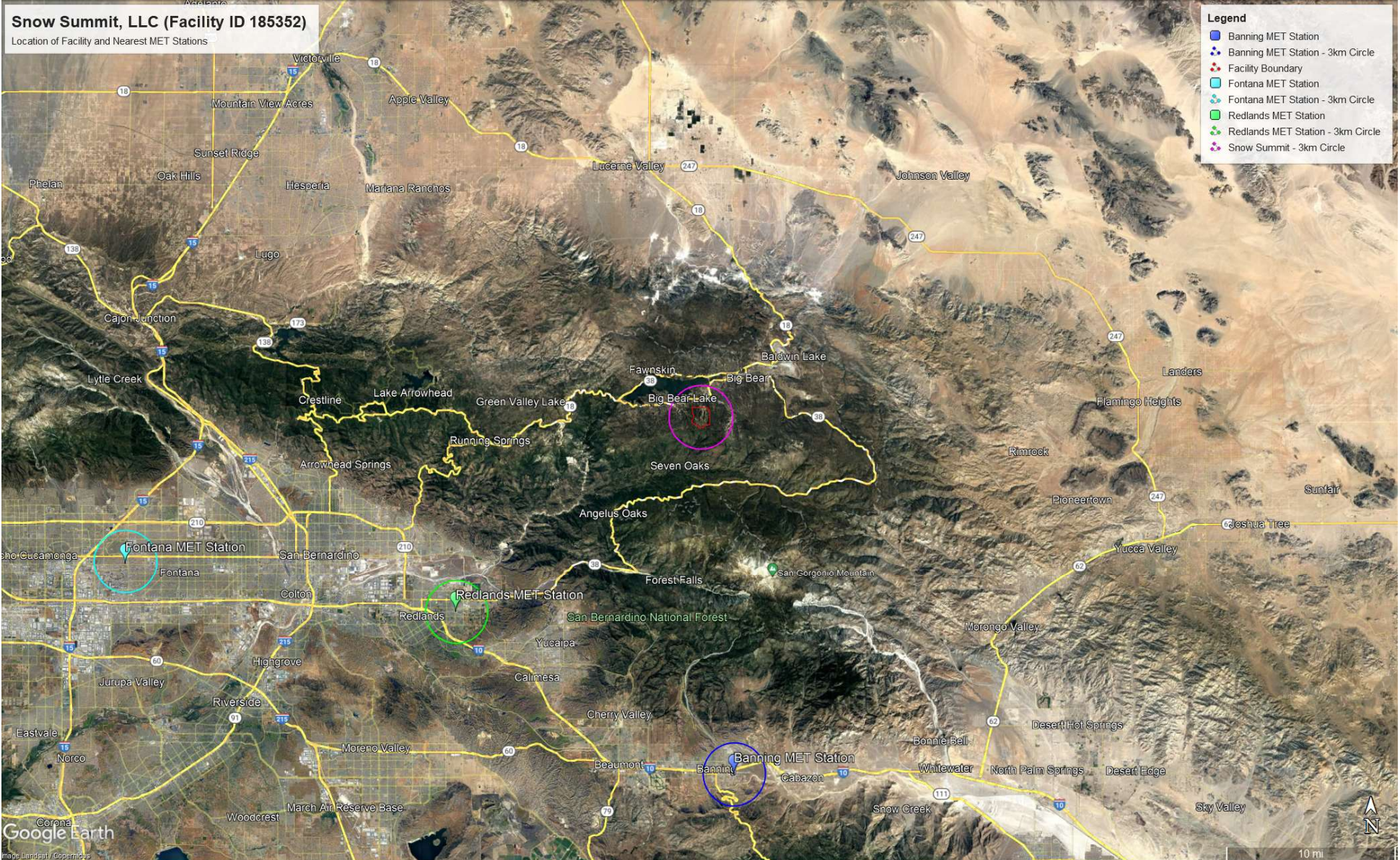
Model: AERMOD MPI Version 22112





Facility: Snow Summit, LLC
Facility ID: 185352

AB2588 Health Risk Assessment | Calendar Year 2021
Section 4.3.5 | Figure 4-16 | Nearest MET Stations



APPENDIX A – EMISSION INVENTORY

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Hazard Identification (Emission Inventory)

Appendix A Contains

Page Nos.	Table Number	Table Title	Emission Sources
2 of 19	Table A.1	MCH DICE	MCH1 (A/N 629635), MCH2 (A/N 629636), MCH3 (A/N 629637)
3 of 19	Table A.2	SOKO DICE	SOKO1 (A/N 629605), SOKO2 (A/N 629659), SOKO3 (A/N 629634)
4 of 19	Table A.3	Gasoline-Fueled APU (1 of 3)	APU1 (A/N 596592), APU2 (A/N 569584), APU3 (A/N 596585)
5 of 19	Table A.4	Gasoline-Fueled APU (2 of 3)	APU4 (A/N 596586), APU6 (A/N 596589), APU7 (A/N 596590)
6 of 19	Table A.5	Gasoline-Fueled APU (3 of 3)	APU8 (Permit-Exempt), APU9 (A/N 596591), APU10 (Permit-Exempt)
7 of 19	Table A.6	Diesel-Fueled APU	APU5 (A/N 596587), APU11 (A/N 596572)
8 of 19	Table A.7	Permit-Exempt DICE	219DSL
9 of 19	Table A.8	Permit-Exempt Natural Gas-Fueled Combustion Equipment	219NG
10 of 19	Table A.9	Permit-Exempt Propane-Fueled Combustion Equipment	219PRHTR, 219PRBBQ
11 of 19	Table A.10	Gasoline Dispensing	GSLDSP
12-16 of 19	Table A.11	Emissions by Source	--
17 of 19	Table A.12	Facility-Wide Emissions	--
18 of 19	Table A.13	Cancer Potency Factors and Reference Exposure Levels	--
19 of 19	Table A.14	Target Organs for Non-Cancer Effects	--

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.1 MCH DICE

Emission Source Data

Description	Equipment Type	Fuel	Permit Device ID	A/N	Size	Size Units	Control Device	Control Device A/N
MCH1	ICE	Diesel	D78	629635	3043	hp	SCR -> OxCat -> DPF	596580
MCH2	ICE	Diesel	D79	629636	3043	hp	SCR -> OxCat -> DPF	596581
MCH3	ICE	Diesel	D80	629637	3043	hp	SCR -> OxCat -> DPF	596582

Emission Inv. Diesel Combustion

MCH1		MCH2		MCH3	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.1555	66.42040	0.1555	74.2213	0.1555	70.9379

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
9901	DieselExhPM	2.200E-01	3.421E-02	1.461E+01	2.031E+00	3.158E-01	1.507E+02	5.300E-01	8.241E-02	3.760E+01
7664417	NH3	7.722E-02	1.201E-02	5.129E+00	3.070E-01	4.773E-02	2.278E+01	2.366E-01	3.679E-02	1.678E+01

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Engine hp x BSFC (Btu/hp-hr) / 1,000,000 / Fuel HHV (mmBtu/mgal)
 BSFC 7,000 Btu/hp-hr; Footnote a to Table 3.3-1, AP-42 Chapter 3 Section 3.
 Fuel HHV 137 mmBtu/mgal

² MCH emission factors from SCAQMD-approved source tests. Test dates:

Engine	DPM	Ammonia
MCH1	Feb. 24, 2021	Oct. 25-27, 2021
MCH2	Sep. 9-10, 2021	Oct. 25-27, 2021
MCH3	Sep. 9-10, 2021	Oct. 25-27, 2021

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.2 SOKO DICE

Emission Source Data

Description	Equipment Type	Fuel	Permit Device ID	A/N	Size	Size Units	Control Device	Control Device A/N
SOKO1	ICE	Diesel	D69	629605	3043	hp	SCR -> OxCat -> DPF	596583
SOKO2	ICE	Diesel	D70	629659	3043	hp	SCR -> OxCat -> DPF	596577
SOKO3	ICE	Diesel	D75	629634	3043	hp	SCR -> OxCat -> DPF	596578

Emission Inv. Diesel Combustion

SOKO1		SOKO2		SOKO3	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.1555	56.76490	0.1555	53.9522	0.1555	53.7581

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
9901	DieselExhPM	6.200E-02	9.640E-03	3.519E+00	1.300E-01	2.021E-02	7.014E+00	5.200E-02	8.085E-03	2.795E+00
7664417	NH3	1.567E+00	2.436E-01	8.893E+01	2.817E-01	4.380E-02	1.520E+01	2.842E-01	4.418E-02	1.528E+01

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Engine hp x BSFC (Btu/hp-hr) / 1,000,000 / Fuel HHV (mmBtu/mgal)
 BSFC 7,000 Btu/hp-hr; Footnote a to Table 3.3-1, AP-42 Chapter 3 Section 3.
 Fuel HHV 137 mmBtu/mgal

² SOKO emission factors from SCAQMD-approved source tests. Test dates:

Engine	DPM	Ammonia
SOKO1	Feb. 23-24, 2021	Oct. 26-27, 2021
SOKO2	Feb. 23-24, 2021	Oct. 26-27, 2021
SOKO3	Feb. 23-24, 2021	Oct. 26-27, 2021

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.3 APU (Gasoline) - 1 of 3

Emission Source Data

Description	Equipment Type	Fuel	Permit Device ID	A/N	Size	Size Units	Control Device	Control Device A/N
APU1	ICE	Gasoline	D35	596592	210	hp	--	--
APU2	ICE	Gasoline	D27	596584	210	hp	--	--
APU3	ICE	Gasoline	D28	596585	187	hp	--	--

Emission Inv. Gasoline Combustion

APU1		APU2		APU3	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.0113	0.53727	0.0113	0.3592	0.0101	0.0734

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
91203	Naphthalene	1.438E-01	1.626E-03	7.728E-02	1.626E-03	5.166E-02	1.448E-03	1.056E-02
7440020	Nickel	3.250E-03	3.675E-05	1.746E-03	3.675E-05	1.167E-03	3.273E-05	2.386E-04
106990	1,3-Butadiene	9.183E-01	1.038E-02	4.934E-01	1.038E-02	3.298E-01	9.247E-03	6.742E-02
71432	Benzene	3.806E+00	4.304E-02	2.045E+00	4.304E-02	1.367E+00	3.832E-02	2.794E-01
50000	Formaldehyde	3.452E+00	3.903E-02	1.855E+00	3.903E-02	1.240E+00	3.476E-02	2.534E-01
95636	1,2,4TriMeBenze	1.394E+00	1.576E-02	7.490E-01	1.576E-02	5.007E-01	1.404E-02	1.024E-01
75070	Acetaldehyde	8.298E-01	9.383E-03	4.458E-01	9.383E-03	2.980E-01	8.356E-03	6.092E-02
107028	Acrolein	1.992E-01	2.252E-03	1.070E-01	2.252E-03	7.153E-02	2.005E-03	1.462E-02
7782505	Chlorine	4.550E-01	5.145E-03	2.445E-01	5.145E-03	1.634E-01	4.582E-03	3.341E-02
7440508	Copper	3.250E-03	3.675E-05	1.746E-03	3.675E-05	1.167E-03	3.273E-05	2.386E-04
100414	Ethyl Benzene	1.660E+00	1.877E-02	8.917E-01	1.877E-02	5.961E-01	1.671E-02	1.218E-01
110543	Hexane	1.449E+00	1.639E-02	7.787E-01	1.639E-02	5.206E-01	1.459E-02	1.064E-01
7439965	Manganese	3.250E-03	3.675E-05	1.746E-03	3.675E-05	1.167E-03	3.273E-05	2.386E-04
67561	Methanol	7.745E-01	8.758E-03	4.161E-01	8.758E-03	2.782E-01	7.798E-03	5.686E-02
78933	MEK	6.638E-02	7.507E-04	3.567E-02	7.507E-04	2.384E-02	6.684E-04	4.874E-03
1634044	Me t-ButylEther	2.058E+00	2.327E-02	1.106E+00	2.327E-02	7.391E-01	2.072E-02	1.511E-01
100425	Styrene	1.438E-01	1.626E-03	7.728E-02	1.626E-03	5.166E-02	1.448E-03	1.056E-02
108883	Toluene	7.513E+00	8.495E-02	4.036E+00	8.495E-02	2.698E+00	7.565E-02	5.516E-01
95476	o-Xylene	1.715E+00	1.939E-02	9.214E-01	1.939E-02	6.160E-01	1.727E-02	1.259E-01
108383	m-Xylene	4.924E+00	5.567E-02	2.645E+00	5.567E-02	1.768E+00	4.958E-02	3.615E-01

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Engine hp x BSFC (Btu/hp-hr) / 1,000,000 / Fuel HHV (mmBtu/mgal)
BSFC 7,000 Btu/hp-hr; Footnote a to Table 3.3-1, AP-42 Chapter 3 Section 3.
Fuel HHV 130 mmBtu/mgal

² Gasoline emission factors from South Coast Air Quality Management District's June 2020 AB2588 Quadrennial Air Toxics Emissions Inventory Reporting Procedures Table B-4; Stationary and Portable Internal Combustion Engines; Non-catalyst

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.4 APU (Gasoline) - 2 of 3

Emission Source Data

Description	Equipment Type	Fuel	Permit Device ID	A/N	Size	Size Units	Control Device	Control Device A/N
APU4	ICE	Gasoline	D29	596586	200	hp	--	--
APU6	ICE	Gasoline	D31	596589	187	hp	--	--
APU7	ICE	Gasoline	D32	596590	187	hp	--	--

Emission Inv. Gasoline Combustion

APU4		APU6		APU7	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.0108	0.08692	0.0101	0.0577	0.0101	0.0747

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
91203	Naphthalene	1.438E-01	1.549E-03	1.250E-02	1.448E-03	8.296E-03	1.448E-03	1.075E-02
7440020	Nickel	3.250E-03	3.500E-05	2.825E-04	3.273E-05	1.875E-04	3.273E-05	2.429E-04
106990	1,3-Butadiene	9.183E-01	9.890E-03	7.982E-02	9.247E-03	5.297E-02	9.247E-03	6.863E-02
71432	Benzene	3.806E+00	4.099E-02	3.308E-01	3.832E-02	2.195E-01	3.832E-02	2.844E-01
50000	Formaldehyde	3.452E+00	3.718E-02	3.000E-01	3.476E-02	1.991E-01	3.476E-02	2.580E-01
95636	1,2,4TriMeBenze	1.394E+00	1.501E-02	1.212E-01	1.404E-02	8.041E-02	1.404E-02	1.042E-01
75070	Acetaldehyde	8.298E-01	8.936E-03	7.213E-02	8.356E-03	4.786E-02	8.356E-03	6.201E-02
107028	Acrolein	1.992E-01	2.145E-03	1.731E-02	2.005E-03	1.149E-02	2.005E-03	1.488E-02
7782505	Chlorine	4.550E-01	4.900E-03	3.955E-02	4.582E-03	2.624E-02	4.582E-03	3.400E-02
7440508	Copper	3.250E-03	3.500E-05	2.825E-04	3.273E-05	1.875E-04	3.273E-05	2.429E-04
100414	Ethyl Benzene	1.660E+00	1.787E-02	1.443E-01	1.671E-02	9.573E-02	1.671E-02	1.240E-01
110543	Hexane	1.449E+00	1.561E-02	1.260E-01	1.459E-02	8.360E-02	1.459E-02	1.083E-01
7439965	Manganese	3.250E-03	3.500E-05	2.825E-04	3.273E-05	1.875E-04	3.273E-05	2.429E-04
67561	Methanol	7.745E-01	8.341E-03	6.732E-02	7.798E-03	4.467E-02	7.798E-03	5.788E-02
78933	MEK	6.638E-02	7.149E-04	5.770E-03	6.684E-04	3.829E-03	6.684E-04	4.961E-03
1634044	Me t-ButylEther	2.058E+00	2.216E-02	1.789E-01	2.072E-02	1.187E-01	2.072E-02	1.538E-01
100425	Styrene	1.438E-01	1.549E-03	1.250E-02	1.448E-03	8.296E-03	1.448E-03	1.075E-02
108883	Toluene	7.513E+00	8.090E-02	6.530E-01	7.565E-02	4.333E-01	7.565E-02	5.614E-01
95476	o-Xylene	1.715E+00	1.847E-02	1.491E-01	1.727E-02	9.892E-02	1.727E-02	1.282E-01
108383	m-Xylene	4.924E+00	5.302E-02	4.280E-01	4.958E-02	2.840E-01	4.958E-02	3.679E-01

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Engine hp x BSFC (Btu/hp-hr) / 1,000,000 / Fuel HHV (mmBtu/mgal)

BSFC 7,000 Btu/hp-hr; Footnote a to Table 3.3-1, AP-42 Chapter 3 Section 3.

Fuel HHV 130 mmBtu/mgal

² Gasoline emission factors from South Coast Air Quality Management District's June 2020 AB2588 Quadrennial Air Toxics Emissions Inventory Reporting Procedures Table B-4; Stationary and Portable Internal Combustion Engines; Non-catalyst

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.5 APU (Gasoline) - 3 of 3

Emission Source Data

Description	Equipment Type	Fuel	Permit Device ID	A/N	Size	Size Units	Control Device	Control Device A/N
APU8	ICE	Gasoline	Permit-Exempt	--	37	hp	--	--
APU9	ICE	Gasoline	D33	596591	176	hp	--	--
APU10	ICE	Gasoline	Permit-Exempt	--	34	hp	--	--

Emission Inv. Gasoline Combustion

APU8		APU9		APU10	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.0020	0.30155	0.0095	0.0901	0.0018	0.3015

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
91203	Naphthalene	1.438E-01	2.866E-04	4.337E-02	1.363E-03	1.295E-02	2.633E-04	4.337E-02
7440020	Nickel	3.250E-03	6.475E-06	9.800E-04	3.080E-05	2.927E-04	5.950E-06	9.800E-04
106990	1,3-Butadiene	9.183E-01	1.830E-03	2.769E-01	8.703E-03	8.270E-02	1.681E-03	2.769E-01
71432	Benzene	3.806E+00	7.583E-03	1.148E+00	3.607E-02	3.428E-01	6.968E-03	1.148E+00
50000	Formaldehyde	3.452E+00	6.877E-03	1.041E+00	3.271E-02	3.109E-01	6.320E-03	1.041E+00
95636	1,2,4TriMeBenze	1.394E+00	2.777E-03	4.204E-01	1.321E-02	1.256E-01	2.552E-03	4.204E-01
75070	Acetaldehyde	8.298E-01	1.653E-03	2.502E-01	7.864E-03	7.473E-02	1.519E-03	2.502E-01
107028	Acrolein	1.992E-01	3.968E-04	6.005E-02	1.887E-03	1.794E-02	3.646E-04	6.005E-02
7782505	Chlorine	4.550E-01	9.065E-04	1.372E-01	4.312E-03	4.098E-02	8.330E-04	1.372E-01
7440508	Copper	3.250E-03	6.475E-06	9.800E-04	3.080E-05	2.927E-04	5.950E-06	9.800E-04
100414	Ethyl Benzene	1.660E+00	3.306E-03	5.004E-01	1.573E-02	1.495E-01	3.038E-03	5.004E-01
110543	Hexane	1.449E+00	2.888E-03	4.371E-01	1.374E-02	1.305E-01	2.654E-03	4.371E-01
7439965	Manganese	3.250E-03	6.475E-06	9.800E-04	3.080E-05	2.927E-04	5.950E-06	9.800E-04
67561	Methanol	7.745E-01	1.543E-03	2.335E-01	7.340E-03	6.975E-02	1.418E-03	2.335E-01
78933	MEK	6.638E-02	1.323E-04	2.002E-02	6.291E-04	5.979E-03	1.215E-04	2.002E-02
1634044	Me t-ButylEther	2.058E+00	4.100E-03	6.206E-01	1.950E-02	1.853E-01	3.768E-03	6.206E-01
100425	Styrene	1.438E-01	2.866E-04	4.337E-02	1.363E-03	1.295E-02	2.633E-04	4.337E-02
108883	Toluene	7.513E+00	1.497E-02	2.265E+00	7.120E-02	6.766E-01	1.375E-02	2.265E+00
95476	o-Xylene	1.715E+00	3.417E-03	5.171E-01	1.625E-02	1.544E-01	3.140E-03	5.171E-01
108383	m-Xylene	4.924E+00	9.809E-03	1.485E+00	4.666E-02	4.434E-01	9.014E-03	1.485E+00

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Engine hp x BSFC (Btu/hp-hr) / 1,000,000 / Fuel HHV (mmBtu/mgal)
 BSFC 7,000 Btu/hp-hr; Footnote a to Table 3.3-1, AP-42 Chapter 3 Section 3.
 Fuel HHV 130 mmBtu/mgal

² Gasoline emission factors from South Coast Air Quality Management District's June 2020 AB2588 Quadrennial Air Toxics Emissions Inventory Reporting Procedures Table B-4; Stationary and Portable Internal Combustion Engines; Non-catalyst

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.6 APU (Diesel)

Emission Source Data

Description	Equipment Type	Fuel	Permit Device ID	A/N	Size	Size Units	Control Device	Control Device A/N
APU5	ICE	Diesel	D30	596587	318	hp	--	--
APU11	ICE	Diesel	D34	596572	130	hp	--	--

Emission Inv. Diesel Combustion

APU5		APU11	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.0162	0.01349	0.0066	0.0047

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
9901	DieselExhPM	3.350E+01	5.443E-01	4.519E-01	2.225E-01	1.585E-01

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Engine hp x BSFC (Btu/hp-hr) / 1,000,000 / Fuel HHV (mmBtu/mgal)
 BSFC 7,000 Btu/hp-hr; Footnote a to Table 3.3-1, AP-42 Chapter 3 Section 3.
 Fuel HHV 137 mmBtu/mgal

² D30 and D34 emission factors from permit (SCAQMD default)

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.7 Permit-Exempt DICE

Emission Source Data

Description	Equipment Type	Fuel	Hours per Day	Days per Week	Weeks per Year	Annual Hours ¹
219DSL	ICE	Diesel	8	7	52	2,912

¹ Annual Hours = Hours per Day x Days per Week x Weeks per Year

Emission Inv. Diesel Combustion

219DSL	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.0000	0.01000

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
9901	DieselExhPM	3.350E+01	1.150E-04	3.350E-01

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Annual Fuel Consumption (mgal/yr) / Annual Hours

² Diesel emission factors from South Coast Air Quality Management District's June 2020 AB2588 Quadrennial Air Toxics Emissions Inventory Reporting Procedures Table B-2; Stationary and Portable Internal Combustion Engines; All Sizes (DPM Only)

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.8 Permit-Exempt Natural Gas-Fueled Combustion Equipment

Emission Source Data

Description	Equipment Type	Fuel	Hours per Day	Days per Week	Weeks per Year	Annual Hours ¹
219NG	External Combustion	Natural Gas	8	7	52	2,912

¹ Annual Hours = Hours per Day x Days per Week x Weeks per Year

Emission Inv. Natural Gas Combustion

219NG	
Maximum Hourly Fuel Consumption ¹ (mmscf/hr)	Annual Fuel Consumption (mmscf/yr)
0.0028	8.06610

Pollutant	Pollutant Name	Emission Factor ² (lb/mmscf)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
7664417	NH3	3.20E+00	8.864E-03	2.581E+01
50000	Formaldehyde	1.70E-02	4.709E-05	1.371E-01
91203	Naphthalene	3.00E-04	8.310E-07	2.420E-03
1151	PAHs-w/o	1.00E-04	2.770E-07	8.066E-04
71432	Benzene	8.00E-03	2.216E-05	6.453E-02
75070	Acetaldehyde	4.30E-03	1.191E-05	3.468E-02
107028	Acrolein	2.70E-03	7.479E-06	2.178E-02
100414	Ethyl Benzene	9.50E-03	2.631E-05	7.663E-02
110543	Hexane	6.30E-03	1.745E-05	5.082E-02
108883	Toluene	3.66E-02	1.014E-04	2.952E-01
1330207	Xylenes	2.72E-02	7.534E-05	2.194E-01

¹ Maximum Hourly Fuel Consumption (mmscf/hr) = Annual Fuel Consumption (mmscf/yr) / Annual Hours

² Natural gas emission factors from South Coast Air Quality Management District's June 2020 AB2588 Quadrennial Air Toxics Emissions Inventory Reporting Procedures Table B-1; External Combustion Equipment; < 10 mmBtu/hr

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.9 Permit-Exempt Propane-Fueled Combustion Equipment

Emission Source Data

Description	Equipment Type	Fuel	Hours per Day	Days per Week	Weeks per Year	Annual Hours ¹	
219PRHTR	External Combustion	Propane	8	7	52	2,912	Heater
219PRBBQ	External Combustion	Propane	8	7	52	2,912	Barbecue

¹ Annual Hours = Hours per Day x Days per Week x Weeks per Year

Emission Inv. Propane Combustion

219PRHTR		219PRBBQ	
Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)	Maximum Hourly Fuel Consumption ¹ (mgal/hr)	Annual Fuel Consumption (mgal/yr)
0.0024	6.90191	0.0000	0.00500

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
91203	Naphthalene	2.662E-05	6.309E-08	1.837E-04	4.570E-11	1.331E-07
50000	Formaldehyde	1.508E-03	3.575E-06	1.041E-02	2.590E-09	7.542E-06
7664417	NH3	3.000E-01	7.110E-04	2.071E+00	5.151E-07	1.500E-03
71432	Benzene	7.098E-04	1.682E-06	4.899E-03	1.219E-09	3.549E-06
1151	PAHs-w/o	8.873E-06	2.103E-08	6.124E-05	1.523E-11	4.436E-08
75070	Acetaldehyde	3.815E-04	9.043E-07	2.633E-03	6.551E-10	1.908E-06
107028	Acrolein	2.396E-04	5.678E-07	1.653E-03	4.113E-10	1.198E-06
100414	Ethyl Benzene	8.429E-04	1.998E-06	5.818E-03	1.447E-09	4.214E-06
110543	Hexane	5.590E-04	1.325E-06	3.858E-03	9.598E-10	2.795E-06
108883	Toluene	3.247E-03	7.697E-06	2.241E-02	5.576E-09	1.624E-05
1330207	Xylenes	2.413E-03	5.720E-06	1.666E-02	4.144E-09	1.207E-05

¹ Maximum Hourly Fuel Consumption (mgal/hr) = Annual Fuel Consumption (mgal/yr) / Annual Hours

² Propane emission factors from South Coast Air Quality Management District's June 2020 AB2588 Quadrennial Air Toxics Emissions Inventory Reporting Procedures Table B-3; External Combustion Equipment; < 10 mmBtu/hr

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix A Hazard Identification (Emission Inventory)

Table A.10 Gasoline Dispensing

Emission Source Data

Description	Hours per Day	Days per Week	Weeks per Year	Annual Hours ¹
GSLDSP	8	7	52	2,912

¹ Annual Hours = Hours per Day x Days per Week x Weeks per Year

Emission Inv. Gasoline Dispensing

GSLDSP	
Maximum Hourly Dispensed ¹ (mgal/hr)	Annual Dispensed (mgal/yr)
0.0053	15.55000

Pollutant	Pollutant Name	Emission Factor ² (lb/mgal)	Maximum Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
71432	Benzene	3.99E-03	2.131E-05	6.204E-02
100414	Ethyl Benzene	3.63E-03	1.938E-05	5.645E-02

¹ Maximum Hourly Dispensed (mgal/hr) = Annual Dispensed (mgal/yr) / Annual Hours

² Gasoline dispensing emission factors from South Coast Air Quality Management District's December 2021 Supplemental Instructions for Liquid Organic Storage Tanks Fuel Dispensing; Gasoline; Underground Gasoline Tanks

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.11 Emissions by Source

Description	A/N	Control Device	Control Device A/N	Pollutant	Pollutant Name	Average Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
MCH1	629635	SCR -> OxCat -> DPF	596580	9901	DieselExhPM	1.46E+01	3.42E-02
MCH1	629635	SCR -> OxCat -> DPF	596580	7664417	NH3	5.13E+00	1.20E-02
MCH2	629636	SCR -> OxCat -> DPF	596581	9901	DieselExhPM	1.51E+02	3.16E-01
MCH2	629636	SCR -> OxCat -> DPF	596581	7664417	NH3	2.28E+01	4.77E-02
MCH3	629637	SCR -> OxCat -> DPF	596582	9901	DieselExhPM	3.76E+01	8.24E-02
MCH3	629637	SCR -> OxCat -> DPF	596582	7664417	NH3	1.68E+01	3.68E-02
SOKO1	629605	SCR -> OxCat -> DPF	596583	9901	DieselExhPM	3.52E+00	9.64E-03
SOKO1	629605	SCR -> OxCat -> DPF	596583	7664417	NH3	8.89E+01	2.44E-01
SOKO2	629659	SCR -> OxCat -> DPF	596577	9901	DieselExhPM	7.01E+00	2.02E-02
SOKO2	629659	SCR -> OxCat -> DPF	596577	7664417	NH3	1.52E+01	4.38E-02
SOKO3	629634	SCR -> OxCat -> DPF	596578	9901	DieselExhPM	2.80E+00	8.09E-03
SOKO3	629634	SCR -> OxCat -> DPF	596578	7664417	NH3	1.53E+01	4.42E-02
APU1	596592	--	--	91203	Naphthalene	7.73E-02	1.63E-03
APU1	596592	--	--	7440020	Nickel	1.75E-03	3.68E-05
APU1	596592	--	--	106990	1,3-Butadiene	4.93E-01	1.04E-02
APU1	596592	--	--	71432	Benzene	2.04E+00	4.30E-02
APU1	596592	--	--	50000	Formaldehyde	1.85E+00	3.90E-02
APU1	596592	--	--	95636	1,2,4TriMeBenze	7.49E-01	1.58E-02
APU1	596592	--	--	75070	Acetaldehyde	4.46E-01	9.38E-03
APU1	596592	--	--	107028	Acrolein	1.07E-01	2.25E-03
APU1	596592	--	--	7782505	Chlorine	2.44E-01	5.15E-03
APU1	596592	--	--	7440508	Copper	1.75E-03	3.68E-05
APU1	596592	--	--	100414	Ethyl Benzene	8.92E-01	1.88E-02
APU1	596592	--	--	110543	Hexane	7.79E-01	1.64E-02
APU1	596592	--	--	7439965	Manganese	1.75E-03	3.68E-05
APU1	596592	--	--	67561	Methanol	4.16E-01	8.76E-03
APU1	596592	--	--	78933	MEK	3.57E-02	7.51E-04
APU1	596592	--	--	1634044	Me t-ButylEther	1.11E+00	2.33E-02
APU1	596592	--	--	100425	Styrene	7.73E-02	1.63E-03
APU1	596592	--	--	108883	Toluene	4.04E+00	8.49E-02
APU1	596592	--	--	95476	o-Xylene	9.21E-01	1.94E-02
APU1	596592	--	--	108383	m-Xylene	2.65E+00	5.57E-02
APU2	596584	--	--	91203	Naphthalene	5.17E-02	1.63E-03
APU2	596584	--	--	7440020	Nickel	1.17E-03	3.68E-05
APU2	596584	--	--	106990	1,3-Butadiene	3.30E-01	1.04E-02
APU2	596584	--	--	71432	Benzene	1.37E+00	4.30E-02
APU2	596584	--	--	50000	Formaldehyde	1.24E+00	3.90E-02
APU2	596584	--	--	95636	1,2,4TriMeBenze	5.01E-01	1.58E-02
APU2	596584	--	--	75070	Acetaldehyde	2.98E-01	9.38E-03
APU2	596584	--	--	107028	Acrolein	7.15E-02	2.25E-03
APU2	596584	--	--	7782505	Chlorine	1.63E-01	5.15E-03
APU2	596584	--	--	7440508	Copper	1.17E-03	3.68E-05
APU2	596584	--	--	100414	Ethyl Benzene	5.96E-01	1.88E-02
APU2	596584	--	--	110543	Hexane	5.21E-01	1.64E-02
APU2	596584	--	--	7439965	Manganese	1.17E-03	3.68E-05
APU2	596584	--	--	67561	Methanol	2.78E-01	8.76E-03
APU2	596584	--	--	78933	MEK	2.38E-02	7.51E-04
APU2	596584	--	--	1634044	Me t-ButylEther	7.39E-01	2.33E-02
APU2	596584	--	--	100425	Styrene	5.17E-02	1.63E-03
APU2	596584	--	--	108883	Toluene	2.70E+00	8.49E-02
APU2	596584	--	--	95476	o-Xylene	6.16E-01	1.94E-02
APU2	596584	--	--	108383	m-Xylene	1.77E+00	5.57E-02

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.11 Emissions by Source

Description	A/N	Control Device	Control Device A/N	Pollutant	Pollutant Name	Average Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
APU3	596585	--	--	91203	Naphthalene	1.06E-02	1.45E-03
APU3	596585	--	--	7440020	Nickel	2.39E-04	3.27E-05
APU3	596585	--	--	106990	1,3-Butadiene	6.74E-02	9.25E-03
APU3	596585	--	--	71432	Benzene	2.79E-01	3.83E-02
APU3	596585	--	--	50000	Formaldehyde	2.53E-01	3.48E-02
APU3	596585	--	--	95636	1,2,4TriMeBenze	1.02E-01	1.40E-02
APU3	596585	--	--	75070	Acetaldehyde	6.09E-02	8.36E-03
APU3	596585	--	--	107028	Acrolein	1.46E-02	2.01E-03
APU3	596585	--	--	7782505	Chlorine	3.34E-02	4.58E-03
APU3	596585	--	--	7440508	Copper	2.39E-04	3.27E-05
APU3	596585	--	--	100414	Ethyl Benzene	1.22E-01	1.67E-02
APU3	596585	--	--	110543	Hexane	1.06E-01	1.46E-02
APU3	596585	--	--	7439965	Manganese	2.39E-04	3.27E-05
APU3	596585	--	--	67561	Methanol	5.69E-02	7.80E-03
APU3	596585	--	--	78933	MEK	4.87E-03	6.68E-04
APU3	596585	--	--	1634044	Me t-ButylEther	1.51E-01	2.07E-02
APU3	596585	--	--	100425	Styrene	1.06E-02	1.45E-03
APU3	596585	--	--	108883	Toluene	5.52E-01	7.56E-02
APU3	596585	--	--	95476	o-Xylene	1.26E-01	1.73E-02
APU3	596585	--	--	108383	m-Xylene	3.61E-01	4.96E-02
APU4	596586	--	--	91203	Naphthalene	1.25E-02	1.55E-03
APU4	596586	--	--	7440020	Nickel	2.82E-04	3.50E-05
APU4	596586	--	--	106990	1,3-Butadiene	7.98E-02	9.89E-03
APU4	596586	--	--	71432	Benzene	3.31E-01	4.10E-02
APU4	596586	--	--	50000	Formaldehyde	3.00E-01	3.72E-02
APU4	596586	--	--	95636	1,2,4TriMeBenze	1.21E-01	1.50E-02
APU4	596586	--	--	75070	Acetaldehyde	7.21E-02	8.94E-03
APU4	596586	--	--	107028	Acrolein	1.73E-02	2.14E-03
APU4	596586	--	--	7782505	Chlorine	3.95E-02	4.90E-03
APU4	596586	--	--	7440508	Copper	2.82E-04	3.50E-05
APU4	596586	--	--	100414	Ethyl Benzene	1.44E-01	1.79E-02
APU4	596586	--	--	110543	Hexane	1.26E-01	1.56E-02
APU4	596586	--	--	7439965	Manganese	2.82E-04	3.50E-05
APU4	596586	--	--	67561	Methanol	6.73E-02	8.34E-03
APU4	596586	--	--	78933	MEK	5.77E-03	7.15E-04
APU4	596586	--	--	1634044	Me t-ButylEther	1.79E-01	2.22E-02
APU4	596586	--	--	100425	Styrene	1.25E-02	1.55E-03
APU4	596586	--	--	108883	Toluene	6.53E-01	8.09E-02
APU4	596586	--	--	95476	o-Xylene	1.49E-01	1.85E-02
APU4	596586	--	--	108383	m-Xylene	4.28E-01	5.30E-02
APU6	596589	--	--	91203	Naphthalene	8.30E-03	1.45E-03
APU6	596589	--	--	7440020	Nickel	1.87E-04	3.27E-05
APU6	596589	--	--	106990	1,3-Butadiene	5.30E-02	9.25E-03
APU6	596589	--	--	71432	Benzene	2.20E-01	3.83E-02
APU6	596589	--	--	50000	Formaldehyde	1.99E-01	3.48E-02
APU6	596589	--	--	95636	1,2,4TriMeBenze	8.04E-02	1.40E-02
APU6	596589	--	--	75070	Acetaldehyde	4.79E-02	8.36E-03
APU6	596589	--	--	107028	Acrolein	1.15E-02	2.01E-03
APU6	596589	--	--	7782505	Chlorine	2.62E-02	4.58E-03
APU6	596589	--	--	7440508	Copper	1.87E-04	3.27E-05
APU6	596589	--	--	100414	Ethyl Benzene	9.57E-02	1.67E-02
APU6	596589	--	--	110543	Hexane	8.36E-02	1.46E-02

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.11 Emissions by Source

Description	A/N	Control Device	Control Device A/N	Pollutant	Pollutant Name	Average Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
APU6	596589	--	--	7439965	Manganese	1.87E-04	3.27E-05
APU6	596589	--	--	67561	Methanol	4.47E-02	7.80E-03
APU6	596589	--	--	78933	MEK	3.83E-03	6.68E-04
APU6	596589	--	--	1634044	Me t-ButylEther	1.19E-01	2.07E-02
APU6	596589	--	--	100425	Styrene	8.30E-03	1.45E-03
APU6	596589	--	--	108883	Toluene	4.33E-01	7.56E-02
APU6	596589	--	--	95476	o-Xylene	9.89E-02	1.73E-02
APU6	596589	--	--	108383	m-Xylene	2.84E-01	4.96E-02
APU7	596590	--	--	91203	Naphthalene	1.07E-02	1.45E-03
APU7	596590	--	--	7440020	Nickel	2.43E-04	3.27E-05
APU7	596590	--	--	106990	1,3-Butadiene	6.86E-02	9.25E-03
APU7	596590	--	--	71432	Benzene	2.84E-01	3.83E-02
APU7	596590	--	--	50000	Formaldehyde	2.58E-01	3.48E-02
APU7	596590	--	--	95636	1,2,4TriMeBenze	1.04E-01	1.40E-02
APU7	596590	--	--	75070	Acetaldehyde	6.20E-02	8.36E-03
APU7	596590	--	--	107028	Acrolein	1.49E-02	2.01E-03
APU7	596590	--	--	7782505	Chlorine	3.40E-02	4.58E-03
APU7	596590	--	--	7440508	Copper	2.43E-04	3.27E-05
APU7	596590	--	--	100414	Ethyl Benzene	1.24E-01	1.67E-02
APU7	596590	--	--	110543	Hexane	1.08E-01	1.46E-02
APU7	596590	--	--	7439965	Manganese	2.43E-04	3.27E-05
APU7	596590	--	--	67561	Methanol	5.79E-02	7.80E-03
APU7	596590	--	--	78933	MEK	4.96E-03	6.68E-04
APU7	596590	--	--	1634044	Me t-ButylEther	1.54E-01	2.07E-02
APU7	596590	--	--	100425	Styrene	1.07E-02	1.45E-03
APU7	596590	--	--	108883	Toluene	5.61E-01	7.56E-02
APU7	596590	--	--	95476	o-Xylene	1.28E-01	1.73E-02
APU7	596590	--	--	108383	m-Xylene	3.68E-01	4.96E-02
APU8	--	--	--	91203	Naphthalene	4.34E-02	2.87E-04
APU8	--	--	--	7440020	Nickel	9.80E-04	6.48E-06
APU8	--	--	--	106990	1,3-Butadiene	2.77E-01	1.83E-03
APU8	--	--	--	71432	Benzene	1.15E+00	7.58E-03
APU8	--	--	--	50000	Formaldehyde	1.04E+00	6.88E-03
APU8	--	--	--	95636	1,2,4TriMeBenze	4.20E-01	2.78E-03
APU8	--	--	--	75070	Acetaldehyde	2.50E-01	1.65E-03
APU8	--	--	--	107028	Acrolein	6.01E-02	3.97E-04
APU8	--	--	--	7782505	Chlorine	1.37E-01	9.07E-04
APU8	--	--	--	7440508	Copper	9.80E-04	6.48E-06
APU8	--	--	--	100414	Ethyl Benzene	5.00E-01	3.31E-03
APU8	--	--	--	110543	Hexane	4.37E-01	2.89E-03
APU8	--	--	--	7439965	Manganese	9.80E-04	6.48E-06
APU8	--	--	--	67561	Methanol	2.34E-01	1.54E-03
APU8	--	--	--	78933	MEK	2.00E-02	1.32E-04
APU8	--	--	--	1634044	Me t-ButylEther	6.21E-01	4.10E-03
APU8	--	--	--	100425	Styrene	4.34E-02	2.87E-04
APU8	--	--	--	108883	Toluene	2.27E+00	1.50E-02
APU8	--	--	--	95476	o-Xylene	5.17E-01	3.42E-03
APU8	--	--	--	108383	m-Xylene	1.48E+00	9.81E-03
APU9	596591	--	--	91203	Naphthalene	1.30E-02	1.36E-03
APU9	596591	--	--	7440020	Nickel	2.93E-04	3.08E-05
APU9	596591	--	--	106990	1,3-Butadiene	8.27E-02	8.70E-03
APU9	596591	--	--	71432	Benzene	3.43E-01	3.61E-02

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.11 Emissions by Source

Description	A/N	Control Device	Control Device A/N	Pollutant	Pollutant Name	Average Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
APU9	596591	--	--	50000	Formaldehyde	3.11E-01	3.27E-02
APU9	596591	--	--	95636	1,2,4TriMeBenze	1.26E-01	1.32E-02
APU9	596591	--	--	75070	Acetaldehyde	7.47E-02	7.86E-03
APU9	596591	--	--	107028	Acrolein	1.79E-02	1.89E-03
APU9	596591	--	--	7782505	Chlorine	4.10E-02	4.31E-03
APU9	596591	--	--	7440508	Copper	2.93E-04	3.08E-05
APU9	596591	--	--	100414	Ethyl Benzene	1.49E-01	1.57E-02
APU9	596591	--	--	110543	Hexane	1.31E-01	1.37E-02
APU9	596591	--	--	7439965	Manganese	2.93E-04	3.08E-05
APU9	596591	--	--	67561	Methanol	6.98E-02	7.34E-03
APU9	596591	--	--	78933	MEK	5.98E-03	6.29E-04
APU9	596591	--	--	1634044	Me t-ButylEther	1.85E-01	1.95E-02
APU9	596591	--	--	100425	Styrene	1.30E-02	1.36E-03
APU9	596591	--	--	108883	Toluene	6.77E-01	7.12E-02
APU9	596591	--	--	95476	o-Xylene	1.54E-01	1.63E-02
APU9	596591	--	--	108383	m-Xylene	4.43E-01	4.67E-02
APU10	--	--	--	91203	Naphthalene	4.34E-02	2.63E-04
APU10	--	--	--	7440020	Nickel	9.80E-04	5.95E-06
APU10	--	--	--	106990	1,3-Butadiene	2.77E-01	1.68E-03
APU10	--	--	--	71432	Benzene	1.15E+00	6.97E-03
APU10	--	--	--	50000	Formaldehyde	1.04E+00	6.32E-03
APU10	--	--	--	95636	1,2,4TriMeBenze	4.20E-01	2.55E-03
APU10	--	--	--	75070	Acetaldehyde	2.50E-01	1.52E-03
APU10	--	--	--	107028	Acrolein	6.01E-02	3.65E-04
APU10	--	--	--	7782505	Chlorine	1.37E-01	8.33E-04
APU10	--	--	--	7440508	Copper	9.80E-04	5.95E-06
APU10	--	--	--	100414	Ethyl Benzene	5.00E-01	3.04E-03
APU10	--	--	--	110543	Hexane	4.37E-01	2.65E-03
APU10	--	--	--	7439965	Manganese	9.80E-04	5.95E-06
APU10	--	--	--	67561	Methanol	2.34E-01	1.42E-03
APU10	--	--	--	78933	MEK	2.00E-02	1.22E-04
APU10	--	--	--	1634044	Me t-ButylEther	6.21E-01	3.77E-03
APU10	--	--	--	100425	Styrene	4.34E-02	2.63E-04
APU10	--	--	--	108883	Toluene	2.27E+00	1.38E-02
APU10	--	--	--	95476	o-Xylene	5.17E-01	3.14E-03
APU10	--	--	--	108383	m-Xylene	1.48E+00	9.01E-03
APU5	596587	--	--	9901	DieselExhPM	4.52E-01	5.44E-01
APU11	596572	--	--	9901	DieselExhPM	1.58E-01	2.23E-01
219DSL	--	--	--	9901	DieselExhPM	3.35E-01	1.15E-04
219NG	--	--	--	7664417	NH3	2.58E+01	8.86E-03
219NG	--	--	--	50000	Formaldehyde	1.37E-01	4.71E-05
219NG	--	--	--	91203	Naphthalene	2.42E-03	8.31E-07
219NG	--	--	--	1151	PAHs-w/o	8.07E-04	2.77E-07
219NG	--	--	--	71432	Benzene	6.45E-02	2.22E-05
219NG	--	--	--	75070	Acetaldehyde	3.47E-02	1.19E-05
219NG	--	--	--	107028	Acrolein	2.18E-02	7.48E-06
219NG	--	--	--	100414	Ethyl Benzene	7.66E-02	2.63E-05
219NG	--	--	--	110543	Hexane	5.08E-02	1.75E-05
219NG	--	--	--	108883	Toluene	2.95E-01	1.01E-04
219NG	--	--	--	1330207	Xylenes	2.19E-01	7.53E-05
219PRHTR	--	--	--	91203	Naphthalene	1.84E-04	6.31E-08
219PRHTR	--	--	--	50000	Formaldehyde	1.04E-02	3.57E-06

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.11 Emissions by Source

Description	A/N	Control Device	Control Device A/N	Pollutant	Pollutant Name	Average Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)
219PRHTR	--	--	--	7664417	NH3	2.07E+00	7.11E-04
219PRHTR	--	--	--	71432	Benzene	4.90E-03	1.68E-06
219PRHTR	--	--	--	1151	PAHs-w/o	6.12E-05	2.10E-08
219PRHTR	--	--	--	75070	Acetaldehyde	2.63E-03	9.04E-07
219PRHTR	--	--	--	107028	Acrolein	1.65E-03	5.68E-07
219PRHTR	--	--	--	100414	Ethyl Benzene	5.82E-03	2.00E-06
219PRHTR	--	--	--	110543	Hexane	3.86E-03	1.32E-06
219PRHTR	--	--	--	108883	Toluene	2.24E-02	7.70E-06
219PRHTR	--	--	--	1330207	Xylenes	1.67E-02	5.72E-06
219PRBBQ	--	--	--	91203	Naphthalene	1.33E-07	4.57E-11
219PRBBQ	--	--	--	50000	Formaldehyde	7.54E-06	2.59E-09
219PRBBQ	--	--	--	7664417	NH3	1.50E-03	5.15E-07
219PRBBQ	--	--	--	71432	Benzene	3.55E-06	1.22E-09
219PRBBQ	--	--	--	1151	PAHs-w/o	4.44E-08	1.52E-11
219PRBBQ	--	--	--	75070	Acetaldehyde	1.91E-06	6.55E-10
219PRBBQ	--	--	--	107028	Acrolein	1.20E-06	4.11E-10
219PRBBQ	--	--	--	100414	Ethyl Benzene	4.21E-06	1.45E-09
219PRBBQ	--	--	--	110543	Hexane	2.79E-06	9.60E-10
219PRBBQ	--	--	--	108883	Toluene	1.62E-05	5.58E-09
219PRBBQ	--	--	--	1330207	Xylenes	1.21E-05	4.14E-09
GSLDSP	--	--	--	71432	Benzene	6.20E-02	2.13E-05
GSLDSP	--	--	--	100414	Ethyl Benzene	5.64E-02	1.94E-05

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.12 Facility-Wide Emissions

Pollutant	Pollutant Name	Average Annual Emissions (lb/yr)	Maximum Hourly Emissions (lb/hr)	Average Annual Emissions (g/s)	Maximum Hourly Emissions (g/s)	Cancer Risk		Non-Cancer Chronic Risk		8-Hour Non-Cancer Chronic Risk	Non-Cancer Acute Risk
						Inhalation Pathway	Non-Inhalation Pathways	Inhalation Pathway	Non-Inhalation Pathways	Inhalation Pathway	Inhalation Pathway
9901	DieselExhPM	2.17E+02	1.24E+00	3.13E-03	1.56E-01	X		X			
7664417	NH3	1.92E+02	4.38E-01	2.76E-03	5.52E-02			X			X
91203	Naphthalene	2.73E-01	1.11E-02	3.94E-06	1.39E-03	X		X			
7440020	Nickel	6.12E-03	2.50E-04	8.81E-08	3.15E-05	X		X	X	X	X
106990	1,3-Butadiene	1.73E+00	7.06E-02	2.49E-05	8.90E-03	X		X		X	X
71432	Benzene	7.30E+00	2.93E-01	1.05E-04	3.69E-02	X		X		X	X
50000	Formaldehyde	6.65E+00	2.65E-01	9.57E-05	3.35E-02	X		X		X	X
95636	1,2,4TriMeBenze	2.62E+00	1.07E-01	3.78E-05	1.35E-02						
75070	Acetaldehyde	1.60E+00	6.38E-02	2.30E-05	8.05E-03	X		X		X	X
107028	Acrolein	3.98E-01	1.53E-02	5.73E-06	1.93E-03			X		X	X
7782505	Chlorine	8.56E-01	3.50E-02	1.23E-05	4.41E-03			X			X
7440508	Copper	6.12E-03	2.50E-04	8.81E-08	3.15E-05						X
100414	Ethyl Benzene	3.26E+00	1.28E-01	4.70E-05	1.61E-02	X		X			
110543	Hexane	2.78E+00	1.11E-01	4.01E-05	1.41E-02			X			
7439965	Manganese	6.12E-03	2.50E-04	8.81E-08	3.15E-05			X		X	
67561	Methanol	1.46E+00	5.96E-02	2.10E-05	7.51E-03			X			X
78933	MEK	1.25E-01	5.10E-03	1.80E-06	6.44E-04						X
1634044	Me t-ButylEther	3.87E+00	1.58E-01	5.58E-05	2.00E-02	X		X			
100425	Styrene	2.71E-01	1.11E-02	3.90E-06	1.39E-03			X			X
108883	Toluene	1.45E+01	5.78E-01	2.08E-04	7.29E-02			X		X	X
95476	o-Xylene	3.23E+00	1.32E-01	4.65E-05	1.66E-02			X			X
108383	m-Xylene	9.27E+00	3.79E-01	1.33E-04	4.77E-02			X			X
1151	PAHs-w/o	8.68E-04	2.98E-07	1.25E-08	3.76E-08	X	X				
1330207	Xylenes	2.36E-01	8.11E-05	3.40E-06	1.02E-05			X			X

Reference: HARP2 Health Database, Version 23118.

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix A Hazard Identification (Emission Inventory)

Table A.13 Cancer Potency Factors and Reference Exposure Levels

Pollutant	Pollutant Name	Cancer Risk		Non-Cancer Chronic Risk		8-Hour Non-Cancer Chronic Risk	Non-Cancer Acute Risk
		Inhalation Cancer Potency Factor (mg/kg-day) ⁻¹	Oral Cancer Potency Factor (mg/kg-day) ⁻¹	Inhalation Reference Exposure Level (ug/m ³)	Oral Reference Exposure Level (mg/kg-day)	Inhalation Reference Exposure Level (ug/m ³)	Inhalation Reference Exposure Level (ug/m ³)
9901	DieselExhPM	1.1		5			
7664417	NH3			200			3200
91203	Naphthalene	0.12		9			
7440020	Nickel	0.91		0.014	0.011	0.06	0.2
106990	1,3-Butadiene	0.6		2		9	660
71432	Benzene	0.1		3		3	27
50000	Formaldehyde	0.021		9		9	55
95636	1,2,4TriMeBenze						
75070	Acetaldehyde	0.01		140		300	470
107028	Acrolein			0.35		0.7	2.5
7782505	Chlorine			0.2			210
7440508	Copper						100
100414	Ethyl Benzene	0.0087		2000			
110543	Hexane			7000			
7439965	Manganese			0.09		0.17	
67561	Methanol			4000			28000
78933	MEK						13000
1634044	Me t-ButylEther	0.0018		8000			
100425	Styrene			900			21000
108883	Toluene			420		830	5000
95476	o-Xylene			700			22000
108383	m-Xylene			700			22000
1151	PAHs-w/o	3.9	12				
1330207	Xylenes			700			22000

HARP2 Health Database, Version 23118.

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix A Hazard Identification (Emission Inventory)

Table A.14 Target Organs for Non-Cancer Effects

"C" = Non-Cancer Chronic Effects; "8" = 8-Hour Non-Cancer Chronic Effects; "A" = Non-Cancer Acute Effects

Pollutant	Pollutant Name	Cardiovascular System (CV)	Central Nervous System (CNS)	Immune System (IMMUN)	Kidneys (KIDNEY)	Gastrointestinal Tract & Liver or Alimentary Tract (GILV)	Reproductive & Developmental Systems (REPRO_DEVEL)	Respiratory System (RESP)	Skin (SKIN)	Eyes (EYE)	Bones and Teeth (BONE)	Endocrine System (ENDO)	Hematologic System (BLOOD)
9901	DieselExhPM							C					
7664417	NH3							C A		A			
91203	Naphthalene							C					
7440020	Nickel			8 A			C	C 8					C
106990	1,3-Butadiene						C 8 A						
71432	Benzene			A			A						C 8 A
50000	Formaldehyde							C 8		A			
95636	1,2,4TriMeBenze												
75070	Acetaldehyde							C 8 A		A			
107028	Acrolein							C 8 A		A			
7782505	Chlorine							C A		A			
7440508	Copper							A					
100414	Ethyl Benzene				C	C	C					C	
110543	Hexane		C										
7439965	Manganese		C 8										
67561	Methanol		A				C						
78933	MEK							A		A			
1634044	Me t-ButylEther				C	C				C			
100425	Styrene		C				A	A		A			
108883	Toluene		A					A		C 8 A			
95476	o-Xylene		CA					CA		CA			
108383	m-Xylene		CA					CA		CA			
1151	PAHs-w/o												
1330207	Xylenes		CA					CA		CA			

HARP2 Health Database, Version 23118.

APPENDIX B – BUILDING DATA

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix B Buildings

Building Data

Appendix B Contains

Page Nos.	Table Number	Table Title
2 of 3	Table B.1	Dimensions of Rectangular Buildings
3 of 3	Table B.2	Parameters for Polygonal Buildings

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix B Buildings

Table B.1 Rectangular Buildings

Building ID	Height (ft)	Reference Point (SW Corner)		X Length (ft)	Y Length (ft)	Rotation Angle (deg)
		UTM Easting (m)	UTM Northing (m)			
BLD_3	31.99	510,202.96	3,788,361.28	113.65	39.01	358.3
BLD_4	25.00	510,084.83	3,788,337.36	106.46	45.41	359.29
BLD_5	31.00	510,136.46	3,788,336.52	63.75	42.13	359.39
BLD_8	25.00	510,050.88	3,788,337.56	106.46	45.41	359.29
BLD_9	25.00	510,017.14	3,788,337.56	106.46	45.41	359.29
BLD_10	25.00	510,194.32	3,786,747.73	56.69	121.36	353.66
BLD_11	20.01	510,164.74	3,786,710.57	49.34	54.92	355.43
BLD_12	29.99	510,082.64	3,786,640.12	121.95	57.91	3.29
BLD_13	20.01	509,895.23	3,786,666.96	71.65	20.18	264.49
BLD_14	20.01	509,859.22	3,786,577.29	67.81	43.01	349.82
BLD_15	20.01	509,913.53	3,786,613.91	38.88	55.02	347.2
BLD_16	20.01	510,072.94	3,786,700.67	69.95	23.29	264.36
BLD_17	20.01	510,282.89	3,786,827.60	26.44	27.46	277.91
BLD_18	20.01	510,351.75	3,786,853.37	30.12	22.08	337.17
BLD_19	20.01	510,487.44	3,787,383.56	51.35	42.32	1.55
BLD_20	20.01	509,822.56	3,787,463.23	31.40	40.29	358.15
BLD_21	20.01	510,267.59	3,788,007.81	47.57	45.67	2.73
BLD_22	20.01	510,090.27	3,788,264.87	65.91	24.48	263.85
BLD_23	20.01	510,101.04	3,788,267.64	27.23	31.27	270
BLD_24	20.01	510,231.73	3,788,281.78	64.70	24.08	268.21
BLD_25	20.01	510,246.19	3,788,299.93	29.27	23.20	0
BLD_26	20.01	510,366.84	3,788,294.59	16.31	15.29	1.85
BLD_27	20.01	509,932.56	3,788,282.33	107.71	66.24	347.01
BLD_28	20.01	509,988.54	3,788,270.95	87.34	37.37	286.76

Reference: Approved ATIR

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix B Buildings

Table B.2 Polygonal Buildings

Building ID	Height (ft)	Number of Vertices	Vertices	
			UTM Easting (m)	UTM Northing (m)
BLD_1	35.01	6	510,141.83	3,788,329.34
			510,134.59	3,788,302.56
			510,154.38	3,788,296.52
			510,157.76	3,788,308.59
			510,150.76	3,788,310.52
			510,155.10	3,788,325.48
BLD_2	35.01	8	510,125.18	3,788,297.73
			510,152.93	3,788,289.52
			510,150.52	3,788,281.32
			510,141.59	3,788,284.21
			510,138.21	3,788,273.11
			510,130.24	3,788,275.04
			510,127.59	3,788,266.12
			510,115.28	3,788,269.98
BLD_6	31.00	10	510,162.18	3,788,373.34
			510,172.67	3,788,376.43
			510,180.28	3,788,355.24
			510,176.58	3,788,354.62
			510,176.58	3,788,335.08
			510,162.38	3,788,336.52
			510,162.38	3,788,348.45
			510,166.50	3,788,348.86
			510,166.29	3,788,357.09
			510,168.97	3,788,357.50
BLD_7	27.00	6	510,155.60	3,788,386.51
			510,163.21	3,788,395.97
			510,186.04	3,788,381.37
			510,189.54	3,788,359.97
			510,179.46	3,788,358.94
			510,176.99	3,788,373.14

Reference: Approved ATIR

APPENDIX C – RELEASE PARAMETERS

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix C Release Parameters

Release Parameters

Appendix C Contains

Page Nos.	Table Number	Table Title	Emission Sources
2 of 5	Table C.1	Point Source Release Parameters	3 MCH DICE, 3 SOKO DICE, 9 Gasoline-Fueled APU, 2 Diesel-Fueled APU
3 of 5	Table C.2	Area Source Release Parameters	Permit-Exempt Propane-Fueled Combustion Equipment
4 of 5	Table C.3	Volume Source Release Parameters	Permit-Exempt DICE, Permit-Exempt Natural Gas-Fueled Combustion Equipment, Gasoline Dispensing
5 of 5	Table C.4	Assignment of Emissions to Releases	--

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix C Release Parameters

Table C.1 Point Source Release Parameters

AERMOD Source ID	Stack Orientation	UTM Easting (m)	UTM Northing (m)	Release Height (ft)	Diameter (ft)	Exit Velocity (fps)	Exit Flowrate (acfm)	Exit Temperature (Deg F)	Emission Rate (g/s)	
MCH1	Vertical	510148.03	3788294.84	28	2.42	66.08	18,190	812	1	D78; ESS3; Base ICE#1; 3043 bhp; Diesel-Fueled
MCH2	Vertical	510141.35	3788296.84	28	2.42	61.45	16,917	816	1	D79; ES3; Base ICE#2; 3043 bhp; Diesel-Fueled
MCH3	Vertical	510135.34	3788299.51	28	2.42	61.88	17,034	801	1	D80; ESS4; Base ICE#3; 3043 bhp; Diesel-Fueled
SOKO3	Vertical	510216.15	3786774.65	25	1.96	102.30	18,481	764	1	D75; ESS2; SOKO #3; 3043 bhp; Diesel-Fueled
SOKO1	Vertical	510215.51	3786763.13	25	1.96	102.72	18,558	777	1	D69; ES1; SOKO #1; 3043 bhp; Diesel-Fueled
SOKO2	Vertical	510214.87	3786754.18	25	1.96	102.95	18,600	774	1	D70; ESS1; SOKO #2; 3043 bhp; Diesel-Fueled
APU11	Vertical	510104.52	3788263.91	20	0.34	141.33	779	899	1	D34; ES12; APU ICE - Ski Lift 11; 130 hp; Diesel-Fueled
APU8	Vertical	510249.52	3788304.73	20	0.38	67.70	468	992	1	R219; ES36; APU ICE - Ski Lift 8; 37 hp; Gasoline-Fueled
APU4	Vertical	510368.86	3788297.14	20	0.34	141.33	779	899	1	D29; ES7; APU ICE - Ski Lift 4; 200 hp; Gasoline-Fueled
APU5	Vertical	510272.71	3788017.10	20	0.44	198.67	1,829	931	1	D30; ES8; APU ICE - Ski Lift 5; 318 hp; Diesel-Fueled
APU10	Vertical	510492.38	3787390.50	20	0.38	67.70	468	992	1	R219; ES49; APU ICE - Ski Lift 10; 34 hp; Gasoline-Fueled
APU7	Vertical	510357.52	3786855.43	20	0.34	141.33	779	899	1	D32; ES10; APU ICE - Ski Lift 7; 187 hp; Gasoline-Fueled
APU6	Vertical	510287.31	3786824.36	20	0.34	141.33	779	899	1	D31; ES9; APU ICE - Ski Lift 6; 187 hp; Gasoline-Fueled
APU1	Vertical	510075.84	3786690.76	20	0.34	141.33	779	899	1	D35; ES13; APU ICE - Ski Lift 1; 210 hp; Gasoline-Fueled
APU2	Vertical	509897.98	3786656.72	20	0.34	141.33	779	899	1	D27; ES5; APU ICE - Ski Lift 2; 210 hp; Gasoline-Fueled
APU3	Vertical	509826.48	3787469.50	20	0.34	141.33	779	899	1	D28; ES6; APU ICE - Ski Lift 3; 187 hp; Gasoline-Fueled
APU9	Vertical	509848.85	3786620.25	20	0.34	141.33	779	899	1	D33; ES11; APU ICE - Ski Lift 9; 176 hp; Gasoline-Fueled

Reference: Approved ATR

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix C Release Parameters

Table C.2 Area Source Release Parameters

AERMOD Source ID	Stack Orientation	UTM Easting (m)	UTM Northing (m)	Release Height (ft)	X Length (ft)	Y Length (ft)	Rotation Angle (deg)	Emission Rate (g/s/square meter)	
219PRHTR	Vertical	510203.92	3788353.16	7	110.30	23.59	0	4.14E-03	ES19; Rule 219-Exempt; Misc. Propane Usage (Patio Heaters)
219PRBBQ	Vertical	510203.92	3788353.16	3	110.30	23.59	0	4.14E-03	ES41; Rule 219-Exempt; Misc. Propane Usage (BBQ)

Reference: Approved ATIR

Area (square meter)	241.7278
* Emission Rate (g/s/square meter)	4.14E-03
Emission Rate (g/s)	1.00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix C Release Parameters

Table C.3 Volume Source Release Parameters

AERMOD Source ID	UTM Easting (m)	UTM Northing (m)	Length of Side (ft)	Release Height (ft)	Sigma Y (ft)	Sigma Z (ft)	Emission Rate (g/s)	
219DSL	509944.36	3788279.46	10	5	2.33	4.65	1	ES50; R219 Engines; Diesel
GSLDSP	509982.38	3788250.08	10	4	2.33	1.86	1	D9; ES32; Gasoline Dispensing
219NG13	510210.72	3788366.32	41	25	9.49	5.81	0.333	ES38; Rule 219-Exempt; NG Usage; 1 of 3
219NG23	510222.17	3788366.57	41	25	9.49	5.81	0.333	ES38; Rule 219-Exempt; NG Usage; 2 of 3
219NG33	510232.87	3788365.83	41	25	9.49	5.81	0.333	ES38; Rule 219-Exempt; NG Usage; 3 of 3

219NG13, 219NG23, and 219NG33 are assigned to a single Source Group in AERMOD. The emission rate for the Source Group is unitized ($0.333 + 0.333 + 0.333 = 1$).

Reference: Approved ATIR

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix C Release Parameters

Table C.4 Assignment of Emissions to Releases

Emission Source (HARP2 ID)	AERMOD Source ID	Emission Source Operating Schedule		
		Hours per Day	Days per Week	Weeks per Year
MCH1	MCH1	Seasonal Operations	Seasonal Operations	Seasonal Operations
MCH2	MCH2	Seasonal Operations	Seasonal Operations	Seasonal Operations
MCH3	MCH3	Seasonal Operations	Seasonal Operations	Seasonal Operations
SOKO3	SOKO3	Seasonal Operations	Seasonal Operations	Seasonal Operations
SOKO1	SOKO1	Seasonal Operations	Seasonal Operations	Seasonal Operations
SOKO2	SOKO2	Seasonal Operations	Seasonal Operations	Seasonal Operations
APU11	APU11	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU8	APU8	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU4	APU4	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU5	APU5	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU10	APU10	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU7	APU7	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU6	APU6	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU1	APU1	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU2	APU2	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU3	APU3	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
APU9	APU9	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing	As Needed for Maintenance & Testing
219DSL	219DSL	8	7	52
GSLDSP	GSLDSP	8	7	52
219NG	219NG13	8	7	52
	219NG23			
	219NG33			
219PRHTR	219PRHTR	8	7	52
219PRBBQ	219PRBBQ	8	7	52

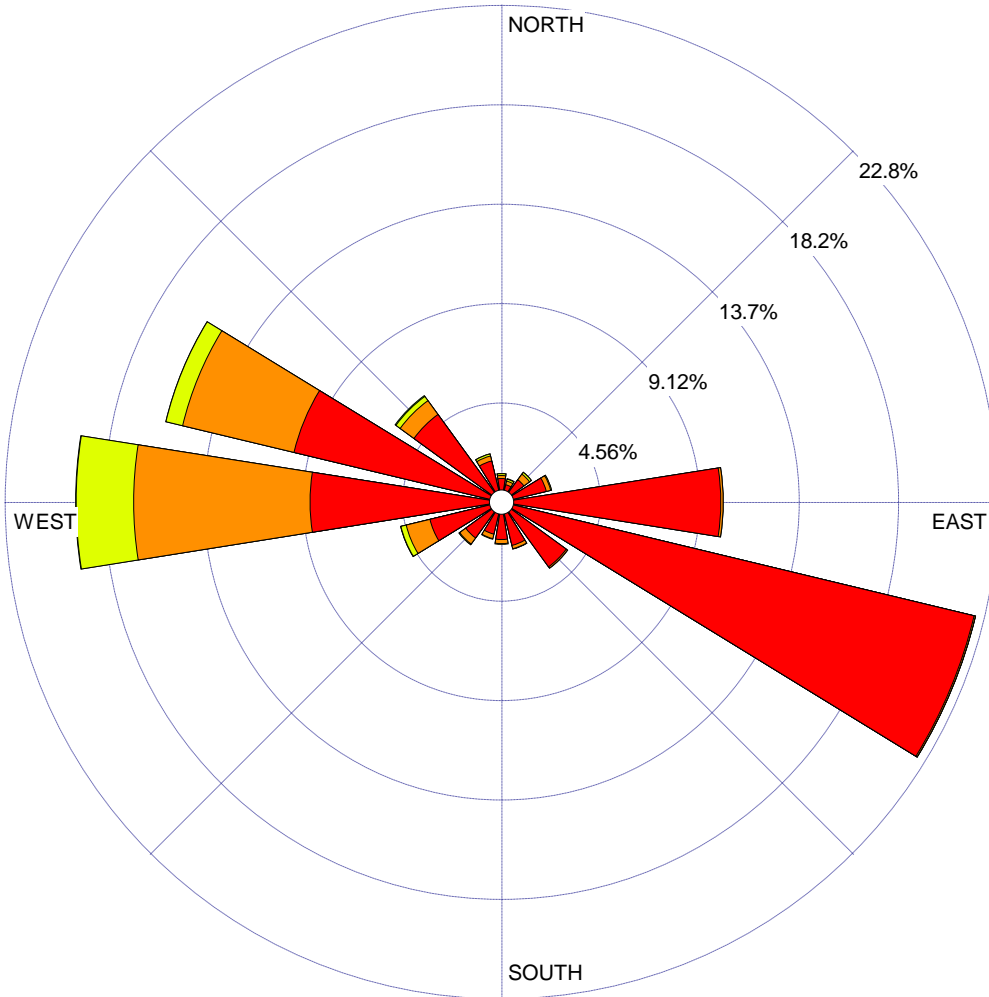
APPENDIX D – WIND ROSE FOR REDLANDS MET STATION

WIND ROSE PLOT:

Station #3171

DISPLAY:

**Wind Speed
Direction (blowing from)**



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.40 - 2.10

Calms: 0.44%

COMMENTS:

DATA PERIOD:

**Start Date: 1/1/2012 - 00:00
End Date: 12/31/2016 - 23:59**

COMPANY NAME:

South Coast Air Quality Management District

MODELER:

Melissa Sheffer



CALM WINDS:

0.44%

TOTAL COUNT:

43844 hrs.

AVG. WIND SPEED:

1.40 m/s

DATE:

5/25/2017

PROJECT NO.:

APPENDIX E – GROUND-LEVEL CONCENTRATIONS

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix E Ground-Level Concentrations at Identified Receptors

Ground-Level Concentrations

Appendix E Contains

Page Nos.	Table Number	Table Title
2 of 5	Table E.1	Ground-Level Concentrations - Cancer Risk (Elevated and Flat)
3 of 5	Table E.2	Ground-Level Concentrations - Non-Cancer Chronic Risk (Elevated and Flat)
4 of 5	Table E.3	Ground-Level Concentrations - 8-Hour Non-Cancer Chronic Risk (Elevated and Flat)
5 of 5	Table E.4	Ground-Level Concentrations - Non-Cancer Acute Risk (Elevated and Flat)

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix E Ground-Level Concentrations at Identified Receptors

Table E.1 Ground-Level Concentrations - Cancer Risk

Pollutant	Pollutant Name	Elevated				Flat			
		PMI	MEIR	Sensitive	MEIW	PMI	MEIR	Sensitive	MEIW
		Receptor No. 11234	Receptor No. 11240	Receptor No. 6023	Receptor No. 5736	Receptor No. 11234	Receptor No. 11240	Receptor No. 6023	Receptor No. 5736
		Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)
9901	DieselExhPM	4.85E-03	3.79E-03	3.49E-04	5.56E-04	5.80E-03	4.36E-03	4.13E-04	6.16E-04
7664417	NH3	1.07E-01	3.27E-02	2.97E-03	7.47E-03	1.14E-01	3.31E-02	3.59E-03	8.63E-03
91203	Naphthalene	2.85E-05	1.89E-05	6.98E-06	7.28E-06	3.31E-05	2.21E-05	9.24E-06	9.52E-06
7440020	Nickel	4.21E-07	3.60E-07	1.52E-07	1.49E-07	5.11E-07	4.32E-07	2.02E-07	1.97E-07
106990	1,3-Butadiene	1.19E-04	1.02E-04	4.29E-05	4.21E-05	1.45E-04	1.22E-04	5.70E-05	5.57E-05
71432	Benzene	7.73E-04	5.12E-04	1.88E-04	2.00E-04	9.00E-04	5.99E-04	2.49E-04	2.61E-04
50000	Formaldehyde	1.00E-03	5.51E-04	1.76E-04	1.97E-04	1.14E-03	6.28E-04	2.32E-04	2.54E-04
95636	1,2,4TriMeBenze	1.81E-04	1.54E-04	6.51E-05	6.40E-05	2.19E-04	1.85E-04	8.65E-05	8.46E-05
75070	Acetaldehyde	2.48E-04	1.35E-04	4.25E-05	4.78E-05	2.81E-04	1.53E-04	5.61E-05	6.16E-05
107028	Acrolein	1.14E-04	4.88E-05	1.17E-05	1.53E-05	1.26E-04	5.34E-05	1.52E-05	1.92E-05
7782505	Chlorine	5.89E-05	5.04E-05	2.12E-05	2.09E-05	7.16E-05	6.04E-05	2.82E-05	2.76E-05
7440508	Copper	4.21E-07	3.60E-07	1.52E-07	1.49E-07	5.11E-07	4.32E-07	2.02E-07	1.97E-07
100414	Ethyl Benzene	5.42E-04	2.88E-04	8.89E-05	1.04E-04	6.12E-04	3.27E-04	1.17E-04	1.34E-04
110543	Hexane	3.94E-04	2.23E-04	7.32E-05	8.08E-05	4.48E-04	2.55E-04	9.66E-05	1.04E-04
7439965	Manganese	4.21E-07	3.60E-07	1.52E-07	1.49E-07	5.11E-07	4.32E-07	2.02E-07	1.97E-07
67561	Methanol	1.00E-04	8.58E-05	3.61E-05	3.55E-05	1.22E-04	1.03E-04	4.80E-05	4.70E-05
78933	MEK	8.60E-06	7.36E-06	3.10E-06	3.05E-06	1.04E-05	8.82E-06	4.12E-06	4.03E-06
1634044	Me t-ButylEther	2.67E-04	2.28E-04	9.60E-05	9.44E-05	3.24E-04	2.73E-04	1.28E-04	1.25E-04
100425	Styrene	1.86E-05	1.59E-05	6.71E-06	6.60E-06	2.26E-05	1.91E-05	8.92E-06	8.73E-06
108883	Toluene	2.17E-03	1.20E-03	3.83E-04	4.28E-04	2.46E-03	1.36E-03	5.05E-04	5.52E-04
95476	o-Xylene	2.22E-04	1.90E-04	8.00E-05	7.87E-05	2.70E-04	2.28E-04	1.06E-04	1.04E-04
108383	m-Xylene	6.38E-04	5.46E-04	2.30E-04	2.26E-04	7.75E-04	6.54E-04	3.05E-04	2.99E-04
1151	PAHs-w/o	3.28E-06	9.91E-07	8.83E-08	2.26E-07	3.49E-06	9.98E-07	1.07E-07	2.62E-07
1330207	Xylenes	8.91E-04	2.70E-04	2.40E-05	6.16E-05	9.49E-04	2.71E-04	2.90E-05	7.12E-05

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix E Ground-Level Concentrations at Identified Receptors

Table E.2 Ground-Level Concentrations - Non-Cancer Chronic Risk

Pollutant	Pollutant Name	Elevated				Flat			
		PMI	MEIR	Sensitive	MEIW	PMI	MEIR	Sensitive	MEIW
		Receptor No. 10105	Receptor No. 11240	Receptor No. 6023	Receptor No. 5736	Receptor No. 10105	Receptor No. 11240	Receptor No. 6023	Receptor No. 5736
		Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)
9901	DieselExhPM	3.33E-03	3.79E-03	3.49E-04	5.56E-04	4.05E-03	4.36E-03	4.13E-04	6.16E-04
7664417	NH3	3.24E-01	3.27E-02	2.97E-03	7.47E-03	3.56E-01	3.31E-02	3.59E-03	8.63E-03
91203	Naphthalene	3.99E-05	1.89E-05	6.98E-06	7.28E-06	4.47E-05	2.21E-05	9.24E-06	9.52E-06
7440020	Nickel	2.42E-07	3.60E-07	1.52E-07	1.49E-07	2.85E-07	4.32E-07	2.02E-07	1.97E-07
106990	1,3-Butadiene	6.84E-05	1.02E-04	4.29E-05	4.21E-05	8.05E-05	1.22E-04	5.70E-05	5.57E-05
71432	Benzene	1.08E-03	5.12E-04	1.88E-04	2.00E-04	1.21E-03	5.99E-04	2.49E-04	2.61E-04
50000	Formaldehyde	1.91E-03	5.51E-04	1.76E-04	1.97E-04	2.12E-03	6.28E-04	2.32E-04	2.54E-04
95636	1,2,4TriMeBenze	1.04E-04	1.54E-04	6.51E-05	6.40E-05	1.22E-04	1.85E-04	8.65E-05	8.46E-05
75070	Acetaldehyde	4.80E-04	1.35E-04	4.25E-05	4.78E-05	5.32E-04	1.53E-04	5.61E-05	6.16E-05
107028	Acrolein	2.77E-04	4.88E-05	1.17E-05	1.53E-05	3.06E-04	5.34E-05	1.52E-05	1.92E-05
7782505	Chlorine	3.39E-05	5.04E-05	2.12E-05	2.09E-05	3.99E-05	6.04E-05	2.82E-05	2.76E-05
7440508	Copper	2.42E-07	3.60E-07	1.52E-07	1.49E-07	2.85E-07	4.32E-07	2.02E-07	1.97E-07
100414	Ethyl Benzene	1.07E-03	2.88E-04	8.89E-05	1.04E-04	1.18E-03	3.27E-04	1.17E-04	1.34E-04
110543	Hexane	7.21E-04	2.23E-04	7.32E-05	8.08E-05	8.00E-04	2.55E-04	9.66E-05	1.04E-04
7439965	Manganese	2.42E-07	3.60E-07	1.52E-07	1.49E-07	2.85E-07	4.32E-07	2.02E-07	1.97E-07
67561	Methanol	5.77E-05	8.58E-05	3.61E-05	3.55E-05	6.79E-05	1.03E-04	4.80E-05	4.70E-05
78933	MEK	4.94E-06	7.36E-06	3.10E-06	3.05E-06	5.82E-06	8.82E-06	4.12E-06	4.03E-06
1634044	Me t-ButylEther	1.53E-04	2.28E-04	9.60E-05	9.44E-05	1.80E-04	2.73E-04	1.28E-04	1.25E-04
100425	Styrene	1.07E-05	1.59E-05	6.71E-06	6.60E-06	1.26E-05	1.91E-05	8.92E-06	8.73E-06
108883	Toluene	4.12E-03	1.20E-03	3.83E-04	4.28E-04	4.57E-03	1.36E-03	5.05E-04	5.52E-04
95476	o-Xylene	1.28E-04	1.90E-04	8.00E-05	7.87E-05	1.50E-04	2.28E-04	1.06E-04	1.04E-04
108383	m-Xylene	3.67E-04	5.46E-04	2.30E-04	2.26E-04	4.31E-04	6.54E-04	3.05E-04	2.99E-04
1151	PAHs-w/o	9.73E-06	9.91E-07	8.83E-08	2.26E-07	1.07E-05	9.98E-07	1.07E-07	2.62E-07
1330207	Xylenes	2.65E-03	2.70E-04	2.40E-05	6.16E-05	2.91E-03	2.71E-04	2.90E-05	7.12E-05

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix E Ground-Level Concentrations at Identified Receptors

Table E.3 Ground-Level Concentrations - 8-Hour Non-Cancer Chronic Risk

Pollutant	Pollutant Name	Elevated				Flat			
		PMI	MEIR	Sensitive	MEIW	PMI	MEIR	Sensitive	MEIW
		Receptor No. 10105	Receptor No. 10176	Receptor No. 6023	Receptor No. 5736	Receptor No. 10105	Receptor No. 10176	Receptor No. 6023	Receptor No. 5736
		Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)	Annual Ground-Level Concentration (ug/m ³)
9901	DieselExhPM	3.33E-03	3.14E-03	3.49E-04	5.56E-04	4.05E-03	3.58E-03	4.13E-04	6.16E-04
7664417	NH ₃	3.24E-01	8.62E-02	2.97E-03	7.47E-03	3.56E-01	7.96E-02	3.59E-03	8.63E-03
91203	Naphthalene	3.99E-05	1.90E-05	6.98E-06	7.28E-06	4.47E-05	1.94E-05	9.24E-06	9.52E-06
7440020	Nickel	2.42E-07	2.49E-07	1.52E-07	1.49E-07	2.85E-07	2.73E-07	2.02E-07	1.97E-07
106990	1,3-Butadiene	6.84E-05	7.04E-05	4.29E-05	4.21E-05	8.05E-05	7.72E-05	5.70E-05	5.57E-05
71432	Benzene	1.08E-03	5.39E-04	1.88E-04	2.00E-04	1.21E-03	5.60E-04	2.49E-04	2.61E-04
50000	Formaldehyde	1.91E-03	7.15E-04	1.76E-04	1.97E-04	2.12E-03	7.05E-04	2.32E-04	2.54E-04
95636	1,2,4TriMeBenze	1.04E-04	1.07E-04	6.51E-05	6.40E-05	1.22E-04	1.17E-04	8.65E-05	8.46E-05
75070	Acetaldehyde	4.80E-04	1.78E-04	4.25E-05	4.78E-05	5.32E-04	1.75E-04	5.61E-05	6.16E-05
107028	Acrolein	2.77E-04	8.68E-05	1.17E-05	1.53E-05	3.06E-04	8.26E-05	1.52E-05	1.92E-05
7782505	Chlorine	3.39E-05	3.49E-05	2.12E-05	2.09E-05	3.99E-05	3.83E-05	2.82E-05	2.76E-05
7440508	Copper	2.42E-07	2.49E-07	1.52E-07	1.49E-07	2.85E-07	2.73E-07	2.02E-07	1.97E-07
100414	Ethyl Benzene	1.07E-03	4.11E-04	8.89E-05	1.04E-04	1.18E-03	4.12E-04	1.17E-04	1.34E-04
110543	Hexane	7.21E-04	2.78E-04	7.32E-05	8.08E-05	8.00E-04	2.76E-04	9.66E-05	1.04E-04
7439965	Manganese	2.42E-07	2.49E-07	1.52E-07	1.49E-07	2.85E-07	2.73E-07	2.02E-07	1.97E-07
67561	Methanol	5.77E-05	5.94E-05	3.61E-05	3.55E-05	6.79E-05	6.51E-05	4.80E-05	4.70E-05
78933	MEK	4.94E-06	5.09E-06	3.10E-06	3.05E-06	5.82E-06	5.58E-06	4.12E-06	4.03E-06
1634044	Me t-ButylEther	1.53E-04	1.58E-04	9.60E-05	9.44E-05	1.80E-04	1.73E-04	1.28E-04	1.25E-04
100425	Styrene	1.07E-05	1.10E-05	6.71E-06	6.60E-06	1.26E-05	1.21E-05	8.92E-06	8.73E-06
108883	Toluene	4.12E-03	1.55E-03	3.83E-04	4.28E-04	4.57E-03	1.52E-03	5.05E-04	5.52E-04
95476	o-Xylene	1.28E-04	1.31E-04	8.00E-05	7.87E-05	1.50E-04	1.44E-04	1.06E-04	1.04E-04
108383	m-Xylene	3.67E-04	3.77E-04	2.30E-04	2.26E-04	4.31E-04	4.14E-04	3.05E-04	2.99E-04
1151	PAHs-w/o	9.73E-06	2.65E-06	8.83E-08	2.26E-07	1.07E-05	2.44E-06	1.07E-07	2.62E-07
1330207	Xylenes	2.65E-03	7.21E-04	2.40E-05	6.16E-05	2.91E-03	6.63E-04	2.90E-05	7.12E-05

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix E Ground-Level Concentrations at Identified Receptors

Table E.4 Ground-Level Concentrations - Non-Cancer Acute Risk

Pollutant	Pollutant Name	Elevated					Flat				
		PMI	MEIR	Sensitive	MEIW	PMI (On-Site)	PMI	MEIR	Sensitive	MEIW	PMI (On-Site)
		Receptor No. 11028	Receptor No. 11242	Receptor No. 6023	Receptor No. 5736	Receptor No. 144	Receptor No. 11030	Receptor No. 11242	Receptor No. 6023	Receptor No. 5736	Receptor No. 144
		Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)	Maximum 1-Hour Ground-Level Concentration (ug/m ³)
9901	DieselExhPM	7.37E-01	1.28E+01	3.39E+00	4.26E+00	9.72E-01	3.85E+00	1.69E+01	4.48E+00	5.67E+00	4.12E+00
7664417	NH3	1.40E+00	1.45E+00	3.09E-01	5.61E-01	2.61E+00	1.91E+00	1.63E+00	4.21E-01	7.52E-01	2.58E+00
91203	Naphthalene	2.26E-01	1.75E-01	4.18E-02	5.19E-02	5.21E-01	2.77E-01	2.31E-01	5.57E-02	6.92E-02	5.73E-01
7440020	Nickel	5.10E-03	3.96E-03	9.44E-04	1.17E-03	1.18E-02	6.26E-03	5.22E-03	1.26E-03	1.56E-03	1.29E-02
106990	1,3-Butadiene	1.44E+00	1.12E+00	2.67E-01	3.31E-01	3.32E+00	1.77E+00	1.48E+00	3.56E-01	4.42E-01	3.66E+00
71432	Benzene	5.97E+00	4.64E+00	1.11E+00	1.37E+00	1.38E+01	7.33E+00	6.12E+00	1.48E+00	1.83E+00	1.52E+01
50000	Formaldehyde	5.42E+00	4.21E+00	1.00E+00	1.25E+00	1.25E+01	6.65E+00	5.55E+00	1.34E+00	1.66E+00	1.38E+01
95636	1,2,4TriMeBenze	2.19E+00	1.70E+00	4.05E-01	5.03E-01	5.05E+00	2.68E+00	2.24E+00	5.40E-01	6.71E-01	5.55E+00
75070	Acetaldehyde	1.30E+00	1.01E+00	2.41E-01	3.00E-01	3.00E+00	1.60E+00	1.33E+00	3.22E-01	4.00E-01	3.31E+00
107028	Acrolein	3.12E-01	2.44E-01	5.79E-02	7.21E-02	7.21E-01	3.84E-01	3.21E-01	7.73E-02	9.61E-02	7.93E-01
7782505	Chlorine	7.14E-01	5.55E-01	1.32E-01	1.64E-01	1.65E+00	8.76E-01	7.31E-01	1.76E-01	2.19E-01	1.81E+00
7440508	Copper	5.10E-03	3.96E-03	9.44E-04	1.17E-03	1.18E-02	6.26E-03	5.22E-03	1.26E-03	1.56E-03	1.29E-02
100414	Ethyl Benzene	2.60E+00	2.03E+00	4.83E-01	6.00E-01	6.01E+00	3.20E+00	2.67E+00	6.44E-01	8.00E-01	6.61E+00
110543	Hexane	2.27E+00	1.77E+00	4.21E-01	5.23E-01	5.25E+00	2.79E+00	2.33E+00	5.62E-01	6.98E-01	5.77E+00
7439965	Manganese	5.10E-03	3.96E-03	9.44E-04	1.17E-03	1.18E-02	6.26E-03	5.22E-03	1.26E-03	1.56E-03	1.29E-02
67561	Methanol	1.22E+00	9.44E-01	2.25E-01	2.79E-01	2.80E+00	1.49E+00	1.24E+00	3.00E-01	3.73E-01	3.09E+00
78933	MEK	1.04E-01	8.09E-02	1.93E-02	2.40E-02	2.40E-01	1.28E-01	1.07E-01	2.57E-02	3.19E-02	2.64E-01
1634044	Me t-ButylEther	3.23E+00	2.51E+00	5.98E-01	7.43E-01	7.45E+00	3.96E+00	3.31E+00	7.97E-01	9.90E-01	8.20E+00
100425	Styrene	2.26E-01	1.75E-01	4.18E-02	5.19E-02	5.21E-01	2.77E-01	2.31E-01	5.57E-02	6.92E-02	5.73E-01
108883	Toluene	1.18E+01	9.17E+00	2.18E+00	2.71E+00	2.72E+01	1.45E+01	1.21E+01	2.91E+00	3.62E+00	2.99E+01
95476	o-Xylene	2.69E+00	2.09E+00	4.98E-01	6.19E-01	6.21E+00	3.30E+00	2.75E+00	6.64E-01	8.25E-01	6.83E+00
108383	m-Xylene	7.73E+00	6.00E+00	1.43E+00	1.78E+00	1.78E+01	9.48E+00	7.91E+00	1.91E+00	2.37E+00	1.96E+01
1151	PAHs-w/o	4.36E-07	3.24E-06	2.72E-06	7.84E-06	4.01E-07	2.11E-06	3.37E-05	3.55E-06	9.76E-06	2.39E-06
1330207	Xylenes	1.19E-04	8.82E-03	7.40E-04	2.13E-03	1.09E-04	5.73E-04	9.16E-03	9.67E-04	2.66E-03	6.50E-04

APPENDIX F – RISK CHARACTERIZATION (DETAILED RESULTS)

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Risk Characterization

Page Nos.	Table Number	Table Title
2 of 27	Table F.1	Cancer Risk by TAC (Elevated)
3 of 27	Table F.2	Cancer Risk by TAC (Flat)
4 of 27	Table F.3	Cancer Risk by Emission Source (Elevated)
5 of 27	Table F.4	Cancer Risk by Emission Source (Flat)
6 of 27	Table F.5	Non-Cancer Chronic Risk by TAC (Elevated)
7 of 27	Table F.6	Non-Cancer Chronic Risk by TAC (Flat)
8 of 27	Table F.7	Non-Cancer Chronic Risk by Emission Source (Elevated)
9 of 27	Table F.8	Non-Cancer Chronic Risk by Emission Source (Flat)
10 of 27	Table F.9	8-Hour Non-Cancer Chronic Risk by TAC (Elevated)
11 of 27	Table F.10	8-Hour Non-Cancer Chronic Risk by TAC (Flat)
12 of 27	Table F.11	8-Hour Non-Cancer Chronic Risk by Emission Source (Elevated)
13 of 27	Table F.12	8-Hour Non-Cancer Chronic Risk by Emission Source (Flat)
14 of 27	Table F.13	Non-Cancer Acute Risk by TAC (Elevated)
15 of 27	Table F.14	Non-Cancer Acute Risk by TAC (Flat)
16 of 27	Table F.15	Non-Cancer Acute Risk by Emission Source (Elevated)
17 of 27	Table F.16	Non-Cancer Acute Risk by Emission Source (Flat)
18-27 of 27	Table F.17	Cancer Burden

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.1 Cancer Risk By TAC (Elevated)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	11234	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510263	3788335	510382	3788336	509086	3788780	509736	3788630
Cancer Risk	3.21E-06	Cancer Risk	2.39E-06	Cancer Risk	2.40E-07	Cancer Risk	3.77E-08

Pollutant	Pollutant Name	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	2.41E-07	7.52%	7.29E-08	3.05%	6.50E-09	2.71%	3.29E-10	0.87%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	2.87E-06	89.44%	2.24E-06	94.00%	2.06E-07	85.96%	3.44E-08	91.37%
50000	Formaldehyde	1.13E-08	0.35%	6.22E-09	0.26%	1.99E-09	0.83%	2.33E-10	0.62%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	4.16E-08	1.30%	2.75E-08	1.15%	1.01E-08	4.21%	1.12E-09	2.98%
75070	Acetaldehyde	1.34E-09	0.04%	7.24E-10	0.03%	2.29E-10	0.10%	2.69E-11	0.07%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	1.84E-09	0.06%	1.22E-09	0.05%	4.50E-10	0.19%	4.91E-11	0.13%
95476	o-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	2.54E-09	0.08%	1.35E-09	0.06%	4.16E-10	0.17%	5.09E-11	0.14%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	3.84E-08	1.20%	3.28E-08	1.38%	1.38E-08	5.76%	1.42E-09	3.78%
107028	Acrolein	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108383	m-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1634044	Methyl tert-butyl ether	2.58E-10	0.01%	2.21E-10	0.01%	9.30E-11	0.04%	9.56E-12	0.03%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	2.06E-10	0.01%	1.76E-10	0.01%	7.42E-11	0.03%	7.63E-12	0.02%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7782505	Chlorine	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.2 Cancer Risk By TAC (Flat)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	11234	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510263	3788335	510382	3788336	509086	3788780	509736	3788630
Cancer Risk	3.81E-06	Cancer Risk	2.73E-06	Cancer Risk	2.89E-07	Cancer Risk	4.23E-08

Pollutant	Pollutant Name	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	2.57E-07	6.75%	7.34E-08	2.68%	7.85E-09	2.72%	3.80E-10	0.90%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	3.43E-06	90.24%	2.58E-06	94.28%	2.45E-07	84.78%	3.81E-08	90.04%
50000	Formaldehyde	1.28E-08	0.34%	7.10E-09	0.26%	2.62E-09	0.91%	3.00E-10	0.71%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	4.84E-08	1.27%	3.22E-08	1.18%	1.34E-08	4.64%	1.47E-09	3.47%
75070	Acetaldehyde	1.51E-09	0.04%	8.24E-10	0.03%	3.02E-10	0.10%	3.47E-11	0.08%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	2.14E-09	0.06%	1.43E-09	0.05%	5.97E-10	0.21%	6.42E-11	0.15%
95476	o-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	2.87E-09	0.08%	1.53E-09	0.06%	5.47E-10	0.19%	6.54E-11	0.15%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	4.66E-08	1.23%	3.94E-08	1.44%	1.84E-08	6.37%	1.88E-09	4.45%
107028	Acrolein	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108383	m-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1634044	Methyl tert-butyl ether	3.14E-10	0.01%	2.65E-10	0.01%	1.24E-10	0.04%	1.27E-11	0.03%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	2.50E-10	0.01%	2.11E-10	0.01%	9.87E-11	0.03%	1.01E-11	0.02%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7782505	Chlorine	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.3 Cancer Risk By Emission Source (Elevated)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	11234	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510263	3788335	510382	3788336	509086	3788780	509736	3788630
Cancer Risk	3.21E-06	Cancer Risk	2.39E-06	Cancer Risk	2.40E-07	Cancer Risk	3.77E-08

Emission Source	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)
219DSL	5.55E-08	1.73%	3.50E-08	1.46%	1.21E-08	5.04%	2.71E-09	7.20%
219NG	2.18E-07	6.80%	7.38E-08	3.09%	6.07E-09	2.53%	4.35E-10	1.15%
219PRBBQ	3.55E-11	0.00%	4.68E-12	0.00%	8.06E-13	0.00%	4.26E-14	0.00%
219PRHTR	4.61E-08	1.44%	6.08E-09	0.25%	1.05E-09	0.44%	6.20E-11	0.16%
APU1	1.41E-09	0.04%	1.39E-09	0.06%	1.36E-09	0.57%	1.37E-10	0.36%
APU10	2.05E-09	0.06%	1.93E-09	0.08%	1.84E-09	0.77%	1.84E-10	0.49%
APU11	1.48E-08	0.46%	1.10E-08	0.46%	6.24E-09	2.60%	1.97E-10	0.52%
APU2	9.02E-10	0.03%	8.74E-10	0.04%	8.67E-10	0.36%	8.58E-11	0.23%
APU3	2.74E-10	0.01%	2.75E-10	0.01%	3.14E-10	0.13%	2.84E-11	0.08%
APU4	4.69E-09	0.15%	1.15E-08	0.48%	3.97E-09	1.65%	3.97E-10	1.05%
APU5	2.56E-09	0.08%	2.33E-09	0.10%	4.13E-09	1.72%	1.57E-10	0.42%
APU6	1.67E-10	0.01%	1.65E-10	0.01%	1.66E-10	0.07%	1.68E-11	0.04%
APU7	2.25E-10	0.01%	2.19E-10	0.01%	2.22E-10	0.09%	2.26E-11	0.06%
APU8	6.33E-08	1.97%	4.60E-08	1.93%	1.74E-08	7.26%	1.82E-09	4.83%
APU9	2.20E-10	0.01%	2.12E-10	0.01%	2.11E-10	0.09%	2.09E-11	0.06%
GSLDSP	1.03E-09	0.03%	6.45E-10	0.03%	1.96E-10	0.08%	4.18E-11	0.11%
MCH1	1.76E-07	5.50%	1.45E-07	6.08%	1.24E-08	5.15%	2.13E-09	5.65%
MCH2	2.06E-06	64.30%	1.63E-06	68.20%	1.34E-07	55.94%	2.30E-08	61.14%
MCH3	5.52E-07	17.23%	4.18E-07	17.52%	3.36E-08	13.98%	5.78E-09	15.35%
SOKO1	1.15E-09	0.04%	1.13E-09	0.05%	9.79E-10	0.41%	1.08E-10	0.29%
SOKO2	2.28E-09	0.07%	2.25E-09	0.09%	1.95E-09	0.81%	2.15E-10	0.57%
SOKO3	9.22E-10	0.03%	9.08E-10	0.04%	7.85E-10	0.33%	8.66E-11	0.23%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.4 Cancer Risk By Emission Source (Flat)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	11234	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510263	3788335	510382	3788336	509086	3788780	509736	3788630
Cancer Risk	3.81E-06	Cancer Risk	2.73E-06	Cancer Risk	2.89E-07	Cancer Risk	4.23E-08

Emission Source	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)	Cancer Risk	Contribution (%)
219DSL	6.64E-08	1.74%	4.11E-08	1.50%	1.54E-08	5.35%	3.52E-09	8.32%
219NG	2.35E-07	6.17%	7.43E-08	2.72%	7.39E-09	2.56%	5.06E-10	1.19%
219PRBBQ	3.58E-11	0.00%	4.71E-12	0.00%	9.20E-13	0.00%	4.66E-14	0.00%
219PRHTR	4.64E-08	1.22%	6.13E-09	0.22%	1.21E-09	0.42%	6.83E-11	0.16%
APU1	1.89E-09	0.05%	1.86E-09	0.07%	1.83E-09	0.63%	1.83E-10	0.43%
APU10	2.72E-09	0.07%	2.57E-09	0.09%	2.46E-09	0.85%	2.46E-10	0.58%
APU11	1.84E-08	0.48%	1.38E-08	0.50%	8.28E-09	2.87%	2.52E-10	0.59%
APU2	1.21E-09	0.03%	1.17E-09	0.04%	1.16E-09	0.40%	1.15E-10	0.27%
APU3	3.61E-10	0.01%	3.63E-10	0.01%	4.18E-10	0.14%	3.75E-11	0.09%
APU4	5.01E-09	0.13%	1.42E-08	0.52%	5.27E-09	1.83%	5.25E-10	1.24%
APU5	3.04E-09	0.08%	2.77E-09	0.10%	5.45E-09	1.89%	1.98E-10	0.47%
APU6	2.24E-10	0.01%	2.20E-10	0.01%	2.22E-10	0.08%	2.26E-11	0.05%
APU7	3.00E-10	0.01%	2.93E-10	0.01%	2.97E-10	0.10%	3.03E-11	0.07%
APU8	7.69E-08	2.02%	5.41E-08	1.98%	2.31E-08	8.02%	2.40E-09	5.67%
APU9	2.94E-10	0.01%	2.84E-10	0.01%	2.84E-10	0.10%	2.80E-11	0.07%
GSLDSP	1.25E-09	0.03%	7.65E-10	0.03%	2.49E-10	0.09%	5.40E-11	0.13%
MCH1	2.11E-07	5.54%	1.66E-07	6.09%	1.44E-08	4.98%	2.31E-09	5.45%
MCH2	2.47E-06	64.87%	1.87E-06	68.36%	1.57E-07	54.38%	2.50E-08	59.10%
MCH3	6.61E-07	17.36%	4.79E-07	17.53%	3.92E-08	13.58%	6.27E-09	14.82%
SOKO1	1.52E-09	0.04%	1.50E-09	0.05%	1.31E-09	0.45%	1.43E-10	0.34%
SOKO2	3.01E-09	0.08%	2.97E-09	0.11%	2.61E-09	0.90%	2.85E-10	0.67%
SOKO3	1.22E-09	0.03%	1.20E-09	0.04%	1.05E-09	0.36%	1.15E-10	0.27%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.5 Non-Cancer Chronic Risk By TAC (Elevated)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510382	3788336	509086	3788780	509736	3788630
HIC	3.49E-03	HIC	1.41E-03	HIC	2.56E-04	HIC	3.31E-04
Target Organ	RESP	Target Organ	RESP	Target Organ	RESP	Target Organ	RESP

Pollutant	Pollutant Name	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	6.65E-04	19.07%	7.59E-04	53.99%	6.98E-05	27.24%	1.11E-04	33.63%
50000	Formaldehyde	2.12E-04	6.09%	6.12E-05	4.36%	1.96E-05	7.64%	2.19E-05	6.61%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
75070	Acetaldehyde	3.43E-06	0.10%	9.61E-07	0.07%	3.04E-07	0.12%	3.41E-07	0.10%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	4.43E-06	0.13%	2.10E-06	0.15%	7.75E-07	0.30%	8.09E-07	0.24%
95476	o-Xylene	1.82E-07	0.01%	2.71E-07	0.02%	1.14E-07	0.04%	1.12E-07	0.03%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107028	Acrolein	7.93E-04	22.73%	1.39E-04	9.92%	3.34E-05	13.03%	4.36E-05	13.18%
108383	m-Xylene	5.24E-07	0.02%	7.79E-07	0.06%	3.28E-07	0.13%	3.23E-07	0.10%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	3.78E-06	0.11%	3.85E-07	0.03%	3.43E-08	0.01%	8.80E-08	0.03%
1634044	Methyl tert-butyl ether	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	1.73E-05	0.50%	2.57E-05	1.83%	1.08E-05	4.23%	1.06E-05	3.22%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	1.62E-03	46.40%	1.64E-04	11.64%	1.49E-05	5.80%	3.73E-05	11.29%
7782505	Chlorine	1.69E-04	4.86%	2.52E-04	17.94%	1.06E-04	41.45%	1.04E-04	31.56%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.6 Non-Cancer Chronic Risk By TAC (Flat)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510382	3788336	509086	3788780	509736	3788630
HIC	3.94E-03	HIC	1.60E-03	HIC	3.28E-04	HIC	4.04E-04
Target Organ	RESP	Target Organ	RESP	Target Organ	RESP	Target Organ	RESP

Pollutant	Pollutant Name	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	8.10E-04	20.59%	8.71E-04	54.55%	8.27E-05	25.24%	1.23E-04	30.52%
50000	Formaldehyde	2.36E-04	5.98%	6.98E-05	4.37%	2.58E-05	7.88%	2.82E-05	6.99%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
75070	Acetaldehyde	3.80E-06	0.10%	1.09E-06	0.07%	4.00E-07	0.12%	4.40E-07	0.11%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	4.96E-06	0.13%	2.46E-06	0.15%	1.03E-06	0.31%	1.06E-06	0.26%
95476	o-Xylene	2.15E-07	0.01%	3.25E-07	0.02%	1.52E-07	0.05%	1.49E-07	0.04%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107028	Acrolein	8.74E-04	22.22%	1.53E-04	9.55%	4.35E-05	13.29%	5.47E-05	13.56%
108383	m-Xylene	6.16E-07	0.02%	9.34E-07	0.06%	4.36E-07	0.13%	4.27E-07	0.11%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	4.15E-06	0.11%	3.88E-07	0.02%	4.14E-08	0.01%	1.02E-07	0.03%
1634044	Methyl tert-butyl ether	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	2.03E-05	0.52%	3.08E-05	1.93%	1.44E-05	4.40%	1.41E-05	3.49%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	1.78E-03	45.28%	1.65E-04	10.36%	1.80E-05	5.48%	4.31E-05	10.69%
7782505	Chlorine	1.99E-04	5.06%	3.02E-04	18.92%	1.41E-04	43.08%	1.38E-04	34.21%

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix F Risk Characterization

Table F.7 Non-Cancer Chronic Risk By Emission Source (Elevated)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510382	3788336	509086	3788780	509736	3788630
HIC	3.49E-03	HIC	1.41E-03	HIC	2.56E-04	HIC	3.31E-04
Target Organ	RESP	Target Organ	RESP	Target Organ	RESP	Target Organ	RESP

Emission Source	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)
219DSL	2.14E-05	0.61%	1.18E-05	0.84%	4.09E-06	1.60%	8.76E-06	2.65%
219NG	8.53E-04	24.6%	2.35E-04	16.74%	1.94E-05	7.56%	5.10E-05	15.41%
219PRBBQ	2.97E-06	0.09%	1.55E-08	0.00%	2.66E-09	0.00%	5.17E-09	0.00%
219PRHTR	1.70E-03	48.82%	2.01E-05	1.43%	3.47E-06	1.35%	7.51E-06	2.27%
APU1	8.63E-06	0.25%	8.59E-06	0.61%	8.41E-06	3.28%	8.09E-06	2.45%
APU10	1.26E-05	0.36%	1.19E-05	0.85%	1.14E-05	4.44%	1.09E-05	3.29%
APU11	3.90E-06	0.11%	3.73E-06	0.27%	2.11E-06	0.82%	6.36E-07	0.19%
APU2	5.56E-06	0.16%	5.40E-06	0.38%	5.36E-06	2.09%	5.07E-06	1.53%
APU3	1.68E-06	0.05%	1.70E-06	0.12%	1.94E-06	0.76%	1.68E-06	0.51%
APU4	2.06E-05	0.59%	7.12E-05	5.06%	2.45E-05	9.57%	2.34E-05	7.09%
APU5	7.73E-07	0.02%	7.89E-07	0.06%	1.39E-06	0.54%	5.07E-07	0.15%
APU6	1.03E-06	0.03%	1.02E-06	0.07%	1.02E-06	0.40%	9.95E-07	0.30%
APU7	1.39E-06	0.04%	1.35E-06	0.10%	1.37E-06	0.53%	1.34E-06	0.40%
APU8	2.07E-04	5.94%	2.84E-04	20.23%	1.08E-04	42.02%	1.07E-04	32.49%
APU9	1.36E-06	0.04%	1.31E-06	0.09%	1.31E-06	0.51%	1.23E-06	0.37%
GSLDSP	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH1	4.27E-05	1.23%	4.95E-05	3.52%	4.21E-06	1.64%	6.94E-06	2.10%
MCH2	4.75E-04	13.64%	5.53E-04	39.32%	4.56E-05	17.79%	7.47E-05	22.59%
MCH3	1.23E-04	3.52%	1.43E-04	10.17%	1.15E-05	4.48%	1.89E-05	5.71%
SOKO1	6.30E-07	0.02%	6.25E-07	0.04%	5.40E-07	0.21%	5.70E-07	0.17%
SOKO2	8.08E-07	0.02%	8.00E-07	0.06%	6.94E-07	0.27%	7.31E-07	0.22%
SOKO3	3.52E-07	0.01%	3.49E-07	0.02%	3.02E-07	0.12%	3.18E-07	0.10%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.8 Non-Cancer Chronic Risk By Emission Source (Flat)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	11240	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510382	3788336	509086	3788780	509736	3788630
HIC	3.94E-03	HIC	1.60E-03	HIC	3.28E-04	HIC	4.04E-04
Target Organ	RESP	Target Organ	RESP	Target Organ	RESP	Target Organ	RESP

Emission Source	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)	HIC	Contribution (%)
219DSL	2.66E-05	0.68%	1.39E-05	0.87%	5.22E-06	1.59%	1.14E-05	2.82%
219NG	8.45E-04	21.47%	2.37E-04	14.83%	2.36E-05	7.19%	5.93E-05	14.68%
219PRBBQ	3.45E-06	0.09%	1.55E-08	0.00%	3.04E-09	0.00%	5.66E-09	0.00%
219PRHTR	1.97E-03	49.96%	2.02E-05	1.27%	3.98E-06	1.22%	8.29E-06	2.05%
APU1	1.15E-05	0.29%	1.15E-05	0.72%	1.13E-05	3.44%	1.08E-05	2.68%
APU10	1.68E-05	0.43%	1.59E-05	0.99%	1.52E-05	4.64%	1.45E-05	3.59%
APU11	4.88E-06	0.12%	4.65E-06	0.29%	2.80E-06	0.85%	8.13E-07	0.20%
APU2	7.45E-06	0.19%	7.23E-06	0.45%	7.19E-06	2.19%	6.79E-06	1.68%
APU3	2.21E-06	0.06%	2.24E-06	0.14%	2.58E-06	0.79%	2.22E-06	0.55%
APU4	2.38E-05	0.60%	8.76E-05	5.48%	3.25E-05	9.93%	3.10E-05	7.68%
APU5	9.17E-07	0.02%	9.36E-07	0.06%	1.84E-06	0.56%	6.39E-07	0.16%
APU6	1.38E-06	0.04%	1.36E-06	0.09%	1.37E-06	0.42%	1.33E-06	0.33%
APU7	1.86E-06	0.05%	1.81E-06	0.11%	1.83E-06	0.56%	1.79E-06	0.44%
APU8	2.39E-04	6.07%	3.34E-04	20.94%	1.43E-04	43.61%	1.42E-04	35.13%
APU9	1.82E-06	0.05%	1.76E-06	0.11%	1.75E-06	0.53%	1.66E-06	0.41%
GSLDSP	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH1	5.20E-05	1.32%	5.68E-05	3.55%	4.90E-06	1.50%	7.52E-06	1.86%
MCH2	5.79E-04	14.71%	6.34E-04	39.70%	5.32E-05	16.25%	8.12E-05	20.11%
MCH3	1.49E-04	3.80%	1.64E-04	10.25%	1.34E-05	4.09%	2.05E-05	5.08%
SOKO1	8.33E-07	0.02%	8.25E-07	0.05%	7.23E-07	0.22%	7.57E-07	0.19%
SOKO2	1.07E-06	0.03%	1.06E-06	0.07%	9.28E-07	0.28%	9.71E-07	0.24%
SOKO3	4.66E-07	0.01%	4.61E-07	0.03%	4.04E-07	0.12%	4.23E-07	0.10%

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.9 8-Hour Non-Cancer Chronic Risk By TAC (Elevated)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	10176	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510084	3788384	509086	3788780	509736	3788630
HIC-8	6.14E-04	HIC-8	2.08E-04	HIC-8	6.27E-05	HIC-8	6.65E-05
Target Organ	RESP	Target Organ	RESP	Target Organ	BLOOD	Target Organ	BLOOD

Pollutant	Pollutant Name	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50000	Formaldehyde	2.12E-04	24.56%	7.94E-05	38.16%	0.00E+00	0.00%	0.00E+00	0.00%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	0.00E+00	0.00%	0.00E+00	0.00%	6.27E-05	100.00%	6.65E-05	100.00%
75070	Acetaldehyde	1.60E-06	0.26%	5.92E-07	0.28%	0.00E+00	0.00%	0.00E+00	0.00%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95476	o-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107028	Acrolein	3.96E-04	64.52%	1.24E-04	59.56%	0.00E+00	0.00%	0.00E+00	0.00%
108383	m-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1634044	Methyl tert-butyl ether	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	4.03E-06	0.66%	4.15E-06	1.99%	0.00E+00	0.00%	0.00E+00	0.00%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7782505	Chlorine	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.10 8-Hour Non-Cancer Chronic Risk By TAC (Flat)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	10176	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510084	3788384	509086	3788780	509736	3788630
HIC-8	6.79E-04	HIC-8	2.01E-04	HIC-8	8.30E-05	HIC-8	8.70E-05
Target Organ	RESP	Target Organ	RESP	Target Organ	BLOOD	Target Organ	BLOOD

Pollutant	Pollutant Name	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50000	Formaldehyde	2.36E-04	34.67%	7.83E-05	38.88%	0.00E+00	0.00%	0.00E+00	0.00%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	0.00E+00	0.00%	0.00E+00	0.00%	8.30E-05	100.00%	8.70E-05	100.00%
75070	Acetaldehyde	1.77E-06	0.26%	5.82E-07	0.29%	0.00E+00	0.00%	0.00E+00	0.00%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95476	o-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107028	Acrolein	4.37E-04	64.37%	1.18E-04	58.57%	0.00E+00	0.00%	0.00E+00	0.00%
108383	m-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1634044	Methyl tert-butyl ether	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	4.75E-06	0.70%	4.56E-06	2.26%	0.00E+00	0.00%	0.00E+00	0.00%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7782505	Chlorine	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.11 8-Hour Non-Cancer Chronic Risk By Emission Source (Elevated)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	10176	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510084	3788384	509086	3788780	509736	3788630
HIC-8	6.14E-04	HIC-8	2.08E-04	HIC-8	6.27E-05	HIC-8	6.65E-05
Target Organ	RESP	Target Organ	RESP	Target Organ	BLOOD	Target Organ	BLOOD

Emission Source	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)
219DSL	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
219NG	1.91E-04	31.12%	1.29E-04	61.91%	2.01E-06	3.20%	5.29E-06	7.95%
219PRBBQ	6.44E-07	0.10%	1.93E-08	0.01%	2.67E-10	0.00%	5.18E-10	0.00%
219PRHTR	3.68E-04	59.99%	2.37E-05	11.28%	3.47E-07	0.55%	7.53E-07	1.13%
APU1	1.79E-06	0.29%	1.79E-06	0.86%	3.06E-06	4.88%	2.94E-06	4.42%
APU10	2.62E-06	0.43%	2.68E-06	1.29%	4.14E-06	6.60%	3.95E-06	5.94%
APU11	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU2	1.16E-06	0.19%	1.16E-06	0.55%	1.95E-06	3.11%	1.84E-06	2.77%
APU3	3.49E-07	0.06%	3.56E-07	0.17%	7.06E-07	1.13%	6.09E-07	0.92%
APU4	4.28E-06	0.70%	6.65E-06	3.19%	8.91E-06	14.21%	8.52E-06	12.80%
APU5	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU6	2.14E-07	0.03%	2.18E-07	0.10%	3.72E-07	0.59%	3.62E-07	0.54%
APU7	2.89E-07	0.05%	2.96E-07	0.14%	4.97E-07	0.79%	4.85E-07	0.73%
APU8	4.30E-05	7.00%	4.22E-05	20.25%	3.91E-05	62.39%	3.90E-05	58.68%
APU9	2.82E-07	0.05%	2.83E-07	0.14%	4.75E-07	0.76%	4.49E-07	0.67%
GSLDSP	0.00E+00	0.00%	0.00E+00	0.00%	1.12E-06	1.79%	2.30E-06	3.45%
MCH1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.12 8-Hour Non-Cancer Chronic Risk By Emission Source (Flat)

PMI		MEIR		Sensitive		MEIW	
Receptor No.	10105	Receptor No.	10176	Receptor No.	6023	Receptor No.	5736
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510203	3788360	510084	3788384	509086	3788780	509736	3788630
HIC-8	6.79E-04	HIC-8	2.01E-04	HIC-8	8.30E-05	HIC-8	8.70E-05
Target Organ	RESP	Target Organ	RESP	Target Organ	BLOOD	Target Organ	BLOOD

Emission Source	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)	HIC-8	Contribution (%)
219DSL	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
219NG	1.89E-04	27.88%	1.16E-04	57.73%	2.44E-06	2.95%	6.15E-06	70.7%
219PRBBQ	7.47E-07	0.11%	1.97E-08	0.01%	3.04E-10	0.00%	5.67E-10	0.00%
219PRHTR	4.26E-04	62.66%	2.42E-05	12.00%	3.99E-07	0.48%	8.30E-07	0.95%
APU1	2.40E-06	0.35%	2.39E-06	1.19%	4.10E-06	4.94%	3.94E-06	45.3%
APU10	3.49E-06	0.51%	3.56E-06	1.77%	5.52E-06	6.66%	5.27E-06	60.6%
APU11	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU2	1.55E-06	0.23%	1.55E-06	0.77%	2.61E-06	3.15%	2.47E-06	2.84%
APU3	4.59E-07	0.07%	4.68E-07	0.23%	9.38E-07	1.13%	8.05E-07	0.93%
APU4	4.93E-06	0.73%	6.64E-06	3.30%	1.18E-05	14.25%	1.13E-05	12.96%
APU5	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU6	2.87E-07	0.04%	2.92E-07	0.15%	4.98E-07	0.60%	4.84E-07	0.56%
APU7	3.86E-07	0.06%	3.96E-07	0.20%	6.66E-07	0.80%	6.50E-07	0.75%
APU8	4.96E-05	7.31%	4.53E-05	22.49%	5.19E-05	62.66%	5.15E-05	59.26%
APU9	3.78E-07	0.06%	3.79E-07	0.19%	6.37E-07	0.77%	6.01E-07	0.69%
GSLDSP	0.00E+00	0.00%	0.00E+00	0.00%	1.43E-06	1.72%	2.96E-06	3.41%
MCH1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.13 Non-Cancer Acute Risk By TAC (Elevated)

PMI		MEIR		Sensitive		MEIW		PMI (On-Site)	
Receptor No.	11028	Receptor No.	11242	Receptor No.	6023	Receptor No.	5736	Receptor No.	144
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510335	3786693	510422	3788336	509086	3788780	509736	3788630	510286	3786830
HIA	2.47E-01	HIA	1.92E-01	HIA	4.57E-02	HIA	5.68E-02	HIA	5.69E-01
Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN

Pollutant	Pollutant Name	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50000	Formaldehyde	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	2.21E-01	89.66%	1.72E-01	89.67%	4.10E-02	89.67%	5.09E-02	89.67%	5.10E-01	89.66%
75070	Acetaldehyde	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95476	o-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107028	Acrolein	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108383	m-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1634044	Methyl tert-butyl ether	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	2.55E-02	10.34%	1.98E-02	10.33%	4.72E-03	10.33%	5.86E-03	10.33%	5.88E-02	10.34%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7782505	Chlorine	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Please note that the receptor numbering for the on-site non-cancer acute risk analysis is different from the receptor numbering for the other analyses.

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.14 Non-Cancer Acute Risk By TAC (Flat)

PMI		MEIR		Sensitive		MEIW		PMI (On-Site)	
Receptor No.	11030	Receptor No.	11242	Receptor No.	6023	Receptor No.	5736	Receptor No.	144
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510297	3786682	510422	3788336	509086	3788780	509736	3788630	510286	3786830
HIA	3.03E-01	HIA	2.53E-01	HIA	6.09E-02	HIA	7.57E-02	HIA	6.26E-01
Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN

Pollutant	Pollutant Name	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)
1151	PAHs, total, w/o individ. components reported [Treated as B(a)P for HRA]	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
9901	Diesel engine exhaust, particulate matter (Diesel PM)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50000	Formaldehyde	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
71432	Benzene	2.71E-01	89.66%	2.27E-01	89.67%	5.46E-02	89.67%	6.79E-02	89.67%	5.62E-01	89.66%
75070	Acetaldehyde	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
78933	Methyl ethyl ketone (2-Butanone)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91203	Naphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95476	o-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
95636	1,2,4-Trimethylbenzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106990	1,3-Butadiene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107028	Acrolein	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108383	m-Xylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
110543	Hexane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes (mixed)	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1634044	Methyl tert-butyl ether	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7439965	Manganese	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7440020	Nickel	3.13E-02	10.34%	2.61E-02	10.33%	6.30E-03	10.33%	7.82E-03	10.33%	6.47E-02	10.34%
7440508	Copper	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7664417	Ammonia	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
7782505	Chlorine	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Please note that the receptor numbering for the on-site non-cancer acute risk analysis is different from the receptor numbering for the other analyses.

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix F Risk Characterization

Table F.15 Non-Cancer Acute Risk By Emission Source (Elevated)

PMI		MEIR		Sensitive		MEIW		PMI (On-Site)	
Receptor No.	11028	Receptor No.	11242	Receptor No.	6023	Receptor No.	5736	Receptor No.	144
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510335	3786693	510422	3788336	509086	3788780	509736	3788630	510286	3786830
HIA	2.47E-01	HIA	1.92E-01	HIA	4.57E-02	HIA	5.68E-02	HIA	5.69E-01
Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN

Emission Source	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)
219DSL	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
219NG	1.15E-06	0.00%	7.79E-05	0.04%	6.62E-06	0.01%	1.89E-05	0.03%	1.08E-06	0.00%
219PRBBQ	9.52E-11	0.00%	1.53E-08	0.00%	1.30E-09	0.00%	3.96E-09	0.00%	8.74E-11	0.00%
219PRHTR	1.41E-07	0.00%	1.82E-05	0.01%	1.44E-06	0.00%	4.34E-06	0.01%	1.12E-07	0.00%
APU1	5.70E-02	23.11%	7.41E-03	3.86%	5.76E-03	12.59%	6.43E-03	11.32%	4.84E-02	8.50%
APU10	6.60E-04	0.27%	2.45E-03	1.28%	1.24E-03	2.72%	1.69E-03	2.97%	7.10E-04	0.12%
APU11	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU2	2.00E-02	8.10%	7.05E-03	3.68%	5.89E-03	12.89%	6.48E-03	11.42%	1.98E-02	3.47%
APU3	1.52E-03	0.62%	8.98E-03	4.68%	7.05E-03	15.43%	8.33E-03	14.66%	1.79E-03	0.31%
APU4	1.57E-03	0.64%	1.30E-01	67.78%	8.44E-03	18.47%	1.27E-02	22.39%	1.61E-03	0.28%
APU5	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU6	7.04E-02	28.54%	6.93E-03	3.62%	5.20E-03	11.37%	6.05E-03	10.65%	3.45E-01	60.59%
APU7	8.12E-02	32.93%	7.26E-03	3.79%	5.11E-03	11.17%	6.02E-03	10.60%	1.38E-01	24.22%
APU8	2.58E-04	0.10%	1.58E-02	8.26%	2.09E-03	4.57%	3.73E-03	6.57%	3.02E-04	0.05%
APU9	1.41E-02	5.70%	5.73E-03	2.99%	4.91E-03	10.74%	5.29E-03	9.31%	1.39E-02	2.44%
GSLDSP	1.72E-06	0.00%	3.18E-05	0.02%	9.76E-06	0.02%	3.06E-05	0.05%	2.11E-06	0.00%
MCH1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Please note that the receptor numbering for the on-site non-cancer acute risk analysis is different from the receptor numbering for the other analyses.

Snow Summit, LLC (SCAQM Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.16 Non-Cancer Acute Risk By Emission Source (Flat)

PMI		MEIR		Sensitive		MEIW		PMI (On-Site)	
Receptor No.	11030	Receptor No.	11242	Receptor No.	6023	Receptor No.	5736	Receptor No.	144
UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)	UTM E (m)	UTM N (m)
510297	3786682	510422	3788336	509086	3788780	509736	3788630	510286	3786830
HIA	3.03E-01	HIA	2.53E-01	HIA	6.09E-02	HIA	7.57E-02	HIA	6.26E-01
Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN	Target Organ	IMMUN

Emission Source	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)	HIA	Contribution (%)
219DSL	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
219NG	5.27E-06	0.00%	8.11E-05	0.03%	8.64E-06	0.01%	2.37E-05	0.03%	5.99E-06	0.00%
219PRBBQ	8.23E-10	0.00%	1.57E-08	0.00%	1.72E-09	0.00%	4.69E-09	0.00%	9.20E-10	0.00%
219PRHTR	9.70E-07	0.00%	1.88E-05	0.01%	1.89E-06	0.00%	5.23E-06	0.01%	1.09E-06	0.00%
APU1	7.12E-02	23.52%	9.87E-03	3.91%	7.67E-03	12.59%	8.57E-03	11.33%	5.70E-02	9.11%
APU10	4.01E-03	1.32%	3.27E-03	1.29%	1.66E-03	2.72%	2.25E-03	2.97%	4.69E-03	0.75%
APU11	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU2	3.00E-02	9.92%	9.40E-03	3.72%	7.86E-03	12.89%	8.64E-03	11.42%	2.64E-02	4.21%
APU3	1.41E-02	4.67%	1.20E-02	4.74%	9.40E-03	15.43%	1.11E-02	14.67%	1.53E-02	2.44%
APU4	9.41E-03	3.11%	1.71E-01	67.61%	1.13E-02	18.47%	1.69E-02	22.38%	1.05E-02	1.67%
APU5	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
APU6	8.54E-02	28.21%	9.25E-03	3.66%	6.93E-03	11.37%	8.07E-03	10.66%	3.54E-01	56.46%
APU7	6.66E-02	22.00%	9.68E-03	3.83%	6.81E-03	11.17%	8.03E-03	10.60%	1.38E-01	22.04%
APU8	2.18E-03	0.72%	2.06E-02	8.15%	2.79E-03	4.57%	4.97E-03	6.57%	2.36E-03	0.38%
APU9	1.98E-02	6.54%	7.64E-03	3.02%	6.55E-03	10.74%	7.05E-03	9.32%	1.85E-02	2.96%
GSLDSP	6.47E-06	0.00%	4.07E-05	0.02%	1.41E-05	0.02%	4.07E-05	0.05%	6.90E-06	0.00%
MCH1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
MCH3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO1	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO2	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
SOKO3	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Please note that the receptor numbering for the on-site non-cancer acute risk analysis is different from the receptor numbering for the other analyses.

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

					Exposed Population		
					20	Cancer Burden	
						4.79E-05	
Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
1	11203	1000	511871	3791324	0	8.35E-08	0.00E+00
2	11203	1001	511165	3791118	0	9.21E-08	0.00E+00
3	11203	1002	511827	3791081	0	8.82E-08	0.00E+00
4	11203	1003	512190	3790856	1	9.11E-08	0.00E+00
5	11203	1004	511233	3790792	9	9.86E-08	0.00E+00
6	11203	1005	512315	3790873	0	9.02E-08	0.00E+00
7	11203	1006	511741	3790749	16	9.59E-08	0.00E+00
8	11203	1007	510568	3790453	22	1.15E-07	0.00E+00
9	11203	1008	510271	3790306	10	1.25E-07	0.00E+00
10	11203	1009	510686	3790711	0	1.06E-07	0.00E+00
11	11203	1010	510384	3790408	28	1.19E-07	0.00E+00
12	11203	1011	510726	3790733	0	1.05E-07	0.00E+00
13	11203	1012	511674	3790457	12	1.04E-07	0.00E+00
14	11203	1013	511584	3790318	67	1.08E-07	0.00E+00
15	11203	1014	511303	3790585	8	1.03E-07	0.00E+00
16	11203	1015	512101	3790075	23	1.12E-07	0.00E+00
17	11203	1016	511928	3790026	3	1.14E-07	0.00E+00
18	11203	1017	510893	3790659	6	1.05E-07	0.00E+00
19	11203	1018	510817	3790305	6	1.18E-07	0.00E+00
20	11203	1019	512245	3790319	2	1.03E-07	0.00E+00
21	11203	1020	512252	3790191	8	1.07E-07	0.00E+00
22	11203	1021	512131	3789940	12	1.17E-07	0.00E+00
23	11203	1022	512264	3790000	6	1.14E-07	0.00E+00
24	11203	1023	510530	3789975	0	1.40E-07	0.00E+00
25	11203	1024	510124	3790012	2	1.44E-07	0.00E+00
26	11203	1025	510059	3789751	11	1.68E-07	0.00E+00
27	11203	1026	509982	3789740	5	1.70E-07	0.00E+00
28	11203	1027	509293	3790071	35	1.44E-07	0.00E+00
29	11203	1028	509585	3789823	30	1.62E-07	0.00E+00
30	11203	1029	509096	3789877	14	1.53E-07	0.00E+00
31	11203	1030	508882	3790213	11	1.36E-07	0.00E+00
32	11203	1031	509159	3789926	73	1.51E-07	0.00E+00
33	11203	1032	509622	3790027	4	1.47E-07	0.00E+00
34	11203	1033	509340	3789762	27	1.64E-07	0.00E+00
35	11203	1034	509313	3789605	10	1.76E-07	0.00E+00
36	11203	1035	510512	3789542	21	1.82E-07	0.00E+00
37	11203	1036	510059	3789616	0	1.83E-07	0.00E+00
38	11203	1037	510052	3789493	53	2.02E-07	0.00E+00
39	11203	1038	509791	3789550	46	1.92E-07	0.00E+00
40	11203	1039	509490	3789579	6	1.83E-07	0.00E+00
41	11203	1040	509504	3789371	24	2.09E-07	0.00E+00
42	11203	1041	509785	3789437	42	2.09E-07	0.00E+00
43	11203	1042	509594	3789357	12	2.16E-07	0.00E+00
44	11203	1043	509687	3789336	8	2.24E-07	0.00E+00
45	11203	1044	509779	3789314	12	2.32E-07	0.00E+00
46	11203	1045	509872	3789287	9	2.42E-07	0.00E+00
47	11203	1046	510134	3789232	19	2.60E-07	0.00E+00
48	11203	1047	509987	3789228	18	2.62E-07	0.00E+00
49	11203	1048	510103	3789212	15	2.67E-07	0.00E+00
50	11203	1049	510439	3789282	2	2.31E-07	0.00E+00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

					Exposed Population			Cancer Burden
					20			4.79E-05
Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden	
51	11203	1050	509642	3789198	13	2.49E-07	0.00E+00	
52	11203	1051	509456	3789200	0	2.34E-07	0.00E+00	
53	11203	1052	509411	3789355	32	2.07E-07	0.00E+00	
54	11203	1053	509828	3789194	9	2.65E-07	0.00E+00	
55	11203	1054	510836	3789968	9	1.35E-07	0.00E+00	
56	11203	1055	511085	3789934	29	1.32E-07	0.00E+00	
57	11203	1056	511251	3789869	5	1.32E-07	0.00E+00	
58	11203	1057	511428	3789850	28	1.29E-07	0.00E+00	
59	11203	1058	511587	3789842	8	1.26E-07	0.00E+00	
60	11203	1059	511802	3789943	11	1.19E-07	0.00E+00	
61	11203	1060	512223	3789897	8	1.19E-07	0.00E+00	
62	11203	1061	511766	3789819	14	1.25E-07	0.00E+00	
63	11203	1062	511669	3789822	5	1.26E-07	0.00E+00	
64	11203	1063	512114	3789850	6	1.21E-07	0.00E+00	
65	11203	1064	512230	3789847	13	1.21E-07	0.00E+00	
66	11203	1065	512208	3789764	15	1.26E-07	0.00E+00	
67	11203	1066	512055	3789808	22	1.24E-07	0.00E+00	
68	11203	1067	511913	3789823	33	1.24E-07	0.00E+00	
69	11203	1068	509250	3789571	1	1.77E-07	0.00E+00	
70	11203	1069	509803	3789863	4	1.59E-07	0.00E+00	
71	11203	1070	510797	3790903	0	9.97E-08	0.00E+00	
72	11203	2000	511028	3789714	46	1.47E-07	0.00E+00	
73	11203	2001	511076	3789486	21	1.63E-07	0.00E+00	
74	11203	2002	510965	3789447	45	1.72E-07	0.00E+00	
75	11203	2003	511094	3789190	0	1.98E-07	0.00E+00	
76	11203	2004	510778	3789326	0	1.98E-07	0.00E+00	
77	11203	2005	510853	3788934	46	2.81E-07	0.00E+00	
78	11203	2006	510659	3789014	9	2.82E-07	0.00E+00	
79	11203	2007	510749	3789008	16	2.70E-07	0.00E+00	
80	11203	2008	510652	3789180	0	2.36E-07	0.00E+00	
81	11203	2009	510395	3789092	0	2.94E-07	0.00E+00	
82	11203	2010	510095	3789091	31	3.15E-07	0.00E+00	
83	11203	2011	510010	3788907	11	4.32E-07	0.00E+00	
84	11203	2012	510137	3788882	12	4.61E-07	0.00E+00	
85	11203	2013	510234	3788926	21	4.11E-07	0.00E+00	
86	11203	2014	510300	3788886	69	4.33E-07	0.00E+00	
87	11203	2015	510371	3788805	4	4.91E-07	0.00E+00	
88	11203	2016	510420	3788936	10	3.67E-07	0.00E+00	
89	11203	2017	510483	3788879	5	3.87E-07	0.00E+00	
90	11203	2018	510600	3788600	15	6.71E-07	0.00E+00	
91	11203	2019	511148	3788626	69	4.52E-07	0.00E+00	
92	11203	2020	511095	3788804	12	3.15E-07	0.00E+00	
93	11203	2021	510229	3788653	29	8.50E-07	0.00E+00	
94	11203	2022	510099	3788609	3	1.06E-06	3.17E-06	
95	11203	2023	509966	3788680	10	7.43E-07	0.00E+00	
96	11203	2024	509660	3788606	56	6.12E-07	0.00E+00	
97	11203	2025	510090	3788460	9	2.29E-06	2.06E-05	
98	11203	2026	510925	3788390	8	9.66E-07	0.00E+00	
99	11203	2027	510460	3788420	2	1.88E-06	3.75E-06	
100	11203	2028	510294	3788620	0	8.93E-07	0.00E+00	

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

					Exposed Population		
					20	Cancer Burden	
						4.79E-05	
Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
101	11203	2029	510365	3788663	7	7.09E-07	0.00E+00
102	11203	2030	510405	3788559	5	9.52E-07	0.00E+00
103	11203	2031	510482	3788556	3	8.84E-07	0.00E+00
104	11203	2032	510085	3788351	0	3.88E-06	0.00E+00
105	11203	2033	510080	3788390	6	3.39E-06	2.04E-05
106	11203	2034	511360	3788310	0	7.79E-07	0.00E+00
107	11203	2035	511536	3788376	0	6.66E-07	0.00E+00
108	11203	2036	509912	3788331	0	2.98E-06	0.00E+00
109	11204	1000	513556	3787985	23	4.62E-07	0.00E+00
110	11204	1001	513264	3787920	14	4.91E-07	0.00E+00
111	11204	1002	513444	3787901	22	4.74E-07	0.00E+00
112	11204	1003	513108	3787944	18	5.07E-07	0.00E+00
113	11204	1004	513919	3787834	0	4.34E-07	0.00E+00
114	11204	1005	513983	3787733	7	4.27E-07	0.00E+00
115	11204	1008	513024	3787746	20	4.96E-07	0.00E+00
116	11204	1009	513126	3787752	8	4.90E-07	0.00E+00
117	11204	1014	513831	3787613	5	4.30E-07	0.00E+00
118	11204	1015	513712	3787488	12	4.22E-07	0.00E+00
119	11204	1016	513706	3787589	6	4.34E-07	0.00E+00
120	11204	1017	513272	3787689	36	4.72E-07	0.00E+00
121	11204	1018	513458	3787293	16	3.96E-07	0.00E+00
122	11204	1019	513167	3787649	3	4.71E-07	0.00E+00
123	11204	1020	513296	3787422	13	4.23E-07	0.00E+00
124	11204	1021	512784	3787284	11	3.84E-07	0.00E+00
125	11204	1022	512476	3787678	16	4.96E-07	0.00E+00
126	11204	1023	512433	3787458	4	4.18E-07	0.00E+00
127	11204	1024	512467	3787837	6	5.45E-07	0.00E+00
128	11204	1025	512422	3787907	4	5.64E-07	0.00E+00
129	11204	1026	512381	3787493	1	4.27E-07	0.00E+00
130	11204	1027	512386	3787995	1	5.82E-07	0.00E+00
131	11204	1028	513538	3787154	12	3.69E-07	0.00E+00
132	11204	2000	512930	3788510	35	4.14E-07	0.00E+00
133	11204	2001	513003	3788654	2	3.55E-07	0.00E+00
134	11204	2002	512583	3788922	4	2.58E-07	0.00E+00
135	11204	2003	512746	3788589	19	3.92E-07	0.00E+00
136	11204	2004	513279	3788344	13	4.38E-07	0.00E+00
137	11204	2005	513711	3788116	20	4.37E-07	0.00E+00
138	11204	2006	513409	3788437	8	4.02E-07	0.00E+00
139	11204	2008	512911	3788379	15	4.62E-07	0.00E+00
140	11204	2009	512563	3788152	20	5.58E-07	0.00E+00
141	11204	2010	512134	3788530	8	4.60E-07	0.00E+00
142	11204	2011	512162	3788457	7	5.03E-07	0.00E+00
143	11204	2012	512761	3788150	4	5.33E-07	0.00E+00
144	11204	2013	512771	3788397	8	4.69E-07	0.00E+00
145	11204	2014	512755	3787712	4	5.01E-07	0.00E+00
146	11204	2015	512189	3788385	3	5.39E-07	0.00E+00
147	11204	2016	512667	3788394	17	4.80E-07	0.00E+00
148	11204	2017	512450	3788605	16	3.98E-07	0.00E+00
149	11204	2018	511887	3788858	2	2.75E-07	0.00E+00
150	11204	2019	511646	3788862	5	2.71E-07	0.00E+00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

Exposed Population	Cancer Burden
20	4.79E-05

Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
151	11204	2020	511878	3788804	10	3.00E-07	0.00E+00
152	11204	2021	511944	3788340	0	6.03E-07	0.00E+00
153	11204	2022	511644	3788390	30	6.29E-07	0.00E+00
154	11204	2023	511641	3788462	2	5.67E-07	0.00E+00
155	11204	2024	511640	3788535	10	4.99E-07	0.00E+00
156	11204	2025	511637	3788608	14	4.33E-07	0.00E+00
157	11204	2026	511635	3788681	19	3.75E-07	0.00E+00
158	11204	2027	511626	3788749	3	3.29E-07	0.00E+00
159	11204	2028	511641	3788806	8	2.97E-07	0.00E+00
160	11204	2029	511812	3788754	6	3.27E-07	0.00E+00
161	11204	2030	511979	3788693	46	3.62E-07	0.00E+00
162	11204	2031	511816	3788534	10	4.85E-07	0.00E+00
163	11204	2032	511813	3788607	12	4.27E-07	0.00E+00
164	11204	2033	511811	3788680	11	3.74E-07	0.00E+00
165	11204	2034	512013	3788605	6	4.18E-07	0.00E+00
166	11204	2035	511999	3788533	21	4.70E-07	0.00E+00
167	11204	2036	512003	3788460	2	5.20E-07	0.00E+00
168	11204	2037	511818	3788461	9	5.44E-07	0.00E+00
169	11204	2038	511819	3788389	12	5.97E-07	0.00E+00
170	11204	2039	512000	3788389	5	5.65E-07	0.00E+00
171	11204	2040	512575	3788602	20	3.94E-07	0.00E+00
172	11204	3000	512210	3789591	11	1.37E-07	0.00E+00
173	11204	3001	512061	3789614	16	1.35E-07	0.00E+00
174	11204	3002	511804	3789520	95	1.44E-07	0.00E+00
175	11204	3003	511902	3789371	17	1.57E-07	0.00E+00
176	11204	3004	511587	3789598	6	1.40E-07	0.00E+00
177	11204	3005	511505	3789547	21	1.45E-07	0.00E+00
178	11204	3006	511350	3789548	43	1.49E-07	0.00E+00
179	11204	3007	511202	3789553	6	1.53E-07	0.00E+00
180	11204	3008	511241	3789473	8	1.58E-07	0.00E+00
181	11204	3009	511854	3789125	30	1.93E-07	0.00E+00
182	11204	3010	511966	3789218	15	1.77E-07	0.00E+00
183	11204	3011	512014	3789380	30	1.56E-07	0.00E+00
184	11204	3012	512097	3789405	18	1.53E-07	0.00E+00
185	11204	3013	512200	3789124	14	1.97E-07	0.00E+00
186	11204	3014	511581	3789234	7	1.76E-07	0.00E+00
187	11204	3015	511666	3789359	28	1.60E-07	0.00E+00
188	11204	3016	511723	3789046	23	2.11E-07	0.00E+00
189	11204	3017	511350	3789194	47	1.87E-07	0.00E+00
190	11204	3018	511406	3789262	5	1.76E-07	0.00E+00
191	11204	3019	512325	3789051	7	2.16E-07	0.00E+00
192	11204	3020	512253	3789053	3	2.15E-07	0.00E+00
193	11204	3021	512090	3789020	14	2.21E-07	0.00E+00
194	11204	3022	512174	3788931	18	2.50E-07	0.00E+00
195	11204	3023	512396	3788942	0	2.49E-07	0.00E+00
196	11204	3024	512442	3788911	5	2.61E-07	0.00E+00
197	11204	3025	512258	3788834	10	2.89E-07	0.00E+00
198	11204	3026	512313	3788763	15	3.21E-07	0.00E+00
199	11204	3027	512619	3788786	22	3.10E-07	0.00E+00
200	11204	3028	511811	3788977	5	2.30E-07	0.00E+00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

Exposed Population	Cancer Burden
20	4.79E-05

Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
201	11205	1000	508253	3789464	0	2.60E-07	0.00E+00
202	11205	1001	508047	3789256	6	4.45E-07	0.00E+00
203	11205	1002	508120	3788975	0	5.77E-07	0.00E+00
204	11205	1003	508228	3789124	7	4.66E-07	0.00E+00
205	11205	1004	508228	3789019	5	5.29E-07	0.00E+00
206	11205	1005	508231	3788866	20	5.76E-07	0.00E+00
207	11205	1006	508026	3788885	11	6.02E-07	0.00E+00
208	11205	1007	507941	3789089	10	5.79E-07	0.00E+00
209	11205	1008	507869	3789087	5	6.00E-07	0.00E+00
210	11205	1009	507742	3789159	2	6.05E-07	0.00E+00
211	11205	1010	507528	3789108	0	6.68E-07	0.00E+00
212	11205	1011	507323	3789110	0	6.97E-07	0.00E+00
213	11205	1012	507259	3789046	9	6.93E-07	0.00E+00
214	11205	1013	507371	3788950	0	6.60E-07	0.00E+00
215	11205	1014	507516	3788989	1	6.65E-07	0.00E+00
216	11205	1015	507694	3788984	0	6.47E-07	0.00E+00
217	11205	1016	507790	3789057	7	6.27E-07	0.00E+00
218	11205	1017	507868	3788889	2	6.16E-07	0.00E+00
219	11205	1018	507801	3788706	2	5.28E-07	0.00E+00
220	11205	1019	507708	3788452	22	3.54E-07	0.00E+00
221	11205	1020	507218	3788790	2	5.67E-07	0.00E+00
222	11205	1021	507840	3788402	15	3.28E-07	0.00E+00
223	11205	1022	507299	3788855	14	6.13E-07	0.00E+00
224	11205	1023	508025	3788095	17	2.38E-07	0.00E+00
225	11205	1024	508232	3788429	31	3.55E-07	0.00E+00
226	11205	1025	507184	3788657	2	4.75E-07	0.00E+00
227	11205	1026	508060	3788443	113	3.56E-07	0.00E+00
228	11205	1027	508181	3788657	23	5.08E-07	0.00E+00
229	11205	1028	507199	3788898	1	6.32E-07	0.00E+00
230	11205	1029	508034	3789089	0	5.52E-07	0.00E+00
231	11205	2000	509094	3789563	0	1.75E-07	0.00E+00
232	11205	2001	508572	3789383	72	2.27E-07	0.00E+00
233	11205	2002	508725	3789341	1	2.20E-07	0.00E+00
234	11205	2003	508524	3789248	46	2.88E-07	0.00E+00
235	11205	2004	508485	3789336	80	2.59E-07	0.00E+00
236	11205	2005	508489	3789206	4	3.21E-07	0.00E+00
237	11205	2006	508522	3789290	10	2.70E-07	0.00E+00
238	11205	2007	508450	3789277	45	2.94E-07	0.00E+00
239	11205	2008	508919	3789479	9	1.87E-07	0.00E+00
240	11205	2009	509011	3789468	14	1.86E-07	0.00E+00
241	11205	2010	509107	3789443	9	1.88E-07	0.00E+00
242	11205	2011	509214	3789428	2	1.91E-07	0.00E+00
243	11205	2012	509313	3789428	13	1.94E-07	0.00E+00
244	11205	2013	509313	3789275	28	2.14E-07	0.00E+00
245	11205	2014	509212	3789276	17	2.12E-07	0.00E+00
246	11205	2015	509110	3789279	16	2.12E-07	0.00E+00
247	11205	2016	509012	3789280	12	2.14E-07	0.00E+00
248	11205	2017	508918	3789283	24	2.18E-07	0.00E+00
249	11205	2018	508807	3789271	12	2.29E-07	0.00E+00
250	11205	2019	508779	3789377	1	2.08E-07	0.00E+00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

					Exposed Population			Cancer Burden
					20			4.79E-05
Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden	
251	11205	2020	508752	3789374	0	2.11E-07	0.00E+00	
252	11205	2021	508682	3788871	120	4.77E-07	0.00E+00	
253	11205	2022	508773	3789060	20	3.22E-07	0.00E+00	
254	11205	2023	508546	3789133	14	3.46E-07	0.00E+00	
255	11205	2024	508372	3789115	14	4.19E-07	0.00E+00	
256	11205	2025	508452	3788905	36	5.22E-07	0.00E+00	
257	11205	2026	508513	3789040	3	4.20E-07	0.00E+00	
258	11205	2027	508531	3788906	2	5.00E-07	0.00E+00	
259	11205	2028	508675	3788582	15	4.91E-07	0.00E+00	
260	11205	2029	508591	3788641	16	5.15E-07	0.00E+00	
261	11205	2030	508914	3788596	11	5.20E-07	0.00E+00	
262	11205	2031	508919	3788902	74	3.84E-07	0.00E+00	
263	11205	2032	508864	3789022	0	3.21E-07	0.00E+00	
264	11205	2033	508983	3788850	4	4.05E-07	0.00E+00	
265	11205	2034	508834	3789117	2	2.78E-07	0.00E+00	
266	11205	2035	508399	3788637	11	5.05E-07	0.00E+00	
267	11205	2036	508514	3788557	0	4.61E-07	0.00E+00	
268	11205	2037	508554	3788422	5	3.71E-07	0.00E+00	
269	11205	2038	508435	3788337	0	3.14E-07	0.00E+00	
270	11205	2039	508914	3788475	3	4.56E-07	0.00E+00	
271	11205	2040	509136	3788537	35	5.40E-07	0.00E+00	
272	11205	2041	509089	3788960	4	3.09E-07	0.00E+00	
273	11205	2042	509214	3788953	16	2.99E-07	0.00E+00	
274	11205	2043	509391	3789000	24	2.81E-07	0.00E+00	
275	11205	2044	509587	3789100	2	2.68E-07	0.00E+00	
276	11205	2045	509771	3789093	8	2.93E-07	0.00E+00	
277	11205	2046	509734	3788989	27	3.29E-07	0.00E+00	
278	11205	2047	509734	3788897	8	3.76E-07	0.00E+00	
279	11205	2048	508911	3788377	4	3.86E-07	0.00E+00	
280	11205	2049	509351	3788531	19	6.00E-07	0.00E+00	
281	11206	2000	506770	3789639	22	6.31E-07	0.00E+00	
282	11206	2001	506473	3789478	9	7.54E-07	0.00E+00	
283	11206	2002	506815	3789457	7	7.04E-07	0.00E+00	
284	11206	2004	507071	3789032	38	6.90E-07	0.00E+00	
285	11206	2005	506969	3789107	6	7.13E-07	0.00E+00	
286	11206	2006	507033	3789107	6	7.12E-07	0.00E+00	
287	11206	2007	507003	3789029	6	6.88E-07	0.00E+00	
288	11206	2008	506989	3788840	5	5.87E-07	0.00E+00	
289	11206	2009	507099	3789315	3	6.97E-07	0.00E+00	
290	11206	2010	506850	3789254	7	7.37E-07	0.00E+00	
291	11206	2011	506704	3789297	65	7.49E-07	0.00E+00	
292	11206	2012	506598	3789325	4	7.57E-07	0.00E+00	
293	11206	2013	506510	3789296	23	7.61E-07	0.00E+00	
294	11206	2027	506605	3788882	46	5.93E-07	0.00E+00	
295	11206	2028	506491	3788899	12	5.97E-07	0.00E+00	
296	11206	2029	506475	3789040	3	6.77E-07	0.00E+00	
297	11206	2030	506463	3789266	7	7.58E-07	0.00E+00	
298	11206	2031	506728	3788907	21	6.14E-07	0.00E+00	
299	11206	2032	506908	3788907	12	6.24E-07	0.00E+00	
300	11206	2033	506904	3788974	11	6.60E-07	0.00E+00	

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

					Exposed Population			Cancer Burden
					20			4.79E-05
Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden	
301	11206	2034	506844	3789090	1	7.09E-07	0.00E+00	
302	11206	2035	506908	3789093	3	7.10E-07	0.00E+00	
303	11206	2036	506651	3788733	1	5.00E-07	0.00E+00	
304	11206	2037	506680	3788640	10	4.45E-07	0.00E+00	
305	11206	2038	506751	3788715	22	4.93E-07	0.00E+00	
306	11206	2039	506588	3788590	45	4.15E-07	0.00E+00	
307	11206	2045	506915	3788639	57	4.52E-07	0.00E+00	
308	11206	2046	506930	3788750	10	5.25E-07	0.00E+00	
309	11206	2047	506838	3788841	6	5.79E-07	0.00E+00	
310	11206	2048	506727	3788821	5	5.60E-07	0.00E+00	
311	11206	2049	506557	3788451	16	3.48E-07	0.00E+00	
312	11206	2050	506341	3788613	16	4.21E-07	0.00E+00	
313	11206	2058	506181	3788562	9	3.94E-07	0.00E+00	
314	11206	2060	506629	3789239	5	7.49E-07	0.00E+00	
315	11206	2061	506966	3788464	14	3.56E-07	0.00E+00	
316	11300	1124	509780	3790738	0	1.14E-07	0.00E+00	
317	11300	1125	510666	3790890	0	1.01E-07	0.00E+00	
318	11300	1126	510690	3790860	0	1.02E-07	0.00E+00	
319	11300	1128	507828	3789623	0	3.04E-07	0.00E+00	
320	11300	1129	507607	3789270	0	5.92E-07	0.00E+00	
321	11300	1130	507222	3789324	0	6.70E-07	0.00E+00	
322	11300	1131	507528	3789199	0	6.46E-07	0.00E+00	
323	11300	2077	510620	3791555	0	8.70E-08	0.00E+00	
324	11300	2078	511425	3791462	4	8.39E-08	0.00E+00	
325	11300	2079	509180	3791844	0	9.18E-08	0.00E+00	
326	11300	2080	511983	3791669	0	7.78E-08	0.00E+00	
327	11300	2081	510840	3791564	0	8.61E-08	0.00E+00	
328	11300	2082	509202	3791531	0	9.75E-08	0.00E+00	
329	11300	2084	509785	3791553	0	9.42E-08	0.00E+00	
330	11300	2085	509791	3791647	0	9.23E-08	0.00E+00	
331	11300	2086	510737	3791395	5	8.96E-08	0.00E+00	
332	11300	2087	512182	3791717	0	7.66E-08	0.00E+00	
333	11300	2088	510997	3791450	0	8.71E-08	0.00E+00	
334	11300	2089	510024	3791447	0	9.44E-08	0.00E+00	
335	11300	2090	512148	3791636	0	7.78E-08	0.00E+00	
336	11300	2091	508212	3791387	0	1.06E-07	0.00E+00	
337	11300	2092	507935	3791327	0	1.07E-07	0.00E+00	
338	11300	2101	511716	3791508	12	8.13E-08	0.00E+00	
339	11300	2102	511534	3791424	9	8.38E-08	0.00E+00	
340	11300	2103	512180	3791605	0	7.82E-08	0.00E+00	
341	11300	2104	512148	3791609	0	7.82E-08	0.00E+00	
342	11300	2105	512165	3791525	0	7.94E-08	0.00E+00	
343	11300	2106	512318	3791575	0	7.84E-08	0.00E+00	
344	11300	2107	512234	3791644	0	7.75E-08	0.00E+00	
345	11300	2108	510462	3791157	0	9.58E-08	0.00E+00	
346	11300	2109	509758	3791239	0	1.01E-07	0.00E+00	
347	11300	2110	508628	3791133	0	1.09E-07	0.00E+00	
348	11300	2111	507802	3791097	0	1.13E-07	0.00E+00	
349	11300	2112	508000	3791067	0	1.12E-07	0.00E+00	
350	11300	2113	508041	3791047	0	1.13E-07	0.00E+00	

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

Exposed Population	Cancer Burden
20	4.79E-05

Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
351	11300	2114	507959	3791091	0	1.12E-07	0.00E+00
352	11300	2115	508130	3791065	0	1.12E-07	0.00E+00
353	11300	2119	507394	3791059	0	1.23E-07	0.00E+00
354	11300	2120	507540	3791124	0	1.16E-07	0.00E+00
355	11300	2121	510843	3791230	14	9.22E-08	0.00E+00
356	11300	2125	511160	3791534	0	8.46E-08	0.00E+00
357	11401	1017	512417	3791533	17	7.89E-08	0.00E+00
358	11401	1030	512365	3791401	0	8.10E-08	0.00E+00
359	11401	2014	512595	3791228	46	8.31E-08	0.00E+00
360	11401	2020	512749	3791228	34	8.24E-08	0.00E+00
361	11401	2038	512882	3791154	23	8.27E-08	0.00E+00
362	11401	2039	512750	3791154	17	8.34E-08	0.00E+00
363	11401	2040	512594	3791155	41	8.41E-08	0.00E+00
364	11401	2041	512413	3791157	57	8.48E-08	0.00E+00
365	11401	2042	512411	3791229	33	8.37E-08	0.00E+00
366	11401	2043	512595	3791082	20	8.52E-08	0.00E+00
367	11401	2044	512750	3791080	10	8.44E-08	0.00E+00
368	11401	2045	512884	3791080	2	8.38E-08	0.00E+00
369	11401	2048	512413	3791084	23	8.60E-08	0.00E+00
370	11401	3003	513260	3790734	3	9.02E-08	0.00E+00
371	11401	3004	513579	3790190	29	1.08E-07	0.00E+00
372	11401	3005	512630	3790356	0	1.01E-07	0.00E+00
373	11401	3006	513414	3790480	12	9.73E-08	0.00E+00
374	11401	3007	512663	3789964	0	1.16E-07	0.00E+00
375	11401	3008	513073	3790754	30	8.96E-08	0.00E+00
376	11401	3009	512884	3790707	8	9.08E-08	0.00E+00
377	11401	3010	513027	3790508	16	9.61E-08	0.00E+00
378	11401	3011	512821	3790551	48	9.48E-08	0.00E+00
379	11401	3012	512931	3790461	24	9.74E-08	0.00E+00
380	11401	3013	512531	3790634	9	9.34E-08	0.00E+00
381	11401	3014	512506	3790708	22	9.20E-08	0.00E+00
382	11401	3015	512751	3790706	13	9.11E-08	0.00E+00
383	11401	3016	512531	3790485	46	9.70E-08	0.00E+00
384	11401	3017	512425	3790362	33	1.01E-07	0.00E+00
385	11401	3018	512326	3790164	12	1.08E-07	0.00E+00
386	11401	3019	512424	3789972	13	1.15E-07	0.00E+00
387	11401	3020	513702	3789279	84	1.85E-07	0.00E+00
388	11401	3021	512449	3789085	13	2.10E-07	0.00E+00
389	11401	3022	512947	3788862	5	2.81E-07	0.00E+00
390	11401	3023	512554	3789022	2	2.28E-07	0.00E+00
391	11401	3024	512261	3789327	17	1.64E-07	0.00E+00
392	11401	3025	512161	3789274	18	1.70E-07	0.00E+00
393	11401	3026	512641	3790557	0	9.48E-08	0.00E+00
394	11401	3028	513705	3788520	23	3.61E-07	0.00E+00
395	11401	3029	513408	3788815	2	2.89E-07	0.00E+00
396	11401	3030	513326	3788683	23	3.33E-07	0.00E+00
397	11401	3031	513132	3788509	8	4.01E-07	0.00E+00
398	11401	3032	513026	3789029	3	2.32E-07	0.00E+00
399	11401	3033	513067	3788855	4	2.82E-07	0.00E+00
400	11401	3040	513949	3788259	0	3.97E-07	0.00E+00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021

Appendix F Risk Characterization

Table F.17 Cancer Burden

Exposed Population	Cancer Burden
20	4.79E-05

Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
401	11401	3041	514092	3788121	14	4.04E-07	0.00E+00
402	11401	3042	512417	3789022	0	2.25E-07	0.00E+00
403	11401	4033	513006	3790826	28	8.80E-08	0.00E+00
404	11401	4034	513065	3790892	18	8.66E-08	0.00E+00
405	11401	4035	512887	3791008	11	8.49E-08	0.00E+00
406	11401	4036	512751	3791008	12	8.55E-08	0.00E+00
407	11401	4037	512593	3791009	10	8.63E-08	0.00E+00
408	11401	4038	512414	3791011	13	8.72E-08	0.00E+00
409	11401	4039	512414	3790936	26	8.85E-08	0.00E+00
410	11401	4040	512594	3790936	10	8.74E-08	0.00E+00
411	11401	4041	512752	3790935	16	8.66E-08	0.00E+00
412	11401	4042	512885	3790934	15	8.62E-08	0.00E+00
413	11401	4043	512885	3790861	21	8.75E-08	0.00E+00
414	11401	4044	512751	3790862	11	8.79E-08	0.00E+00
415	11401	4045	512592	3790863	19	8.87E-08	0.00E+00
416	11401	4046	512415	3790864	16	8.97E-08	0.00E+00
417	11401	4047	512414	3790791	19	9.10E-08	0.00E+00
418	11401	4048	512593	3790791	13	8.99E-08	0.00E+00
419	11401	4049	512750	3790790	9	8.93E-08	0.00E+00
420	11401	4050	512884	3790789	18	8.90E-08	0.00E+00
421	11401	4069	513260	3790788	9	8.89E-08	0.00E+00
422	11500	2028	512497	3786589	0	2.50E-07	0.00E+00
423	11500	2029	512632	3786905	0	2.95E-07	0.00E+00
424	11500	2030	511874	3786511	0	2.24E-07	0.00E+00
425	11500	2031	510935	3787694	17	4.51E-07	0.00E+00
426	11500	2032	510286	3788335	0	5.56E-06	0.00E+00
427	11500	2033	512257	3787370	0	3.76E-07	0.00E+00
428	11500	2034	510629	3788233	0	2.18E-06	0.00E+00
429	11500	2035	510633	3788183	0	1.91E-06	0.00E+00
430	11500	2036	509212	3787965	0	3.17E-07	0.00E+00
431	11500	2037	509259	3788279	0	4.15E-07	0.00E+00
432	11500	2038	509676	3788273	0	8.52E-07	0.00E+00
433	11500	2039	507881	3787456	0	2.42E-07	0.00E+00
434	11500	2040	506770	3787535	0	2.07E-07	0.00E+00
435	11500	2041	508321	3788339	0	3.09E-07	0.00E+00
436	11500	2043	506461	3786818	0	1.35E-07	0.00E+00
437	11500	2057	506348	3788231	0	2.82E-07	0.00E+00
438	11500	2058	506395	3788353	0	3.14E-07	0.00E+00
439	11500	2059	506294	3788191	0	2.73E-07	0.00E+00
440	11500	2060	506435	3788233	0	2.82E-07	0.00E+00
441	11500	2061	506390	3788245	0	2.84E-07	0.00E+00
442	11500	2062	506181	3788332	0	3.08E-07	0.00E+00
443	11500	2063	506542	3788330	2	3.06E-07	0.00E+00
444	11500	2064	507056	3787968	0	2.40E-07	0.00E+00
445	11500	2065	506514	3788135	0	2.62E-07	0.00E+00
446	11500	2067	506415	3787281	0	1.72E-07	0.00E+00
447	11500	2068	506504	3787734	0	2.19E-07	0.00E+00
448	11500	2069	506430	3787822	0	2.26E-07	0.00E+00
449	11500	2089	508939	3785745	0	1.07E-07	0.00E+00
450	11500	2090	509966	3785172	0	9.14E-08	0.00E+00

Snow Summit, LLC (SCAQMD Facility ID 185352) - AB2588 Health Risk Assessment for Calendar Year 2021
Appendix F Risk Characterization

Table F.17 Cancer Burden

Exposed Population	Cancer Burden
20	4.79E-05

Receptor No.	Track No	Block No	X (m)	Y (m)	Population	Cancer Risk	Cancer Burden
451	11500	2091	510800	3786881	0	2.63E-07	0.00E+00
452	11500	2096	511132	3784803	0	8.71E-08	0.00E+00
453	11500	2101	512093	3785491	0	1.25E-07	0.00E+00
454	11500	2224	509437	3787050	0	2.63E-07	0.00E+00
455	11500	2225	508318	3786825	0	2.00E-07	0.00E+00

APPENDIX G – SCAQMD CORRESPONDENCE



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Via Email and Certified Mail with return receipt

August 17, 2022

Mr. Mark Burnett
Snow Summit, LLC
P.O. Box 77
Big Bear Lake, CA 92315

Subject: Notice to Prepare Air Toxics Inventory Report or Voluntary Risk Reduction Plan for
Snow Summit, LLC (South Coast AQMD ID# **185352**)

Dear Mr. Burnett:

In accordance with the State of California's Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) and South Coast Air Quality Management District (South Coast AQMD) Rule 1402, Snow Summit, LLC is required to prepare either an Air Toxics Inventory Report (ATIR) or a Voluntary Risk Reduction Plan (VRRP) for your facility. Either an ATIR or VRRP is required due to Snow Summit, LLC's facility located at 880 Summit Blvd. in the city of Big Bear Lake having a priority score greater than 10 (see attached) based on its most recent AB 2588 quadrennial emissions report from 2021. Please review your reported emissions for accuracy and provide us with any modifications by **September 16, 2022**.

There have been changes to Rule 1402 that affect implementation of AB 2588 in South Coast AQMD. First, in March 2015, the Office of Environmental Health Hazard Assessment (OEHHA) approved new Health Risk Assessment (HRA) Guidelines that yield higher cancer risks to children. This change results in an approximate three-fold increase in residential cancer risk, even at the same emissions level. Following OEHHA's update, Rule 1402 was amended in June 2015 to incorporate the Revised OEHHA Guidelines for estimating health risk. In addition, in October 2016, Rule 1402 was amended to include a new Voluntary Risk Reduction Program, amongst other changes.¹ This program is available to facilities that are not determined to be a Potentially High Risk Level facility as defined under Rule 1402. Eligible facilities must also have a previously approved AB 2588 HRA. Because your facility meets both requirements, you are eligible to participate in the Voluntary Risk Reduction Program if you choose to do so. In order to ensure that the most up-to-date inventory is used, and to comply with the most current amendments of Rule 1402, your facility has two options to comply with Rule 1402 as outlined below.

¹ Rule 1402 can be viewed here:

<http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1402.pdf>

Option 1: Prepare an ATIR

In accordance with AB 2588 and Rule 1402, under this option Snow Summit, LLC is required to prepare a detailed ATIR for your facility based on the most current quadrennial emission inventory submitted in 2021.

Guidelines for Preparing the ATIR

Pursuant to the most recent amendments to Rule 1402(d)(1), your facility under this option is required to submit the **Initial Information** for a 2021 ATIR to South Coast AQMD within thirty (30) days of the date of this letter, or **September 16, 2022**. The Initial Information should include a list of device(s) or process(es) to be included in the detailed ATIR and their corresponding toxic pollutants and Reference Sources for each emission factor².

Your facility is required to submit a **detailed 2021 ATIR** to South Coast AQMD within one hundred fifty (150) days of the date of this letter, or **January 17, 2023**. In your detailed ATIR, you must include all TAC emissions from your facility that are listed in Appendix A of the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (March 2015)*. This document can be obtained at the following link:

<http://oehha.ca.gov/air/crn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

Be aware that diesel exhaust particulate is a carcinogen so any particulate emissions from emergency, portable, and prime compression ignition internal combustion engines must be included in the ATIR. Please also include a signed copy of the AB 2588 Air Toxics Document Certification & Application Form (see attachment) along with your ATIR submittal.

The California Air Resources Board (CARB) has developed the “Hot Spots” Analysis and Reporting Program (HARP) which includes the emissions inventory and risk assessment requirements of the “Hot Spots” Program into a set of program modules. Your ATIR must include an electronic file in the Emission Inventory Module (EIM) format. You may obtain a free copy of the HARP software from the following link:

<http://www.arb.ca.gov/toxics/harp/harp.htm>.

CARB has provided source testing requirements in Appendix D of their Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program. Any source test that must be conducted as part of this ATIR may be submitted after the **January 17, 2023** due date pursuant to Rule 1402(d)(2)(B). You may obtain a copy of CARB’s document from the following link:

<https://www.arb.ca.gov/ab2588/2588guid.htm>

You are required to submit your detailed ATIR using the HARP software and in accordance with the South Coast AQMD’s *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics “Hot Spots” Information and Assessment Act*. This document can be obtained at the following link:

² Template: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/template-for-emission-factors-reference-sources-table.xlsx>

<http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf>

You are not being asked to prepare an HRA at this time. After approving the ATIR, South Coast AQMD staff will notify you if you need to prepare an HRA. You would then have 90 days after the notification date to prepare and submit an HRA pursuant to Rule 1402(e)(1). If you are required to prepare an HRA, you should be aware that data from new or yet to be completed source tests or use of other emissions information affecting emission factors, control efficiencies, etc. will not be approved for use in the preparation of the required HRA if an ATIR has already been approved without the use of those source tests.

Option 2: Voluntary Risk Reduction Program

Pursuant to Rule 1402(h), Snow Summit, LLC. may elect to participate in the Voluntary Risk Reduction Program. Under this program, you must submit a VRRP to reduce your facility-wide health risk below the Voluntary Risk Reduction Thresholds of either a maximum individual cancer risk (MICR) of ten in one million (10×10^{-6}), a total acute or chronic hazard index (HI) of one (1.0) for any target organ system at any receptor location, or the more stringent of either the National Ambient Air Quality Standard (NAAQS) for lead or applicable ambient lead concentration limit in a South Coast AQMD rule. Facilities participating in the Voluntary Risk Reduction Program would be included in a modified public notification where no public meetings or written letters are required. You may read about the Voluntary Risk Reduction Program and Public Notification Procedures at the following links, respectively:

<http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-vrrp-guidelines-201809.pdf>

http://www.aqmd.gov/docs/default-source/planning/risk-assessment/pn_procedures.pdf

If you choose to participate in the Voluntary Risk Reduction Program, you must do the following:

- 1) Notify the South Coast AQMD of your intention to participate in the Voluntary Risk Reduction Program in writing within 30 days of this letter, or by **September 16, 2022**;
- 2) Submit a **Voluntary Risk Reduction Plan** within 150 days of this letter including all emission inventory calculations required for facility risk characterization, or by **January 17, 2023**.
- 3) Complete Risk Reduction within two and a half years from the date that the Voluntary Risk Reduction Plan is approved; and
- 4) Submit an **Annual Progress Report** until risk reduction is achieved.

Process for Reviewing and Approving the ATIR or VRRP

If your facility elects to provide an ATIR, within 30 days of receipt of the ATIR, the Executive Officer will confirm receipt in writing and conduct an initial review of the ATIR. The Executive Officer will approve or reject the ATIR and notify the owner or operator after a complete review. If your facility is required to prepare an HRA, you will have 90 days from the date of notification by South Coast AQMD staff to submit an HRA.

If your facility elects to participate in the VRRP, within 30 days of receipt, the Executive Officer will conduct an initial review of the VRRP and confirm receipt. The Executive Officer will approve

or reject the VRRP based on whether the plan was prepared consistent with the most current version of “South Coast AQMD Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program”. All approved VRRPs are subject to South Coast AQMD Rule 221 – Plans.

Finally, in order to assist staff in understanding the emissions and operations of your facility, we may request access to your facility and staff will contact you to coordinate our visit with the facility, if necessary. If you have questions regarding your facility’s classification under the AB 2588 Program, or if you need assistance in preparing your ATIR, please contact Courtney Watts, Air Quality Engineer, at (909) 396-2027, or Victoria Moaveni, Program Supervisor at (909) 396-2455.

Sincerely,



Eugene Kang
Planning & Rules Manager
Planning, Rule Development & Implementation

EK:VM: TT:CW

Attachment(s)

- AB 2588 Air Toxics Document Certification & Application Form
- AB 2588 Facility Priority Score for 2021

FORM A	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AB 2588 Program, 21865 COPLEY DR., DIAMOND BAR CA 91765-0949	INVENTORY YEAR 20_____
-------------------	--	---------------------------

AB 2588 AIR TOXICS DOCUMENT CERTIFICATION & SUBMITTAL FORM

Please check the appropriate boxes for purpose of submittal:

<input type="checkbox"/> INITIAL INFORMATION for ATIR	<input type="checkbox"/> EARLY ACTION REDUCTION PLAN (EARP)	<input type="checkbox"/> INITIAL
<input type="checkbox"/> AIR TOXICS INVENTORY REPORT (ATIR)	<input type="checkbox"/> VOLUNTARY RISK REDUCTION PLAN (VRRP)	<input type="checkbox"/> REVISION
<input type="checkbox"/> HEALTH RISK ASSESSMENT (HRA)	<input type="checkbox"/> IMPLEMENTATION PROGRESS REPORT for VRRP/RRP	<input type="checkbox"/> FINAL
<input type="checkbox"/> RISK REDUCTION PLAN (RRP)	<input type="checkbox"/> OTHER: _____	

Does your facility participate or wish to participate in VRRP program pursuant to Rule 1402(h)? YES

Please provide the following information:

Facility name	South Coast AQMD ID	Facility SIC/NAICS CODE
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

Facility Location Address	Mailing Address
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

Contact Person (Company Official)

Name:	Title:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
Telephone:	eMail:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

Preparer (if different from above)

Name:	Title:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
Company:	
<input style="width:95%;" type="text"/>	
Telephone:	eMail:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

FAILURE TO SUBMIT REQUIRED INFORMATION OR KNOWINGLY SUPPLYING FALSE INFORMATION IS PUNISHABLE TO THE EXTENT DEFINED IN HEALTH AND SAFETY CODE SECTIONS 44381(a) AND 44381(b), WHICH INCLUDES MINIMUM FINES OF NOT LESS THAN FIVE HUNDRED DOLLARS.

Signature Of Responsible Company Official	Date
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
Name Of Responsible Company Official	Title
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

AB2588 Facility Priority Score for 2021

Facility Name SNOW SUMMIT, LLC.

Score: 193.47 Facility ID 185352

CAS	Substance	Reported Emissions lbs	Nearest Regardless of Wind Direction						Nearest By Predominant Wind Direction						Acute		
			Closest Residential			Closest Worker			Closest Residential			Closest Worker					
			Cancer	Chronic 8 Hr	Chronic 8 Hr	Cancer	Chronic 8 Hr	Chronic 8 Hr	Cancer	Chronic 8 Hr	Chronic 8 Hr	Cancer	Chronic 8 Hr	Chronic 8 Hr			
100414	Ethyl benzene	8.36E+00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100425	Styrene (vinyl benzene)	3.57E-01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
106990	Butadiene, 1,3-	6.55E+01	2.37	0.03	0.03	0.73	0.03	0.02	0.02	4.62	0.06	0.05	0.02	0.00	0.00	0.00	0.02
107028	Acrolein	1.33E+01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1151	Polycyclic Aromatic Hydrocarbon (PAHs)	9.11E+00	49.42	0.00	0.00	4.40	0.00	0.00	0.00	96.52	0.00	0.00	0.13	0.00	0.00	0.00	0.00
7440020	Nickel & nickel compounds (except nickel oxide):	1.04E+00	0.06	0.07	0.06	0.02	0.06	0.06	0.06	0.11	0.13	0.13	0.00	0.00	0.00	0.00	1.04
7782505	Chlorine	1.13E+00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
7782492	Selenium and selenium compounds, other than hydrogen selenide	8.27E-01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
7664417	Ammonia	5.54E+02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
7647010	Hydrogen chloride (hydrochloric acid)	7.01E+01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
7440508	Copper and copper compounds	1.55E+00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108383	Xylene, m-	1.22E+01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7440382	Arsenic and arsenic compounds (inorganic)	4.24E-01	2.97	2.21	0.11	0.43	0.63	0.09	0.09	5.80	4.32	0.21	0.01	0.01	0.02	0.00	0.42
108883	Toluene (methyl benzene)	5.86E+01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7439976	Mercury and mercury compounds (inorganic)	7.52E-01	0.00	0.09	0.05	0.00	0.04	0.04	0.04	0.00	0.17	0.09	0.00	0.00	0.00	0.00	0.25
7439965	Manganese and manganese compounds	1.17E+00	0.00	0.01	0.03	0.00	0.01	0.02	0.02	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00

AB2588 Facility Priority Score for 2021

Facility Name SNOW SUMMIT, LLC.

Score: 193.47 Facility ID 185352

CAS	Substance	Reported Emissions lbs	Nearest Regardless of Wind Direction						Nearest By Predominant Wind Direction						Acute	
			Closest Residential			Closest Worker			Closest Residential			Closest Worker				
			Cancer	Chronic 8 Hr	Chronic 8 Hr	Cancer	Chronic 8 Hr	Chronic 8 Hr	Cancer	Chronic 8 Hr	Chronic 8 Hr	Cancer	Chronic 8 Hr	Chronic 8 Hr		
7439921	Lead and lead compounds	2.20E+00	0.06	0.00	0.00	0.01	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
1634044	Methyl tertiary-butyl ether	5.11E+00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1330207	Xylenes (isomers and mixtures)	1.62E+01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18540299	Chromium, hexavalent	2.65E-02	1.30	0.00	0.00	0.26	0.00	0.00	2.53	0.00	0.00	0.01	0.00	0.00	0.00	0.00
7440439	Cadmium and cadmium compounds	3.97E-01	0.36	0.03	0.00	0.11	0.02	0.00	0.70	0.07	0.00	0.00	0.00	0.00	0.00	0.00



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Via Email and CERTIFIED RETURN RECEIPT TO ADDRESSEE

March 31, 2023

Mr. Mark Burnett
Vice President of Facilities
Snow Summit, LLC.
P.O. Box 77
Big Bear Lake, CA 92315

Subject: Approval of Air Toxics Inventory Report and Notice to Prepare a Health Risk Assessment for **Snow Summit, LLC** (South Coast AQMD Facility ID No.: **185352**)

Dear Mr. Burnett:

In accordance with the State of California's Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) and South Coast Air Quality Management District's (South Coast AQMD) Rule 1402, South Coast AQMD staff notified you by letter dated **August 17, 2022**, to prepare either an Air Toxics Inventory Report (ATIR) or a Voluntary Risk Reduction Report (VRRP) for your facility. You elected to prepare an ATIR for your facility which was submitted on January 16, 2023. Staff requested supporting calculations which were provided on January 25, 2023. Your ATIR submittal on January 16, 2023, for calendar year 2021 has been reviewed and approved.

Subsequently, pursuant to Rule 1402 (e)(1), you are required to prepare and submit a Health Risk Assessment (HRA), based on the approved ATIR, for your facility within **90 days** from the date of this letter which is **June 29, 2023**.

The remainder of this letter informs you of the following:

- Guidelines and procedures for preparing the HRA;
- Process used to review and approve the HRA; and
- Availability of further assistance.

Guidelines and Procedures for Preparing the HRA

The California Air Resources Board (CARB) has developed a "Hot Spots" Analysis and Reporting Program (HARP)¹ which streamlines the emissions inventory and risk assessment requirements of the "Hot Spots" Program into a single integrated analysis tool. You are required to submit your HRA using the HARP software. The latest version of the software must be used.

¹ <http://www.arb.ca.gov/toxics/harp/harp.htm>

The U.S. EPA AERMOD² air quality dispersion model is used by HARP to estimate the concentration of pollutants released by the facility. In addition, South Coast AQMD provides guidance on preparing an HRA, as well as air dispersion modeling.³ Meteorological data sets for South Coast AQMD are also available for download.⁴

The HRA must be prepared in accordance with *The Air Toxics Hot Spots Program Risk Assessments Guidelines (February 2015)* developed by the State of California Office of Environmental Health Hazard Assessment (OEHHA).⁵

Diesel particulate matter emissions were identified as a toxic air contaminant by CARB in 1998 and were added to South Coast AQMD Rule 1401 list of compounds on March 7, 2008. Under the current *AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidelines Regulation*, amended on August 18, 2021, you are required to include health risk impacts of any diesel exhaust particulate emissions from stationary emergency and prime compression ignition internal combustion engines, as well as portable diesel engines. Please clearly identify emergency diesel internal combustion engines and their corresponding emissions.

Air emissions of any substances listed in Appendix A-I of the OEHHA guidelines must be quantified and evaluated in the HRA. Please follow the detailed outline for the HRA report, which is contained in Appendix C of the South Coast AQMD supplemental guidelines mentioned above. Lastly, please also include a signed copy of the AB 2588 Air Toxics Document Certification & Submittal Form (Attachment) along with your HRA submittal.

Process for Reviewing and Approving the HRA

The HRA will be reviewed by staff from both South Coast AQMD and OEHHA. You will be notified of the status of your HRA within a few weeks after it is returned to South Coast AQMD from OEHHA. An HRA that is not consistent with state and South Coast AQMD guidelines will be returned to the facility with a list of necessary corrections, prior to approval.

If the HRA shows that your facility poses a maximum individual lifetime cancer risk of ten in one million or greater, or the non-cancer health effects hazard index exceeds one, you will be required to provide public notice to all individuals exposed above notification levels. The determination of whether the facility is subject to notification will be made upon approval of the HRA. You will receive further information regarding the public notification process at that time.

In addition, if your facility poses a maximum individual lifetime cancer risk of 25 in a million or greater, cancer burden of 0.5 or greater, or non-cancer health effects hazard index of 3 or greater, you will be also subject to risk reduction provisions of Rule 1402 (f).

² <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models>

³ <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf>
<http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance>

⁴ <http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod>

⁵ <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

Further Assistance

If you have questions regarding the guidelines, the HARP software, or need any other assistance, please contact Courtney Watts, Air Quality Engineer at (909) 396-2027, or Victoria Moaveni, Program Supervisor at (909) 396-2455.

Sincerely,

A handwritten signature in black ink, appearing to read "Eugene Kang". The signature is fluid and cursive, with the first name "Eugene" being more prominent than the last name "Kang".

Eugene Kang
Planning & Rules Manager
Planning, Rule Development & Implementation

Attachment: AB 2588 Air Toxics Document Certification & Submittal Form

EK:VM:TT:CW

FORM A	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AB 2588 Program, 21865 COPLEY DR., DIAMOND BAR CA 91765-0949	INVENTORY YEAR 20_____
-------------------	--	---------------------------

AB 2588 AIR TOXICS DOCUMENT CERTIFICATION & SUBMITTAL FORM

Please check the appropriate boxes for purpose of submittal:

<input type="checkbox"/> INITIAL INFORMATION for ATIR	<input type="checkbox"/> EARLY ACTION REDUCTION PLAN (EARP)	<input type="checkbox"/> INITIAL
<input type="checkbox"/> AIR TOXICS INVENTORY REPORT (ATIR)	<input type="checkbox"/> VOLUNTARY RISK REDUCTION PLAN (VRRP)	<input type="checkbox"/> REVISION
<input type="checkbox"/> HEALTH RISK ASSESSMENT (HRA)	<input type="checkbox"/> IMPLEMENTATION PROGRESS REPORT for VRRP/RRP	<input type="checkbox"/> FINAL
<input type="checkbox"/> RISK REDUCTION PLAN (RRP)	<input type="checkbox"/> OTHER: _____	

Does your facility participate or wish to participate in VRRP program pursuant to Rule 1402(h)? YES

Please provide the following information:

Facility name	South Coast AQMD ID	Facility SIC/NAICS CODE
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
Facility Location Address	Mailing Address	
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>	
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>	

Contact Person (Company Official)

Name:	Title:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
Telephone:	eMail:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

Preparer (if different from above)

Name:	Title:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>
Company:	
<input style="width:95%;" type="text"/>	
Telephone:	eMail:
<input style="width:95%;" type="text"/>	<input style="width:95%;" type="text"/>

FAILURE TO SUBMIT REQUIRED INFORMATION OR KNOWINGLY SUPPLYING FALSE INFORMATION IS PUNISHABLE TO THE EXTENT DEFINED IN HEALTH AND SAFETY CODE SECTIONS 44381(a) AND 44381(b), WHICH INCLUDES MINIMUM FINES OF NOT LESS THAN FIVE HUNDRED DOLLARS.

Signature Of Responsible Company Official	Date
<input style="width:95%; height: 40px;" type="text"/>	<input style="width:95%; height: 40px;" type="text"/>
Name Of Responsible Company Official	Title
<input style="width:95%; height: 40px;" type="text"/>	<input style="width:95%; height: 40px;" type="text"/>

APPENDIX H – MODELING FILES

Provided Electronically