REPORT

SQUAMISH COMPRESSOR STATION

AIR QUALITY ASSESSMENT REPORT – REV.2
SQUAMISH, BC

RWDI # 2301269
August 14, 2026

SUBMITTED TO

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1 INTRODUCTION

RWDI was retained by Fortis BC Holdings Inc. with its regulated natural gas subsidiary Fortis BC Energy Inc. (collectively referred to as FortisBC) to complete an air quality assessment in support of an application for a Waste Discharge Authorization for air emissions from the operation of the Squamish Compressor Station (the Project) under the Environmental Management Act, Waste Discharge Regulation from the BC Energy Regulator (BCER).

FortisBC has proposed to construct and operate the Eagle Mountain – Woodfibre Gas Pipeline Project (Environmental Assessment Certificate No. E16-01) which involves the construction of an approximately 47 km long natural gas pipeline and the associated infrastructure, including the Squamish Compressor Station (EGP; the Project) which is the subject of this assessment (Environmental Project Information Center - EPIC, 2026a).

This Air Quality Assessment Report (AQAR) provides the methodology and results of the air quality assessment for the Project via air dispersion modelling of Project emissions.

2 ASSESSMENT APPROACH

This assessment includes a review of baseline air quality conditions near the Project site, an air emission inventory, meteorological and dispersion modelling using CALMET/CALPUFF modelling system, and a comparison of modelling results against ambient air quality objectives and standards.

Air dispersion modelling was conducted using the CALMET (Version 6.5.0) and CALPUFF (Version 7.2.1), and following the methods prescribed by the BC Air Quality Dispersion Modelling Guideline (AQDMG) published by the BC Ministry of Environment and Parks (ENV, 2022a). As required by the AQDMG, projects located within British Columbia need to complete a Dispersion Modelling Plan prior to commencing modelling work. A Dispersion Modelling Plan was developed through engagement with BCER for the proposed Project and approved on October 9, 2025, with the caveat that a cumulative assessment considering the emissions of the neighbouring future Woodfibre Liquified Natural Gas (WLNG) project will be discussed at a later date, when more recent information on WLNG will be available. Assessment of the critical load of nitrogen and sulphur deposition as it relates to acidification and eutrophication of aquatic and terrestrial ecosystems will also be included in the cumulative assessment.

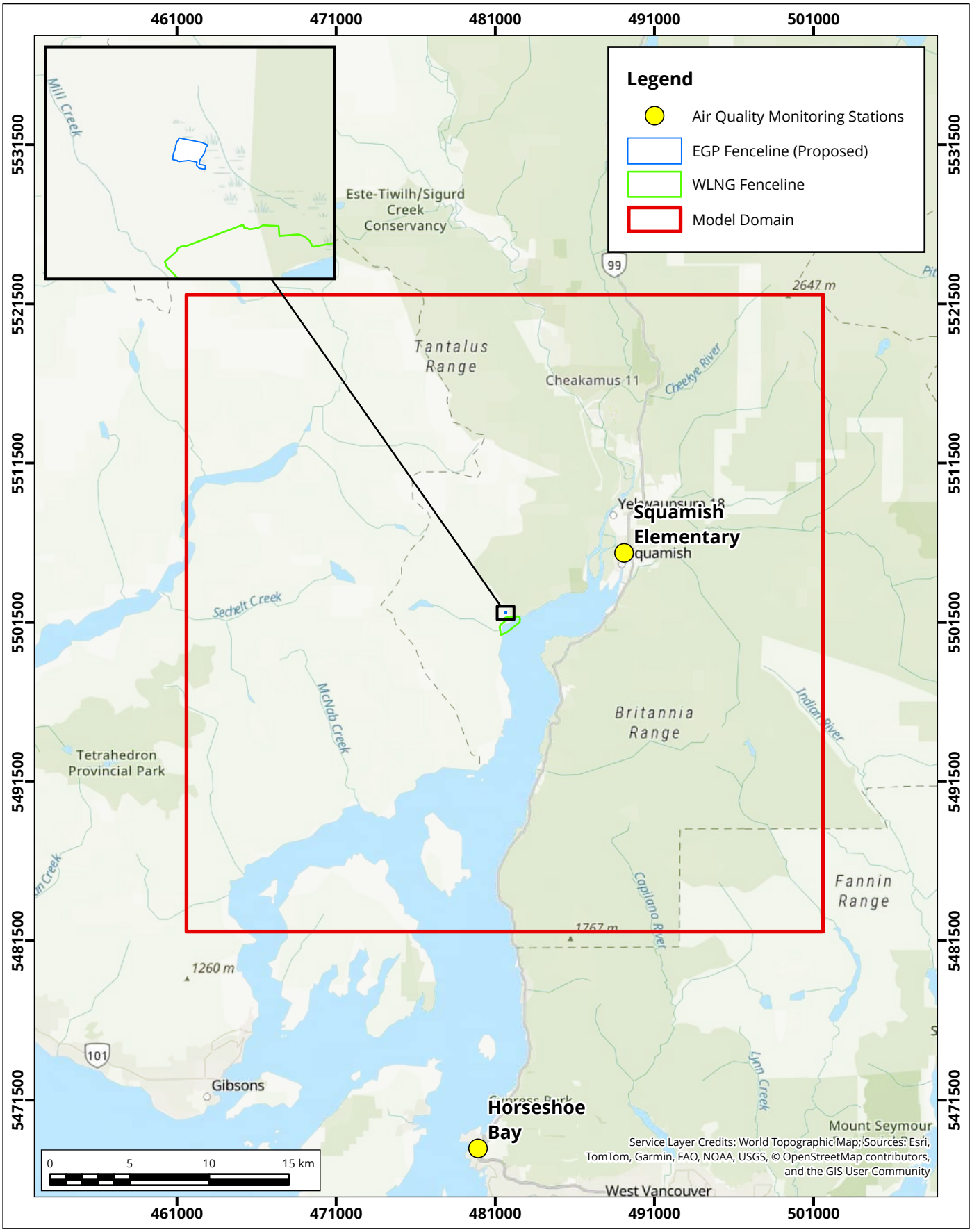
This assessment follows the approved Dispersion Modelling Plan and is consistent with the BC AQDMG (ENV. 2022a), focusing on the Project Case, which includes emissions from the Project operations, and background concentrations representing the effects of all other existing external sources. The approved Dispersion Modelling Plan is provided in *Appendix A –Dispersion Modelling Plan.*

2.1 Modelling Domain and Period

The Project is located on the northwestern shore of Howe Sound in Squamish, BC and adjacent to the Woodfibre site on the northwestern shore of Howe Sound in Squamish, BC. The location of the Project is shown in **Figure 2-1**.

A 40 km by 40 km modelling domain centered on the Project and encompassing most of the District of Squamish was considered for this assessment, as shown in **Figure 2-1**.

Five years of meteorological modelling (2011-2015) were considered in accordance with the AQDMG.



Proposed Project Location, Modelling Domain, and Air Quality Monitoring Stations

True North

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

Project #: 2301269

Drawn by: PIP	Figure: 2-1
Approx. Scale:	1:330,000
Date Revised:	Feb 19, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301269_FortisBC_EPG_Figures.aprx

2.2 Emission Scenarios

The Project includes two approximately 4500 kW gas turbine compressor units, two gas boilers (with only one operational at a time), one emergency gas generator, and three (3) atmospheric vents, for emergency blowdowns. Air contaminants of concern from Project sources include Oxides of Nitrogen (NO_X), Sulphur Dioxide (SO_2), Carbon Monoxide (CO), fine particulate matter with diameter less than 2.5 microns ($PM_{2.5}$), and total VOCs. As Project air emissions are limited to natural gas combustion sources, all particulate matter emissions were assumed to be $PM_{2.5}$.

For the Project Case, three scenarios for short-term air quality impact (1-hour and 24-hour averaging periods, where applicable) and one annual scenario for long-term air quality impact were considered. Emergency blowdown scenarios were not considered for modelling as the vented gas comprise of sweet natural gas and does not contain the contaminants of interest.

These are summarized in **Table 2-1** below.

Table 2-1: Emission Scenarios

Case	Averaging Period	Scenario	Description
Project	Short-term (1-hr and 24-hr as applicable)	Normal Operations	A typical scenario for Project operations, with one gas compressor unit and one boiler in operation simultaneously.
		Peak Operations	A peak scenario in which both gas compressors and one boiler operate simultaneously. This scenario occurs up to 20% of the time.
		Abnormal Emissions	A power loss scenario where both gas compressors, one boiler and the backup generator operate simultaneously. This scenario occurs up to 10% of the time.
	Long-term (Annual)	Annual Emissions	An annual scenario with both gas compressors, one boiler and the emergency generator operate based on their realistic run time and load factor.

2.3 Air Quality Objectives and Standards

Predicted concentrations for each modelling scenario are compared with the BC Ambient Air Quality Objectives (BC AAQO; ENV, 2025). The objectives along with the associated metrics are summarized in **Table 2-2:** Ambient Air Quality Objectives and Standards below. The metrics considered for this assessment are adjusted to match the modelling period, and are also provided in **Table 2-2** for reference. Canadian Ambient Air Quality Standards (CAAQS) developed by the Canadian Council of Ministries of the Environment (CCME, 2025) are also provided in **Table 2-2.**

Table 2-2: Ambient Air Quality Objectives and Standards

Air Contaminant	Averaging Period	Criteria		Name of Criteria	Metrics for each Objective [1]	Metric Considered for Modelling Results
		µg/m³	ppb			
NO_2	1-hour	113	60	BC AAQO	3-year average of the annual 98th percentile of D1HM	5-year avg. of the annual 98th percentile of D1HM
		79	42	CAAQS 2025		
	Annual	32	17	BC AAQO	Annual average of hourly values over one year	5-year avg. of the annual avg. of hourly values
		22.6	12	CAAQS 2025		
SO_2	1-hour	170	65	BC AAQO	3-year average of the annual 99th percentile of D1HM	5-year avg. of the annual 99th percentile of D1HM
		170	65	CAAQS 2025		
	Annual	10.5	4	BC AAQO	Annual avg. of hourly values over one year	5-year avg. of the annual avg. of hourly values
		10.5	4	CAAQS 2025		
$PM_{2.5}$	24-hour	25	-	BC AAQO	98th percentile of 24-hour average values over one year	5-year avg. of the annual 98th percentile of 24-hour average values
		27	-	CAAQS 2020 & 2025	3-year average of the annual 98th percentile of 24-hour average values	
	Annual	8 (6) [2]	-	BC AAQO	Annual average of hourly values over one year	5-year avg. of the annual avg. of hourly values
		8.8	-	CAAQS 2020 & 2025	3-year average of the annual average of 24-hour average values	
PM_{10}	24-hour	50	-	BC AAQO	100th percentile of 24-hour average	5-year avg. of the annual 100th percentile of 24-hour average values
CO	1-hour	14,300 [3]	13,000 [3]	BC Pollution Control Objective [3]	100th percentile of hourly averages [3]	5-year avg. of the annual 100th percentile of hourly values
VOC	1-hour	N/A [4]	N/A [4]	N/A [4]	N/A [4]	5-year avg. of the annual 100th percentile of hourly values

Notes:
[1] D1HM = Daily 1-Hour Maximum
[2] BCAAQO's annual $PM_{2.5}$ planning goal of 6 µg/m³ is a longer-term aspirational target to support continuous improvement.
[3] There are no objectives or standards for CO, other than Pollution Control Objectives, which were developed by the B.C. Ministry of Environment and the B.C. Department of Lands, Forest and Water Resources in the 1970s for five source sectors. These criteria, which referred to all discharges to the environment, were rescinded in 2006, but the ambient air quality objectives continue to be used for reference purposes.
[4] There are no objectives or standards for total VOCs.

2.4 Background Concentrations

As part of this assessment, the existing ambient air quality concentrations were calculated to be added to the results of dispersion modelling. Background concentrations of NO_2, SO_2 and $PM_{2.5}$ were calculated using three (3) years of ambient air quality observations from the Squamish Elementary Station (2021-2023). Data for PM_{10} were not available at any monitoring stations near the Project; therefore, background concentrations of PM_{10} were assumed to be equal to $PM_{2.5}$. As CO is not measured at Squamish Elementary, background concentrations of CO were calculated based on ambient air quality observations from the Horseshoe Bay Station which is located 35 km from the site. Limited CO data was available for 2021-2023, therefore data from 2017-2019 was used. Background data for VOC was not available. Background concentrations used in the modelling are summarized in **Table 2-3** and station locations are shown **Figure 2-1**.

Table 2-3: Background Concentrations [1,2,3]

Air Contaminant	Averaging Period	Background Concentration (µg/m³)	Metric
NO_2	1-hour	41.6	Annual 98th percentile of D1HM values averaged over 3 years
	Annual	9.4	Average of hourly values over 3 years
SO_2	1-hour	1.1	Annual 99th percentile of D1HM values averaged over 3 years
	Annual	0.7	Average of hourly values over 3 years
$PM_{2.5}$	24-hour	17.7	Annual 98th percentile of 24-hour values averaged over 3 years
	Annual	5.2	Average of hourly values over 3 years
PM_{10} [4]	24-hour	17.7	Annual 98th percentile of 24-hour values averaged over 3 years
CO [5]	1-hour	389	Annual 98th percentile of hourly values averaged over 3 years
	8-hour	338	Annual 98th percentile of 8-hour values averaged over 3 years

Notes:
[1] Background values were calculated based on the metrics for baseline concentrations as per BC AQDMG.
[2] D1HM = Daily 1-Hour Maximum.
[3] For total VOC background concentrations were assumed to be zero.
[4] Data for PM_{10} were not available at any monitoring stations near the Project; therefore, background concentrations of PM_{10} were assumed to be equal to $PM_{2.5}$.
[5] As CO is not measured at Squamish Elementary, background concentrations of CO were calculated based on ambient air quality observation data (2017-2019) from the Horseshoe Bay Station.

2.5 Cumulative Assessment

The Project site is adjacent to the WLNG facility. In 2015, WLNG project received an Environmental Assessment Certificate No. E15-02. The WLNG project proposed the development and operation of an LNG production facility with marine storage and off-loading at the former Woodfibre Pulp and Paper Mill site near Squamish, BC. Natural gas will be supplied to the facility from western Canadian market hub through an expansion of the existing gas transmission system by FortisBC. LNG will then be loaded onto carriers for export to global markets.

The WLNG project includes construction of a liquefaction train, a floating LNG storage and offloading unit, an air-cooling system, and marine docking facilities for LNG carriers. Substantial completion of the WLNG project is expected by 2027 (EPIC, 2026b).

Dut to proximity and scale of the WLNG facility, it is imperative that cumulative effects of both projects on ambient air quality are assessed. However, as final design data on the sources at WLNG are not available yet, the cumulative effects from both projects will be assessed at a later time, as per the approved Dispersion Modelling Plan. As such, this report only focuses the effects on the Project alone.

RWDI and WLNG are working together to establish a joint representative cumulative model that would satisfy the requirements of a cumulative air quality assessment for both projects. Results of this assessment will be provided in a separate report. Assessment of the critical load of nitrogen and sulphur deposition as it relates to acidification and eutrophication of aquatic and terrestrial ecosystems will also be included in the cumulative assessment.

3 EMISSIONS

The Project consists of the following sources:

- Two (2) 4498 kW gas turbine driven compressor units: One turbine unit is expected to operate 8760 hours per year. A second unit may run simultaneously for up to 20% of the year. The actual run hours will be balanced between Unit 1 and 2 throughout the year for maintenance purposes.
- Two (2) gas boilers: The two boilers have identical specifications, with one serving as a backup up to the other. Boiler operation will be for 8760 hours per year, with only one operating at a time. The boiler will be running at average of 75% capacity. The emissions points for the boilers are co-located, so they were considered a single source for modelling.
- One (1) emergency gas generator, to provide power during power outages and for testing.
- Three (3) vents – only used during emergency shutdowns. Routine venting and blowdowns are not part of normal facility operations and would only occur during an emergency shutdown.
- Fugitive emissions: The facility is equipped with seal gas compression (SGC) systems to capture and recycle seal gas, thereby minimizing the potential for fugitive emissions. Fugitive emissions from equipment components such as valves, flanges, connectors, and other fittings are expected to be negligible and were not quantified at this stage of the assessment.

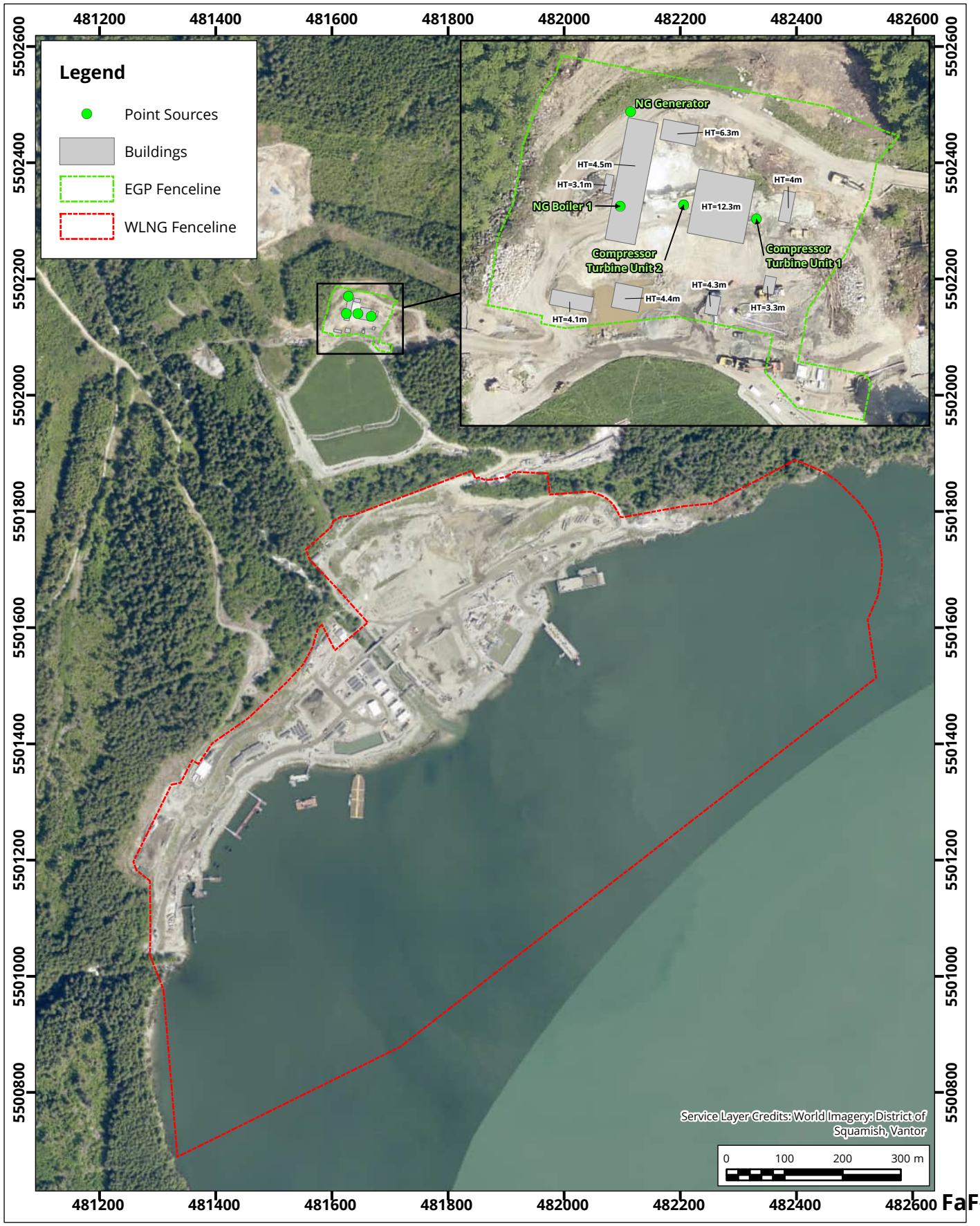
3.1 Modelled Sources

Facility layout as well as buildings and source locations that were included in the modelling are shown in **Figure 3-1.** Source locations, heights and elevations are summarized in **Table 3-1**. Emission source characteristics including stack height, exit temperature, exit velocity and stack diameter were all provided by FortisBC and equipment vendors, and, are summarized in **Table 3-2**.

Table 3-1: Emission Source Locations

Model ID	Equipment	Power Rating	UTM East (m)	UTM North (m)	Elevation (m)
comp1	Compressor Unit 1	4498 kW	481668	5502136	110.2
comp2	Compressor Unit 2	4498 kW	481645	5502140	110.2
boiler1	Boiler 1	440 kW	481625	5502140	110.2
boiler2 [1]	Boiler 2	440 kW	481626	5502140	110.2
gen	Generator	550 kW	481629	5502170	110.3

Note:
[1] Stand-by and not included in the modelling.



Facility Layout, Modelled Sources, and Buildings

True North

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station- Squamish, British Columbia

Project #: 2301269

Drawn by: PIP	Figure: 3-1
Approx. Scale:	1:9,000
Date Revised: Feb 20, 2026	

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Table 3-2: Modelled Point Source Characteristics [1]

Model ID	Equipment	Stack Diameter (m)	Stack Exhaust Temperature (K)	Stack Exit Velocity (m/s)	Stack Height (m)
comp1	Compressor Unit 1	1.2	784.2	39.6	16.7
comp2	Compressor Unit 2	1.2	784.2	39.6	16.7
boiler1	Boiler 1	0.2	341.2	11.7	5.8
boiler2 [2]	Boiler 2	0.2	341.2	11.7	5.8
gen	Generator	0.3	875.2	33.6	6.0

Notes:
[1] Note that some of the values provided in this table are slightly different from the more recent values provided in the attachment to the Environmental Protection Notice, and in Part 3, Discharge Details Form included in the Application, which are based on updated manufacturer information received after completion of the air quality assessment. The differences are minor and do not materially affect the facility design parameters or the results of the air quality assessment. Accordingly, the values used in the modeling and presented in this table remain representative of the facility design and operating characteristics.
[2] Stand-by and not included in the modelling.

Maximum hourly emission rates for each emission source were also provided by equipment vendors and are summarized in **Table 3-3**. Vendor specifications provide total particulate emissions. All PM was assumed to be $PM_{2.5}$. Project-related VOC emissions are associated primarily with the combustion of natural gas. Combustion-related VOC emissions are expected to be minimal and dominated by simple hydrocarbons, therefore, speciated VOC emissions were not included in this assessment. VOC emissions were conservatively assumed to be equal to total unburnt hydrocarbons.

For 1-hour and 24-hour averaging periods, maximum hourly emission rates were used as constant emission rate for all sources. For annual averaging periods, maximum hourly emissions were scaled based on annual operating hours or average load factor of sources. Annual emissions are provided in **Table 3-4**.

Table 3-3: Max. Hourly Emission Rates for the Modelled Point Sources

Model ID	Equipment	Included in Scenario	Max. Hourly Emission Rate (g/s)					
			NOx	SO_2	$PM_{2.5}$ [3]	PM_{10} [3]	CO	VOC
comp1	Compressor Unit 1	Normal, Peak, Abnormal	0.379	0.010	0.071	0.071	0.386	0.220
comp2	Compressor Unit 2	Peak, Abnormal	0.379	0.010	0.071	0.071	0.386	0.220
boiler1	Boiler 1	Normal, Peak, Abnormal	0.0066	0.0001	0.0014	0.0014	0.0093	0.0010
boiler2 [2]	Boiler 2	--	--	--	--	--	--	--
gen	Generator	Abnormal	0.107	0.001	0.014	0.014	0.053	0.011

Notes:
[1] Note that some of the values provided in this table are slightly different from the more recent values provided in the attachment to the Environmental Protection Notice, and in Part 3, Discharge Details Form included in the Application, which are based on updated manufacturer information received after completion of the air quality assessment. The differences are minor and do not materially affect the facility design parameters or the results of the air quality assessment. Accordingly, the values used in the modeling and presented in this table remain representative of the facility design and operating characteristics.
[2] Stand-by and not included in the modelling.
[3] All PM were assumed as $PM_{2.5}$.

Table 3-4: Annual Emission Rates for the Modelled Point Sources

Model ID	Equipment	Operating Hours per Year	Load Factor	Annual Emissions					
				NOx	SO_2	$PM_{2.5}$	PM_{10}	CO	VOC
Modelled Annual Emission Rate (g/s)									
comp1	Compressor Unit 1	8,760	N/A	0.379	0.010	0.071	0.071	0.386	0.220
comp2	Compressor Unit 2	1,752 [2]	N/A	0.076	0.002	0.014	0.014	0.077	0.044
boiler1	Boiler 1	8,760 [3]	75%	0.0050	0.0001	0.0011	0.0011	0.0070	0.0008
boiler2 [4]	Boiler 2	--	--	--	--	--	--	--	--
gen	Generator	876 [5]	N/A	0.0107	0.0001	0.0014	0.0014	0.0053	0.0011
Annual Emissions (t/y)									
comp1	Compressor Unit 1	8,760	N/A	12.000	0.306	2.230	2.230	12.200	6.940
comp2	Compressor Unit 2	1,752 [2]	N/A	2.390	0.061	0.446	0.446	2.430	1.390
boiler1	Boiler 1	8,760 [3]	75%	0.156	0.002	0.033	0.033	0.220	0.024
boiler2 [4]	Boiler 2	--	--	--	--	--	--	--	--
gen	Generator	876 [5]	N/A	0.336	0.003	0.045	0.045	0.168	0.034
Total Annual Emission (t/yr)				**14.8**	**0.4**	**2.8**	**2.8**	**15.0**	**8.4**

Notes:

[1] Note that some of the values provided in this table are slightly different from the more recent values provided in the attachment to the Environmental Protection Notice, and in Part 3, Discharge Details Form included in the Application, which are based on updated manufacturer information received after completion of the air quality assessment. The differences are minor and do not materially affect the facility design parameters or the results of the air quality assessment. Accordingly, the values used in the modeling and presented in this table remain representative of the facility design and operating characteristics.

[2] Up to 20% of time throughout the year.

[3] At 75% load on average.

[4] Stand-by and not included in the modelling.

[5] Up to 10% of time throughout the year.

4 MODELLING APPROACH

The Squamish Compressor Station is located in Squamish, B.C., with varied surrounding terrain which results in complex meteorological conditions that cannot be adequately modelled using a straight-line Gaussian approach. In addition, the model domain is too large to assume constant meteorological conditions throughout. Dispersion modelling was thus conducted with the CALPUFF model (Version 7.2.1) for a five-year modelling period from 2011 to 2015, which corresponds to the full period of available BC Weather Research and Forecasting (WRF) data. CALPUFF is a multi-layer, multi-species non-steady-state puff dispersion model that simulates the effects of time- and space-varying meteorological conditions on pollution transport and is capable of simulating varying wind flow patterns and varying land use.

The modelling approach and technical details are consistent with the BC AQDMG and the Dispersion Modelling Plan developed for the Project in consultation with BCER *(Appendix A - Dispersion Modelling Plan)*.

Three-dimensional meteorological input to CALPUFF were generated with the CALMET meteorological model at 100 m horizontal resolution. CALMET was run with BC ENV province-wide WRF model outputs at 4 km resolution, as described below in Section 4.1.

4.1 Meteorological Modelling

Three-dimensional hourly meteorological fields were provided to CALPUFF by CALMET (version 6.5.0), which is the meteorological diagnostic model of the CALPUFF modelling suite. CALMET can simulate the changes in boundary layer dynamics that result from changing synoptic conditions and variable land cover and terrain in the air quality dispersion modelling domain.

The CALMET model requires gridded geophysical parameters, including surface roughness length, albedo, Bowen ratio, soil heat flux, vegetation leaf area index, and anthropogenic heat flux, that are based on the land use category in each grid cell. As per the BC AQDMG, five seasons are specified to more accurately represent the seasonally dependent geophysical parameters in the CALMET model and applied based on the Climate Normals for Squamish (Environment and Climate Change Canada, 2020). Note that as the Howe Sound does not freeze in winter, and snow cover is intermittent, Winter 1 parameters were used throughout the whole winter.

CALMET was run at 100 m horizontal resolution with 10 vertical layers of increasing thickness, and hourly 3D prognostic fields from the BC ENV WRF model output at 4 km resolution. The CALMET user-input parameters were selected in accordance with the BC AQDMG and optimized for the complex terrain area. Detailed information about the CALMET setup and results is provided in *Appendix B – Meteorological Modelling*.

4.2 CALPUFF Technical Dispersion Options

All technical options related to the CALPUFF dispersion model were set as the default values according to the BC AQDMG or to the model defaults. These include parameters and options such as the calculation of plume dispersion coefficients, the plume path coefficients used for terrain adjustments, plume rise options and the use of a puff approach.

4.3 Receptors

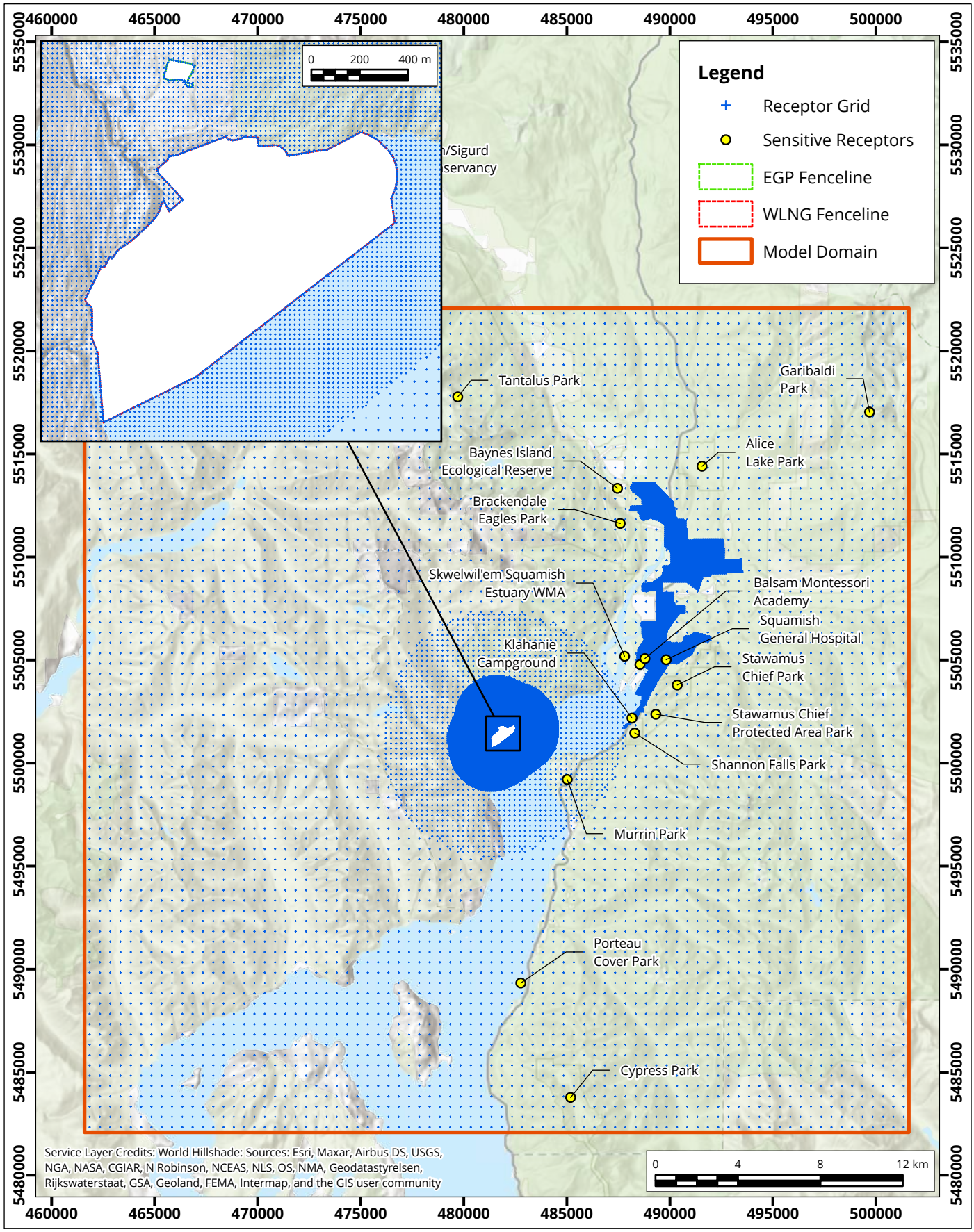
In the CALPUFF model, a set of points in space (deemed "receptors") are specified at which pollutant concentrations are predicted.

A Cartesian nested grid of ground-level receptors was defined within the study area. Receptor spacing was set as per the BC AQDMG (ENV, 2022a) with increased density in areas of interest as agreed in the approved Dispersion Modelling Plan. Based on the discussions with ENV during model plan development, the same receptor grid will be used for the air quality assessment of the WLNG project and for the common cumulative assessment of both projects. Therefore, to accommodate both assessments, the horizontal receptor grids are set based on the fencelines of both projects, as follows:

- 10-m receptor spacing along both facilities' fence lines,
- 20-m receptor spacing within 0.5 km from both facilities,
- 50-m receptor spacing within 2 km from both facilities
- 250-m receptor spacing within 5 km from both facilities,
- 500-m spacing for the remainder of the study area

Moreover, sensitive receptors were identified throughout the community and set as discrete receptors in the model. At the request of ENV, a denser receptor grid (50 m spacing) was placed over the growth management boundary of the district of Squamish, where populations may reside. The modelled receptors in CALPUFF are shown in **Figure 4-1 .** The coordinates of sensitive receptors are summarized in **Table 4-1.**

Terrain elevations were extracted from Canadian Digital Elevation Model (Natural Resources Canada) for all receptors included in the CALPUFF model.



CALPUFF Domain and Receptor Grid

True North

Drawn by: PIP	Figure: 4-1
Approx. Scale:	1:255,000
Date Revised:	Sep 8, 2025

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, British Columbia

Project #: 2301269

Map Document: C:\Working\Folder\Jobs_America\P2301269\P2301269_FortisBC_EPG.aprx

Table 4.1: **Names, Locations and Categories of the Sensitive Receptors**

Index	Name	UTM East (m)	UTM North (m)	Elevation (m)	Category
1	Residential use at 37776 3 Ave, Squamish	488549	5504781	6	Residential
2	Squamish General Hospital	489821	5505016	36	Hospital
3	Balsam Montessori Academy	488791	5505073	5	School
4	Klahanie Campground	488161	5502184	39	Campground
5	Alice Lake Park	491559	5514406	247	Park
6	Baynes Island Ecological Reserve	487457	5513332	19	Park
7	Brackendale Eagles Park	487591	5511628	266	Park
8	Murrin Park	485020	5499206	171	Park
9	Porteau Cover Park	482767	5489327	0	Park
10	Shannon Falls Park	488294	5501460	141	Park
11	Skwelwil'em Squamish Estuary WMA	487806	5505181	3	Park
12	Stawamus Chief Park	490357	5503789	645	Park
13	Stawamus Chief Protected Area Park	489321	5502369	422	Park
14	Tantalus Park	479707	5517773	1141	Park
15	Cypress Park	485184	5483778	1157	Park
16	Garibaldi Park	499690	5517036	1672	Park

4.4 Building Downwash

Buildings located close to stacks may influence the dispersion of emissions through a process called “building downwash”. The effect of all large buildings and structures (9 buildings in total) on the modelled point sources was incorporated using the Building Profile Input Program Plume Rise Model Enhancement (BPIP-PRIME) algorithm. The algorithm explicitly treats the trajectory of the plume near the building and uses the position of the plume relative to the building to calculate interactions with the building wake. Modelled buildings are shown in **Figure 3-1.**

4.5 Postprocessing

All sources were modelled individually with a unit emission rate (i.e. emission rate of 1g/s). One single set of hourly concentrations for each source was predicted at each receptor using this unit rate. This set of hourly model results were then multiplied by the emission rate of each contaminant with POSTUTIL for the hourly model results of each individual contaminant for that source. Model results for different sources were combined according to the scenarios using CALSUM. Post-processing of hourly model results was then conducted with CALPOST to determine required metrics for comparison with the AAQOs and over various averaging periods, and with CALRANK to obtain the frequency exceedances from criteria values. Representative background concentrations were added to modelled concentrations for all modelling cases to account for existing emission sources in the study area.

4.5.1 NO_x to NO_2 Conversion

Total oxides of nitrogen (NO_X) are comprised of nitric oxide (NO) and NO_2. Transformation of NO to NO_2 continues in the atmosphere due to reaction with atmospheric ozone and other volatile organic compounds. This assessment considered both Total Conversion Method and Ambient Ratio Method (ARM2). In Total Conversion Method, it was assumed that 100% of modelled NOx emissions were converted to be NO_2 emissions. This is the simplest but also the most conservative method giving the worst-case NO_2 concentrations, as the conversion highly depends on the atmospheric environment. Therefore, ARM2 was also used to provide a more realistic estimate for the conversion of NO_X to NO_2 based on the empirically derived conversion formula, which was developed using the ambient hourly NO and NO_2 monitoring data, provided in the *Guidance for NO_2 Dispersion Modelling in British Columbia* (the NO_2 Guidance - ENV, 2022b). Coefficients for coastal sites were selected given the nature of the surroundings of the Project. NO_2 concentration can be determined using the following equation:

$$NO_2 / NO_x = 1.4097 - 8.6617 \times 10^{-3} \times NO_X + 2.6443 \times 10^{-5} \times NO_X^2 - 5.9049 \times 10^{-8} \times NO_X^3 + 1.3159 \times 10^{-10} \times NO_X^4 - 2.0684 \times 10^{-13} \times NO_X^5 + 1.3132 \times 10^{-16} \times NO_X^6$$

where NO_X is the total NOx concentration summing over contributions from al sources and NO_2 is the converted concentration summing over contributions from al sources

Further to the above equation, the NO_2/NOx ratio is constrained to a maximum value of 0.9 and a minimum value of 0.2, according to the NO_2 Guidance.

The postprocessor CALNO2 (Exponent, 2022) was used to apply the ARM2 method to the CALPUFF output.

5 DISPERSION MODELLING RESULTS

5.1 Overall Results

Maximum hourly impacts for the Normal Operations Scenario, Peak Operations Scenario, and Abnormal Emission Scenario as well as the maximum annual impacts for Annual Emissions for both with and without background concentrations over the model domain are summarized in **Table 5-1**.

For SO_2, $PM_{2.5}$, PM_{10}, and CO predicted concentrations remain well below the applicable BC AAQO under all modelled scenarios. There are no objectives for VOCs.

For 1-hour NO_2, under the Normal Operations and Peak Operations scenarios, predicted 1-hour NO_2 concentrations remain below the applicable BC AAQO and CAAQS 2025. Exceedances of the BC AAQO for 1-hour NO_2 were predicted only under the Abnormal Emission Scenario. These were predicted to be confined to receptors located at or immediately adjacent to the facility fenceline, with the furthest extent occurring approximately 25 m northwest of the fenceline. Predicted annual NO_2 concentrations were below the BC AAQO and CAAQS 2025. NO_2 results are discussed further in Section 5.2.

Contour plots of predicted concentrations are provided in *Appendix C – Contour Plots* (C.1 to C.12 for Normal Operations Scenario, C.13 to C.16 for Peak Operations Scenario, C.17 to C.30 for Abnormal Emission Scenario and C.31 to C.38 for Annual Emissions).

Detailed statistics of maximum predicted SO_2 concentrations across the model domain and at sensitive receptors are provided in **Table 5-2**.

Predicted concentrations at sensitive receptors for $PM_{2.5}$, PM_{10}, CO and VOC for all applicable scenarios are presented in **Table 5-3** through **Table 5-6.**

5.2 NO_2 Results

For Normal Operations, Peak Operations and Annual Emissions scenarios the predicted NO_2 concentrations (using ARM2) were below the applicable BC AAQOs. As mentioned above, exceedances of the 1-hour BC AAQO for NO_2 were predicted for the Abnormal Emissions Scenario for receptors on or within 25 m of the facility fenceline.

Detailed statistics for the predicted NO_2 concentrations at maximum point of impingement (MPOI) and at sensitive receptors with and without background are provided in **Table 5-7** (using total conversion method) and **Table 5-8** (using ARM2).

For NO_2 (Total Conversion Method), source contribution to predicted MPOI concentrations and concentrations at sensitive receptors are provided in **Table 5-9** (concentrations) and **Table 5-10** (percent contribution).

Contour plots for 98th percentile of D1HM NO_2 (ARM2) for Normal Operations Scenario for each modelled year and averaged over the model period are provided in Figures C.1 through C.6. Maximum (100th percentile) of D1HM NO_2 concentrations are provided in Figure C.7.

Contour plots for 98th and 100th percentile of D1HM NO_2 (ARM2) for Peak Operations Scenario averaged over the model period are provided in Figures C.13 through C.6. Maximum (100th percentile) of D1HM NO_2 concentrations are provided in Figure C.13 and C.14, respectively.

For the Abnormal Emissions Scenario, contour plots for 98th percentile of D1HM NO_2 (ARM2), averaged over five years and for each modelled year are provided in Figures C.17 through C.22. Contour plots for the maximum (100th) percentile of D1HM NO_2 (ARM2), averaged over five years are provided in Figures C.23.

Annual average NO_2 concentration contours are shown in Figures C.31 through C.35 for each modelled year, and, averaged over five years in Figure C.36.

5.2.1 1-hour NO_2 Exceedances for Abnormal Scenario

For the Abnormal Emissions Scenario only, which is expected to occur no more than 10% of the time, some exceedances of the BC AAQO were predicted on or within 25 meters of the fenceline. These exceedances in the Abnormal Emissions Scenario, are primarily attributable to emissions from the emergency generator, which operates only under this scenario does not operate in Normal and Peak Operating scenarios. The highest concentrations were predicted at receptors closest to the emergency generator.

Where modelled concentrations were predicted to be higher than the BC AAQO, number of excursions (i.e, number of days in each year, where the D1HM concentration greater than the BC AAQO 1-hour numerical threshold of 113 µg/m^3, was calculated at each receptor.

Maximum predicted concentrations (using ARM2) and maximum number of excursions of the BC AAQO 1-hour numerical threshold of 113 µg/m^3 for each modelled year and for all scenarios are provided in **Table 5-11**. Note that the BC AAQO metric for 1-hour NO_2, requires that the 98th percentile of D1HM is below 113 µg/m^3. Therefore, up to eight (8) excursions per year are allowed. Nevertheless, total number of excursions are presented in this table.

Coordinates of the exceeding receptors and number of excursions for each receptor are provided in **Table 5-12** for each modelled year and for the whole model period. Note that no exceedances are predicted for the Project only case.

Figures C.24 through C.28 show the number of excursions for receptors with predicted D1HM NO_2 concentrations higher than 113 µg/m^3, for each modelled year. These excursions occur on or within maximum of 25 m from the facility fenceline. Most excursions are predicted to the north and northwest of the site, with a few excursions predicted at the southeast fenceline for the year 2011.

As can be seen in **Table 5-9** and **Table 5-10**, predicted MPOI concentrations are highly dominated by contributions from the emergency generator, which has a lower stack height and is located closer to the northwest fenceline of the facility, where the MPOI and most exceedances occur. For receptors farther from the fenceline, the predicted concentrations drop quickly with distance. Beyond 100 m from the fenceline, concentrations are predicted to be below the NO_2 1-hour CAAQS value of 79. At any of the identified sensitive receptors, concentrations are well below the BC AAQO and the contribution from the emergency generator is low.

Note that the Abnormal Emissions Scenario represents a highly conservative operating case that is not expected to routinely occur in practice. While the scenario is identified as occurring up to 10% of the time, this value represents a conservative upper-bound estimate rather than an expected operating frequency. The scenario assumes simultaneous operation of both compressor turbines, the auxiliary boiler, and the emergency generator, with all sources modelled at their maximum emission rates for the entire modelling period. The emergency generator is intended primarily for emergency power supply during utility power interruptions and maintenance testing. Consequently, simultaneous operation of the emergency generator together with both compressor turbines at maximum load is expected to occur infrequently and would generally be limited in duration. The modelling therefore represents a conservative worst-case combination of source operation that is intended to bound potential impacts. Furthermore, the modelling effectively assumes that this worst-case combination of emissions occurs during the most adverse meteorological conditions for pollutant dispersion. In reality, the coincidence of maximum emissions and worst-case dispersion conditions is unlikely, making the modelled concentrations conservative representations of potential ambient impacts.

Table 5-1: Maximum Predicted Concentrations over the Modelling Domain

Air Contaminant	Averaging Period	Objectives (µg/m³)		Background Conc. (µg/m³)	Maximum Predicted Concentration without Background under Different Scenarios (µg/m³) [8] [9] [10]				Maximum Predicted Concentration with Background under Different Scenarios (µg/m³) [8] [9] [10]			
		BC AAQO	CAAQS 2025		Normal	Peak	Abnormal	Annual	Normal	Peak	Abnormal	Annual
NO_2 (Total Conversion)	1-hour [3]	113	79	41.6	27	41	**188**	-	68	83	**230**	-
	Annual [2]	32	23	9.4	-	-	-	2.0	-	-	-	11.4
NO_2 (ARM2)	1-hour [3]	113	79	41.6	24	37	84	-	66	79	**126**	-
	Annual [2]	32	23	9.4	-	-	-	1.8	-	-	-	11.2
SO_2	1-hour [1]	170	170	11.1	0.8	1.1	1.8	-	11.9	12.2	12.9	-
	Annual [2]	10	10	0.7	-	-	-	0.04	-	-	-	0.7
CO	1-hour [4]	14,300	-	389	44	59	110	-	433	449	499	-
PM_{10}	24-hour [5]	50	-	17.7	1.5	2.3	7.7	-	19.2	20.0	25.4	-
$PM_{2.5}$	24-hour [5]	25	27 [6]	17.7	1.1	1.8	5.9	-	18.8	19.4	23.6	-
	Annual [2]	8	8.8 [6]	5.2	-	-	-	0.3	-	-	-	5.5
VOC [11]	1-hour [4]	-	-	N/A [7]	25	33	37	-	25	33	37	-

Notes:

[1] Based on 5-year avg. of the annual 99th percentile of D1HM values.

[2] Based on 5-year avg. of the annual avg. of hourly values over one year.

[3] Based on 5-year avg. of the annual 98th percentile of D1HM values.

[4] Based on 5-year avg. of the annual 100th percentile of hourly values.

[5] Based on 5-year avg. of the annual 100th percentile of 24-hour averages.

[6] Unchanged from CAAQS 2020 value.

[7] For VOC, background concentrations were assumed to be zero.

[8] Only short-term impact (i.e. 1-hour and 24-hour) was assessed for Normal Operations, Peak Operations and Abnormal Emission scenarios, while only long-term impact (i.e. annual) was assessed for Annual Emission Scenario.

[9] Values shown in **bold** font indicate exceedance of BC AAQO.

[10] Underlined values indicate exceedance of CAQQS 2025.

[11] Total VOC was conservatively assumed to be equal to total unburnt hydrocarbon (UHC).

Table 5-2: Detailed statistics of Predicted D1HM and Annual SO_2 Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)							With Background Concentrations (µg/m³)						
				Normal		Peak		Abnormal		Annual	Normal		Peak		Abnormal		Annual
				99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)				*11.11*						*0.70*	*11.11*						*0.70*
Objectives (µg/m³)			***BC AAQO***	*170*	-	*170*	-	*170*	-	*10*	*170*	-	*170*	-	*170*	-	*10*
			CAQQS 2025	*170*	-	*170*	-	*170*	-	*10*	*170*	-	*170*	-	*170*	-	*10*
MPOI			2011	1.054	1.604	1.826	2.280	1.947	2.309	0.036	12.164	12.715	12.937	13.391	13.057	13.420	0.734
			2012	0.875	1.119	1.084	1.664	1.835	1.987	0.038	11.986	12.229	12.194	12.774	12.945	13.097	0.736
			2013	0.706	1.089	1.141	1.432	1.866	2.008	0.035	11.817	12.200	12.252	12.543	12.977	13.119	0.733
			2014	0.662	1.311	1.187	1.732	1.885	1.995	0.033	11.772	12.421	12.297	12.842	12.996	13.105	0.732
			2015	0.730	1.081	1.124	1.475	1.840	2.077	0.038	11.840	12.191	12.235	12.585	12.951	13.187	0.737
1	Residential use at 37776 3 Ave, Squamish	Residential	2011	0.008	0.009	0.015	0.019	0.016	0.019	0.000	11.118	11.120	11.126	11.129	11.127	11.130	0.699
			2012	0.007	0.010	0.014	0.021	0.014	0.021	0.000	11.118	11.121	11.124	11.131	11.125	11.132	0.699
			2013	0.008	0.008	0.015	0.017	0.015	0.017	0.000	11.118	11.119	11.125	11.127	11.126	11.128	0.699
			2014	0.008	0.012	0.017	0.024	0.018	0.025	0.000	11.118	11.123	11.127	11.134	11.128	11.135	0.699
			2015	0.008	0.014	0.016	0.028	0.017	0.029	0.000	11.119	11.125	11.127	11.139	11.128	11.140	0.699
2	Squamish General Hospital	Hospital	2011	0.005	0.005	0.009	0.011	0.010	0.011	0.000	11.115	11.116	11.120	11.121	11.121	11.122	0.699
			2012	0.005	0.007	0.009	0.013	0.009	0.013	0.000	11.115	11.117	11.120	11.124	11.120	11.124	0.699
			2013	0.005	0.006	0.009	0.011	0.009	0.012	0.000	11.115	11.116	11.119	11.122	11.120	11.122	0.699
			2014	0.005	0.007	0.010	0.014	0.011	0.014	0.000	11.116	11.118	11.121	11.124	11.121	11.125	0.699
			2015	0.005	0.007	0.009	0.015	0.010	0.015	0.000	11.115	11.118	11.120	11.125	11.120	11.126	0.699
3	Balsam Montessori Academy	School	2011	0.008	0.008	0.015	0.017	0.015	0.017	0.000	11.118	11.119	11.125	11.127	11.126	11.128	0.699
			2012	0.007	0.010	0.014	0.019	0.014	0.020	0.000	11.118	11.120	11.124	11.130	11.125	11.130	0.699
			2013	0.007	0.007	0.014	0.015	0.014	0.015	0.000	11.117	11.118	11.124	11.125	11.125	11.126	0.699
			2014	0.008	0.011	0.016	0.022	0.016	0.023	0.000	11.119	11.122	11.126	11.133	11.127	11.134	0.699
			2015	0.009	0.013	0.017	0.025	0.018	0.026	0.000	11.119	11.123	11.128	11.136	11.128	11.137	0.699
4	Klahanie Campground	Campground	2011	0.006	0.007	0.011	0.013	0.012	0.013	0.000	11.116	11.117	11.122	11.123	11.122	11.124	0.699
			2012	0.006	0.009	0.012	0.018	0.012	0.019	0.000	11.116	11.120	11.122	11.129	11.123	11.129	0.699
			2013	0.006	0.009	0.012	0.018	0.012	0.018	0.000	11.116	11.119	11.122	11.128	11.122	11.128	0.699
			2014	0.007	0.010	0.014	0.020	0.015	0.021	0.000	11.118	11.120	11.125	11.131	11.125	11.131	0.699
			2015	0.005	0.006	0.009	0.013	0.009	0.013	0.000	11.115	11.117	11.119	11.123	11.119	11.123	0.699
5	Alice Lake Park	Park	2011	0.002	0.002	0.003	0.004	0.003	0.005	0.000	11.112	11.113	11.114	11.115	11.114	11.115	0.699
			2012	0.002	0.002	0.004	0.004	0.004	0.005	0.000	11.112	11.113	11.114	11.115	11.114	11.115	0.699
			2013	0.002	0.002	0.004	0.004	0.004	0.004	0.000	11.112	11.113	11.114	11.114	11.114	11.115	0.699
			2014	0.002	0.003	0.004	0.005	0.004	0.005	0.000	11.112	11.113	11.114	11.116	11.114	11.116	0.698
			2015	0.002	0.002	0.004	0.004	0.004	0.004	0.000	11.112	11.113	11.114	11.115	11.114	11.115	0.698

Table 5-2: Detailed statistics of Predicted D1HM and Annual SO_2 Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year – Continued

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)							With Background Concentrations (µg/m³)						
				Normal		Peak		Abnormal		Annual	Normal		Peak		Abnormal		Annual
				99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)				*11.11*						*0.70*	*11.11*						*0.70*
Objectives (µg/m³)			***BC AAQO***	*170*	-	*170*	-	*170*	-	*10*	*170*	-	*170*	-	*170*	-	*10*
			CAQQS 2025	*170*	-	*170*	-	*170*	-	*10*	*170*	-	*170*	-	*170*	-	*10*
6	Baynes Island Ecological Reserve	Park	2011	0.002	0.003	0.005	0.007	0.005	0.007	0.000	11.113	11.114	11.116	11.117	11.116	11.117	0.699
			2012	0.003	0.003	0.005	0.006	0.006	0.007	0.000	11.113	11.114	11.116	11.117	11.116	11.117	0.699
			2013	0.003	0.003	0.005	0.006	0.005	0.006	0.000	11.113	11.114	11.116	11.117	11.116	11.117	0.699
			2014	0.003	0.004	0.005	0.009	0.006	0.009	0.000	11.113	11.115	11.116	11.119	11.116	11.119	0.699
			2015	0.003	0.005	0.006	0.010	0.006	0.010	0.000	11.114	11.115	11.117	11.120	11.117	11.120	0.699
7	Bracken24-HRAle Eagles Park	Park	2011	0.003	0.004	0.006	0.008	0.006	0.008	0.000	11.114	11.115	11.116	11.118	11.117	11.118	0.699
			2012	0.003	0.004	0.006	0.007	0.006	0.007	0.000	11.114	11.114	11.117	11.117	11.117	11.118	0.699
			2013	0.003	0.003	0.006	0.007	0.006	0.007	0.000	11.114	11.114	11.116	11.117	11.117	11.118	0.699
			2014	0.003	0.004	0.006	0.008	0.006	0.008	0.000	11.114	11.115	11.117	11.119	11.117	11.119	0.699
			2015	0.003	0.006	0.007	0.012	0.007	0.012	0.000	11.114	11.117	11.117	11.123	11.118	11.123	0.699
8	Murrin Park	Park	2011	0.006	0.010	0.012	0.020	0.013	0.021	0.000	11.117	11.121	11.123	11.130	11.123	11.131	0.699
			2012	0.006	0.010	0.011	0.019	0.011	0.020	0.000	11.116	11.120	11.122	11.130	11.122	11.131	0.699
			2013	0.006	0.010	0.012	0.019	0.012	0.019	0.000	11.117	11.120	11.122	11.130	11.123	11.130	0.699
			2014	0.009	0.009	0.018	0.018	0.019	0.019	0.000	11.119	11.120	11.129	11.129	11.129	11.130	0.699
			2015	0.005	0.010	0.011	0.020	0.011	0.021	0.000	11.116	11.121	11.122	11.131	11.122	11.132	0.699
9	PorteBJ Cover Park	Park	2011	0.002	0.002	0.004	0.004	0.004	0.005	0.000	11.112	11.113	11.114	11.115	11.114	11.115	0.698
			2012	0.002	0.002	0.003	0.005	0.004	0.005	0.000	11.112	11.113	11.114	11.115	11.114	11.116	0.698
			2013	0.002	0.002	0.003	0.004	0.004	0.004	0.000	11.112	11.113	11.114	11.115	11.114	11.115	0.698
			2014	0.002	0.004	0.004	0.007	0.004	0.008	0.000	11.113	11.114	11.115	11.118	11.115	11.118	0.698
			2015	0.002	0.003	0.004	0.006	0.004	0.007	0.000	11.113	11.114	11.115	11.117	11.115	11.117	0.698
10	Shannon Falls Park	Park	2011	0.004	0.009	0.008	0.019	0.009	0.020	0.000	11.115	11.120	11.119	11.130	11.119	11.130	0.699
			2012	0.004	0.009	0.009	0.018	0.009	0.018	0.000	11.115	11.119	11.119	11.129	11.120	11.129	0.698
			2013	0.003	0.006	0.006	0.012	0.006	0.012	0.000	11.114	11.117	11.117	11.122	11.117	11.123	0.699
			2014	0.005	0.008	0.010	0.015	0.010	0.015	0.000	11.116	11.118	11.121	11.126	11.121	11.126	0.699
			2015	0.004	0.014	0.008	0.028	0.008	0.028	0.000	11.114	11.125	11.119	11.139	11.119	11.139	0.698
11	Skwelwil'em Squamish Estuary WMA	Park	2011	0.009	0.011	0.018	0.022	0.018	0.023	0.001	11.120	11.122	11.128	11.133	11.129	11.133	0.699
			2012	0.010	0.012	0.019	0.024	0.019	0.025	0.001	11.120	11.123	11.130	11.135	11.130	11.135	0.699
			2013	0.008	0.010	0.017	0.020	0.017	0.021	0.001	11.119	11.121	11.127	11.131	11.128	11.132	0.699
			2014	0.010	0.015	0.019	0.029	0.020	0.030	0.001	11.120	11.125	11.130	11.139	11.130	11.141	0.699
			2015	0.009	0.014	0.019	0.028	0.020	0.029	0.001	11.120	11.125	11.130	11.139	11.130	11.140	0.699

Table 5-2: Detailed statistics of Predicted D1HM and Annual SO_2 Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year - Continued

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)							With Background Concentrations (µg/m³)						
				Normal		Peak		Abnormal		Annual	Normal		Peak		Abnormal		Annual
				99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)				*11.11*						*0.70*	*11.11*						*0.70*
Objectives (µg/m³)			***BC AAQO***	*170*	-	*170*	-	*170*	-	*10*	*170*	-	*170*	-	*170*	-	*10*
			CAQQS 2025	*170*	-	*170*	-	*170*	-	*10*	*170*	-	*170*	-	*170*	-	*10*
12	Stawamus Chief Park	Park	2011	0.003	0.004	0.006	0.008	0.006	0.008	0.000	11.114	11.115	11.117	11.119	11.117	11.119	0.699
			2012	0.003	0.005	0.006	0.010	0.006	0.011	0.000	11.113	11.116	11.116	11.121	11.116	11.121	0.698
			2013	0.003	0.004	0.006	0.009	0.006	0.009	0.000	11.114	11.115	11.117	11.120	11.117	11.120	0.699
			2014	0.003	0.004	0.007	0.009	0.007	0.009	0.000	11.114	11.115	11.118	11.119	11.118	11.120	0.698
			2015	0.003	0.004	0.005	0.007	0.006	0.008	0.000	11.113	11.114	11.116	11.118	11.116	11.118	0.698
13	Stawamus Chief Protected Area Park	Park	2011	0.003	0.004	0.007	0.007	0.007	0.008	0.000	11.114	11.114	11.117	11.118	11.118	11.118	0.699
			2012	0.003	0.004	0.006	0.009	0.006	0.009	0.000	11.114	11.115	11.117	11.120	11.117	11.120	0.698
			2013	0.003	0.003	0.006	0.006	0.006	0.006	0.000	11.113	11.114	11.116	11.117	11.116	11.117	0.699
			2014	0.003	0.006	0.007	0.012	0.007	0.012	0.000	11.114	11.116	11.118	11.122	11.118	11.122	0.698
			2015	0.003	0.004	0.006	0.008	0.006	0.008	0.000	11.113	11.115	11.116	11.119	11.116	11.119	0.698
14	Tantalus Park	Park	2011	0.001	0.001	0.002	0.002	0.002	0.002	0.000	11.112	11.112	11.112	11.113	11.113	11.113	0.698
			2012	0.001	0.001	0.002	0.002	0.002	0.002	0.000	11.112	11.112	11.112	11.113	11.112	11.113	0.698
			2013	0.001	0.001	0.002	0.002	0.002	0.002	0.000	11.112	11.112	11.113	11.113	11.113	11.113	0.698
			2014	0.001	0.001	0.002	0.002	0.002	0.002	0.000	11.111	11.112	11.112	11.113	11.112	11.113	0.698
			2015	0.001	0.001	0.002	0.002	0.002	0.002	0.000	11.111	11.112	11.112	11.113	11.112	11.113	0.698
15	Cypress Park	Park	2011	0.001	0.001	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.112	11.112	11.112	11.112	0.698
			2012	0.001	0.001	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.112	11.112	11.112	11.112	0.698
			2013	0.000	0.001	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.112	11.112	11.112	11.112	0.698
			2014	0.000	0.001	0.001	0.002	0.001	0.002	0.000	11.111	11.112	11.112	11.113	11.112	11.113	0.698
			2015	0.001	0.001	0.001	0.001	0.001	0.002	0.000	11.111	11.111	11.112	11.112	11.112	11.112	0.698
16	Garibaldi Park	Park	2011	0.000	0.000	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.111	11.111	11.111	11.111	0.698
			2012	0.000	0.000	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.111	11.111	11.111	11.111	0.698
			2013	0.000	0.000	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.111	11.112	11.111	11.112	0.698
			2014	0.000	0.000	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.111	11.111	11.111	11.112	0.698
			2015	0.000	0.000	0.001	0.001	0.001	0.001	0.000	11.111	11.111	11.111	11.111	11.111	11.111	0.698

Notes:
[1] D1HM: Daily 1-Hour Maximum
%ile = percentile
MPOI = Maximum point of impingement

Table 5-3: Predicted 98th percentile of 24-Hour and Predicted Annual PM2.5 Concentrations, With and Without Background, at Sensitive Receptors for Each Scenario averaged over 2011-2015

Index	Receptor Name	Receptor Category	Without Background Concentrations (µg/m³)				With Background Concentrations (µg/m³)			
			Normal	Peak	Abnormal	Annual	Normal	Peak	Abnormal	Annual
			98th %ile 24-Hour	98th %ile 24-Hour	98th %ile 24-Hour	Annual Average	98th %ile 24-Hour	98th %ile 24-Hour	98th %ile 24-Hour	Annual Average
Background Concentrations (µg/m³)			*17.69*			*5.20*	*17.69*			*5.20*
Objectives (µg/m³)		*BC AAQO*	*25*			*8*	*25*			*8*
		CAQQS 2020 and 2025	*27*			*8.8*	*27*			*8.8*
1	Residential use at 37776 3 Ave, Squamish	Residential	0.012	0.024	0.027	0.003	17.699	17.711	17.714	5.202
2	Squamish General Hospital	Hospital	0.007	0.015	0.016	0.002	17.695	17.702	17.703	5.201
3	Balsam Montessori Academy	School	0.012	0.024	0.027	0.003	17.699	17.711	17.714	5.202
4	Klahanie Campground	Campground	0.006	0.011	0.013	0.002	17.693	17.698	17.700	5.200
5	Alice Lake Park	Park	0.004	0.008	0.009	0.001	17.691	17.695	17.696	5.200
6	Baynes Island Ecological Reserve	Park	0.006	0.011	0.012	0.002	17.693	17.698	17.699	5.201
7	Bracken24-HRAle Eagles Park	Park	0.006	0.013	0.014	0.002	17.694	17.700	17.701	5.201
8	Murrin Park	Park	0.006	0.012	0.015	0.002	17.693	17.699	17.702	5.200
9	PorteBJ Cover Park	Park	0.003	0.006	0.007	0.001	17.690	17.693	17.694	5.200
10	Shannon Falls Park	Park	0.005	0.009	0.010	0.001	17.692	17.696	17.697	5.200
11	Skwelwil'em Squamish Estuary WMA	Park	0.016	0.032	0.036	0.005	17.704	17.719	17.723	5.204
12	Stawamus Chief Park	Park	0.004	0.009	0.010	0.001	17.691	17.696	17.697	5.200
13	Stawamus Chief Protected Area Park	Park	0.004	0.008	0.010	0.001	17.691	17.695	17.697	5.200
14	Tantalus Park	Park	0.002	0.003	0.004	0.000	17.689	17.690	17.691	5.199
15	Cypress Park	Park	0.001	0.002	0.002	0.000	17.688	17.689	17.689	5.199
16	Garibaldi Park	Park	0.001	0.001	0.002	0.000	17.688	17.689	17.689	5.199

Note:
%ile = percentile

Table 5-4: Maximum Predicted 24-Hour PM_{10} Concentrations, With and Without Background, at Sensitive Receptors for Each Scenario averaged over 2011-2015

Index	Receptor Name	Receptor Category	Without Background Concentrations (µg/m³)			With Background Concentrations (µg/m³)		
			Normal	Peak	Abnormal	Normal	Peak	Abnormal
			100th %ile 24-Hour	100th %ile 24-Hour	100th %ile 24-Hour	100th %ile 24-Hour	100th %ile 24-Hour	100th %ile 24-Hour
Background Concentrations (µg/m³)			*17.69*					
Objectives (µg/m³)		*BC AAQO*	*50*					
		CAAQS 2025	-					
1	Residential use at 37776 3 Ave, Squamish	Residential	0.018	0.036	0.041	17.705	17.724	17.728
2	Squamish General Hospital	Hospital	0.011	0.022	0.025	17.698	17.709	17.712
3	Balsam Montessori Academy	School	0.019	0.038	0.042	17.706	17.725	17.729
4	Klahanie Campground	Campground	0.009	0.018	0.021	17.696	17.705	17.708
5	Alice Lake Park	Park	0.006	0.011	0.012	17.693	17.698	17.699
6	Baynes Island Ecological Reserve	Park	0.008	0.017	0.018	17.696	17.704	17.705
7	Bracken24-HRAle Eagles Park	Park	0.009	0.018	0.020	17.696	17.706	17.707
8	Murrin Park	Park	0.010	0.019	0.022	17.697	17.707	17.709
9	PorteBJ Cover Park	Park	0.004	0.008	0.009	17.691	17.695	17.696
10	Shannon Falls Park	Park	0.007	0.014	0.016	17.694	17.701	17.704
11	Skwelwil'em Squamish Estuary WMA	Park	0.024	0.047	0.052	17.711	17.734	17.739
12	Stawamus Chief Park	Park	0.007	0.014	0.016	17.694	17.702	17.703
13	Stawamus Chief Protected Area Park	Park	0.007	0.014	0.016	17.694	17.701	17.703
14	Tantalus Park	Park	0.002	0.005	0.005	17.689	17.692	17.692
15	Cypress Park	Park	0.001	0.003	0.003	17.689	17.690	17.690
16	Garibaldi Park	Park	0.001	0.002	0.002	17.688	17.689	17.690

Note:
%ile = percentile

Table 5-5: Maximum Predicted 1-Hour and Predicted Annual VOC Concentrations at Sensitive Receptors for Each Scenario averaged over 2011-2015 [1,2]

Index	Receptor Name	Receptor Category	Without Background Concentrations (µg/m³)			
			Normal	Peak	Abnormal	Annual
			100th %ile 1-Hour	100th %ile 1-Hour	100th %ile 1-Hour	Annual Average
Background Concentrations (µg/m³)			-			
Objectives (µg/m³)		*BC AAQO*	-			
		CAQQS 2025	-			
1	Residential use at 37776 3 Ave, Squamish	Residential	0.245	0.489	0.499	0.010
2	Squamish General Hospital	Hospital	0.145	0.288	0.293	0.006
3	Balsam Montessori Academy	School	0.222	0.442	0.453	0.010
4	Klahanie Campground	Campground	0.183	0.368	0.373	0.005
5	Alice Lake Park	Park	0.050	0.099	0.101	0.004
6	Baynes Island Ecological Reserve	Park	0.085	0.170	0.172	0.006
7	Bracken24-HRAle Eagles Park	Park	0.095	0.189	0.191	0.006
8	Murrin Park	Park	0.219	0.436	0.448	0.005
9	PorteBJ Cover Park	Park	0.061	0.122	0.126	0.002
10	Shannon Falls Park	Park	0.210	0.418	0.422	0.004
11	Skwelwil'em Squamish Estuary WMA	Park	0.280	0.558	0.570	0.015
12	Stawamus Chief Park	Park	0.098	0.198	0.201	0.004
13	Stawamus Chief Protected Area Park	Park	0.096	0.190	0.192	0.003
14	Tantalus Park	Park	0.024	0.047	0.048	0.001
15	Cypress Park	Park	0.016	0.032	0.033	0.001
16	Garibaldi Park	Park	0.009	0.019	0.019	0.001

Notes:
[1] VOC background concentrations were assumed to be zero.
[2] Total VOC was conservatively assumed to be equal to total unburnt hydrocarbon (UHC).
%ile = percentile

Table 5-6: Maximum Predicted 1-Hour CO Concentrations, With and Without Background, at Sensitive Receptors for Each Scenario, averaged over 2011-2015

Index	Receptor Name	Receptor Category	Without Background Concentrations (µg/m³)			With Background Concentrations (µg/m³)		
			Normal	Peak	Abnormal	Normal	Peak	Abnormal
			100th Percentile 1-Hour	100th Percentile 1-Hour	100th Percentile 1-Hour	100th Percentile 1-Hour	100th Percentile 1-Hour	100th Percentile 1-Hour
Background Concentrations (µg/m³)			*389.28*					
Objectives (µg/m³)		*BC AAQO*	*14,300*					
		CAQQS 2025	-					
1	Residential use at 37776 3 Ave, Squamish	Residential	0.436	0.864	0.915	389.718	390.146	390.197
2	Squamish General Hospital	Hospital	0.257	0.509	0.534	389.539	389.790	389.816
3	Balsam Montessori Academy	School	0.397	0.783	0.836	389.679	390.065	390.117
4	Klahanie Campground	Campground	0.324	0.648	0.671	389.605	389.929	389.953
5	Alice Lake Park	Park	0.089	0.175	0.185	389.371	389.457	389.467
6	Baynes Island Ecological Reserve	Park	0.151	0.300	0.310	389.432	389.581	389.591
7	Bracken24-HRAle Eagles Park	Park	0.169	0.332	0.345	389.450	389.614	389.627
8	Murrin Park	Park	0.392	0.774	0.833	389.674	390.056	390.114
9	PorteBJ Cover Park	Park	0.110	0.217	0.235	389.391	389.498	389.516
10	Shannon Falls Park	Park	0.370	0.735	0.755	389.652	390.017	390.037
11	Skwelwil'em Squamish Estuary WMA	Park	0.499	0.987	1.049	389.781	390.268	390.331
12	Stawamus Chief Park	Park	0.175	0.348	0.364	389.456	389.630	389.645
13	Stawamus Chief Protected Area Park	Park	0.169	0.335	0.346	389.451	389.616	389.627
14	Tantalus Park	Park	0.042	0.084	0.088	389.323	389.365	389.370
15	Cypress Park	Park	0.029	0.057	0.062	389.310	389.339	389.344
16	Garibaldi Park	Park	0.017	0.033	0.036	389.298	389.315	389.317

Note:
%ile = percentile

Table 5-7: Detailed Statistics of Predicted D1HM and Annual NO_2 (Total Conversion) Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)										With Background Concentrations (µg/m³)									
				Normal			Peak			Abnormal			Annual	Normal			Peak			Abnormal			Annual
				98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)				*41.56*									*9.40*	*41.56*									*9.40*
Objectives (µg/m³)			*BC AAQO*	*113*	-	-	*113*	-	-	*113*	-	-	*32*	*113*	-	-	*113*	-	-	*113*	-	-	*32*
			CAQQS 2025	*79*	-	-	*79*	-	-	*79*	-	-	*23*	*79*	-	-	*79*	-	-	*79*	-	-	*23*
MPOI			2011	31.869	41.259	64.228	40.424	73.239	90.454	**189.400**	191.260	239.170	1.905	73.430	82.820	105.789	81.985	114.800	132.015	**230.961**	232.821	280.731	11.307
			2012	28.637	34.246	43.711	40.501	42.964	66.282	**186.610**	187.960	207.420	2.062	70.198	75.807	85.272	82.062	84.525	107.843	**228.171**	229.521	248.981	11.464
			2013	24.530	27.625	42.567	42.473	44.620	56.025	**189.610**	197.990	227.830	2.141	66.091	69.186	84.128	84.034	86.181	97.586	**231.171**	239.551	269.391	11.544
			2014	24.310	25.858	51.696	43.458	46.383	68.141	**183.890**	193.370	210.500	1.958	65.871	67.419	93.257	85.019	87.944	109.702	**225.451**	234.931	252.061	11.360
			2015	25.018	28.521	42.292	43.207	44.415	57.784	**191.740**	198.410	210.230	2.164	66.579	70.082	83.853	84.768	85.976	99.345	**233.301**	239.971	251.791	11.567
1	Residential use at 37776 3 Ave, Squamish	Residential	2011	0.278	0.301	0.370	0.547	0.591	0.736	0.610	0.662	0.832	0.019	41.839	41.862	41.931	42.108	42.152	42.297	42.171	42.223	42.393	9.422
			2012	0.244	0.274	0.410	0.493	0.538	0.816	0.551	0.604	0.906	0.016	41.805	41.835	41.971	42.054	42.099	42.377	42.112	42.165	42.467	9.419
			2013	0.269	0.298	0.328	0.532	0.578	0.651	0.612	0.661	0.701	0.020	41.830	41.859	41.889	42.093	42.139	42.212	42.173	42.222	42.262	9.423
			2014	0.287	0.309	0.467	0.582	0.658	0.931	0.648	0.723	1.058	0.017	41.848	41.870	42.028	42.143	42.220	42.492	42.209	42.284	42.619	9.419
			2015	0.290	0.323	0.556	0.569	0.645	1.099	0.652	0.742	1.252	0.015	41.852	41.884	42.117	42.130	42.206	42.660	42.213	42.303	42.813	9.418
2	Squamish General Hospital	Hospital	2011	0.175	0.185	0.216	0.344	0.365	0.420	0.383	0.421	0.481	0.012	41.736	41.746	41.777	41.905	41.926	41.981	41.944	41.982	42.042	9.414
			2012	0.153	0.177	0.261	0.298	0.349	0.517	0.337	0.396	0.521	0.010	41.714	41.738	41.822	41.859	41.910	42.079	41.899	41.957	42.082	9.413
			2013	0.150	0.179	0.217	0.297	0.334	0.435	0.345	0.393	0.497	0.012	41.711	41.740	41.778	41.859	41.896	41.996	41.906	41.954	42.058	9.415
			2014	0.172	0.201	0.272	0.342	0.399	0.544	0.374	0.449	0.611	0.010	41.733	41.762	41.834	41.903	41.960	42.105	41.935	42.010	42.172	9.413
			2015	0.167	0.178	0.290	0.329	0.356	0.575	0.361	0.420	0.655	0.010	41.728	41.739	41.852	41.890	41.917	42.136	41.923	41.981	42.216	9.412
3	Balsam Montessori Academy	School	2011	0.257	0.297	0.327	0.504	0.577	0.650	0.585	0.659	0.735	0.019	41.818	41.858	41.888	42.065	42.138	42.211	42.146	42.220	42.296	9.422
			2012	0.241	0.270	0.378	0.474	0.539	0.750	0.534	0.615	0.829	0.016	41.802	41.831	41.939	42.035	42.100	42.311	42.095	42.176	42.390	9.419
			2013	0.264	0.269	0.293	0.523	0.535	0.575	0.576	0.613	0.670	0.020	41.825	41.831	41.854	42.084	42.096	42.136	42.137	42.174	42.231	9.422
			2014	0.270	0.311	0.436	0.538	0.616	0.866	0.607	0.715	0.991	0.017	41.831	41.872	41.998	42.099	42.177	42.427	42.168	42.276	42.552	9.419
			2015	0.293	0.336	0.503	0.575	0.668	0.993	0.646	0.761	1.134	0.015	41.855	41.897	42.064	42.136	42.229	42.555	42.207	42.322	42.695	9.418
4	Klahanie Campground	Campground	2011	0.187	0.230	0.262	0.366	0.438	0.500	0.402	0.487	0.557	0.009	41.748	41.791	41.823	41.927	41.999	42.061	41.963	42.048	42.118	9.411
			2012	0.154	0.230	0.358	0.314	0.457	0.712	0.355	0.483	0.797	0.008	41.715	41.791	41.920	41.875	42.018	42.273	41.916	42.044	42.358	9.410
			2013	0.167	0.228	0.345	0.330	0.455	0.686	0.361	0.478	0.700	0.009	41.728	41.789	41.906	41.891	42.016	42.247	41.923	42.039	42.261	9.412
			2014	0.211	0.282	0.373	0.427	0.560	0.789	0.438	0.619	0.858	0.008	41.772	41.843	41.934	41.988	42.121	42.350	41.999	42.180	42.419	9.411
			2015	0.160	0.180	0.248	0.322	0.344	0.490	0.341	0.403	0.499	0.008	41.722	41.741	41.809	41.883	41.905	42.051	41.902	41.964	42.060	9.410
5	Alice Lake Park	Park	2011	0.058	0.064	0.089	0.115	0.128	0.176	0.134	0.144	0.196	0.007	41.619	41.625	41.650	41.677	41.689	41.737	41.695	41.705	41.757	9.410
			2012	0.068	0.072	0.088	0.134	0.143	0.175	0.147	0.168	0.193	0.006	41.629	41.633	41.649	41.695	41.704	41.736	41.708	41.729	41.754	9.409
			2013	0.066	0.070	0.076	0.128	0.139	0.150	0.148	0.159	0.169	0.007	41.627	41.632	41.637	41.689	41.700	41.711	41.709	41.720	41.730	9.410
			2014	0.061	0.072	0.102	0.123	0.140	0.196	0.138	0.161	0.221	0.006	41.623	41.633	41.663	41.684	41.702	41.758	41.699	41.722	41.782	9.409
			2015	0.063	0.071	0.081	0.126	0.139	0.160	0.142	0.161	0.182	0.006	41.624	41.632	41.642	41.687	41.700	41.721	41.704	41.722	41.743	9.408
6	Baynes Island Ecological Reserve	Park	2011	0.093	0.097	0.132	0.185	0.193	0.264	0.210	0.215	0.276	0.012	41.655	41.658	41.693	41.746	41.754	41.826	41.771	41.776	41.837	9.414
			2012	0.097	0.109	0.127	0.193	0.216	0.252	0.216	0.249	0.291	0.011	41.658	41.670	41.689	41.754	41.777	41.814	41.777	41.810	41.852	9.413
			2013	0.094	0.102	0.118	0.185	0.204	0.234	0.207	0.236	0.265	0.011	41.655	41.663	41.679	41.746	41.766	41.795	41.768	41.798	41.826	9.414
			2014	0.099	0.108	0.172	0.191	0.212	0.340	0.210	0.229	0.352	0.009	41.661	41.669	41.733	41.752	41.773	41.901	41.771	41.791	41.913	9.412
			2015	0.102	0.118	0.189	0.202	0.232	0.378	0.230	0.260	0.384	0.009	41.663	41.679	41.750	41.763	41.793	41.939	41.791	41.821	41.946	9.412

Table 5-7: Detailed Statistics of Predicted D1HM and Annual NO_2 (Total Conversion) Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year – Continued

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)										With Background Concentrations (µg/m³)									
				Normal			Peak			Abnormal			Annual	Normal			Peak			Abnormal			Annual
				98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)							*41.56*						*9.40*				*41.56*						*9.40*
Objectives (µg/m³)			*BC AAQO*	*113*	-	-	*113*	-	-	*113*	-	-	*32*	*113*	-	-	*113*	-	-	*113*	-	-	*32*
			CAQQS 2025	*79*	-	-	*79*	-	-	*79*	-	-	*23*	*79*	-	-	*79*	-	-	*79*	-	-	*23*
7	Bracken24-HRAle Eagles Park	Park	2011	0.107	0.115	0.153	0.211	0.229	0.303	0.233	0.252	0.318	0.013	41.668	41.676	41.714	41.772	41.790	41.864	41.794	41.813	41.880	9.415
			2012	0.108	0.119	0.140	0.214	0.239	0.265	0.235	0.274	0.294	0.012	41.669	41.680	41.701	41.775	41.800	41.826	41.796	41.835	41.855	9.414
			2013	0.105	0.114	0.136	0.208	0.225	0.269	0.235	0.259	0.305	0.012	41.666	41.675	41.697	41.769	41.786	41.830	41.796	41.820	41.866	9.415
			2014	0.113	0.121	0.162	0.217	0.246	0.324	0.244	0.286	0.366	0.010	41.674	41.682	41.723	41.778	41.807	41.885	41.805	41.847	41.927	9.413
			2015	0.118	0.133	0.234	0.236	0.266	0.469	0.259	0.282	0.476	0.010	41.679	41.694	41.795	41.797	41.827	42.030	41.820	41.843	42.037	9.413
8	Murrin Park	Park	2011	0.208	0.242	0.389	0.407	0.489	0.774	0.495	0.546	0.887	0.009	41.769	41.803	41.950	41.968	42.050	42.335	42.056	42.107	42.448	9.412
			2012	0.172	0.218	0.384	0.349	0.444	0.753	0.396	0.508	0.874	0.009	41.733	41.779	41.945	41.910	42.005	42.314	41.957	42.069	42.435	9.411
			2013	0.182	0.252	0.380	0.408	0.463	0.744	0.480	0.524	0.803	0.009	41.743	41.813	41.941	41.969	42.025	42.305	42.041	42.085	42.364	9.412
			2014	0.267	0.346	0.366	0.522	0.702	0.724	0.591	0.802	0.860	0.009	41.828	41.908	41.927	42.083	42.263	42.285	42.152	42.363	42.421	9.411
			2015	0.182	0.209	0.391	0.357	0.426	0.793	0.429	0.454	0.948	0.009	41.743	41.771	41.952	41.918	41.987	42.354	41.990	42.015	42.509	9.412
9	PorteBJ Cover Park	Park	2011	0.063	0.071	0.090	0.124	0.141	0.175	0.145	0.161	0.215	0.005	41.624	41.632	41.651	41.685	41.702	41.737	41.706	41.722	41.776	9.407
			2012	0.064	0.071	0.091	0.124	0.132	0.183	0.142	0.173	0.212	0.004	41.625	41.632	41.653	41.685	41.693	41.744	41.703	41.734	41.773	9.407
			2013	0.061	0.067	0.085	0.119	0.137	0.165	0.136	0.159	0.194	0.005	41.622	41.628	41.646	41.680	41.698	41.726	41.697	41.720	41.756	9.407
			2014	0.060	0.079	0.144	0.118	0.154	0.285	0.138	0.178	0.329	0.004	41.621	41.640	41.705	41.679	41.715	41.846	41.699	41.739	41.890	9.407
			2015	0.065	0.079	0.123	0.131	0.153	0.252	0.149	0.178	0.294	0.005	41.626	41.640	41.684	41.692	41.714	41.813	41.710	41.739	41.855	9.407
10	Shannon Falls Park	Park	2011	0.159	0.170	0.372	0.302	0.332	0.746	0.318	0.381	0.818	0.007	41.720	41.731	41.933	41.863	41.893	42.307	41.879	41.942	42.379	9.409
			2012	0.127	0.168	0.345	0.253	0.334	0.703	0.309	0.399	0.704	0.006	41.688	41.729	41.906	41.814	41.895	42.264	41.870	41.960	42.265	9.409
			2013	0.111	0.126	0.245	0.215	0.232	0.457	0.238	0.261	0.539	0.007	41.672	41.687	41.806	41.776	41.793	42.018	41.799	41.822	42.100	9.410
			2014	0.138	0.201	0.296	0.276	0.394	0.589	0.330	0.436	0.624	0.006	41.699	41.762	41.857	41.837	41.955	42.150	41.891	41.997	42.185	9.409
			2015	0.135	0.140	0.557	0.262	0.311	1.110	0.264	0.318	1.119	0.006	41.696	41.701	42.118	41.823	41.872	42.671	41.825	41.879	42.680	9.409
11	Skwelwil'em Squamish Estuary WMA	Park	2011	0.332	0.354	0.433	0.648	0.693	0.861	0.729	0.776	0.967	0.030	41.894	41.915	41.994	42.209	42.254	42.422	42.290	42.337	42.528	9.432
			2012	0.339	0.374	0.470	0.662	0.743	0.937	0.727	0.775	1.033	0.026	41.900	41.935	42.031	42.223	42.304	42.499	42.288	42.337	42.594	9.428
			2013	0.299	0.331	0.406	0.599	0.655	0.798	0.651	0.736	0.910	0.028	41.860	41.892	41.967	42.160	42.217	42.359	42.212	42.297	42.471	9.431
			2014	0.325	0.377	0.571	0.663	0.743	1.131	0.764	0.839	1.289	0.024	41.886	41.938	42.132	42.224	42.304	42.692	42.325	42.400	42.850	9.426
			2015	0.328	0.370	0.558	0.651	0.744	1.103	0.735	0.854	1.257	0.022	41.889	41.931	42.119	42.212	42.305	42.664	42.296	42.416	42.818	9.425
12	Stawamus Chief Park	Park	2011	0.100	0.118	0.163	0.197	0.234	0.318	0.220	0.254	0.360	0.007	41.661	41.679	41.724	41.758	41.795	41.879	41.781	41.815	41.921	9.409
			2012	0.088	0.110	0.204	0.174	0.218	0.406	0.202	0.250	0.448	0.006	41.649	41.671	41.765	41.735	41.779	41.967	41.763	41.811	42.009	9.408
			2013	0.105	0.119	0.173	0.209	0.237	0.360	0.240	0.256	0.361	0.007	41.666	41.680	41.735	41.770	41.798	41.922	41.801	41.818	41.922	9.410
			2014	0.104	0.133	0.169	0.205	0.273	0.335	0.243	0.306	0.385	0.006	41.665	41.694	41.730	41.766	41.834	41.896	41.804	41.867	41.947	9.409
			2015	0.095	0.107	0.145	0.188	0.213	0.288	0.210	0.224	0.309	0.006	41.656	41.668	41.706	41.749	41.774	41.849	41.771	41.786	41.870	9.409
13	Stawamus Chief Protected Area Park	Park	2011	0.122	0.138	0.150	0.240	0.269	0.287	0.274	0.286	0.324	0.006	41.683	41.699	41.711	41.801	41.830	41.848	41.835	41.847	41.885	9.409
			2012	0.101	0.123	0.176	0.208	0.245	0.350	0.238	0.257	0.381	0.006	41.662	41.684	41.737	41.769	41.806	41.911	41.799	41.818	41.942	9.408
			2013	0.104	0.112	0.120	0.210	0.223	0.235	0.229	0.241	0.264	0.007	41.665	41.673	41.681	41.771	41.784	41.796	41.790	41.802	41.825	9.409
			2014	0.123	0.136	0.226	0.243	0.275	0.452	0.271	0.298	0.466	0.006	41.684	41.697	41.787	41.804	41.836	42.013	41.832	41.859	42.027	9.409
			2015	0.095	0.111	0.159	0.187	0.216	0.318	0.216	0.233	0.327	0.006	41.656	41.672	41.720	41.748	41.777	41.879	41.777	41.794	41.888	9.409

Table 5-7: Detailed Statistics of Predicted D1HM and Annual NO_2 (Total Conversion) Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year – Continued

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)										With Background Concentrations (µg/m³)									
				Normal			Peak			Abnormal			Annual	Normal			Peak			Abnormal			Annual
				98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)				*41.56*									*9.40*	*41.56*									*9.40*
Objectives (µg/m³)			*BC AAQO*	*113*	-	-	*113*	-	-	*113*	-	-	*32*	*113*	-	-	*113*	-	-	*113*	-	-	*32*
			CAQQS 2025	*79*	-	-	*79*	-	-	*79*	-	-	*23*	*79*	-	-	*79*	-	-	*79*	-	-	*23*
14	Tantalus Park	Park	2011	0.031	0.037	0.045	0.062	0.073	0.091	0.073	0.080	0.093	0.003	41.593	41.598	41.606	41.623	41.634	41.652	41.634	41.641	41.654	9.405
			2012	0.032	0.035	0.038	0.063	0.070	0.076	0.072	0.079	0.087	0.003	41.593	41.596	41.599	41.624	41.631	41.637	41.633	41.640	41.648	9.405
			2013	0.032	0.039	0.044	0.063	0.077	0.087	0.073	0.089	0.100	0.003	41.593	41.600	41.605	41.624	41.638	41.648	41.634	41.650	41.661	9.405
			2014	0.029	0.034	0.039	0.057	0.068	0.080	0.062	0.073	0.090	0.002	41.590	41.595	41.601	41.618	41.629	41.641	41.623	41.634	41.651	9.405
			2015	0.030	0.033	0.038	0.059	0.065	0.076	0.064	0.074	0.085	0.002	41.591	41.594	41.599	41.620	41.626	41.637	41.625	41.635	41.646	9.405
15	Cypress Park	Park	2011	0.019	0.021	0.023	0.039	0.043	0.046	0.044	0.050	0.053	0.001	41.581	41.582	41.584	41.600	41.604	41.607	41.605	41.611	41.614	9.404
			2012	0.018	0.020	0.025	0.036	0.039	0.049	0.041	0.046	0.061	0.001	41.579	41.581	41.586	41.597	41.600	41.610	41.603	41.607	41.622	9.404
			2013	0.017	0.018	0.026	0.034	0.036	0.052	0.040	0.043	0.061	0.001	41.578	41.579	41.587	41.595	41.597	41.613	41.601	41.605	41.622	9.404
			2014	0.016	0.018	0.038	0.033	0.036	0.074	0.037	0.040	0.085	0.001	41.578	41.579	41.599	41.594	41.597	41.635	41.598	41.601	41.646	9.404
			2015	0.018	0.022	0.029	0.034	0.044	0.058	0.039	0.052	0.069	0.001	41.579	41.583	41.590	41.595	41.605	41.619	41.600	41.613	41.630	9.404
16	Garibaldi Park	Park	2011	0.013	0.014	0.016	0.025	0.027	0.032	0.030	0.031	0.037	0.001	41.574	41.575	41.577	41.587	41.588	41.593	41.591	41.592	41.598	9.404
			2012	0.011	0.013	0.015	0.022	0.025	0.029	0.025	0.030	0.034	0.001	41.572	41.574	41.576	41.583	41.586	41.590	41.586	41.591	41.595	9.404
			2013	0.012	0.014	0.019	0.025	0.029	0.037	0.028	0.032	0.041	0.001	41.574	41.575	41.580	41.586	41.590	41.598	41.589	41.593	41.602	9.404
			2014	0.012	0.015	0.017	0.023	0.029	0.033	0.026	0.033	0.039	0.001	41.573	41.576	41.578	41.584	41.590	41.594	41.587	41.594	41.600	9.404
			2015	0.011	0.012	0.016	0.022	0.024	0.032	0.026	0.027	0.037	0.001	41.572	41.573	41.577	41.584	41.585	41.593	41.587	41.588	41.598	9.404

Notes:
[1] D1HM: Daily 1-Hour Maximum
[2] Values in **bold** are above the BC AAQO of 113 µg/m³, and underlined values are above the CAAQS 2025 of 79 µg/m³.
[3] MPOI = Maximum point of impingement.

Table 5-8: Detailed Statistics of Predicted D1HM and Annual NO_2 (ARM2) Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)										With Background Concentrations (µg/m³)									
				Normal			Peak			Abnormal			Annual	Normal			Peak			Abnormal			Annual
				98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)							*41.56*						*9.40*				*41.56*						*9.40*
Objectives (µg/m³)			*BC AAQO*	*113*	-	-	*113*	-	-	*113*	-	-	*32*	*113*	-	-	*113*	-	-	*113*	-	-	*32*
			CAQQS 2025	*79*	-	-	*79*	-	-	*79*	-	-	*23*	*79*	-	-	*79*	-	-	*79*	-	-	*23*
MPOI			2011	28.682	37.133	57.805	36.381	65.720	72.951	84.163	84.164	84.164	1.714	70.243	78.694	99.366	77.942	107.281	114.512	**125.724**	125.725	125.725	11.117
			2012	25.773	30.821	39.340	36.451	38.668	59.653	84.162	84.164	84.164	1.855	67.334	72.382	80.901	78.012	80.229	101.214	**125.723**	125.725	125.725	11.258
			2013	22.077	24.862	38.310	38.226	40.158	50.422	84.164	84.164	84.164	1.927	63.638	66.423	79.871	79.787	81.719	91.983	**125.725**	125.725	125.725	11.330
			2014	21.879	23.272	46.527	39.112	41.745	61.327	84.164	84.164	84.164	1.762	63.440	64.833	88.088	80.673	83.306	102.888	**125.725**	125.725	125.725	11.165
			2015	22.516	25.669	38.063	38.887	39.973	52.005	84.164	84.164	84.164	1.948	64.077	67.230	79.624	80.448	81.534	93.566	**125.725**	125.725	125.725	11.350
1	Residential use at 37776 3 Ave, Squamish	Residential	2011	0.250	0.271	0.333	0.492	0.531	0.662	0.549	0.596	0.749	0.018	41.811	41.832	41.894	42.054	42.093	42.223	42.110	42.157	42.310	9.420
			2012	0.219	0.246	0.369	0.444	0.484	0.734	0.496	0.543	0.815	0.015	41.780	41.807	41.930	42.005	42.046	42.295	42.057	42.104	42.376	9.417
			2013	0.242	0.268	0.295	0.479	0.520	0.586	0.551	0.595	0.631	0.018	41.803	41.830	41.856	42.040	42.081	42.147	42.112	42.156	42.192	9.421
			2014	0.258	0.278	0.420	0.524	0.593	0.838	0.583	0.650	0.952	0.015	41.819	41.839	41.981	42.085	42.154	42.399	42.144	42.212	42.513	9.418
			2015	0.261	0.290	0.501	0.512	0.580	0.989	0.587	0.668	1.127	0.014	41.822	41.852	42.062	42.073	42.141	42.550	42.148	42.229	42.688	9.416
2	Squamish General Hospital	Hospital	2011	0.157	0.167	0.194	0.310	0.329	0.378	0.345	0.379	0.433	0.011	41.718	41.728	41.755	41.871	41.890	41.939	41.906	41.940	41.994	9.413
			2012	0.138	0.159	0.235	0.268	0.314	0.466	0.304	0.356	0.469	0.009	41.699	41.721	41.796	41.829	41.875	42.027	41.865	41.917	42.030	9.412
			2013	0.135	0.161	0.195	0.268	0.301	0.391	0.311	0.353	0.448	0.011	41.696	41.722	41.756	41.829	41.862	41.952	41.872	41.914	42.009	9.414
			2014	0.155	0.181	0.245	0.308	0.359	0.489	0.337	0.404	0.550	0.009	41.716	41.742	41.806	41.869	41.920	42.050	41.898	41.965	42.111	9.412
			2015	0.150	0.160	0.261	0.296	0.321	0.518	0.325	0.378	0.590	0.009	41.711	41.721	41.823	41.857	41.882	42.079	41.886	41.939	42.151	9.411
3	Balsam Montessori Academy	School	2011	0.231	0.267	0.294	0.454	0.520	0.585	0.526	0.593	0.661	0.018	41.792	41.828	41.855	42.015	42.081	42.146	42.087	42.154	42.223	9.420
			2012	0.217	0.243	0.340	0.426	0.485	0.675	0.480	0.553	0.746	0.015	41.778	41.804	41.901	41.987	42.046	42.236	42.042	42.114	42.307	9.417
			2013	0.238	0.243	0.264	0.471	0.482	0.517	0.518	0.552	0.603	0.018	41.799	41.804	41.825	42.032	42.043	42.078	42.079	42.113	42.164	9.421
			2014	0.243	0.280	0.393	0.484	0.555	0.780	0.547	0.643	0.892	0.015	41.804	41.841	41.954	42.045	42.116	42.341	42.108	42.204	42.453	9.418
			2015	0.264	0.302	0.452	0.517	0.601	0.894	0.581	0.685	1.021	0.014	41.825	41.863	42.014	42.078	42.162	42.455	42.142	42.246	42.582	9.416
4	Klahanie Campground	Campground	2011	0.168	0.207	0.236	0.330	0.394	0.450	0.362	0.438	0.501	0.008	41.729	41.768	41.797	41.891	41.956	42.011	41.923	41.999	42.063	9.410
			2012	0.138	0.207	0.323	0.283	0.411	0.641	0.319	0.435	0.717	0.007	41.699	41.768	41.884	41.844	41.973	42.202	41.880	41.996	42.278	9.409
			2013	0.150	0.205	0.311	0.297	0.410	0.618	0.325	0.430	0.630	0.008	41.711	41.766	41.872	41.858	41.971	42.179	41.886	41.992	42.191	9.411
			2014	0.190	0.254	0.336	0.384	0.504	0.710	0.394	0.557	0.773	0.007	41.751	41.815	41.897	41.945	42.065	42.271	41.955	42.118	42.334	9.410
			2015	0.144	0.162	0.223	0.290	0.309	0.441	0.307	0.362	0.449	0.007	41.706	41.723	41.784	41.851	41.870	42.002	41.868	41.923	42.010	9.410
5	Alice Lake Park	Park	2011	0.052	0.058	0.080	0.104	0.115	0.158	0.120	0.130	0.176	0.006	41.614	41.619	41.641	41.665	41.676	41.719	41.681	41.691	41.737	9.409
			2012	0.061	0.065	0.080	0.121	0.129	0.157	0.132	0.151	0.173	0.006	41.622	41.626	41.641	41.682	41.690	41.719	41.694	41.712	41.734	9.408
			2013	0.059	0.063	0.068	0.115	0.125	0.135	0.133	0.143	0.152	0.006	41.620	41.624	41.629	41.676	41.686	41.696	41.694	41.704	41.713	9.409
			2014	0.055	0.064	0.091	0.111	0.126	0.177	0.124	0.145	0.199	0.005	41.616	41.626	41.652	41.672	41.687	41.738	41.685	41.706	41.760	9.408
			2015	0.057	0.063	0.072	0.113	0.125	0.144	0.128	0.145	0.164	0.005	41.618	41.625	41.634	41.674	41.686	41.705	41.689	41.706	41.725	9.408

Table 5-8: Detailed Statistics of Predicted D1HM and Annual NO_2 (ARM2) Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year – Continued

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)										With Background Concentrations (µg/m³)									
				Normal			Peak			Abnormal			Annual	Normal			Peak			Abnormal			Annual
				98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)							*41.56*						*9.40*				*41.56*						*9.40*
Objectives (µg/m³)			*BC AAQO*	*113*	-	-	*113*	-	-	*113*	-	-	*32*	*113*	-	-	*113*	-	-	*113*	-	-	*32*
			CAQQS 2025	*79*	-	-	*79*	-	-	*79*	-	-	*23*	*79*	-	-	*79*	-	-	*79*	-	-	*23*
6	Baynes Island Ecological Reserve	Park	2011	0.084	0.088	0.119	0.167	0.174	0.238	0.189	0.193	0.248	0.010	41.645	41.649	41.680	41.728	41.735	41 .799	41.750	41.754	41.809	9.413
			2012	0.087	0.098	0.115	0.174	0.194	0.227	0.195	0.224	0.262	0.010	41.648	41.659	41.676	41.735	41.755	41.788	41.756	41.785	41.823	9.412
			2013	0.085	0.092	0.106	0.166	0.184	0.210	0.187	0.213	0.238	0.010	41.646	41.653	41.667	41.727	41.745	41.772	41.748	41.774	41.799	9.413
			2014	0.090	0.097	0.154	0.172	0.191	0.306	0.189	0.207	0.317	0.008	41.651	41.658	41.716	41.733	41.752	41.867	41.750	41.768	41.878	9.411
			2015	0.092	0.106	0.170	0.182	0.209	0.340	0.207	0.234	0.346	0.008	41.653	41.667	41.732	41.743	41.770	41.901	41.768	41.795	41.907	9.411
7	Bracken24-HRAle Eagles Park	Park	2011	0.096	0.103	0.138	0.190	0.206	0.273	0.209	0.227	0.287	0.011	41.657	41.664	41.699	41.751	41.767	41.834	41.770	41.788	41.848	9.414
			2012	0.097	0.107	0.126	0.193	0.215	0.239	0.211	0.247	0.264	0.011	41.658	41.668	41.687	41.754	41.776	41.800	41.772	41.808	41.825	9.413
			2013	0.095	0.102	0.122	0.187	0.202	0.242	0.212	0.233	0.274	0.011	41.656	41.663	41.683	41.748	41.763	41.803	41.773	41.794	41.835	9.414
			2014	0.102	0.109	0.146	0.196	0.222	0.291	0.220	0.257	0.330	0.009	41.663	41.670	41.707	41.757	41.783	41.852	41.781	41.818	41.891	9.412
			2015	0.106	0.120	0.211	0.212	0.239	0.422	0.233	0.254	0.429	0.009	41.667	41.681	41.772	41.773	41.800	41.983	41.794	41.815	41.990	9.412
8	Murrin Park	Park	2011	0.188	0.218	0.350	0.367	0.440	0.697	0.446	0.491	0.798	0.009	41.749	41.779	41.911	41.928	42.001	42.258	42.007	42.052	42.359	9.411
			2012	0.154	0.196	0.346	0.314	0.400	0.677	0.356	0.457	0.786	0.008	41.715	41.757	41.907	41.875	41.961	42.238	41.917	42.018	42.347	9.411
			2013	0.163	0.227	0.342	0.367	0.417	0.670	0.432	0.472	0.723	0.008	41.725	41.788	41.903	41.928	41.978	42.231	41.993	42.033	42.284	9.411
			2014	0.240	0.312	0.329	0.470	0.632	0.651	0.532	0.722	0.774	0.008	41.801	41.873	41.890	42.031	42.193	42.212	42.093	42.283	42.335	9.410
			2015	0.164	0.189	0.352	0.322	0.384	0.714	0.386	0.409	0.853	0.008	41.725	41.750	41.913	41.883	41.945	42.275	41.947	41.970	42.414	9.411
9	PorteBJ Cover Park	Park	2011	0.056	0.064	0.081	0.112	0.127	0.158	0.131	0.145	0.194	0.004	41.617	41.625	41.642	41.673	41.688	41.719	41.692	41.706	41.755	9.407
			2012	0.058	0.064	0.082	0.112	0.118	0.165	0.128	0.156	0.190	0.004	41.619	41.625	41.643	41.673	41.679	41.726	41.689	41.717	41.752	9.407
			2013	0.055	0.060	0.077	0.107	0.123	0.149	0.122	0.143	0.175	0.004	41.616	41.621	41.638	41.668	41.684	41.710	41.683	41.704	41.736	9.407
			2014	0.054	0.071	0.129	0.106	0.139	0.257	0.124	0.161	0.296	0.004	41.615	41.632	41.691	41.667	41.700	41.818	41.685	41.722	41.857	9.406
			2015	0.058	0.071	0.111	0.118	0.138	0.227	0.134	0.160	0.264	0.004	41.620	41.632	41.672	41.679	41.699	41.788	41.695	41.722	41.825	9.407
10	Shannon Falls Park	Park	2011	0.143	0.153	0.335	0.272	0.299	0.672	0.286	0.343	0.736	0.006	41.704	41.714	41.896	41.833	41.860	42.233	41.847	41.904	42.297	9.409
			2012	0.114	0.151	0.310	0.227	0.301	0.633	0.278	0.359	0.633	0.005	41.675	41.712	41.871	41.788	41.862	42.194	41.839	41.920	42.194	9.408
			2013	0.100	0.113	0.220	0.194	0.209	0.411	0.214	0.235	0.485	0.006	41.661	41.675	41.781	41.755	41.770	41.972	41.775	41.796	42.046	9.409
			2014	0.124	0.181	0.266	0.248	0.355	0.530	0.297	0.393	0.561	0.006	41.685	41.742	41.827	41.809	41.916	42.092	41.858	41.954	42.123	9.408
			2015	0.121	0.126	0.501	0.236	0.280	0.999	0.238	0.286	1.007	0.006	41.682	41.687	42.062	41.797	41.841	42.560	41.799	41.847	42.568	9.408
11	Skwelwil'em Squamish Estuary WMA	Park	2011	0.299	0.319	0.390	0.583	0.624	0.775	0.656	0.699	0.871	0.027	41.860	41.880	41.951	42.144	42.185	42.336	42.218	42.260	42.432	9.430
			2012	0.305	0.336	0.423	0.595	0.669	0.844	0.654	0.698	0.930	0.023	41.867	41.897	41.984	42.157	42.230	42.405	42.215	42.259	42.491	9.426
			2013	0.269	0.298	0.365	0.539	0.590	0.718	0.586	0.662	0.819	0.025	41.830	41.859	41.926	42.101	42.151	42.279	42.147	42.223	42.380	9.428
			2014	0.293	0.339	0.514	0.596	0.669	1.018	0.687	0.755	1.160	0.021	41.854	41.900	42.075	42.157	42.230	42.579	42.248	42.316	42.721	9.424
			2015	0.295	0.333	0.502	0.586	0.669	0.992	0.662	0.769	1.131	0.020	41.856	41.894	42.063	42.147	42.230	42.554	42.223	42.330	42.692	9.423

Table 5-8: Detailed Statistics of Predicted D1HM and Annual NO_2 (ARM2) Concentrations, With and Without Background, at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year – Continued

Index	Receptor Name	Receptor Category	Year	Without Background Concentrations (µg/m³)										With Background Concentrations (µg/m³)									
				Normal			Peak			Abnormal			Annual	Normal			Peak			Abnormal			Annual
				98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	98th %ile D1HM	99th %ile D1HM	100th %ile D1HM	Annual Average
Background Concentrations (µg/m³)							*41.56*						*9.40*				*41.56*						*9.40*
Objectives (µg/m³)			*BC AAQO*	*113*	-	-	*113*	-	-	*113*	-	-	*32*	*113*	-	-	*113*	-	-	*113*	-	-	*32*
			CAQQS 2025	*79*	-	-	*79*	-	-	*79*	-	-	*23*	*79*	-	-	*79*	-	-	*79*	-	-	*23*
12	Stawamus Chief Park	Park	2011	0.090	0.106	0.147	0.177	0.210	0.286	0.198	0.229	0.324	0.006	41.651	41.667	41.708	41.738	41.771	41.847	41.759	41.790	41.885	9.409
			2012	0.079	0.099	0.183	0.157	0.196	0.365	0.182	0.225	0.403	0.005	41.640	41.660	41.744	41.718	41.757	41.926	41.743	41.786	41.964	9.408
			2013	0.094	0.107	0.156	0.188	0.214	0.324	0.216	0.231	0.325	0.006	41.656	41.668	41.717	41.749	41.775	41.886	41.777	41.792	41.886	9.409
			2014	0.093	0.119	0.152	0.184	0.246	0.302	0.219	0.275	0.347	0.005	41.654	41.681	41.713	41.745	41.807	41.863	41.780	41.836	41.908	9.408
			2015	0.085	0.096	0.130	0.169	0.191	0.259	0.189	0.202	0.278	0.005	41.646	41.657	41.691	41.730	41.753	41.820	41.750	41.763	41.839	9.408
13	Stawamus Chief Protected Area Park	Park	2011	0.109	0.124	0.135	0.216	0.242	0.259	0.247	0.258	0.291	0.006	41.671	41.685	41.696	41.777	41.803	41.820	41.808	41.819	41.852	9.408
			2012	0.091	0.111	0.158	0.187	0.221	0.315	0.214	0.231	0.343	0.005	41.652	41.672	41.719	41.748	41.782	41.876	41.775	41.792	41.904	9.408
			2013	0.094	0.101	0.108	0.189	0.200	0.212	0.206	0.217	0.237	0.006	41.655	41.662	41.669	41.750	41.762	41.773	41.767	41.778	41.798	9.409
			2014	0.110	0.122	0.204	0.219	0.248	0.407	0.243	0.268	0.419	0.005	41.671	41.683	41.765	41.780	41.809	41.968	41.805	41.829	41.980	9.408
			2015	0.085	0.100	0.143	0.168	0.194	0.286	0.194	0.210	0.294	0.005	41.646	41.661	41.704	41.729	41.755	41.847	41.755	41.771	41.855	9.408
14	Tantalus Park	Park	2011	0.028	0.033	0.041	0.056	0.066	0.082	0.065	0.072	0.084	0.002	41.589	41.594	41.602	41.617	41.627	41.643	41.626	41.633	41.645	9.405
			2012	0.028	0.031	0.034	0.057	0.063	0.068	0.064	0.071	0.079	0.003	41.590	41.592	41.595	41.618	41.624	41.630	41.626	41.633	41.640	9.405
			2013	0.029	0.035	0.040	0.057	0.069	0.079	0.066	0.080	0.090	0.003	41.590	41.596	41.601	41.618	41.631	41.640	41.627	41.641	41.651	9.405
			2014	0.026	0.030	0.035	0.051	0.061	0.072	0.056	0.066	0.081	0.002	41.587	41.592	41.597	41.612	41.622	41.633	41.617	41.627	41.642	9.405
			2015	0.027	0.030	0.034	0.053	0.059	0.068	0.058	0.067	0.077	0.002	41.588	41.591	41.595	41.614	41.620	41.629	41.619	41.628	41.638	9.405
15	Cypress Park	Park	2011	0.018	0.019	0.021	0.035	0.038	0.041	0.040	0.045	0.048	0.001	41.579	41.580	41.582	41.596	41.599	41.602	41.601	41.606	41.609	9.404
			2012	0.016	0.018	0.022	0.032	0.035	0.044	0.037	0.042	0.055	0.001	41.577	41.579	41.583	41.593	41.596	41.605	41.598	41.603	41.616	9.404
			2013	0.015	0.017	0.023	0.031	0.033	0.047	0.036	0.039	0.055	0.001	41.576	41.578	41.584	41.592	41.594	41.608	41.597	41.600	41.616	9.404
			2014	0.015	0.016	0.034	0.029	0.033	0.067	0.033	0.036	0.077	0.001	41.576	41.577	41.595	41.590	41.594	41.628	41.595	41.597	41.638	9.404
			2015	0.016	0.020	0.026	0.031	0.039	0.052	0.035	0.046	0.062	0.001	41.577	41.581	41.587	41.592	41.601	41.613	41.596	41.607	41.623	9.404
16	Garibaldi Park	Park	2011	0.012	0.013	0.015	0.023	0.024	0.029	0.027	0.028	0.033	0.001	41.573	41.574	41.576	41.584	41.586	41.590	41.588	41.589	41.594	9.404
			2012	0.010	0.012	0.013	0.020	0.023	0.026	0.023	0.027	0.031	0.001	41.571	41.573	41.574	41.581	41.584	41.587	41.584	41.588	41.592	9.403
			2013	0.011	0.013	0.017	0.022	0.026	0.033	0.025	0.029	0.037	0.001	41.572	41.574	41.578	41.583	41.587	41.594	41.586	41.590	41.598	9.404
			2014	0.011	0.013	0.015	0.021	0.026	0.030	0.024	0.029	0.035	0.001	41.572	41.574	41.576	41.582	41.587	41.591	41.585	41.591	41.596	9.403
			2015	0.010	0.011	0.014	0.020	0.021	0.029	0.023	0.024	0.033	0.001	41.571	41.572	41.576	41.581	41.582	41.590	41.584	41.585	41.594	9.403

Notes:
[1] D1HM: Daily 1-Hour Maximum
[2] Values in **bold** are above the BC AAQO threshold of 113 µg/m³, and underlined values are above the 2025 CAAQS threshold of 79 µg/m³.
[3] MPOI = Maximum point of impingement.

Table 5-9: Source Contribution for Predicted NO_2 (Total Conversion Method) Concentration at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year

Index	Receptor Name	Receptor Category	Year	Concentrations Without Background (µg/m³)																	
				Normal					Peak						Abnormal						
				X	Y	Boiler 1	Turbine 1	100th Percentile	X	Y	Boiler 1	Turbine 1	Turbine 2	100th Percentile	X	Y	Boiler 1	Turbine 1	Turbine 2	Backup Generator	100th Percentile
Background Concentrations (µg/m³)				--	--	--	--	41.56	--	--	--	--	--	41.56	--	--	--	--	--	--	41.56
Objectives (µg/m³)			**BC AAQO**	--	--	--	--	113	--	--	--	--	--	113	--	--	--	--	--	--	113
			CAQQS 2025	--	--	--	--	79	--	--	--	--	--	79	--	--	--	--	--	--	79
Maximum Over RAA			2011	481.669	5502.101	3.794	60.434	64.228	481.649	5502.104	3.336	32.191	54.926	**90.454**	481.634	5502.183	0.143	0.095	0.428	238.506	**239.172**
			2012	481.683	5502.173	0.000	43.711	43.711	481.639	5502.105	3.127	24.343	38.812	66.282	481.644	5502.181	0.163	0.015	0.068	207.179	**207.425**
			2013	481.683	5502.173	0.017	42.550	42.567	481.663	5502.193	0.137	29.543	26.345	56.025	481.624	5502.185	0.375	1.547	3.387	222.521	**227.830**
			2014	481.697	5502.128	1.186	50.511	51.696	481.697	5502.128	1.186	50.511	16.445	68.141	481.624	5502.185	0.437	0.664	0.755	208.648	**210.504**
			2015	481.683	5502.173	0.166	42.126	42.292	481.683	5502.193	0.418	29.391	27.975	57.784	481.634	5502.183	8.196	0.114	0.443	201.475	**210.229**
1	Residential use at 37776 3 Ave, Squamish	Residential	2011	488.549	5504.781	0.006	0.365	0.370	488.549	5504.781	0.006	0.365	0.366	0.736	488.549	5504.781	0.006	0.365	0.366	0.096	0.832
			2012	488.549	5504.781	0.006	0.404	0.410	488.549	5504.781	0.006	0.404	0.406	0.816	488.549	5504.781	0.006	0.404	0.406	0.090	0.906
			2013	488.549	5504.781	0.003	0.325	0.328	488.549	5504.781	0.003	0.325	0.323	0.651	488.549	5504.781	0.003	0.325	0.323	0.050	0.701
			2014	488.549	5504.781	0.006	0.460	0.467	488.549	5504.781	0.006	0.460	0.464	0.931	488.549	5504.781	0.008	0.457	0.459	0.133	1.058
			2015	488.549	5504.781	0.009	0.547	0.556	488.549	5504.781	0.009	0.547	0.543	1.099	488.549	5504.781	0.009	0.547	0.543	0.153	1.252
2	Squamish General Hospital	Hospital	2011	489.821	5505.017	0.002	0.213	0.216	489.821	5505.017	0.002	0.213	0.205	0.420	489.821	5505.017	0.007	0.178	0.180	0.116	0.481
			2012	489.821	5505.017	0.000	0.261	0.261	489.821	5505.017	0.000	0.261	0.256	0.517	489.821	5505.017	0.000	0.261	0.256	0.003	0.521
			2013	489.821	5505.017	0.003	0.214	0.217	489.821	5505.017	0.003	0.214	0.218	0.435	489.821	5505.017	0.003	0.214	0.218	0.063	0.497
			2014	489.821	5505.017	0.004	0.268	0.272	489.821	5505.017	0.004	0.268	0.271	0.544	489.821	5505.017	0.004	0.268	0.271	0.068	0.611
			2015	489.821	5505.017	0.005	0.286	0.290	489.821	5505.017	0.005	0.286	0.285	0.575	489.821	5505.017	0.005	0.286	0.285	0.080	0.655
3	Balsam Montessori Academy	School	2011	488.791	5505.074	0.005	0.322	0.327	488.791	5505.074	0.005	0.322	0.323	0.650	488.791	5505.074	0.005	0.322	0.323	0.085	0.735
			2012	488.791	5505.074	0.005	0.373	0.378	488.791	5505.074	0.005	0.373	0.372	0.750	488.791	5505.074	0.005	0.373	0.372	0.079	0.829
			2013	488.791	5505.074	0.005	0.288	0.293	488.791	5505.074	0.006	0.283	0.285	0.575	488.791	5505.074	0.006	0.283	0.285	0.095	0.670
			2014	488.791	5505.074	0.008	0.429	0.436	488.791	5505.074	0.008	0.429	0.430	0.866	488.791	5505.074	0.008	0.429	0.430	0.125	0.991
			2015	488.791	5505.074	0.008	0.494	0.503	488.791	5505.074	0.008	0.494	0.491	0.993	488.791	5505.074	0.008	0.494	0.491	0.140	1.134
4	Klahanie Campground	Campground	2011	488.161	5502.185	0.002	0.260	0.262	488.161	5502.185	0.004	0.245	0.251	0.500	488.161	5502.185	0.004	0.245	0.251	0.058	0.557
			2012	488.161	5502.185	0.003	0.356	0.358	488.161	5502.185	0.003	0.356	0.354	0.712	488.161	5502.185	0.003	0.356	0.354	0.085	0.797
			2013	488.161	5502.185	0.000	0.345	0.345	488.161	5502.185	0.000	0.345	0.341	0.686	488.161	5502.185	0.000	0.345	0.341	0.014	0.700
			2014	488.161	5502.185	0.003	0.371	0.373	488.161	5502.185	0.002	0.365	0.421	0.789	488.161	5502.185	0.002	0.365	0.421	0.070	0.858
			2015	488.161	5502.185	0.000	0.247	0.248	488.161	5502.185	0.000	0.247	0.243	0.490	488.161	5502.185	0.000	0.247	0.243	0.009	0.499
5	Alice Lake Park	Park	2011	491.559	5514.406	0.001	0.088	0.089	491.559	5514.406	0.001	0.088	0.086	0.176	491.559	5514.406	0.001	0.088	0.086	0.020	0.196
			2012	491.559	5514.406	0.001	0.087	0.088	491.559	5514.406	0.001	0.087	0.087	0.175	491.559	5514.406	0.001	0.087	0.087	0.018	0.193
			2013	491.559	5514.406	0.001	0.075	0.076	491.559	5514.406	0.001	0.075	0.074	0.150	491.559	5514.406	0.001	0.075	0.074	0.019	0.169
			2014	491.559	5514.406	0.002	0.100	0.102	491.559	5514.406	0.002	0.100	0.095	0.196	491.559	5514.406	0.002	0.100	0.095	0.024	0.221
			2015	491.559	5514.406	0.001	0.079	0.081	491.559	5514.406	0.001	0.079	0.079	0.160	491.559	5514.406	0.001	0.079	0.079	0.023	0.182

Table 5-9: Source Contribution for Predicted NO2 (Total Conversion Method) Concentration at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year - Continued

Index	Receptor Name	Receptor Category	Year	Concentrations Without Background (µg/m³)																	
				Normal					Peak						Abnormal						
				X	Y	Boiler 1	Turbine 1	100th Percentile	X	Y	Boiler 1	Turbine 1	Turbine 2	100th Percentile	X	Y	Boiler 1	Turbine 1	Turbine 2	Backup Generator	100th Percentile
6	Baynes Island Ecological Reserve	Park	2011	487.457	5513.333	0.001	0.131	0.132	487.457	5513.333	0.001	0.131	0.133	0.264	487.457	5513.333	0.001	0.131	0.133	0.011	0.276
			2012	487.457	5513.333	0.002	0.125	0.127	487.457	5513.333	0.002	0.125	0.125	0.252	487.457	5513.333	0.002	0.125	0.125	0.039	0.291
			2013	487.457	5513.333	0.002	0.116	0.118	487.457	5513.333	0.002	0.116	0.116	0.234	487.457	5513.333	0.002	0.116	0.116	0.031	0.265
			2014	487.457	5513.333	0.001	0.171	0.172	487.457	5513.333	0.001	0.171	0.168	0.340	487.457	5513.333	0.001	0.171	0.168	0.013	0.352
			2015	487.457	5513.333	0.000	0.189	0.189	487.457	5513.333	0.000	0.189	0.188	0.378	487.457	5513.333	0.000	0.189	0.188	0.007	0.384
7	Bracken24-HRAle Eagles Park	Park	2011	487.591	5511.628	0.001	0.152	0.153	487.591	5511.628	0.001	0.152	0.150	0.303	487.591	5511.628	0.001	0.152	0.150	0.015	0.318
			2012	487.591	5511.628	0.002	0.139	0.140	487.591	5511.628	0.002	0.139	0.125	0.265	487.591	5511.628	0.002	0.139	0.125	0.029	0.294
			2013	487.591	5511.628	0.002	0.133	0.136	487.591	5511.628	0.002	0.133	0.133	0.269	487.591	5511.628	0.002	0.133	0.133	0.036	0.305
			2014	487.591	5511.628	0.003	0.159	0.162	487.591	5511.628	0.001	0.161	0.162	0.324	487.591	5511.628	0.003	0.159	0.157	0.047	0.366
			2015	487.591	5511.628	0.000	0.233	0.234	487.591	5511.628	0.000	0.233	0.235	0.469	487.591	5511.628	0.000	0.233	0.235	0.008	0.476
8	Murrin Park	Park	2011	485.020	5499.207	0.007	0.382	0.389	485.020	5499.207	0.007	0.382	0.385	0.774	485.020	5499.207	0.007	0.382	0.385	0.113	0.887
			2012	485.020	5499.207	0.007	0.377	0.384	485.020	5499.207	0.007	0.377	0.368	0.753	485.020	5499.207	0.007	0.377	0.368	0.121	0.874
			2013	485.020	5499.207	0.004	0.377	0.380	485.020	5499.207	0.004	0.377	0.364	0.744	485.020	5499.207	0.004	0.377	0.364	0.059	0.803
			2014	485.020	5499.207	0.009	0.357	0.366	485.020	5499.207	0.009	0.357	0.358	0.724	485.020	5499.207	0.009	0.357	0.358	0.136	0.860
			2015	485.020	5499.207	0.011	0.380	0.391	485.020	5499.207	0.011	0.380	0.402	0.793	485.020	5499.207	0.011	0.380	0.402	0.155	0.948
9	PorteBJ Cover Park	Park	2011	482.767	5489.328	0.003	0.087	0.090	482.767	5489.328	0.003	0.087	0.086	0.175	482.767	5489.328	0.003	0.087	0.086	0.040	0.215
			2012	482.767	5489.328	0.002	0.090	0.091	482.767	5489.328	0.002	0.088	0.094	0.183	482.767	5489.328	0.002	0.088	0.094	0.029	0.212
			2013	482.767	5489.328	0.001	0.084	0.085	482.767	5489.328	0.001	0.084	0.080	0.165	482.767	5489.328	0.002	0.081	0.080	0.032	0.194
			2014	482.767	5489.328	0.003	0.141	0.144	482.767	5489.328	0.003	0.141	0.141	0.285	482.767	5489.328	0.003	0.138	0.141	0.047	0.329
			2015	482.767	5489.328	0.003	0.121	0.123	482.767	5489.328	0.003	0.121	0.128	0.252	482.767	5489.328	0.003	0.121	0.128	0.042	0.294
10	Shannon Falls Park	Park	2011	488.294	5501.460	0.004	0.368	0.372	488.294	5501.460	0.004	0.368	0.374	0.746	488.294	5501.460	0.004	0.368	0.374	0.072	0.818
			2012	488.294	5501.460	0.000	0.345	0.345	488.294	5501.460	0.000	0.345	0.358	0.703	488.294	5501.460	0.000	0.345	0.358	0.000	0.704
			2013	488.294	5501.460	0.004	0.240	0.245	488.294	5501.460	0.004	0.240	0.212	0.457	488.294	5501.460	0.004	0.240	0.212	0.082	0.539
			2014	488.294	5501.460	0.002	0.294	0.296	488.294	5501.460	0.002	0.294	0.294	0.589	488.294	5501.460	0.002	0.294	0.294	0.034	0.624
			2015	488.294	5501.460	0.000	0.556	0.557	488.294	5501.460	0.000	0.556	0.553	1.110	488.294	5501.460	0.000	0.556	0.553	0.009	1.119
11	Skwelwil'em Squamish Estuary WMA	Park	2011	487.806	5505.182	0.006	0.427	0.433	487.806	5505.182	0.006	0.427	0.428	0.861	487.806	5505.182	0.006	0.427	0.428	0.106	0.967
			2012	487.806	5505.182	0.006	0.464	0.470	487.806	5505.182	0.006	0.464	0.467	0.937	487.806	5505.182	0.006	0.464	0.467	0.096	1.033
			2013	487.806	5505.182	0.007	0.399	0.406	487.806	5505.182	0.007	0.399	0.392	0.798	487.806	5505.182	0.007	0.399	0.392	0.112	0.910
			2014	487.806	5505.182	0.010	0.561	0.571	487.806	5505.182	0.010	0.561	0.559	1.131	487.806	5505.182	0.010	0.561	0.559	0.158	1.288
			2015	487.806	5505.182	0.009	0.549	0.558	487.806	5505.182	0.009	0.549	0.545	1.103	487.806	5505.182	0.009	0.549	0.545	0.154	1.257
12	Stawamus Chief Park	Park	2011	490.357	5503.790	0.002	0.161	0.163	490.357	5503.790	0.002	0.161	0.154	0.318	490.357	5503.790	0.002	0.161	0.154	0.042	0.360
			2012	490.357	5503.790	0.001	0.203	0.204	490.357	5503.790	0.001	0.203	0.202	0.406	490.357	5503.790	0.001	0.203	0.202	0.042	0.448
			2013	490.357	5503.790	0.000	0.173	0.173	490.357	5503.790	0.000	0.173	0.187	0.360	490.357	5503.790	0.000	0.173	0.187	0.001	0.361
			2014	490.357	5503.790	0.003	0.166	0.169	490.357	5503.790	0.003	0.166	0.166	0.335	490.357	5503.790	0.003	0.166	0.166	0.050	0.385
			2015	490.357	5503.790	0.001	0.143	0.145	490.357	5503.790	0.001	0.143	0.144	0.288	490.357	5503.790	0.001	0.143	0.144	0.021	0.309
13	Stawamus Chief	Park	2011	489.321	5502.370	0.000	0.150	0.150	489.321	5502.370	0.001	0.145	0.140	0.287	489.321	5502.370	0.003	0.135	0.131	0.055	0.324
			2012	489.321	5502.370	0.001	0.174	0.176	489.321	5502.370	0.001	0.174	0.174	0.350	489.321	5502.370	0.001	0.174	0.174	0.031	0.381

Table 5-9: Source Contribution for Predicted NO2 (Total Conversion Method) Concentration at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year - Continued

Index	Receptor Name	Receptor Category	Year	Concentrations Without Background (µg/m³)																	
				Normal					Peak						Abnormal						
				X	Y	Boiler 1	Turbine 1	100th Percentile	X	Y	Boiler 1	Turbine 1	Turbine 2	100th Percentile	X	Y	Boiler 1	Turbine 1	Turbine 2	Backup Generator	100th Percentile
	Protected Area Park		2013	489.321	5502.370	0.000	0.119	0.120	489.321	5502.370	0.000	0.119	0.115	0.235	489.321	5502.370	0.002	0.113	0.115	0.033	0.264
			2014	489.321	5502.370	0.001	0.225	0.226	489.321	5502.370	0.001	0.225	0.226	0.452	489.321	5502.370	0.001	0.225	0.226	0.013	0.466
			2015	489.321	5502.370	0.000	0.158	0.159	489.321	5502.370	0.000	0.158	0.159	0.318	489.321	5502.370	0.000	0.158	0.159	0.009	0.327
14	Tantalus Park	Park	2011	479.707	5517.773	0.000	0.045	0.045	479.707	5517.773	0.000	0.045	0.046	0.091	479.707	5517.773	0.000	0.045	0.046	0.001	0.093
			2012	479.707	5517.773	0.001	0.038	0.038	479.707	5517.773	0.001	0.038	0.038	0.076	479.707	5517.773	0.001	0.038	0.038	0.011	0.087
			2013	479.707	5517.773	0.001	0.043	0.044	479.707	5517.773	0.001	0.043	0.043	0.087	479.707	5517.773	0.001	0.043	0.043	0.012	0.100
			2014	479.707	5517.773	0.001	0.039	0.039	479.707	5517.773	0.001	0.039	0.040	0.080	479.707	5517.773	0.001	0.039	0.040	0.011	0.090
			2015	479.707	5517.773	0.001	0.038	0.038	479.707	5517.773	0.001	0.038	0.038	0.076	479.707	5517.773	0.001	0.038	0.038	0.009	0.085
15	Cypress Park	Park	2011	485.185	5483.778	0.000	0.023	0.023	485.185	5483.778	0.000	0.023	0.023	0.046	485.185	5483.778	0.000	0.023	0.023	0.007	0.053
			2012	485.185	5483.778	0.001	0.024	0.025	485.185	5483.778	0.001	0.024	0.024	0.049	485.185	5483.778	0.001	0.024	0.024	0.012	0.061
			2013	485.185	5483.778	0.001	0.025	0.026	485.185	5483.778	0.001	0.025	0.026	0.052	485.185	5483.778	0.001	0.025	0.026	0.009	0.061
			2014	485.185	5483.778	0.001	0.037	0.038	485.185	5483.778	0.001	0.037	0.037	0.074	485.185	5483.778	0.001	0.037	0.037	0.011	0.085
			2015	485.185	5483.778	0.001	0.029	0.029	485.185	5483.778	0.001	0.029	0.028	0.058	485.185	5483.778	0.001	0.029	0.028	0.011	0.069
16	Garibaldi Park	Park	2011	499.690	5517.037	0.000	0.016	0.016	499.690	5517.037	0.000	0.016	0.016	0.032	499.690	5517.037	0.000	0.016	0.016	0.005	0.037
			2012	499.690	5517.037	0.000	0.014	0.015	499.690	5517.037	0.000	0.014	0.015	0.029	499.690	5517.037	0.000	0.014	0.015	0.005	0.034
			2013	499.690	5517.037	0.000	0.019	0.019	499.690	5517.037	0.000	0.019	0.018	0.037	499.690	5517.037	0.000	0.019	0.018	0.004	0.041
			2014	499.690	5517.037	0.000	0.016	0.017	499.690	5517.037	0.000	0.016	0.016	0.033	499.690	5517.037	0.000	0.016	0.016	0.006	0.039
			2015	499.690	5517.037	0.000	0.016	0.016	499.690	5517.037	0.000	0.016	0.016	0.032	499.690	5517.037	0.000	0.016	0.016	0.005	0.037

Notes:
[1] D1HM: Daily 1-Hour Maximum
[2] Values in **bold** are above the BC AAQO threshold of 113 µg/m³, and underlined values are above the 2025 CAAQS threshold of 79 µg/m³.
[3] MPOI = Maximum point of impingement.

Table 5-10: Percent Contribution of each Source to Predicted NO_2 (Total Conversion Method) Concentrations at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year - Continued

Index	Receptor Name	Receptor Category	Year	Percent Contribution to Concentrations Without Background															
				Normal				Peak					Abnormal						
				X	Y	Boiler 1	Turbine 1	X	Y	Boiler 1	Turbine 1	Turbine 2	X	Y	Boiler 1	Turbine 1	Turbine 2	Backup Generator	
Background Concentrations (µg/m³)				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Objectives (µg/m³)			**BC AAQO**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
			CAQQS 2025	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Maximum Over RAA			2011	481.669	5502.101	5.9%	94.1%	481.649	5502.104	3.7%	35.6%	60.7%	481.634	5502.183	0.1%	0.0%	0.2%	99.7%	
			2012	481.683	5502.173	0.0%	100.0%	481.639	5502.105	4.7%	36.7%	58.6%	481.644	5502.181	0.1%	0.0%	0.0%	99.9%	
			2013	481.683	5502.173	0.0%	100.0%	481.663	5502.193	0.2%	52.7%	47.0%	481.624	5502.185	0.2%	0.7%	1.5%	97.7%	
			2014	481.697	5502.128	2.3%	97.7%	481.697	5502.128	1.7%	74.1%	24.1%	481.624	5502.185	0.2%	0.3%	0.4%	99.1%	
			2015	481.683	5502.173	0.4%	99.6%	481.683	5502.193	0.7%	50.9%	48.4%	481.634	5502.183	3.9%	0.1%	0.2%	95.8%	
1	Residential use at 37776 3 Ave, Squamish	Residential	2011	488.549	5504.781	1.5%	98.5%	488.549	5504.781	0.7%	49.6%	49.7%	488.549	5504.781	0.7%	43.8%	44.0%	11.6%	
			2012	488.549	5504.781	1.4%	98.6%	488.549	5504.781	0.7%	49.6%	49.7%	488.549	5504.781	0.6%	44.6%	44.8%	10.0%	
			2013	488.549	5504.781	0.8%	99.2%	488.549	5504.781	0.4%	49.9%	49.7%	488.549	5504.781	0.4%	46.4%	46.1%	7.2%	
			2014	488.549	5504.781	1.4%	98.6%	488.549	5504.781	0.7%	49.4%	49.9%	488.549	5504.781	0.8%	43.2%	43.4%	12.6%	
			2015	488.549	5504.781	1.6%	98.4%	488.549	5504.781	0.8%	49.8%	49.4%	488.549	5504.781	0.7%	43.7%	43.4%	12.2%	
2	Squamish General Hospital	Hospital	2011	489.821	5505.017	1.1%	98.9%	489.821	5505.017	0.6%	50.7%	48.7%	489.821	5505.017	1.5%	36.9%	37.4%	24.2%	
			2012	489.821	5505.017	0.1%	99.9%	489.821	5505.017	0.0%	50.4%	49.6%	489.821	5505.017	0.0%	50.1%	49.2%	0.6%	
			2013	489.821	5505.017	1.5%	98.5%	489.821	5505.017	0.7%	49.2%	50.1%	489.821	5505.017	0.6%	43.0%	43.8%	12.6%	
			2014	489.821	5505.017	1.5%	98.5%	489.821	5505.017	0.7%	49.4%	49.9%	489.821	5505.017	0.7%	43.9%	44.4%	11.1%	
			2015	489.821	5505.017	1.7%	98.3%	489.821	5505.017	0.8%	49.7%	49.5%	489.821	5505.017	0.7%	43.6%	43.4%	12.2%	
3	Balsam Montessori Academy	School	2011	488.791	5505.074	1.5%	98.5%	488.791	5505.074	0.7%	49.6%	49.7%	488.791	5505.074	0.7%	43.8%	43.9%	11.6%	
			2012	488.791	5505.074	1.3%	98.7%	488.791	5505.074	0.6%	49.8%	49.6%	488.791	5505.074	0.6%	45.0%	44.9%	9.5%	
			2013	488.791	5505.074	1.8%	98.2%	488.791	5505.074	1.0%	49.3%	49.6%	488.791	5505.074	0.9%	42.3%	42.6%	14.2%	
			2014	488.791	5505.074	1.8%	98.2%	488.791	5505.074	0.9%	49.5%	49.6%	488.791	5505.074	0.8%	43.3%	43.4%	12.6%	
			2015	488.791	5505.074	1.6%	98.4%	488.791	5505.074	0.8%	49.8%	49.4%	488.791	5505.074	0.7%	43.6%	43.3%	12.4%	
4	Klahanie Campground	Campground	2011	488.161	5502.185	0.8%	99.2%	488.161	5502.185	0.8%	48.9%	50.2%	488.161	5502.185	0.8%	43.9%	45.0%	10.3%	
			2012	488.161	5502.185	0.7%	99.3%	488.161	5502.185	0.4%	50.0%	49.7%	488.161	5502.185	0.3%	44.7%	44.4%	10.7%	
			2013	488.161	5502.185	0.1%	99.9%	488.161	5502.185	0.1%	50.2%	49.7%	488.161	5502.185	0.1%	49.2%	48.7%	2.0%	
			2014	488.161	5502.185	0.7%	99.3%	488.161	5502.185	0.3%	46.3%	53.4%	488.161	5502.185	0.3%	42.5%	49.0%	8.1%	
			2015	488.161	5502.185	0.2%	99.8%	488.161	5502.185	0.1%	50.4%	49.5%	488.161	5502.185	0.1%	49.6%	48.6%	1.7%	
5	Alice Lake Park	Park	2011	491.559	5514.406	1.4%	98.6%	491.559	5514.406	0.7%	50.2%	49.1%	491.559	5514.406	0.6%	45.0%	44.1%	10.2%	
			2012	491.559	5514.406	1.3%	98.7%	491.559	5514.406	0.6%	49.9%	49.5%	491.559	5514.406	0.6%	45.3%	44.9%	9.1%	
			2013	491.559	5514.406	1.7%	98.3%	491.559	5514.406	0.8%	49.7%	49.5%	491.559	5514.406	0.7%	44.1%	44.0%	11.2%	
			2014	491.559	5514.406	1.5%	98.5%	491.559	5514.406	0.8%	50.9%	48.3%	491.559	5514.406	0.7%	45.3%	43.0%	11.1%	
			2015	491.559	5514.406	1.6%	98.4%	491.559	5514.406	0.8%	49.6%	49.5%	491.559	5514.406	0.7%	43.5%	43.4%	12.4%	
6	Baynes Island Ecological Reserve	Park	2011	487.457	5513.333	0.4%	99.6%	487.457	5513.333	0.2%	49.6%	50.1%	487.457	5513.333	0.2%	47.6%	48.1%	4.1%	
			2012	487.457	5513.333	1.8%	98.2%	487.457	5513.333	0.9%	49.6%	49.5%	487.457	5513.333	0.8%	43.0%	42.9%	13.3%	
			2013	487.457	5513.333	1.6%	98.4%	487.457	5513.333	0.8%	49.6%	49.6%	487.457	5513.333	0.7%	43.8%	43.8%	11.7%	
			2014	487.457	5513.333	0.5%	99.5%	487.457	5513.333	0.3%	50.3%	49.5%	487.457	5513.333	0.2%	48.5%	47.7%	3.6%	
			2015	487.457	5513.333	0.2%	99.8%	487.457	5513.333	0.1%	50.0%	49.9%	487.457	5513.333	0.1%	49.2%	49.0%	1.7%	
7		Park	2011	487.591	5511.628	0.5%	99.5%	487.591	5511.628	0.3%	50.3%	49.5%	487.591	5511.628	0.2%	47.9%	47.1%	4.8%	

Table 5-10: Percent Contribution of each Source to Predicted NO_2 (Total Conversion Method) Concentrations at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year - Continued

Index	Receptor Name	Receptor Category	Year	Percent Contribution to Concentrations Without Background														
				Normal				Peak					Abnormal					
				X	Y	Boiler 1	Turbine 1	X	Y	Boiler 1	Turbine 1	Turbine 2	X	Y	Boiler 1	Turbine 1	Turbine 2	Backup Generator
	Bracken24-HRAle Eagles Park		2012	487.591	5511.628	1.2%	98.8%	487.591	5511.628	0.6%	52.3%	47.1%	487.591	5511.628	0.6%	47.2%	42.5%	9.8%
			2013	487.591	5511.628	1.6%	98.4%	487.591	5511.628	0.8%	49.6%	49.6%	487.591	5511.628	0.7%	43.7%	43.7%	11.8%
			2014	487.591	5511.628	1.8%	98.2%	487.591	5511.628	0.2%	49.8%	50.0%	487.591	5511.628	0.8%	43.5%	43.0%	12.8%
			2015	487.591	5511.628	0.2%	99.8%	487.591	5511.628	0.1%	49.8%	50.1%	487.591	5511.628	0.1%	49.0%	49.3%	1.6%
8	Murrin Park	Park	2011	485.020	5499.207	1.8%	98.2%	485.020	5499.207	0.9%	49.4%	49.8%	485.020	5499.207	0.8%	43.1%	43.4%	12.7%
			2012	485.020	5499.207	1.9%	98.1%	485.020	5499.207	1.0%	50.1%	48.9%	485.020	5499.207	0.9%	43.1%	42.2%	13.9%
			2013	485.020	5499.207	1.0%	99.0%	485.020	5499.207	0.5%	50.6%	48.9%	485.020	5499.207	0.5%	46.9%	45.3%	7.4%
			2014	485.020	5499.207	2.4%	97.6%	485.020	5499.207	1.2%	49.4%	49.4%	485.020	5499.207	1.0%	41.6%	41.6%	15.8%
			2015	485.020	5499.207	2.8%	97.2%	485.020	5499.207	1.4%	47.9%	50.7%	485.020	5499.207	1.1%	40.1%	42.4%	16.4%
9	PorteBJ Cover Park	Park	2011	482.767	5489.328	2.9%	97.1%	482.767	5489.328	1.5%	49.6%	49.0%	482.767	5489.328	1.2%	40.4%	39.9%	18.5%
			2012	482.767	5489.328	2.0%	98.0%	482.767	5489.328	1.0%	47.9%	51.1%	482.767	5489.328	0.8%	41.5%	44.2%	13.5%
			2013	482.767	5489.328	1.3%	98.7%	482.767	5489.328	0.7%	50.8%	48.5%	482.767	5489.328	1.0%	41.8%	40.9%	16.3%
			2014	482.767	5489.328	1.8%	98.2%	482.767	5489.328	0.9%	49.5%	49.5%	482.767	5489.328	0.9%	42.0%	42.9%	14.2%
			2015	482.767	5489.328	2.2%	97.8%	482.767	5489.328	1.1%	47.9%	51.0%	482.767	5489.328	0.9%	41.1%	43.7%	14.3%
10	Shannon Falls Park	Park	2011	488.294	5501.460	1.2%	98.8%	488.294	5501.460	0.6%	49.3%	50.1%	488.294	5501.460	0.5%	45.0%	45.7%	8.8%
			2012	488.294	5501.460	0.0%	100.0%	488.294	5501.460	0.0%	49.0%	51.0%	488.294	5501.460	0.0%	49.0%	50.9%	0.1%
			2013	488.294	5501.460	1.8%	98.2%	488.294	5501.460	1.0%	52.6%	46.4%	488.294	5501.460	0.8%	44.6%	39.4%	15.2%
			2014	488.294	5501.460	0.7%	99.3%	488.294	5501.460	0.3%	49.8%	49.8%	488.294	5501.460	0.3%	47.1%	47.1%	5.5%
			2015	488.294	5501.460	0.1%	99.9%	488.294	5501.460	0.0%	50.1%	49.8%	488.294	5501.460	0.0%	49.7%	49.5%	0.8%
11	Skwelwil'em Squamish Estuary WMA	Park	2011	487.806	5505.182	1.4%	98.6%	487.806	5505.182	0.7%	49.6%	49.7%	487.806	5505.182	0.6%	44.1%	44.3%	11.0%
			2012	487.806	5505.182	1.3%	98.7%	487.806	5505.182	0.7%	49.5%	49.8%	487.806	5505.182	0.6%	44.9%	45.2%	9.3%
			2013	487.806	5505.182	1.6%	98.4%	487.806	5505.182	0.8%	50.0%	49.1%	487.806	5505.182	0.7%	43.9%	43.1%	12.3%
			2014	487.806	5505.182	1.7%	98.3%	487.806	5505.182	0.9%	49.6%	49.5%	487.806	5505.182	0.8%	43.6%	43.4%	12.3%
			2015	487.806	5505.182	1.6%	98.4%	487.806	5505.182	0.8%	49.8%	49.4%	487.806	5505.182	0.7%	43.7%	43.3%	12.3%
12	Stawamus Chief Park	Park	2011	490.357	5503.790	1.5%	98.5%	490.357	5503.790	0.8%	50.7%	48.5%	490.357	5503.790	0.7%	44.7%	42.8%	11.8%
			2012	490.357	5503.790	0.5%	99.5%	490.357	5503.790	0.2%	49.9%	49.8%	490.357	5503.790	0.2%	45.2%	45.1%	9.4%
			2013	490.357	5503.790	0.0%	100.0%	490.357	5503.790	0.0%	48.1%	51.9%	490.357	5503.790	0.0%	48.0%	51.7%	0.2%
			2014	490.357	5503.790	1.8%	98.2%	490.357	5503.790	0.9%	49.5%	49.6%	490.357	5503.790	0.8%	43.0%	43.1%	13.1%
			2015	490.357	5503.790	0.9%	99.1%	490.357	5503.790	0.4%	49.7%	49.8%	490.357	5503.790	0.4%	46.4%	46.5%	6.7%
13	Stawamus Chief Protected Area Park	Park	2011	489.321	5502.370	0.3%	99.7%	489.321	5502.370	0.4%	50.6%	48.9%	489.321	5502.370	1.1%	41.6%	40.3%	17.0%
			2012	489.321	5502.370	0.7%	99.3%	489.321	5502.370	0.3%	49.8%	49.8%	489.321	5502.370	0.3%	45.8%	45.8%	8.0%
			2013	489.321	5502.370	0.3%	99.7%	489.321	5502.370	0.1%	50.8%	49.1%	489.321	5502.370	0.8%	42.9%	43.6%	12.7%
			2014	489.321	5502.370	0.4%	99.6%	489.321	5502.370	0.2%	49.9%	50.0%	489.321	5502.370	0.2%	48.4%	48.5%	2.9%
			2015	489.321	5502.370	0.3%	99.7%	489.321	5502.370	0.1%	49.8%	50.1%	489.321	5502.370	0.1%	48.5%	48.7%	2.7%
14	Tantalus Park	Park	2011	479.707	5517.773	0.1%	99.9%	479.707	5517.773	0.1%	49.2%	50.7%	479.707	5517.773	0.1%	48.5%	49.9%	1.6%
			2012	479.707	5517.773	1.8%	98.2%	479.707	5517.773	0.9%	49.3%	49.8%	479.707	5517.773	0.8%	42.9%	43.4%	12.9%
			2013	479.707	5517.773	1.7%	98.3%	479.707	5517.773	0.9%	49.4%	49.7%	479.707	5517.773	0.8%	43.3%	43.6%	12.3%
			2014	479.707	5517.773	1.7%	98.3%	479.707	5517.773	0.8%	48.7%	50.5%	479.707	5517.773	0.7%	42.9%	44.5%	11.9%
			2015	479.707	5517.773	1.5%	98.5%	479.707	5517.773	0.8%	49.4%	49.9%	479.707	5517.773	0.7%	44.0%	44.4%	11.0%
15	Cypress Park	Park	2011	485.185	5483.778	2.0%	98.0%	485.185	5483.778	1.0%	49.3%	49.7%	485.185	5483.778	0.9%	42.4%	42.7%	14.1%
			2012	485.185	5483.778	3.8%	96.2%	485.185	5483.778	1.9%	49.0%	49.0%	485.185	5483.778	1.5%	39.2%	39.1%	20.2%
			2013	485.185	5483.778	2.0%	98.0%	485.185	5483.778	1.0%	48.7%	50.3%	485.185	5483.778	0.9%	41.7%	43.1%	14.3%

Table 5-10: Percent Contribution of each Source to Predicted NO_2 (Total Conversion Method) Concentrations at MPOI and at Sensitive Receptors for Each Scenario and Modelled Year - Continued

Index	Receptor Name	Receptor Category	Year	Percent Contribution to Concentrations Without Background														
				Normal				Peak					Abnormal					
				X	Y	Boiler 1	Turbine 1	X	Y	Boiler 1	Turbine 1	Turbine 2	X	Y	Boiler 1	Turbine 1	Turbine 2	Backup Generator
			2014	485.185	5483.778	2.1%	97.9%	485.185	5483.778	1.1%	49.5%	49.4%	485.185	5483.778	0.9%	43.2%	43.1%	12.8%
			2015	485.185	5483.778	2.5%	97.5%	485.185	5483.778	1.3%	49.6%	49.2%	485.185	5483.778	1.1%	41.4%	41.1%	16.5%
16	Garibaldi Park	Park	2011	499.690	5517.037	1.8%	98.2%	499.690	5517.037	0.9%	49.5%	49.6%	499.690	5517.037	0.8%	43.3%	43.3%	12.6%
			2012	499.690	5517.037	2.1%	97.9%	499.690	5517.037	1.0%	49.1%	49.9%	499.690	5517.037	0.9%	41.9%	42.6%	14.6%
			2013	499.690	5517.037	1.2%	98.8%	499.690	5517.037	0.6%	50.0%	49.4%	499.690	5517.037	0.5%	45.2%	44.7%	9.5%
			2014	499.690	5517.037	2.1%	97.9%	499.690	5517.037	1.1%	49.4%	49.6%	499.690	5517.037	0.9%	41.8%	42.0%	15.3%
			2015	499.690	5517.037	2.0%	98.0%	499.690	5517.037	1.0%	49.5%	49.5%	499.690	5517.037	0.9%	42.6%	42.6%	14.0%

Notes:
[1] D1HM: Daily 1-Hour Maximum
[2] MPOI = Maximum point of impingement.

Table 5-11: Maximum Predicted NO_2 (ARM2) Concentrations (incl. Background) and Number of Excursions (NOE) of the BC AAQO 1-hour NO_2 Threshold (113 µg/m³) for Each Modelled Year

Air Contaminant	Model Year	Short-term 98th Percentile D1HM concentrations and no. of days exceeding (with Background)						Long-term Annual average concentration and no. of days exceeding (with Background)	
		Normal		Peak		Abnormal		Annual	
		Concentration (µg/m³)	NOE [1]	Concentration (µg/m³)	NOE [1]	Concentration (µg/m³) [2]	NOE [1]	Concentration (µg/m³)	NOE [1]
NO_2 (ARM2)	***Criteria***	*1-hour BC AAQO = 113 µg/m³;*						*Annual BC AAQO = 23 µg/m³*	
	2011	70.24	0 (0%)	77.94	0 (0%)	125.72	196 (54%)	11.3	0 (0%)
	2012	67.33	0 (0%)	78.01	0 (0%)	125.72	199 (54%)	11.5	0 (0%)
	2013	63.64	0 (0%)	79.79	0 (0%)	125.72	198 (54%)	11.5	0 (0%)
	2014	63.44	0 (0%)	80.67	0 (0%)	125.72	194 (53%)	11.4	0 (0%)
	2015	64.08	0 (0%)	80.45	0 (0%)	125.72	199 (55%)	11.6	0 (0%)
	5-yr Avg.	**65.75**	**0 (0%)**	**79.37**	**0 (0%)**	**125.72**	**197 (54%)**	**11.2**	**0 (0%)**

Notes:
[1] Number of days in each year that the predicted D1HM exceeds the BC AAQO numerical threshold of 113 µg/m³. Values shown in brackets are the frequency of excursions, calculated by the number of days of excursions divided by number of days in that year.
[2] Maximum predicted concentration for various years appear to be the same which is due to rounding.

Table 5-12: Locations of Receptors with Excursions of the BC AAQO 1-hour NO_2 Threshold (113 µg/m³) and the Number of Excursions

Receptor with Exceedances		Number of Excursion (NOE)					
X	Y	2011	2012	2013	2014	2015	*2011-2015*
481.603	5502.193	12 (3%)	16 (4%)	13 (4%)	16 (4%)	15 (4%)	***72 (4%)***
481.623	5502.193	70 (19%)	75 (20%)	91 (25%)	80 (22%)	100 (27%)	***416 (23%)***
481.643	5502.193	3 (1%)	2 (1%)	3 (1%)	0 (0%)	3 (1%)	***11 (1%)***
481.594	5502.158	2 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***2 (0%)***
481.597	5502.167	1 (0%)	1 (0%)	0 (0%)	1 (0%)	0 (0%)	***3 (0%)***
481.601	5502.176	8 (2%)	5 (1%)	14 (4%)	11 (3%)	20 (5%)	***58 (3%)***
481.606	5502.186	105 (29%)	100 (27%)	110 (30%)	116 (32%)	108 (30%)	***539 (30%)***
481.614	5502.187	181 (50%)	178 (49%)	183 (50%)	176 (48%)	176 (48%)	***894 (49%)***
481.624	5502.185	196 (54%)	199 (54%)	198 (54%)	194 (53%)	199 (55%)	***986 (54%)***
481.634	5502.183	192 (53%)	175 (48%)	165 (45%)	155 (42%)	179 (49%)	***866 (47%)***
481.644	5502.181	134 (37%)	143 (39%)	137 (38%)	124 (34%)	122 (33%)	***660 (36%)***
481.653	5502.179	94 (26%)	100 (27%)	76 (21%)	77 (21%)	63 (17%)	***410 (22%)***
481.663	5502.176	6 (2%)	6 (2%)	2 (1%)	4 (1%)	1 (0%)	***19 (1%)***
481.673	5502.175	3 (1%)	2 (1%)	1 (0%)	2 (1%)	0 (0%)	***8 (0%)***
481.687	5502.111	2 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***2 (0%)***
481.683	5502.103	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***1 (0%)***
481.672	5502.095	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***1 (0%)***
481.669	5502.101	1 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***1 (0%)***
481.659	5502.103	2 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***2 (0%)***
481.649	5502.104	2 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***2 (0%)***
481.639	5502.105	2 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	***2 (0%)***
481.583	5502.193	0 (0%)	1 (0%)	1 (0%)	1 (0%)	0 (0%)	***3 (0%)***
481.663	5502.193	0 (0%)	1 (0%)	1 (0%)	0 (0%)	0 (0%)	***2 (0%)***
481.697	5502.128	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (0%)	***1 (0%)***

Note:
[1] Number of days in each year, and in the 5-year modelling period that the predicted D1HM exceeds the BC AAQO threshold of 113 µg/m³. Values shown in brackets are the frequency of excursions, calculated by the number of days of excursions divided by number of days in that year (or the 5-year period for the last column).

6 SUMMARY AND CONCLUSIONS

RWDI was retained by FortisBC to complete an air quality assessment in support of an Application for a Waste Discharge Authorization for the air emissions from the operation of the Squamish Compressor Station (the Project) under the Environmental Management Act, Waste Discharge Regulation from the BCER.

This report provides the methodology and results of the air quality assessment for the Project via air dispersion modelling, as part of the Application.

Air dispersion modelling was conducted using the CALMET/CALPUFF (Version 7.2.1) modelling system, and following the methods prescribed by the BC AQDMG and the Dispersion Modelling Plan approved by the BCER. As agreed in the modelling plan, this assessment only focuses on the effects of the Project emissions and ambient background concentrations. A cumulative assessment considering the emissions of the neighbouring future WLNG project will be conducted at a later date, when information on WLNG project become available. Assessment of the critical load of nitrogen and sulphur deposition as it relates to acidification and eutrophication of aquatic and terrestrial ecosystems will also be included in the cumulative assessment.

Based on the modelling results, for all modelled pollutants and for all modelled scenarios, with the exception of the 1-hour NO_2 concentrations during Abnormal Emissions Scenario, predicted concentrations were below the applicable BC AAQOs.

Normal and Peak Operations Scenarios (Short-term):

These two scenarios represent facility operations at 90% of the time.

Based on modelling results using ARM2, no exceedances of the 1-hour BC AAQO or CAAQS 2025 were predicted for these scenarios.

For all other contaminants predicted concentrations were below the BC AAQOs. Predicted concentrations were mostly dominated by background concentrations.

Abnormal Emissions Scenario (Short-term):

Based on modelling results using ARM2, exceedances of the 1-hour BC AAQO for NO_2 are predicted under the Abnormal Emissions Scenario. The exceedances are limited to receptors located on or immediately adjacent to the facility fenceline, extending up to approximately 25 m beyond the property boundary. The predicted exceedances are primarily driven by emissions from the emergency generator, which operates only under this scenario and is located near the facility boundary with a lower stack height than the compressor turbines. No exceedances are predicted at any identified sensitive receptors or at receptors within the District of Squamish Growth Management Boundary.

The Abnormal Emissions Scenario represents a conservative bounding assessment. Although the scenario is characterized as occurring up to 10% of the time, this value represents a conservative upper-limit estimate and actual occurrence is expected to be lower. The modelling assumes simultaneous operation of both compressor turbines, the auxiliary boiler, and the emergency generator at maximum emission rates, with emissions occurring continuously throughout the year. This approach also effectively assumes that the highest emissions occur during the most adverse meteorological conditions for dispersion. The combination of worst-case emissions and worst-case meteorological conditions is unlikely to occur in practice. As a result, the predicted exceedances are considered conservative, localized, and of low probability under actual operating conditions.

Annual Emissions (Long-term):

This scenario represents the overall annual average operations of the facility and includes peak operations with both compressor units operating and abnormal conditions where both compressor units and the emergency generator are running.

Based on modelling results using ARM2, no exceedances of the annual BC AAQO or CAAQS 2025 are predicted for this scenario.

7 STATEMENT OF LIMITATIONS

This report entitled "Squamish Compressor Station Air Quality Assessment Report" was prepared by RWDI AIR Inc. ("RWDI") for FortisBC ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein ("Project"). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect the final design of the Project or subsequent changes made after the date of this report, RWDI recommends that it be retained by the Client during the final stages of the project to verify that the results and recommendations provided in this report have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by the Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.

8 REFERENCES

Canadian Counsil of Ministries of Environment, CAAQS 2025. https://ccme.ca/en/res/caaqshandbook.pdf

Environment and Climate Change Canada. 2020. Climate Normals for Squamish, 2020. Website: https://climate.weather.gc.ca/climate_normals/

Environmental Project Information Center (EPIC). 2026a. Website: https://projects.eao.gov.bc.ca/p/588511ddaaecd9001b826f0d/project-details

EPIC. 2026b. Woodfibre LNG. Application for an Environmental Assessment Certificate. https://projects.eao.gov.bc.ca/api/public/document/5886919ce036fb0105768fdb/download/Section%201.0%20and%20Section%202.0.pdf

ENV. 2025. BC Ambient Air Quality Objectives – Updated December 2025. Retrieved from: https://www2.gov.bc.ca/assets/gov/environment/air-land-water/air/factsheets/bc_aq_objectives_2025.pdf

ENV. 2022a. British Columbia Air Quality Dispersion Modelling Guideline. August 2022.

ENV. 2022b. Guidance for NO_2 Dispersion Modelling in British Columbia. July 2022.

Exponent. 2022. CALNO2 Users Guide. Exponent, Inc. July 2022. Available from: https://calpuff.org/calpuff/download/download.htm

APPENDIX A

Dispersion Modelling Plan

An electronic version of this plan is available from the Ministry website.

Dispersion model applications in the Metro Vancouver region should use the 'Metro Vancouver Dispersion Modelling Plan' available from:

http://www.metrovancouver.org/services/Permits-regulations-enforcement/PermitRegulationEnforcementPublications/MVDispersionModellingPlan.docx

GENERAL

Date: *September 8, 2025*

Facility Name, Company, Location (Lat, Long): *FortisBC Energy Inc, Eagle Mountain – Woodfibre Gas Pipeline Project. Squamish Compressor Station at (49.671° N, 123.255° W)*

Air Quality Consultant and Contact Name: *RWDI AIR Inc., Jeff Lundgren*

Ministry Contact Name: *Rachel Butler*

Level of Assessment (1, 2 or 3) and also provide rationale for the proposed level of assessment: *Level 3 (complex terrain)*

Does this plan follow a modelling approach that is similar to the approach taken in a previous air quality assessment already reviewed and accepted by the Ministry? If so, provide the project name and Ministry contact:

Yes, as part of an EAC approval (EAC No. E16-01):

- *On January 9, 2015, FortisBC Energy Inc. (FortisBC) filed an Application for an Environmental Assessment Certificate (EAC Application) to the British Columbia (BC) Environmental Assessment Office (BC EAO) for the Eagle Mountain – Woodfibre Gas Pipeline Project (the Project). On August 9, 2016, FortisBC received EAC No. E16-01 for the Project. The Project includes the Squamish Compressor Station, which is the object of the current BC ER Permit application.*
- *The initial Project description was amended to consider up to two gas fired turbines at the Squamish compressor station; air quality modelling was performed for the new design, and notably reviewed by the Ministry as part of the EAC process; amendment to EAC No. E16-01 was issued on November 22, 2021.*
- *The current proposed modelling approach for the Squamish Compressor Station is similar to the approach followed for the EAC approval, with the following updates:*
  - *an updated ARM2 approach for NO_2 as per the new BC Air Quality Dispersion Modelling Guideline (AQDMG, ENV, August 2022)*
  - *Addition of a more comprehensive Cumulative Case modelling including the adjacent future WoodFibre LNG (WLNG) plant.*

  Inclusion of chemical transformation and deposition modelling for cumulative assessment.

  This version of the model plan is submitted with a broad outline of a cumulative effects scenario including the nearby proposed WLNG project. Fortis is working in consultation with WLNG on the cumulative effects modelling and the two projects will produce one set of cumulative effect results to be referenced by both applications. However, Fortis is currently further ahead in the process, so it is hoped that the model plan for Eagle Mountain alone (i.e the 'Project Only' case presented later on in this plan) can be approved so that portion of the modelling can move forward, with a joint model plan with full emissions details to be provided later when WLNG is able to provide such information.

PROJECT DESCRIPTION AND GEOGRAPHIC SETTING

Provide an overview of the project, including process description and the purpose of the dispersion modelling study.

The Certified Project includes a compressor station, called the Squamish Compressor Station, to be located near the WLNG Site and includes up to two approximately 6,300 hp gas turbine compressor units, two gas boilers, one emergency gas generator, and atmospheric vents. Modelling is required for permitting by the BCER; despite EAC approval, remodelling is required due to the new BC AQDMG as well as changes and updates being made to:

- *Equipment emissions*
- *Building layout including entry and fence line*
- *Receptors*
- *Terrain over plant base and retaining wall.*

One turbine unit is expected to operate 8760 hours per year. A second unit may run simultaneously for up to 20% of the year. The actual run hours will be balanced between Unit 1 and 2 throughout the year for maintenance purposes. The two boilers will have identical specifications, with one serving as a backup up to the other. Boiler operation will be for 8760 hours per year, with only one operating at a time. The emissions points for the boilers are co-located, so they may be considered a single source for modelling. (see Attachment A – Site Plan).

Emergency, abnormal operations, and maintenance venting occurs through atmospheric vents located within the fenceline. Emergency Shutdowns (ESD) will automatically occur upon the detection of unsafe conditions or manually via pushbuttons located throughout the site. Fire and/or gas detection will trigger an ESD.

Facilities shutdowns are as follows:

- *Third Order Shutdown – Compressor unit shuts down, isolation and venting the unit through the unit blowdown silencer.*
- *Second Order Shutdown – Compressor Building Shutdown, isolation and venting all main gas piping, fuel gas, and utility gas piping through the unit blowdown silencer and fuel gas vent.*
- *First Order Shutdown – Complete station shutdown, isolation and venting of station piping. Station piping blowdown through the station blowdown silencer.*
- *Power outage: an emergency generator will operate to provide power to the facility. This scenario will be modelled as an abnormal scenario.*

Among these shutdown scenarios only the power outage scenario will be included in the dispersion modelling. Note that for all the other shutdown scenarios, emissions of contaminants of interest will be less than the normal operating scenario. Vented gas under these scenarios is mainly sweet natural gas, and does not contain any contaminants of interest. Therefore, they are excluded from the modelling scenarios.
Modelled scenarios are discussed in detail on page 6 under "Model Emission Scenarios".

Provide a description of the following:

- Terrain characteristics within domain: flat terrain or complex terrain (i.e., will complex flow need to be considered?)
- Dominant land cover: urban, rural, industrial, agricultural, forested, rock, water, grassland.

The terrain surrounding the Site is complex with Mount Sedgwick and Mount Tantalus to the north and the Howe Sound to the east of the Site (see Figure 3). The dominant land cover of the area is forested land (see Figure 4).

DISPERSION MODEL

Selected Dispersion Model:

List model(s) and version to be used (see Section 2).

- *CALPUFF v7.2.1*

Specify any non-guideline models or versions (i.e., beta-test versions) planned for use (Section 2.3.1). Provide rationale.

- *n/a*

If modifications to any of the models are planned, provide a description and the rationale (Section 2.3.2).

- *n/a*

Default Switch Settings

For CALMET/CALPUFF identify any key switch settings in CALMET and CALPUFF that will be different from the "black (do not touch)" defaults as per Tables 6.2 and 7.1. Provide rationale.

- *All CALMET switches used in the meteorological modelling will be in accordance with "black (do not touch)" defaults listed in the BC AQDMG.*
- *All CALPUFF switches used in this dispersion modelling will be in accordance with "black (do not touch)" defaults listed in the BC AQDMG.*

If the CALMET model is used, provide:

- a CALMET domain map that also shows the locations of surface meteorological stations and upper air stations: *N/A (NOOBS mode)*
- anticipated grid resolution: *100 (m)*
- number of grids in X and Y direction (NX = *400*, NY = *400*)
- vertical levels (m): *0.,20.,40.,80.,160.,300.,600.,1000.,1500.,2200.,3000.*

CALPUFF and Receptors

If the CALPUFF model is used, provide the following:

proposed receptor grid spacing (see Section 7.2):

To facilitate the cumulative scenario including WLNG, the receptor grid is based on the property boundaries of both proposed projects. The grid was developed in consultation with WLNG and the subsequent air quality assessment to be submitted for WLNG will use the same grid.

- *Receptor grid spacing based on BC AQDMG, with increased density in areas of interest:*
  - *10-m spacing along both facility fence lines*
  - *20-m spacing within 500 m of the facilities*
  - *50-m spacing within 2 km of the facilities*
  - *250-m spacing within 5 km of the facilities*
  - *500-m spacing for the remainder of the study area*
  - *Additional 50m spacing for the area within the growth management boundary of the district of Squamish, where populations may reside.*

Maximum predictions are expected near to the Eagle Mountain fenceline within the area covered by the 20m grid.

a map of the CALPUFF domain and receptor grid: *See Figure 1*

anticipated sensitive receptors (see Section 7.4)) and also indicate them on the CALPUFF domain map (if applicable)

- *No sensitive receptors were identified within 5km of the Site.*
- *Closest residential receptor: approx. 7.4km*
- *Closest hospital: approx. 8.5km*
- *Closest school: approx. 7.8km*
- *Closest campground: approx. 6.4km*
- *Closest Park: approx. 4km*

receptor (flagpole) height (m) (see Section 7.5):

- *Receptor height of 1.5m*

PLANNED MODEL OUTPUT: AIR QUALITY ASSESSMENT NEEDS

Output Requirements for

What model output is required for decision makers and stakeholders? (i.e. what is the purpose of the assessment?). Circle as appropriate.

Air Quality:

- *Concentrations: concentrations will be provided for Project-only Case including normal, maximum and abnormal operations.*
- *Concentration and deposition: For the Cumulative Case with WLNG, concentrations and deposition will be provided. Deposition of NOx and SOx species will be included. Secondary formation of NOx and SOx that may contribute to deposition will be modelled through use of the ISORROPIA chemical mechanism in CALPUFF. For conservatism, modelling of ambient concentrations will be conducted with deposition not included.*

Tables and Figures for Level 2 and 3 Assessments (see detailed list in Section 8.3.2):

- *Spatial distribution maps of modelled short- and long-term average CAC concentration isopleths (relevant metrics for comparison with BC AAQO), exceedance frequencies (if any).*
- *Tables of maximum short- and long-term average CAC concentrations, and relevant background concentrations (relevant metrics for comparison with BC AAQO).*
- *In the case of predicted NO_2 exceedances, a spreadsheet table showing the number of times that the predicted 1-hr, and annual NO_2 concentrations with the inclusion of baseline exceeds the BCAQO metric at each receptor (along with the x, y coordinates of the receptor) over the full modelling period) will be provided for both project only and cumulative cases.*
- *Spatial distribution maps of dust deposition for cumulative case*
- *Output spatial scale: over modelling domain and zoomed-in near the facility.*

For clarity, detailed model outputs to be presented are provided in the "20250908 BCER Comment Tracker.xlsx".

EMISSION SOURCES AND CHARACTERISTICS

Provide a map showing the source locations, buildings, and facility fence line: *See Figure 2, and Attachment A*

Model Emission Scenarios

If applicable, describe the different model emission scenarios required for the assessment if multiple options are under consideration. For example, different source characteristics (stack dimensions, emission rates) or source arrangements (locations, types, buildings) may need separate modelling runs to examine the air quality implications of different scenarios.

Project-only Case, including three scenarios:

- *Normal operations: Turbine 1 and Boiler, (these 2 sources will operate 100% of the year). Short- and mid-term averages directly from model results. For annual average, Boiler results are scaled by the load factor of 0.75%.*
- *Peak Operations: Turbine 1 and Boiler, plus Turbine 2 (up to 20% of the year). All sources including Turbine 2 are modelled as running 100% of year. Short- and mid-term averaging periods are determined directly from model results with no adjustments. Annual averages will be determined by scaling model results by load factor of 75% for Boiler and run time of 20% for Turbine 2.*
- *Abnormal emission scenario: Power loss requiring a back-up generator (up to 10% of the time), while Turbine 1 and Turbine 2, and Boiler would continue operating. Abnormal conditions will be modelled by using the peak emission rate during the abnormal period and applying for the full year. Maximum short- and mid-term averaging periods are determined directly from model results. Annual averages adjusted based on load factor and actual operating hours.*

Note that sources will be run individually in CALPUFF and then added together in CALSUM for each scenario. The scaling factors mentioned above will be applied in CALSUM for each averaging period.

Ambient background will be included in all Project-only scenarios.

For more details see table 2 of the "20250908 BCER Comment Tracker.xlsx".

Cumulative Case, including one scenario:

- *Normal operations of the Project + normal operations of WLNG – all applicable averaging periods*

Cumulative emissions from the adjacent WLNG will be addressed by modelling a cumulative scenario. Fortis has engaged with WLNG to discuss a joint modelling approach for both facilities to ensure consistency and to reduce unnecessary modelling effort. Both facilities will be modelled explicitly for cumulative assessment. Chemical transformation and deposition will also be included in the cumulative assessment. Modeling methodology, technical switches, model outputs and all other modeling details for cumulative assessment will be consistent with the methods outlines in this model plan.

Contaminants Emitted for Each Emission Scenario

Provide the following details of the sources to be modelled:

Specify Source, Type, Contaminants (extend Table as necessary)

Source	Type: Point (P), Area (A), Line (L), Volume(V), etc. Indicate type	Contaminants (SO_2, NO_2, $PM_{2.5}$*. . .)	Operating Hours	Basis of Emissions (Section 3.3)
Compressor Turbine (Unit 1) *Solar Turbines Centaur 50-6202LS* *Duty: 6270 HP (ISO)* *Power Fuel: Natural Gas*	*Point Source*	*SO_2* *NO_X* *CO* *TP ($PM_{2.5}$, PM_{10})* *VOCs*	*8760*	*Manufacturer specifications*
Compressor Turbine (Unit# 2) *Solar Turbine Centaur 50-6202LS* *Duty: 6270 HP (ISO)* *Power Fuel: Natural Gas*	*Point Source*	*SO_2* *NO_X* *CO* *TP ($PM_{2.5}$, PM_{10})* *VOCs*	*1752*	*Manufacturer specifications*
Boiler *Make: Viessmann – Vitocrossal 200 Series* *Duty: 440 kW* *Power Fuel: Natural Gas*	*Point Source*	*SO_2* *NO_X* *CO* *TP ($PM_{2.5}$, PM_{10})* *VOCs*	*8760*	*Manufacturer specifications*
Generator *Make: Waukesha VGG-L36GSI* *Duty: 500 kW* *Power Fuel: Natural Gas*	*Point Source*	*SO_2* *NO_X* *CO* *TP ($PM_{2.5}$, PM_{10})* *VOCs*	*876*	*Manufacturer specifications*

***** for PM emissions indicate whether it is filterable, or filterable + condensable, or if unknown (see Section 3.6)

Emissions for each operating scenario are based on the maximum design capacity of the Turbines, Boilers and/generators. Emission rates for all modelled sources and applicable averaging periods are provided in Table 1 and Table 2 of the "20250908 BCER Comment Tracker.xlsx". Note that Table 1 provides maximum hourly emission rates for the WLNG sources based on their EA, for context only. Updated emission rates based on the latest design for WLNG, which will be used in the cumulative modelling will be provided at a later time.

Source Emission Rate Variability

Do emissions have sub-hourly variation (e.g., blow-down flares with high emission peaks

during the hour)? If so, describe the approach to assess air quality implications of those sub-hourly high emission peaks.

- *n/a*

Describe the approach to assess air quality implications under the 25, 50, 75% emission scenario. See Section 3.4.2.

- *n/a*

If there are batch processes, provide a temporal emission profile (emission rate vs time) for each batch process.

- *n/a*

Describe anticipated abnormal emission scenarios (e.g., start-up, shut-down, maintenance of control works) and their anticipated frequency of occurrence. See Section 3.4.3.

- *Power loss requiring a back-up generator, Turbine 1 and possibly Turbine 2, Boiler would continue operating - (up to 10% of the time)*

BASELINE CONCENTRATION

Indicate method used to determine baseline concentrations for each pollutant (Section 8.1):

- *monitoring data (Section 8.1.1 and 8.1.2)*

If existing monitoring data to be used, complete the following Table:

Representative Air Quality Measurements

Station Name (Lat./Long./ or indicate on map)	Period of Record (start/end date)	Contaminants Measured
Squamish Elementary	*2021-2023*	*SO_2, NO_2, NOx, $PM_{2.5}$ [1], O_3*
n/a	*2021-2023*	*PM_{10} [2]*
Horseshoe Bay	*2017-2019 [3]*	*CO*

Note: *[1] Outliers of $PM_{2.5}$ background concentrations caused by wildfire were removed as per air quality advisories and in accordance with B.C. Air Quality Dispersion Modelling Guidelines. List of air quality advisories referenced from Metro Vancouver: https://metrovancouver.org/media-room/media-releases*

[2] Existing PM_{10} Concentrations assumed to equal $PM_{2.5}$ emissions.

[3] Limited quantity of data available from Horseshoe Bay for CO for 2021-2023 therefore 2017-2019 data will be used.

If baseline concentrations are anticipated to change in the future due to planned significant reductions or increases in emissions, provide a description of how these will be accounted for (e.g., construction of a nearby new facility or the planned decommissioning of a currently operating facility) and the uncertainties involved in estimating future emissions.

- *Operations at WLNG plant might increase current background CAC concentrations in the vicinity of the Squamish Compressor station; this may impact NO_2 predictions for the Project in particular.*
- *A cumulative case including emissions from both Eagle Mountain and WLNG will be modeled. The potential impact of WLNG on predictions for the Project will be calculated explicitly from this scenario. This scenario will be developed in cooperation with WLNG and the single set of cumulative model results will be referenced by both projects.*

For NO_2 models, provide a description of how NO_2 chemistry, location and proximity of urban regions relative to the modelled source, and proximity of nearby large industrial or transportation sources of NO_X are considered when selecting the baseline dataset (Section 3.3.2, GUIDANCE FOR NO_2 DISPERSION MODELLING IN BRITISH COLUMBIA).

- *The site is located next to the Howe Sound, approximately 40km the more open water of Georgia Strait and shielded by the full breadth of Vancouver Island from the open Pacific he main coast. It is surrounded mostly by forested land. The nearest urban area to the Site is the small town of Squamish (>5km to the northeast) this is also the location of the nearest air quality monitor of NOx, NO2 and O3.*
- *The ARM2 Curve for 'coastal' will be used for converting NOx to NO2.*
- *A baseline concentration determined from measurements at Squamish Elementary will be included in the ARM2 calculation.*
- *A site-specific ARM2 curve will NOT be developed from data from Squamish Elementary as the available data record at that location is too short.*

For NO_2 models, if refined baseline options are proposed (Section 3.3.2, GUIDANCE FOR NO_2 DISPERSION MODELLING IN BRITISH COLUMBIA), show the baseline value(s) in the form of each sequential step (e.g., show the 98th percentile of daily 1-hour maximum and the 98th percentile of monthly hour-of-day values if proposing to use the Monthly Hour-of-Day option).

- *98th percentile of daily 1-hour maximum from Squamish Elementary will be used.*

  Data Completeness (% missing) for NOx and NO_2 are shown below.

	2023				***2022***				***2021***			
	Q1	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*	*Q1*	*Q2*	*Q3*	*Q4*
NOx	*5%*	*5%*	*4%*	*4%*	*2%*	*5%*	*5%*	*4%*	*1%*	*11%*	*1%*	*0%*
NO_2	*5%*	*5%*	*4%*	*4%*	*2%*	*5%*	*5%*	*4%*	*1%*	*11%*	*1%*	*0%*

If the Monte Carlo method (Section 3.3.2.1, GUIDANCE FOR NO_2 DISPERSION MODELLING IN BRITISH COLUMBIA) is applied for NO_2 baseline, submit the computer code used to generate results.

- *n/a*

BUILDING DOWNWASH

Potential for building downwash. Please provide rationale if building downwash is not modelled.

- *As the stacks are relatively short compared to building height, the associated plumes may be influenced by building downwash. For this reason, building downwash effects will be included in the dispersion modelling.*

If building downwash included, provide a site map to indicate buildings to be processed by BPIP-PRIME, and complete the following Table: *See Figure 2, and Attachment A*

Source	Source Height (m)	Distance from the Source to the Nearest Building (m)	Building Length (m)	Building Height (m)	Building Width (m)
Compressor Turbine (Unit 1 and 2)	*16.1*	*0*	*20.1*	*12.3*	*18.1*
Boiler	*5.5*	*0*	*38.7*	*4.5*	*9.5*
Generator	*6.1*	*0*	*38.7*	*4.5*	*9.5*

GEOPHYSICAL DATA INPUT

Topography and Land Use Data

Terrain data (*CDEM*) and an elevation map for the model domain:

- *See Figure 3: Terrain Elevations*
- *Source of elevation data: https://open.canada.ca/data/en/dataset/7f245e4d-76c2-4caa-951a-45d1d2051333*
- *The terrain data will be supplement with site-specific elevations (as the hill will be flattened at the site)*

Land use data (*LCC*) and a land use map for the model domain:

- *See Figure 4: Land Use*
- *Source of landuse data: https://open.canada.ca/data/en/dataset/7f245e4d-76c2-4caa-951a-45d1d2051333*

Surface Characteristics

For AERSCREEN, provide seasonal values of surface characteristics (surface roughness, albedo and Bowen ratio) for input to MAKEMET.

- *n/a*

For Level 2 and 3 Assessments, indicate if recommended seasonally varied surface characteristics (surface roughness, albedo, Bowen ratio, etc.) (see Section 4.3 and 4.4) are used for the dispersion modelling study. If not, provide the proposed surface characteristics and the rationale.

- *Recommended seasonally varied surface characteristics will be used (note that the Howe Sound does not freeze in winter and snow accumulation is intermittent (mostly rains); therefore, Winter1 characteristics will be used throughout the winter season (no winter 2).*

METEOROLOGICAL DATA INPUT (FOR LEVEL 2 AND 3 ASSESSMENTS ONLY)

Surface Meteorological Data

If surface observation data are used, provide a map with the location of each surface meteorological station identified and also provide the following:

- *Surface observations will not be used in CALMET as the nearest station (Squamish Airport) is 14 km from the project and the terrain is complex. The BC WRF dataset will be used as input into CALMET and CALMET will be run in NOOBS=2 mode at high spatial resolution to model local fine-resolution terrain effects.*

Upper-Air Meteorological Data

For data completeness and data filling, follow guidance in Section 5.5.

- *n/a - No upper air stations will be used (NOOBS=2)*

NWP Model Output

If NWP output (different than the provincewide WRF output) used provide the following:

- *n/a - Province's WRF-4km dataset will be used. The full 5-year period from 2011-2015 will be used.*

NWP model output use (circle one below for the selected dispersion model):

CALMET: NWP only

TREATMENTS

NO to NO_2 Conversion (Section 3.2, GUIDANCE FOR NO_2 DISPERSION MODELLING IN BRITISH COLUMBIA)

Identify the method to be used. Please note that the results of total conversion must be presented as part of all model reports, regardless of the conversion method selected for the project.

Specify the considerations given to ambient concentrations, characteristics of modelled sources, and availability of relevant monitoring data when selecting the NO_2 modelling method indicated above.

Total Conversion as required.

Ambient Ratio Method 2:

When compared to other example locations given in the expanded NOx guidance, Squamish might reasonable be described as either 'Coastal' or 'Rural'. The ARM2 for 'coastal' will provide higher NO2/NOX ratios and thus is more conservative for prediction of ambient NO2. Therefore the coastal ARM2 curve will be used for all scenarios.

If CALPOST is used, provide the 24 values used for the step function.

- *n/a*

OLM and PVMRM

- *Not used due to lack of available O_3 data during the modeling period.*

Chemical Transformation:

Specify transformation method and provide details on inputs if secondary $PM_{2.5}$, acid deposition or visibility effects are to be estimated. Depending on the transformation method, this could include ammonia, ozone, hydrogen peroxide concentrations, nighttime loss and formation rates for nitrates and sulphates.

- *n/a for the Project-only Case*
- *ISORROPIA for the Cumulative Case*

Particle Deposition:

If non-recommended particle size distributions (see Section 3.6) are used, provide Table of particle emission (including heavy meals if modelled) size/density distribution and indicate the basis for the Table.

- *n/a for the Project-only Case*
- *Wet and Dry PM Deposition according to AQDMG, for the Cumulative Case*

Stagnation:

Provide an estimate of the frequency of stagnation based on local meteorological data if available. If AERMOD is proposed, provide methodology on how stagnation periods will be treated (see Section 10.2).

- *n/a*

Shore/Coastal Effects:

If included, indicate whether sub-grid-scale Thermal Internal Boundary Layer option is selected along with the required input coastline coordinate data (see Section 10.3).

- *n/a*

Plume Condensation (Fogging) and Icing:

Indicate if this will be included (Section 10.6).

- *n/a*

QUALITY MANAGEMENT PROGRAM

Model Input Data

Indicate the tests that will be undertaken to assure the quality of the inputs.

For the geophysical input data:

- contour plot of topography
- plots of land use and land cover

See Figures 3 and 4.

For the meteorological data:

- wind rose (annual and/or seasonal)
- frequency distribution of surface wind speeds
- average hourly temperature plot (annual and/or seasonal)

n/a – surface meteorological data will not be used.

If NWP output is used, describe the tests undertaken to assure the quality of the output (Section 6.1)

- wind rose at selected locations and heights (annual and/or seasonal)
- average hourly temperature plot at selected locations and heights (annual and/or seasonal)
- wind field plots for selected periods that indicate topographic influences such as channeling and thermally generated flows.

n/a - WRF data provided by ENV will be used.

Model Output Data

For CALMET/CALPUFF applications, provide a list of the tests conducted to confirm the quality of the model output (intermediate pre-processing files and concentration/deposition predictions).

With respect to the pre-processed files that are prepared for CALPUFF input, there are several tests listed in Section 9.1.1 and 9.1.2 to check the output from the pre-processing utility programs to confirm that they have been properly processed. These are related to checking:

- terrain, land use.
- sources (locations and elevation) and emission characteristics.
- meteorological data (locations) and tests to confirm proper processing of the raw meteorological data (units, parameters).
- receptor locations and elevations.

For CALMET output there are several tests listed in Section 9.1.3 to test the quality of the generated meteorological fields. These are related to reviewing the following:

- wind field maps (surface and different elevations) for select periods where topographic influences (channeling, thermally driven flows) would be evident.
- wind roses at selected locations and elevations (annual, *and/or* seasonal).
- frequency distributions of various meteorological parameters (annual, *and/or* seasonal) such as PG-stability class and mixing heights.
- plots of hourly average parameters such as temperature, mixing height, and precipitation at key locations (annual *and/or* seasonal).

Detailed model outputs to be presented are provided in Table 3 of the "20250908 BCER Comment Tracker.xlsx"

Model Performance Evaluation

For Level 3 Assessments, indicate whether an assessment of model performance will be conducted as quality assurance for the project (Section 4.3, GUIDANCE FOR NO_2 DISPERSION MODELLING IN BRITISH COLUMBIA). If not, provide rationale.

This is a future project so comparison between modelled and monitored concentrations won't be possible.

Note: The Ministry may require all computer files associated with the modelling to be submitted upon request.

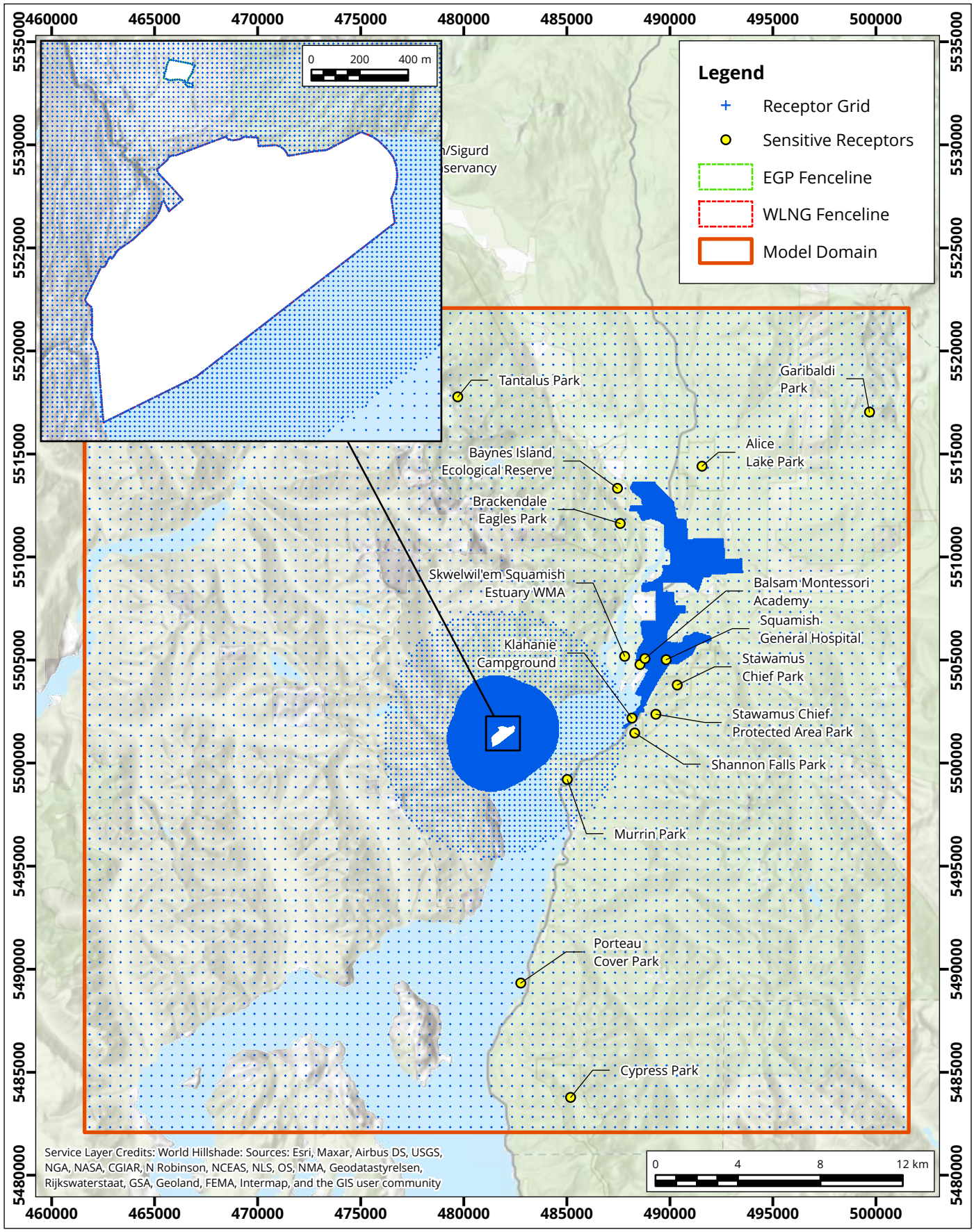
If any of the advanced processing methods like Monte Carlo are applied, the computer code used to generate results should also be included in the submittal.

MINISTRY REVIEW OF PLAN AND REVISIONS

A modelling plan can change over the course of developing the air quality assessment so acceptance of the initial submission of the plan is based on the best information provided to date. Changes to the plan (additions, modifications) should be noted and agreed to with the Ministry as necessary. An updated Dispersion Modelling Plan may be necessary.

Ministry Acceptance of Original Plan (Name):_____

Date:_____



CALPUFF Domain and Receptor Grid

V2 Squamish

Map Projection: NAD 1983 UTM Zone 10N

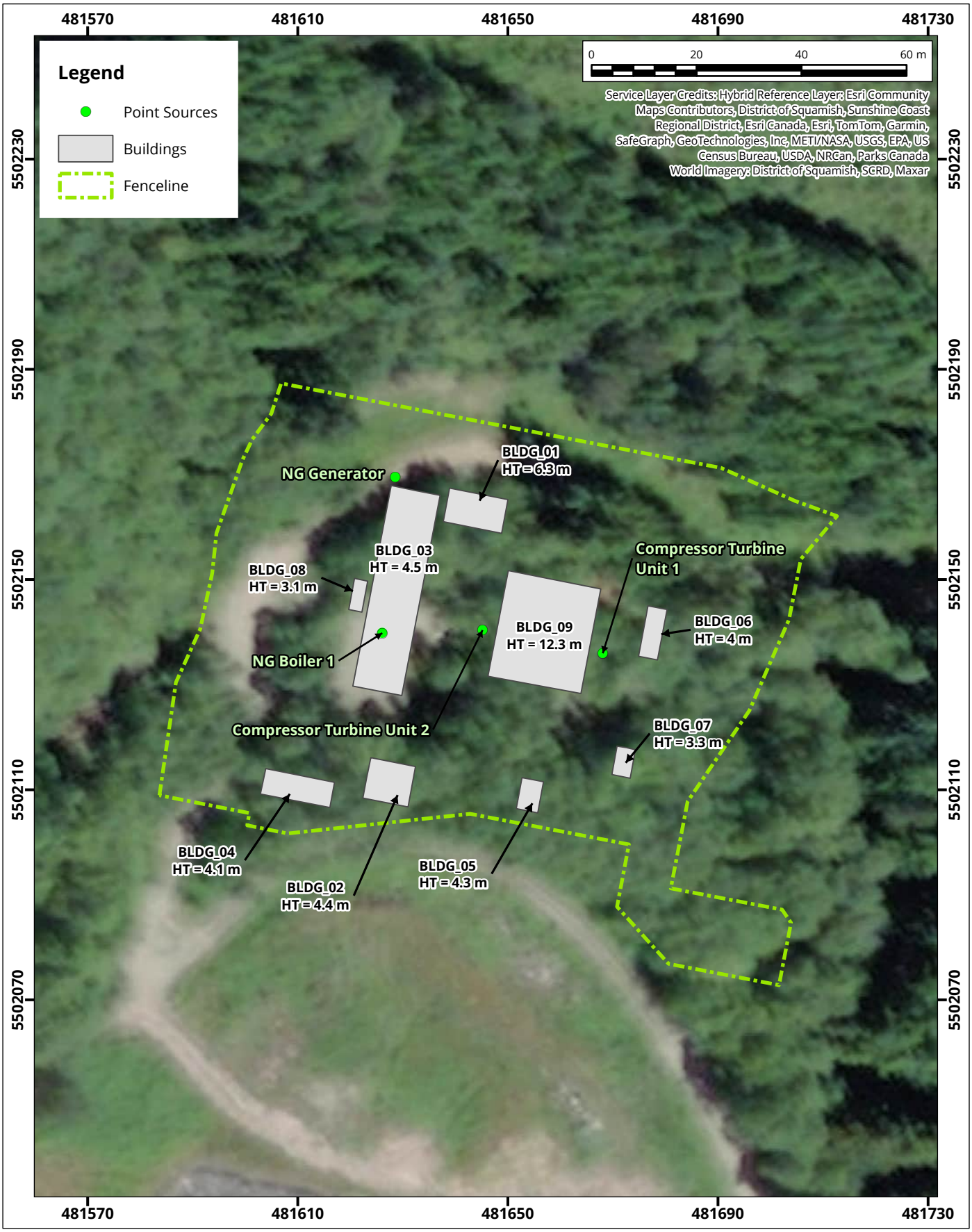
Eagle Mountain Pipeline - Squamish, British Columbia

Project #: 2301269

True North

Drawn by:	PIP	Figure:	1
Approx. Scale:	1:255,000		
Date Revised:	Sep 8, 2025		

Map Document: C:\Working\Folder\Jobs_America\P2301269\P2301269_FortisBC_EPG.aprx



Map Document: C:\GIS\2301269_CoquitlamV2_Squamish\CALPUFF\P2301269_FortisBC_EPG.aprx

Site Plan Showing Buildings and Sources to be included in Modelling

V2 Squamish

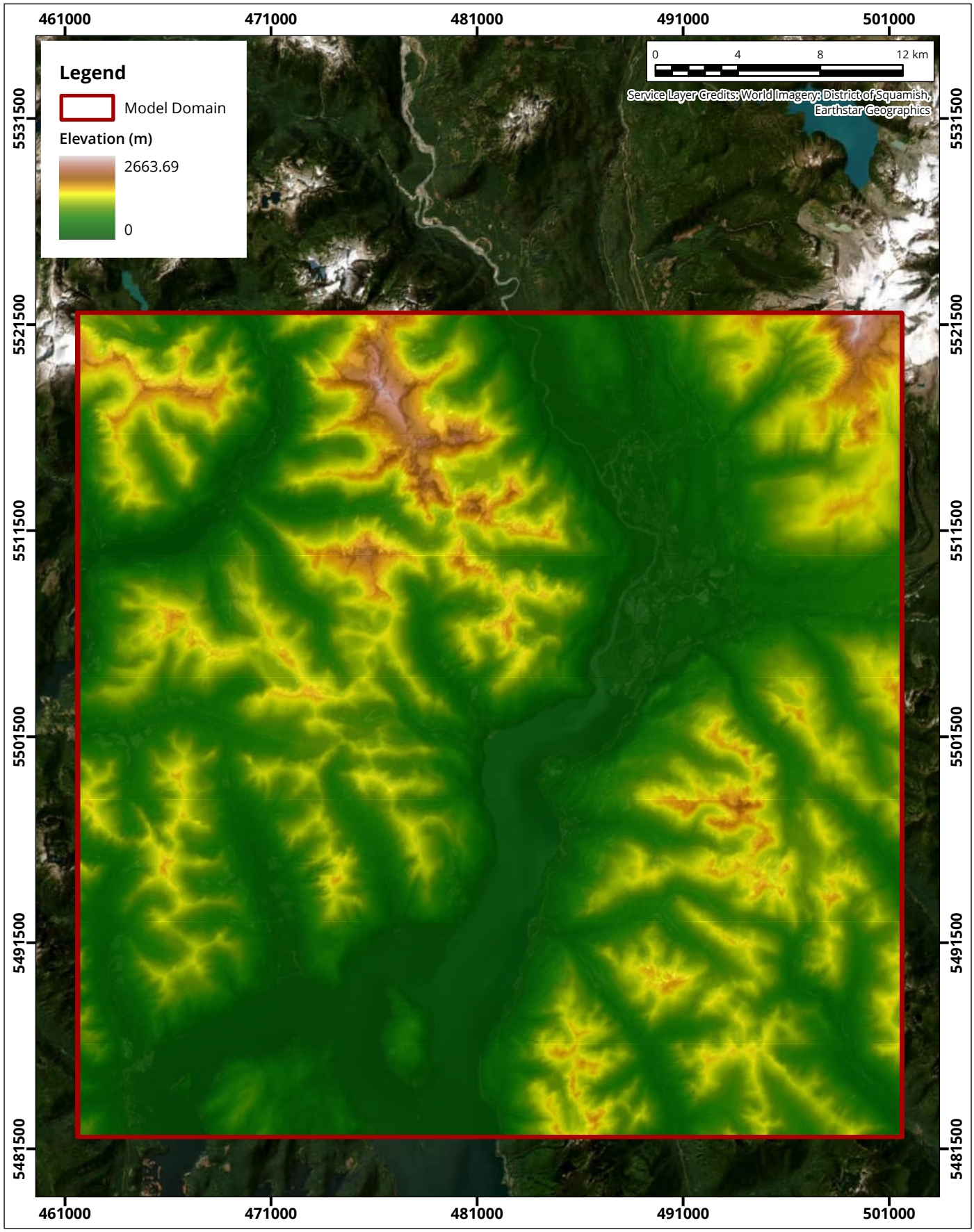
Map Projection: NAD 1983 CSRS UTM Zone 10N

Eagle Mountain Pipeline - Squamish, B.C.

True North

Project #: 2301269

Drawn by: RCL	Figure: 2
Approx. Scale:	1:1,000
Date Revised:	Mar 21, 2024



Modelling Domain - Terrain Elevations

V2 Squamish

True North

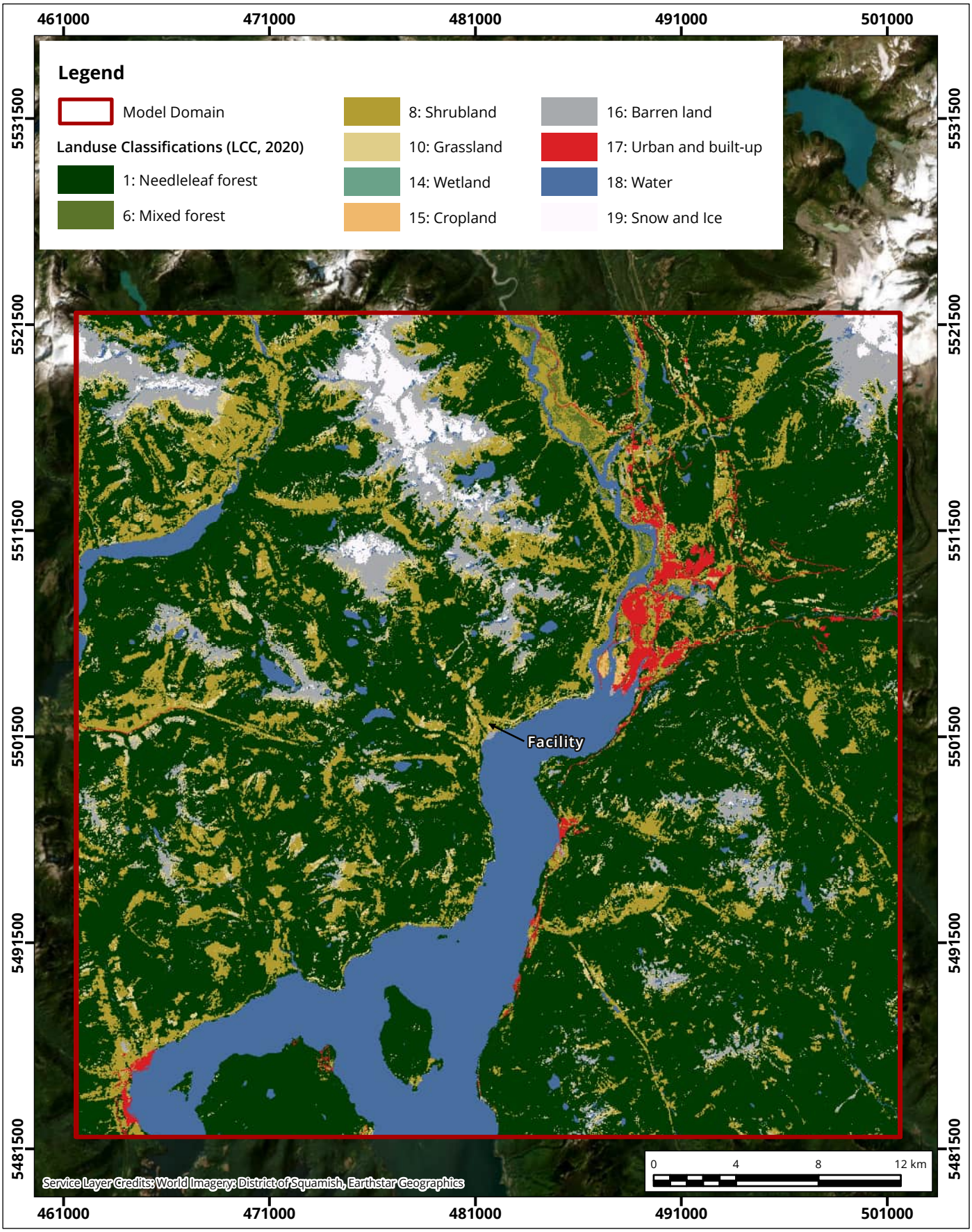
Drawn by: RCL	Figure: 3
Approx. Scale:	1:255,000
Date Revised:	Mar 26, 2024

Map Projection: NAD 1983 CSRS UTM Zone 10N

Eagle Mountain Pipeline - Squamish, B.C.

Project #: 2301269

Map Document: C:\GIS\2301269_CoquitlamV2_Squamish\CALPUFF\P2301269_FortisBC_EPG.aprx



Modelling Domain - Landuse Classifications

V2 Squamish

Map Projection: NAD 1983 CSRS UTM Zone 10N

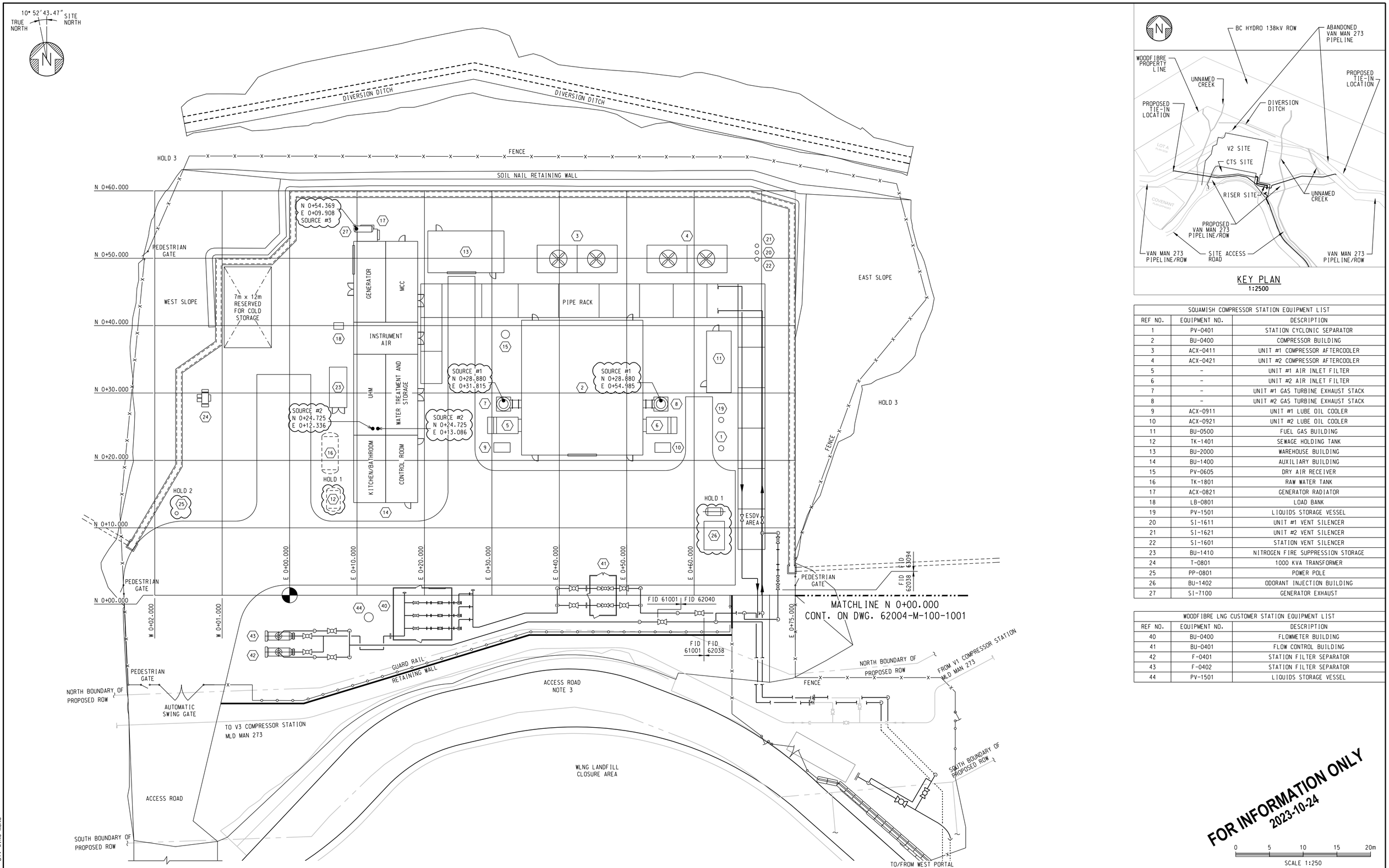
Eagle Mountain Pipeline - Squamish, B.C.

True North

Project #: 2301269

Drawn by: RCL	Figure: 4
Approx. Scale:	1:255,000
Date Revised:	Mar 26, 2024

Map Document: C:\GIS\2301269_Coquitlam\V2_Squamish\CALPUFF\P2301269_FortisBC_EPG.aprx



KEY PLAN
1:2500

SQUAMISH COMPRESSOR STATION EQUIPMENT LIST		
REF NO.	EQUIPMENT NO.	DESCRIPTION
1	PV-0401	STATION CYCLONIC SEPARATOR
2	BU-0400	COMPRESSOR BUILDING
3	ACX-0411	UNIT #1 COMPRESSOR AFTERCOOLER
4	ACX-0421	UNIT #2 COMPRESSOR AFTERCOOLER
5	-	UNIT #1 AIR INLET FILTER
6	-	UNIT #2 AIR INLET FILTER
7	-	UNIT #1 GAS TURBINE EXHAUST STACK
8	-	UNIT #2 GAS TURBINE EXHAUST STACK
9	ACX-0911	UNIT #1 LUBE OIL COOLER
10	ACX-0921	UNIT #2 LUBE OIL COOLER
11	BU-0500	FUEL GAS BUILDING
12	TK-1401	SEWAGE HOLDING TANK
13	BU-2000	WAREHOUSE BUILDING
14	BU-1400	AUXILIARY BUILDING
15	PV-0605	DRY AIR RECEIVER
16	TK-1801	RAW WATER TANK
17	ACX-0821	GENERATOR RADIATOR
18	LB-0801	LOAD BANK
19	PV-1501	LIQUIDS STORAGE VESSEL
20	SI-1611	UNIT #1 VENT SILENCER
21	SI-1621	UNIT #2 VENT SILENCER
22	SI-1601	STATION VENT SILENCER
23	BU-1410	NITROGEN FIRE SUPPRESSION STORAGE
24	T-0801	1000 KVA TRANSFORMER
25	PP-0801	POWER POLE
26	BU-1402	ODORANT INJECTION BUILDING
27	SI-7100	GENERATOR EXHAUST

WOODFIBRE LNG CUSTOMER STATION EQUIPMENT LIST		
REF NO.	EQUIPMENT NO.	DESCRIPTION
40	BU-0400	FLOWMETER BUILDING
41	BU-0401	FLOW CONTROL BUILDING
42	F-0401	STATION FILTER SEPARATOR
43	F-0402	STATION FILTER SEPARATOR
44	PV-1501	LIQUIDS STORAGE VESSEL

FOR INFORMATION ONLY
2023-10-24

0 5 10 15 20m
SCALE 1:250

HOLDS:

1. DETAILS TO BE CONFIRMED WITH VENDOR INFORMATION.
2. POWER POLE LOCATION TO BE DETERMINED.
3. EAST SLOPE, WEST SLOPE AND SOIL NAIL RETAINING WALL DESIGN TO BE CONFIRMED WITH WSP.
4.

NOTES:

1. PIPELINE DEPTH OF COVER SHALL BE 1.2M MINIMUM.
2. FOR DETAILS SEE VAN MAN 273 RELOCATION RISER SITE AT KP 49.3 PLOT PLAN - DWG# - 62004-M-100-1001.
3. ACCESS ROAD AROUND PERIMETER OF WLNG LANDFILL BY OTHERS.
4. SEWAGE HOLDING TANK SUPPLIED BY CONSTRUCTION CONTRACTOR.

Solaris

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SOLARIS (FT19-03707)	R0-A	FOR INFORMATION ONLY	WHM	FSM	SCJ	2023-10-24
BY	No.	REVISION	DRAWN	DESIGNED	CHECKED	DATE(YYYY-MM-DD)
			PREVIOUS DR. NO.- .			SCALE- 1:250

FORTIS BC™

PERMIT TO PRACTICE No.

ENGINEER SEAL

SQUAMISH COMPRESSOR STATON

GAS TURBINE COMPRESSOR STATION PLOT PLAN

DRAWING NUMBER 63094-M-100-1000-SK2

LAST SAVED: 11/2/2023 2:11:36 PM BY: WING.MUNG
PLOTTED: 11/2/2023 3:08:44 PM. BY: WING MUNG

FILENAME: J:\FORTISBC\DATSTATIONS\FT19-03707 V2 EGP DETAILED ENGINEERING\DRAWINGS\MECHANICAL\PLOT PLAN\63094-M-100-1000-SK2.DWG

APPENDIX B

B.1 INTRODUCTION

This Appendix provides details on CALMET settings, inputs and results. Representative CALMET outputs are shown and briefly discussed to demonstrate CALMET's performance is consistent with expected meteorological conditions.

CALMET (Scire et al, 2000), was run for a five-year period from January 1, 2011, to December 31, 2015, over a 40 km by 40 km modelling domain), with input the mesoscale meteorological modelling fields provided BC ENV.

CALMET horizontal domain resolution was set at 100 m. In the vertical direction, 10 layers were chosen, from the surface to 3000m, with the top of the layers set as 20, 40, 80, 160, 300, 600, 1000, 1500, 2200 and 3000 m above ground level.

CALMET was initialized for the five-year model period using the Weather Research and Forecasting (WRF) model. The BC WRF dataset for 2011-2015, with a 4-km resolution covering a 60 km by 60 km area over southwestern B.C., was obtained from BC ENV (https://wrf.nrs.gov.bc.ca/).

In the absence of observed hourly upper air soundings in the vicinity of the Project, the WRF fields also provided upper meteorological information to the modelling. Surface observations were not added to the model.

The summary of CALMET model input datasets and setup is provided in **Table B.1** and discussed in more details in **Section B.2.**

The CALMET model performance was assessed by reviewing various model outputs and, comparing to observations, where possible, as per the modelling plan. This analysis is presented in **Section B.3**.

CALMET setup is summarized in Table 1 below.

Table B.1: Summary of CALMET Setup

Parameter	Period of Record (start/end date)
Meteorological Model	CALMET Version 6.5.0
Modeling Period	January 1, 2011 to December 31, 2015
Domain Size	40 km x 40 km, centered on the Project
Grid Resolution	100 m
Prognostic Data	WRF at 4km resolution, provided by ENV
Surface Meteorology	Not Included
Terrain Elevations	Canadian Digital Elevation Model (Natural Resources Canada)
Land Cover Data	Baseline Thematic Mapping present land use version 1 spatial layer (BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development)

B.2 CALMET SETTINGS

B.2.1 Terrain

The terrain elevation characterization information used as input into the CALMET model was obtained from Canadian Digital Elevation Model (Natural Resources Canada). The land cover characterization information used as input into CALMET was obtained from Baseline Thematic Mapping present land use version 1 spatial layer (BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development). Terrain elevations along with landaus categories are presented in **Figure B.1**.

B.2.2 Geophysical Parameters

The CALMET model requires gridded geophysical parameters including surface roughness length, albedo, Bowen ratio, soil heat flux, vegetation leaf area index, and anthropogenic heat flux. To represent the seasonally dependent geophysical parameters more accurately in the CALMET model, five seasons were specified as per the BC AQDMG (ENV, 2022):

- Season 1: Mid-summer with lush vegetation (June to August)
- Season 2: Autumn with cropland that has not yet been harvested (September and October)
- Season 3: Winter with freezing temperatures, no snow on ground (November to March)
- Season 4: Winter with sub-freezing temperatures, snow cover on ground (Not used as these conditions are infrequent in Project location)
- Season 5: Transitional spring with partially green short annuals (April and May)

All geophysical parameters were defined by land cover characterization type and seasonal category based on the BC modelling guideline. A 2D map of the gridded land use categories and terrain elevations is provided in **Figure B.1**.

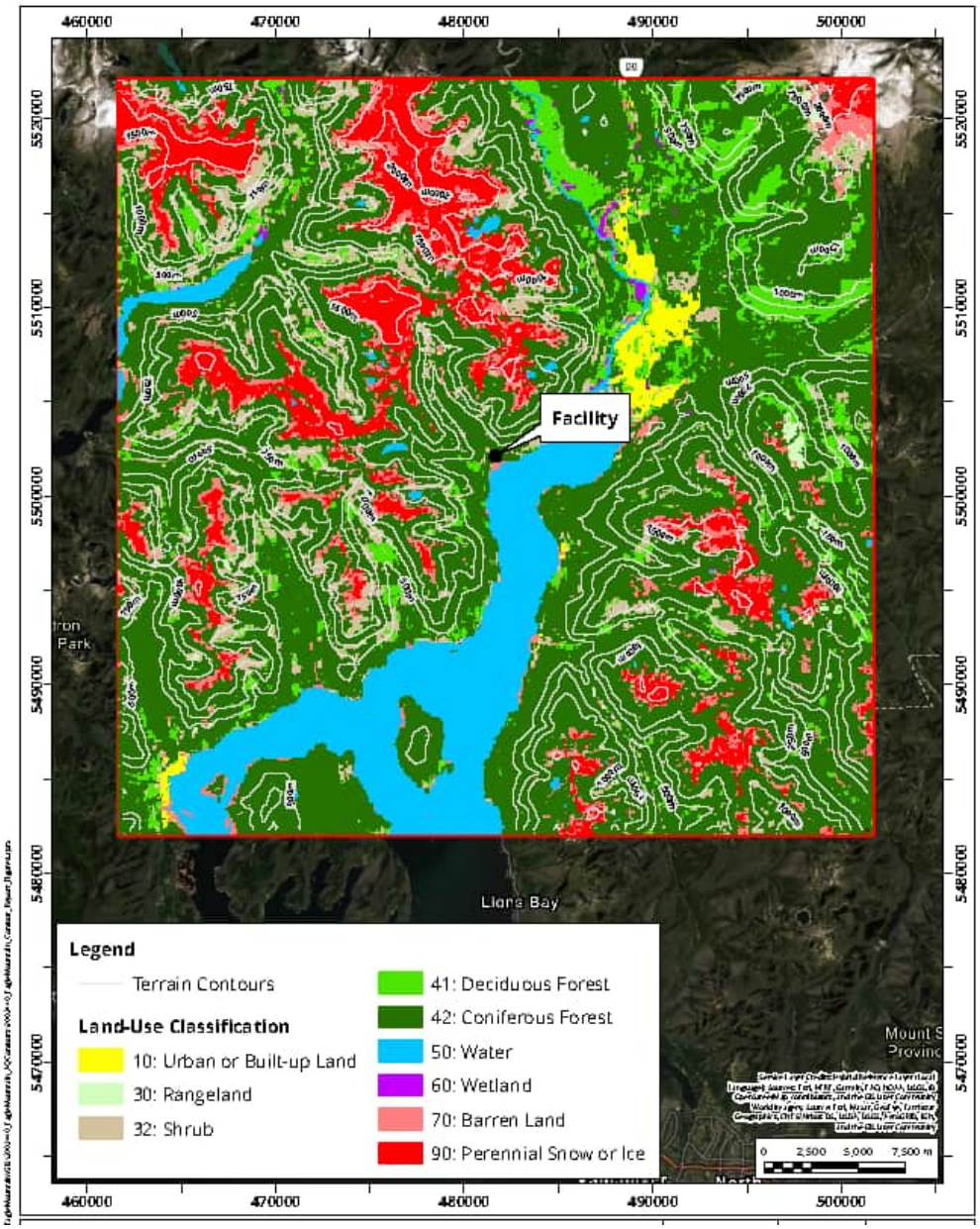


Figure B.1: Terrain Elevation and Land Use in CALMET Domain

B.2.3 CALMET SWITCHES

All modelling switches were set according to the AQDMG and the approved Model Plan. A list of non-default options and the rationale for the selected setting is provided in **Table B.2**.

Table B.2: Non-Default CALMET Model Switch Settings

Parameter	Default	Project	Comments
NOOBS	0	2	Full NOOBS mode (prognostic data only - no observations)
NPSTA	N/A	-1	Interpolate WRF precipitation
MCLOUD	999	4	Cloud fields from prognostic model (MM5toGrads algorithm)
IEXTRP	-4	1	No surface observed winds used in CALMET
RMIN2	4	-1	No observations
IPROG	0	14	WRF prognostic model output for initial guess field
RMAX1	NA	10	Not used (no surface observations used)
RMAX2	NA	10	Not used (no surface observations used)
RMAX3	NA	10	Not used (no overwater stations)
TERRAD	NA	5	Similar to WRF resolution (which captures terrain effects at coarser scale)
R1	NA	1	Not used (no surface observations used)
R2	NA	1	Not used (no surface observations used)
ITWPROG	0	2	Use prognostic lapse rates and prognostic delta T over water
IRHPROG	0	1	3D relative humidity from prognostic data
ITPROG	0	2	3D temperature from prognostic data
JWAT1	-	99	Disabled - Overwater temperatures from WRF.
JWAT2	-	99	Disabled - Overwater temperatures from WRF.

B.3 CALMET RESULTS

The CALMET model performance was assessed by reviewing various model outputs, and their consistency with mesoscale meteorology, available observations, the terrain, land use, location, diurnal and seasonal cycles.

B.3.1 Surface Winds

Windroses display the combined frequency distribution of wind speed and direction at a given location). The modelled (CALMET) windroses for the entire model period (Years 2011-2015) at the project site are shown in Figure B.2. Seasonal (based on CALMET seasons) windroses for a particular year 2012 are presented in Figure B.3. Winds are predominantly downslope from the North.

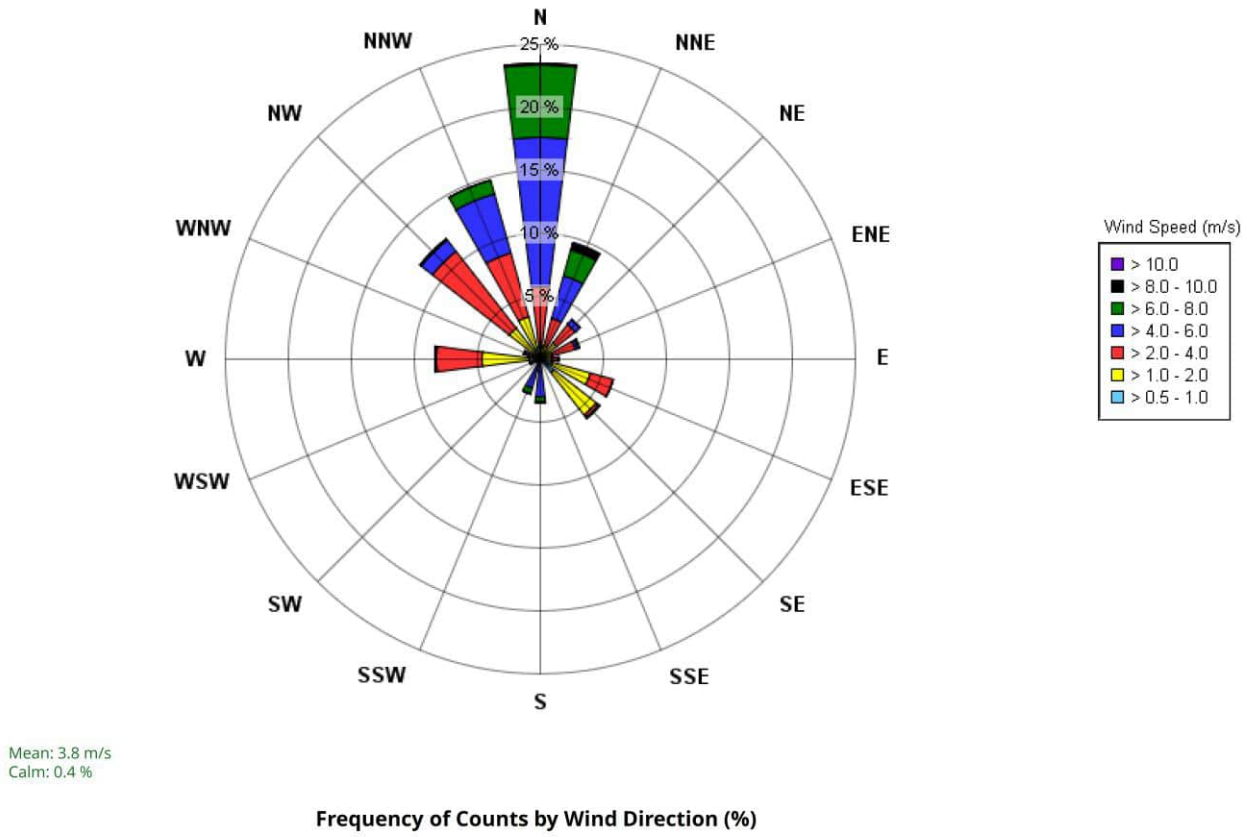


Figure B.2: CALMET Wind Roses for the Model Period (2011-2015) at the Project Site

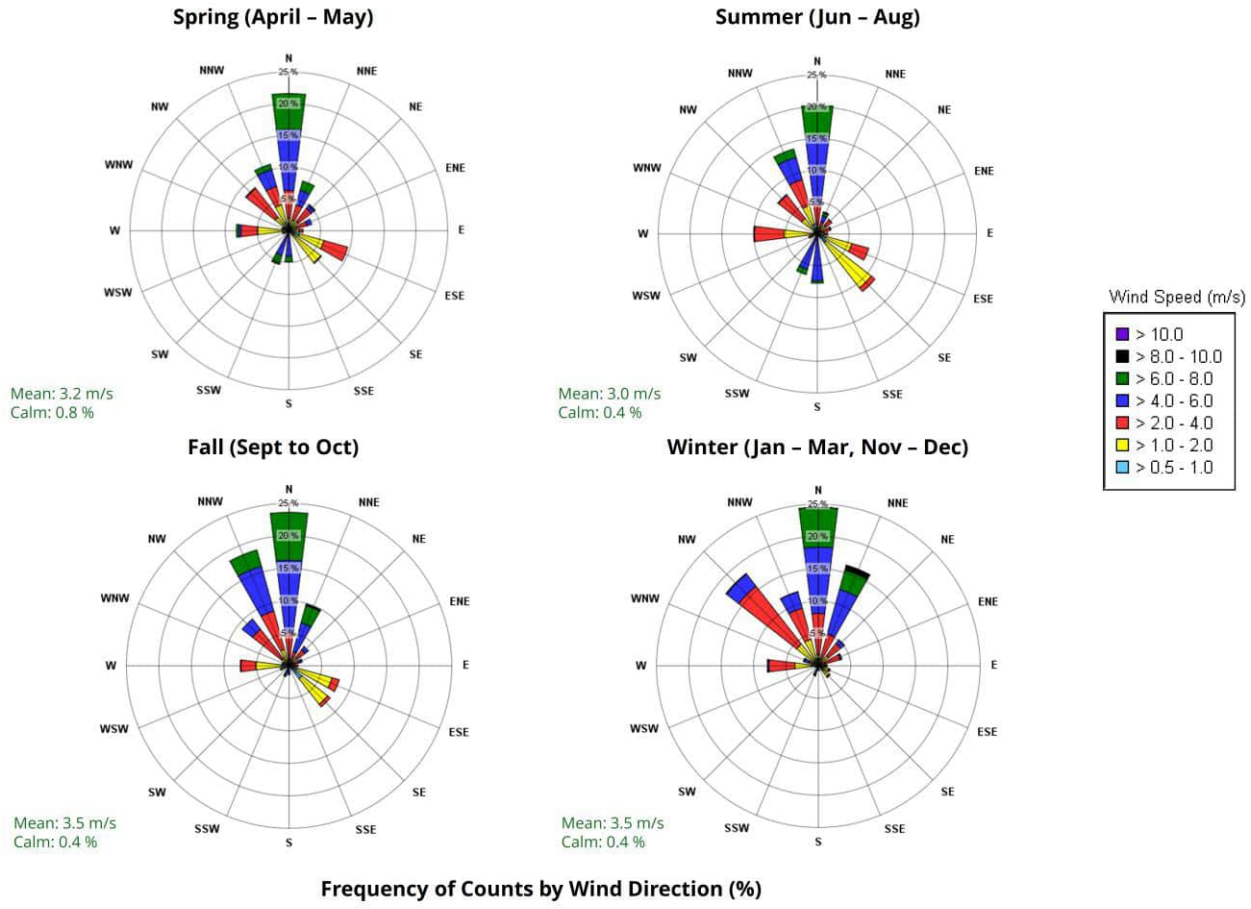


Figure B.3: Seasonal CALMET Sind Roses for 2012 at the Project Site

CALMET is designed to match the observations that have been assimilated in the modelling at the observation sites. Surface observations were not used as the nearest station (Squamish Airport) is 14 km from the project and the terrain is complex. The observation data for the model period (2011-2015) at Squamish Airport are compared to winds from the modelled output and also the WRF model output, which serves as a substitute for observations throughout the domain, in Figure B.3.

The WRF gridpoint nearest to the airport, is located about 1.67 km SW of the airport, in the Squamish River valley. As such WRF shows strong channeled SE and NW winds up and down the valley, whereas the airport shows less channeled weaker winds from the N to NE and SW, reflecting its more sheltered location at the confluence of both valleys. Predominant wind directions from the SE are similar between observations and model outputs, with the highest wind speeds from south-southeast and southeast.

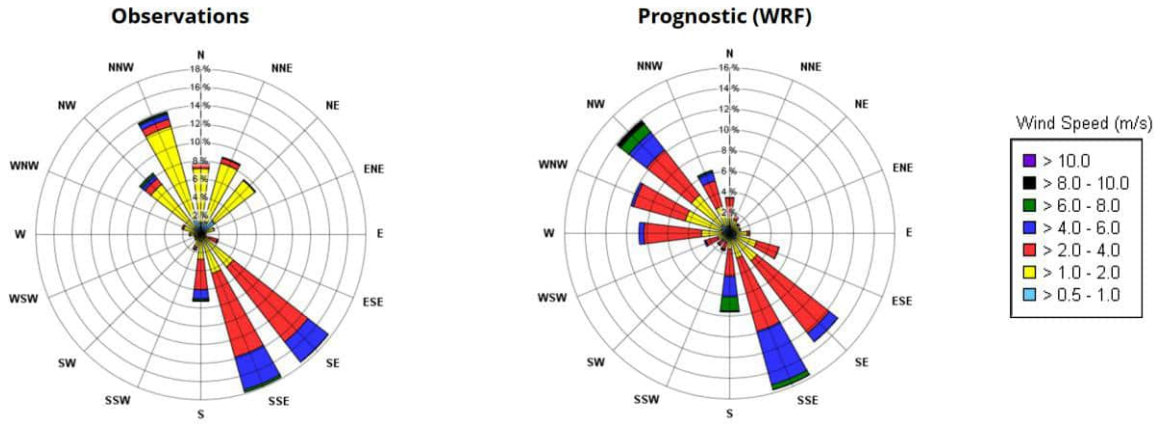


Figure B.4: Observed Wind Rose for the Model Period (2011-2015) at Squamish Airport, and at the WRF Gridpoint Nearest to Squamish Airport

B.3.2 Pasquill-Gifford Stability Class

In CALMET, the Pasquill-Gifford stability scheme is used to classify atmospheric stratification in the boundary layer over land. These classes range from unstable (Classes A, B and C), through neutral (Class D) to stable (Classes E and F). Normally, unstable conditions are associated with daytime ground-level heating, which results in thermal turbulence activity in the boundary layer. Stable conditions are primarily associated with night-time cooling, which results in the suppression of the turbulence levels and temperature inversion at lower levels. Neutral conditions are mostly associated with high wind speeds or overcast sky conditions.

The frequency distribution of CALMET-derived Pasquill-Gifford stability classes for the project site is shown in Figure B.4. The most frequent stability class is Class D or neutral. This is potentially attributed to frequent overcast sky conditions, and the coastal location (overwater conditions tend to be neutral). Very stable conditions (Category F) are infrequent, while very unstable conditions (Category A) are rare.

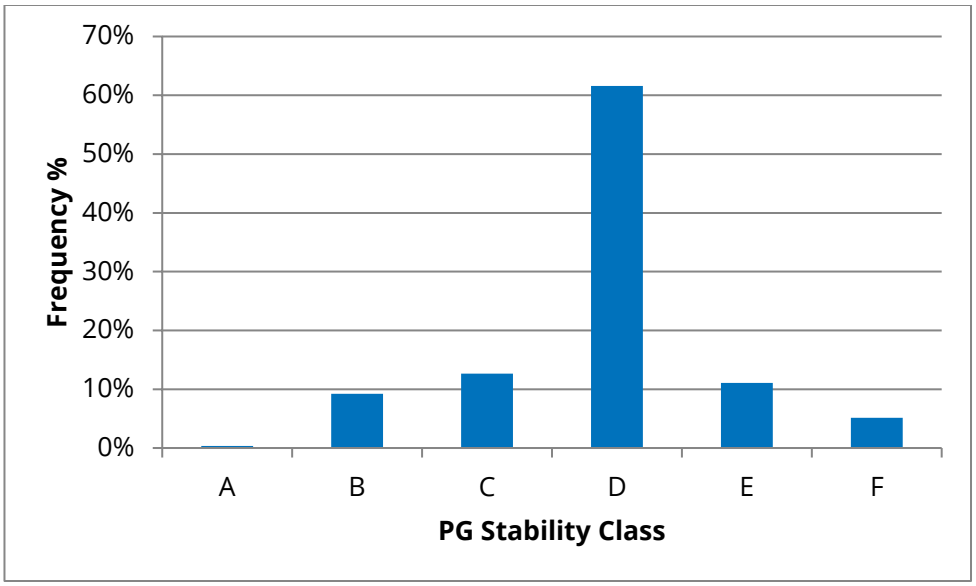


Figure B.5: Frequency of Modelled Pasquill-Gifford Stability Classes at the Project Site

B.3.3 Modelled Wind Fields

Winds in the study area result from a combination of large-scale synoptic patterns, thermal circulations (land-sea breezes), and terrain driven circulations (upslope during daytime, downslope and channeling during nighttime). WRF winds, at 4 km resolution, capture the synoptic and thermal circulations well, and some of the terrain-induced circulations (to the extent they are resolved at the WRF spatial resolution of 4 km). CALMET refines the terrain effects further at the finer scale of 100 m used in the current modelling.

How well the model captures key meteorological patterns is best exemplified with wind vector plots, displaying the modelled wind speed and direction as arrows along the flow (with arrow length proportional to the wind speed, and arrows pointing downwind).

Modelled wind fields vector plots are illustrated in Figure B.5, for representative unstable, neutral, and stable conditions. CALMET-derived wind fields follow the expected terrain flows under various stability and flow regimes, with strong channeling by the terrain during stable conditions, and flowing upslope during unstable, daytime conditions and downslope during stable, night-time conditions. Under neutral conditions, the characteristic high wind speeds result in less noticeable terrain effects and wind fields reflect larger mesoscale wind patterns across the model domain.

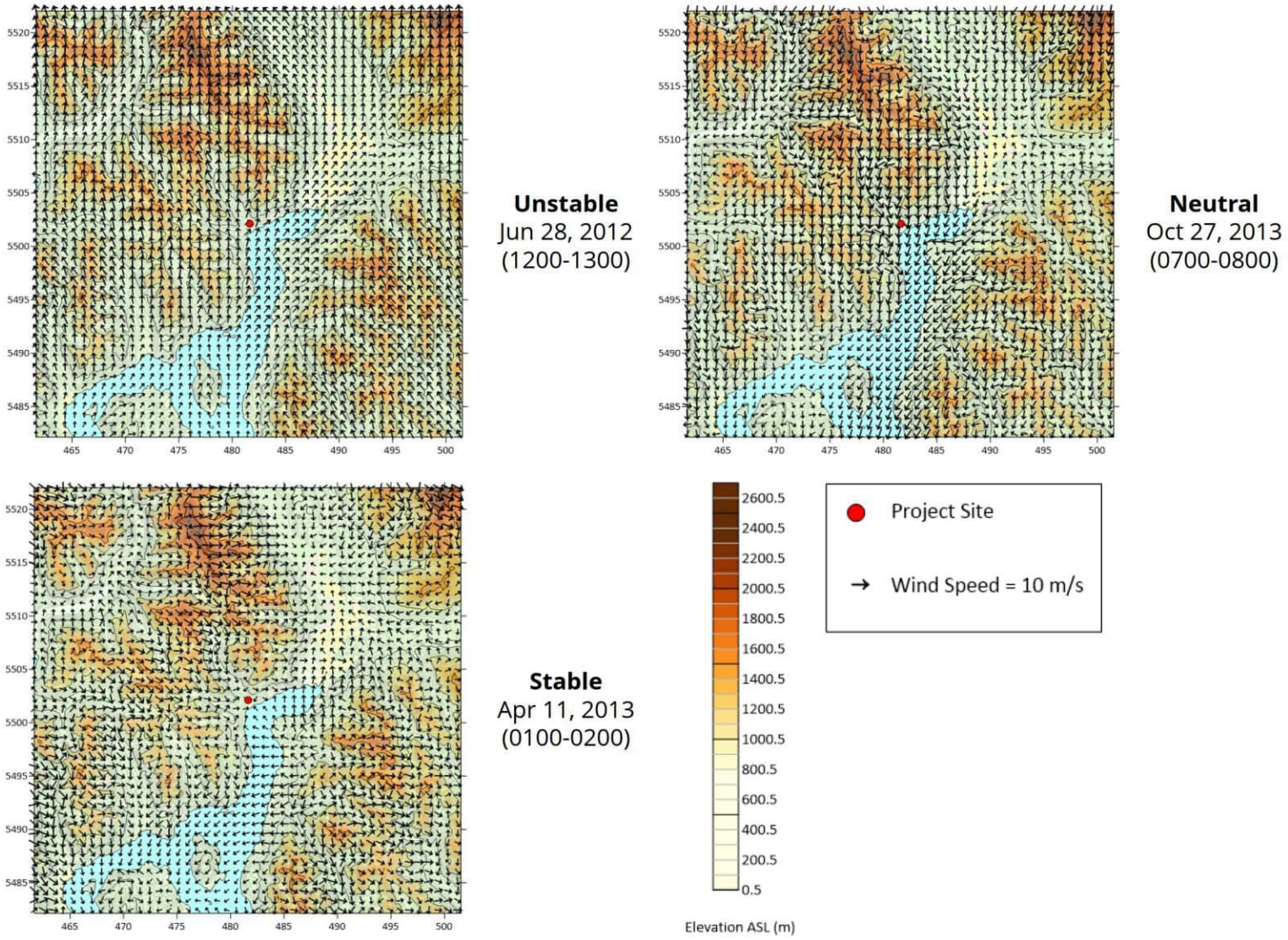


Figure B.6: Modelled Wind Fields at 10 m above Ground Level during Unstable, Neutral, and Stable Conditions

B.3.4 Mixing Heights

Mixing heights are estimated in CALMET through methods that are based on either surface heat flux (thermal turbulence) and vertical temperature profiles, or friction velocities (mechanical turbulence). Table B.3 shows the average modelled mixing heights by Pasquill-Gifford stability class. The highest mixing heights tend to be associated with unstable conditions (convective mixing heights) or neutral conditions (high winds leading to large mechanical mixing) while the lowest mixing heights are associated with stable conditions (Classes F), when both convective and mechanical turbulence are at their lowest.

The spatial distributions of mixing heights under unstable, neutral, and stable conditions are shown in Figures 6a,6b, and 6c, respectively. Spatial changes in mixing height align with changes in the land use. During daytime, when convective mixing peaks overland, mixing heights tend to be lowest over water; during nighttime, when mechanical turbulence takes over, mixing heights are larger in areas where surface roughness is greater (i.e., where surface elements are larger) and winds are stronger.

Diurnal variations in mixing heights are shown in Figure B.7, respectively for a typical summer day (July 23) and a typical winter day (December 15). Mixing heights increase after sunrise due to solar heating and enhanced convection; growth is sometimes hindered by cloud (reduced insolation). Convective mixing heights crash abruptly at sunset (i.e. earlier in winter than in summer) and wind driven mechanical turbulence then dominates during the night, with mixing height correlating with wind speed. Daytime mixing heights may be suppressed during stable winter conditions due to weak solar insolation, low wind speeds and synoptic subsidence.

Table B.3: Modelled Mixing Height by Pasquill-Gifford Stability Class (in m)

Location		A	B	C	D	E	F
Project Site	Average	835	716	708	894	767	245
	Range	442-1,730	207-2,520	50-2,740	50-3,000	95-1,660	50-1,098

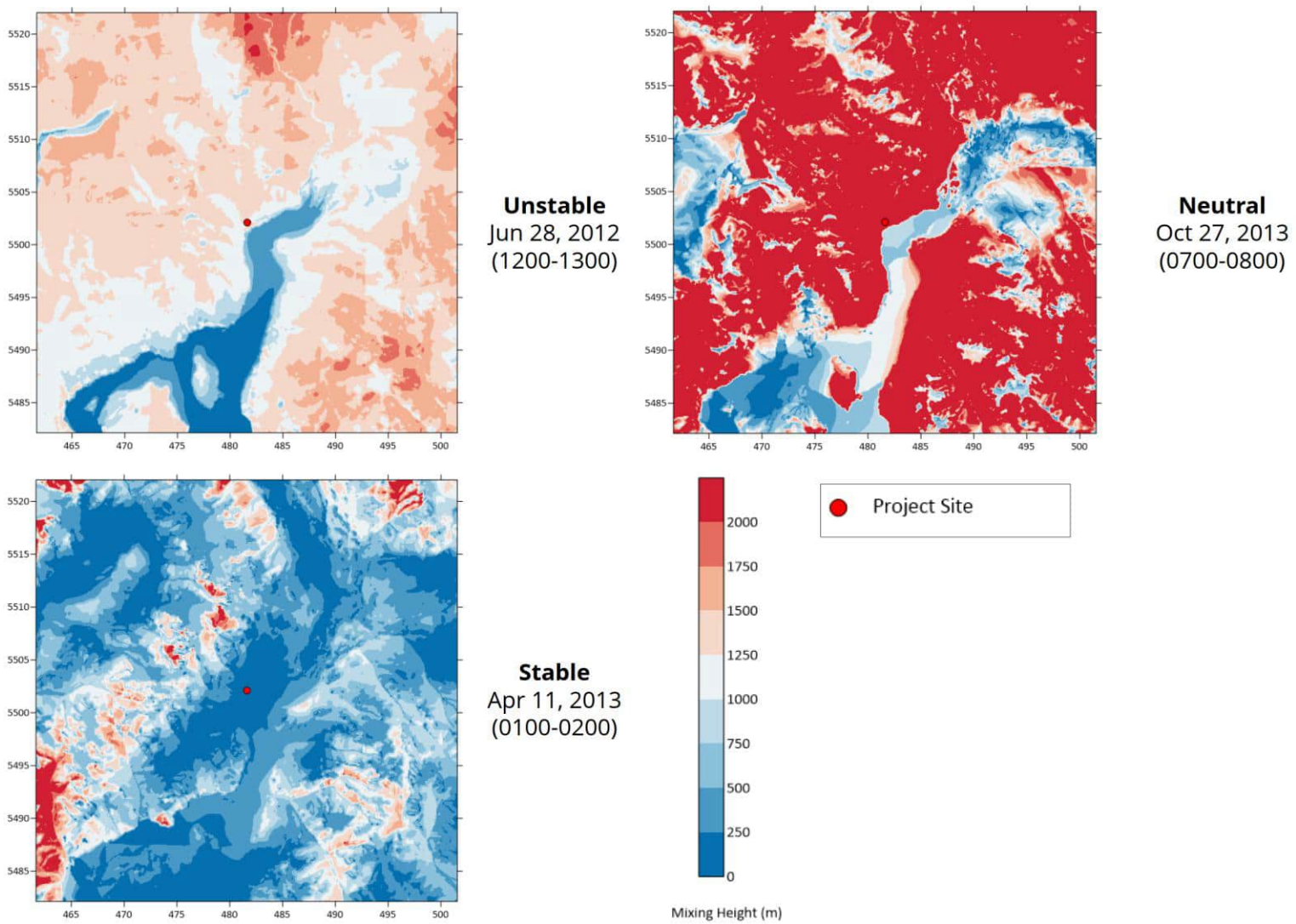


Figure B.7: Modelled Mixing Heights during Unstable, Neutral and Stable Atmospheric Conditions at the Project Site

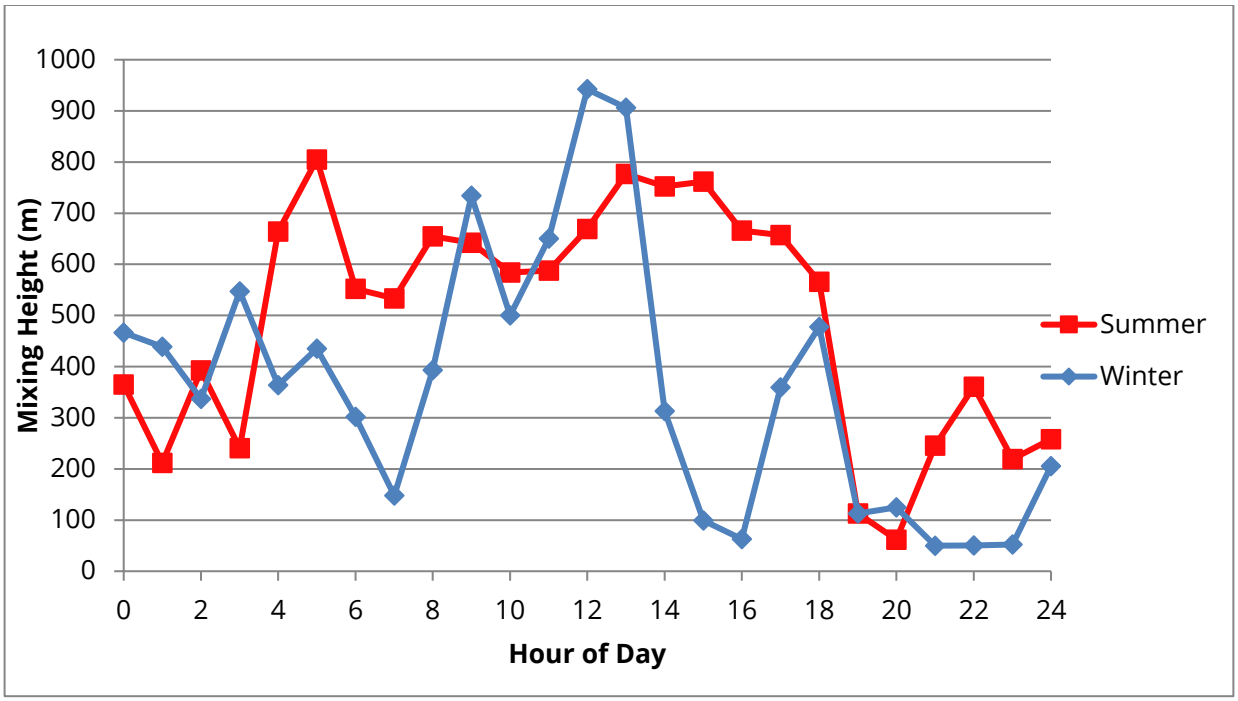
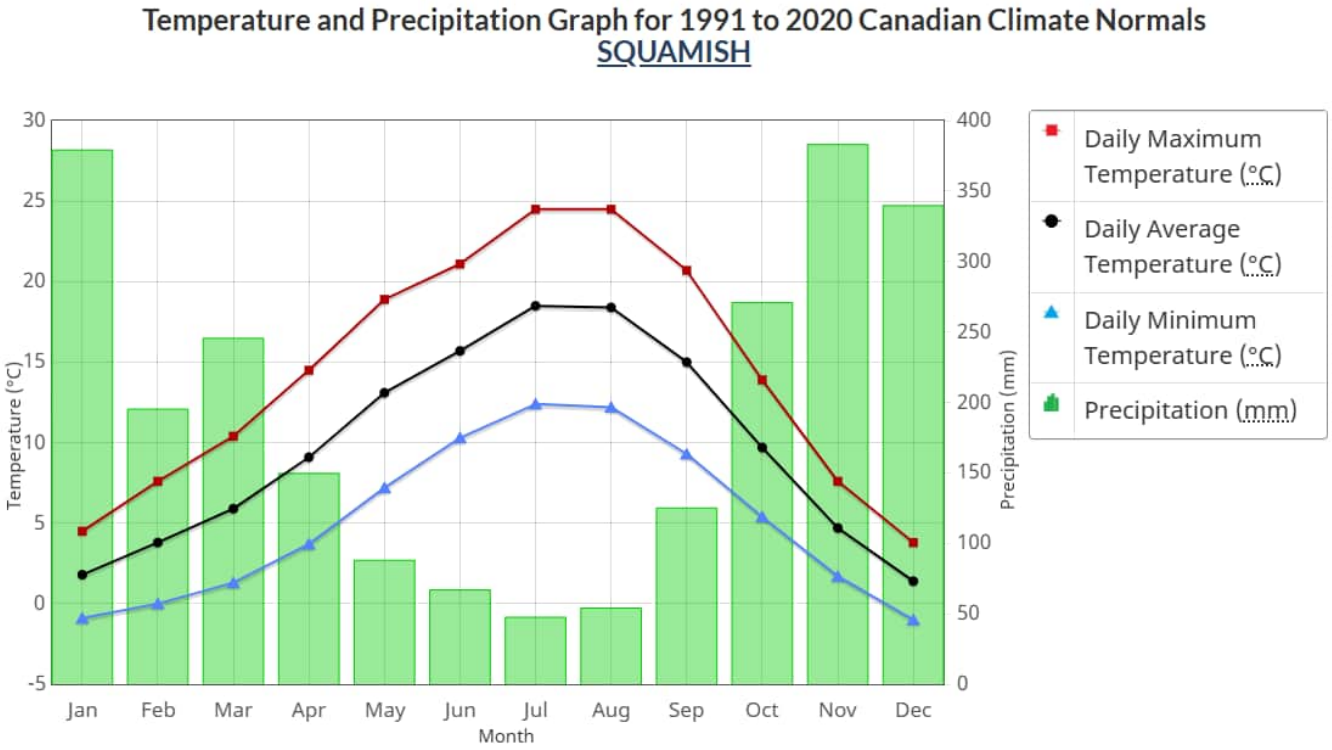


Figure B.8: Diurnal Variation of Modelled Mixing Heights on a Typical Summer Day (July 23, 2012) and Winter Day (December 15, 2012) at the Project Site

B.3.5 Precipitation

Observed precipitation from the Environment and Climate Change Canada 30-year climate normals (1991 to 2020) at Squamish are displayed in Figure B.8, showing the least amount of precipitation in the summer months and the greatest amount of precipitation in the fall and winter.

CALMET interpolates rainfall rates predicted by WRF (no observations). Modelled monthly precipitation patterns at the project location is illustrated in Figure B.9 for the modelling year of 2012. The least amount of precipitation modelled was in September, and the greatest amount of precipitation in January. The overall monthly precipitation patterns predicted by WRF and passed on to CALMET and CALPUFF are representative of climatic seasonal conditions. Note that wet deposition of PM was not considered in the study (conservative for ambient PM concentrations) but precipitation is reflective of the overall meteorology in the area and therefore a good indicator of the meteorological model rainfall performance (in this case, the WRF MOE dataset).



Source: ECCC 2025.

Figure B.9: Environment and Climate Change Canada 1991-2020 Climate Normals with Monthly Precipitation Distribution at Squamish Station

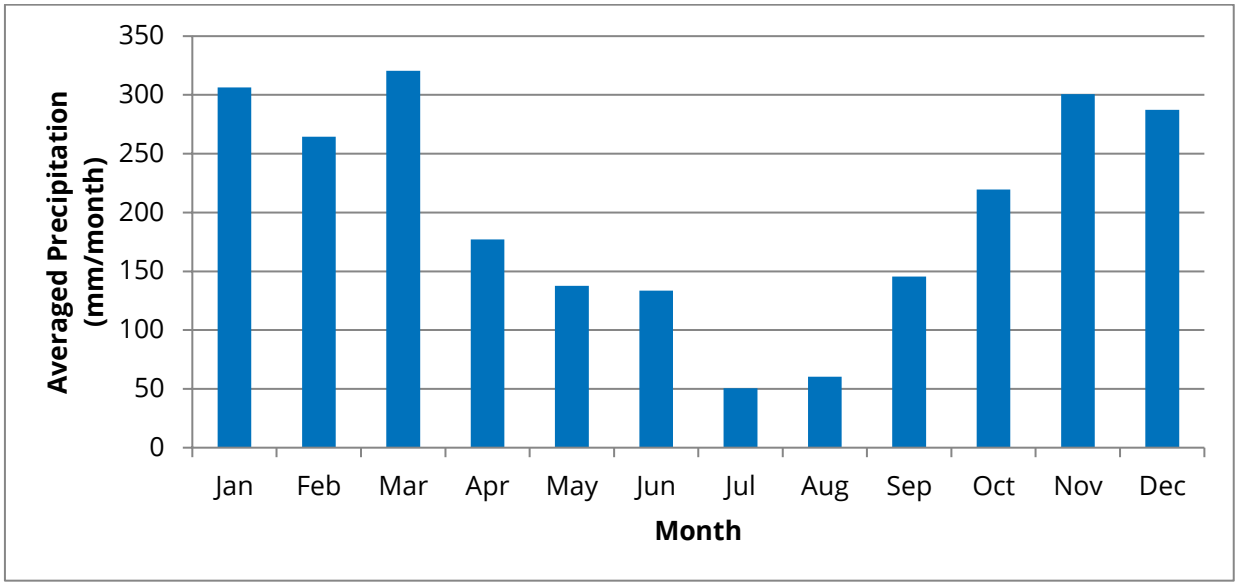
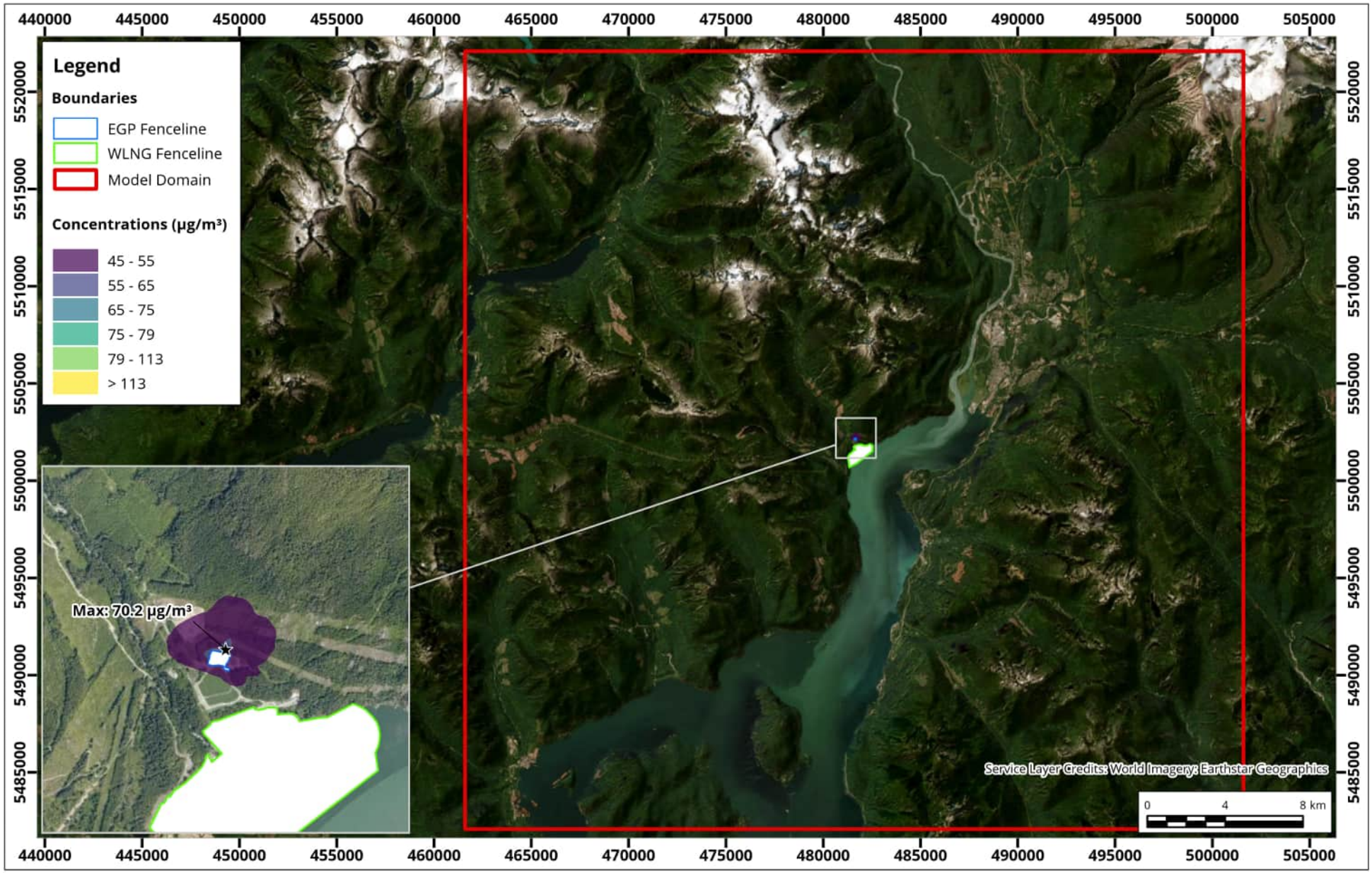


Figure B.10: Monthly Distribution of Averaged Modelled Precipitation over the Model Period (2011-2015) at the Project Site

APPENDIX C

List of Contour Plots in Appendix C

Note: All concentration contours include all modelled sources and background.



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2011 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

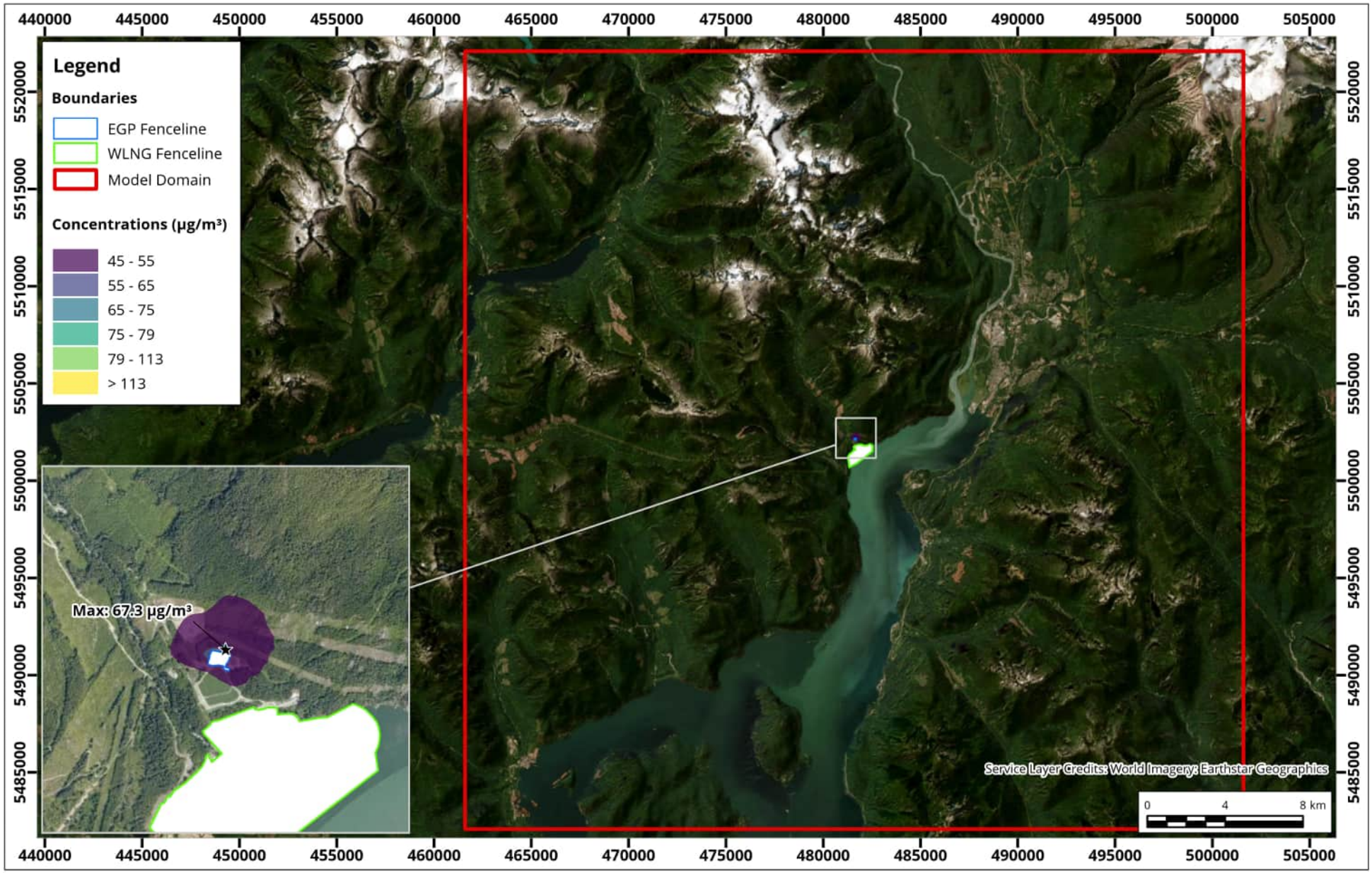
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.1
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2012 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

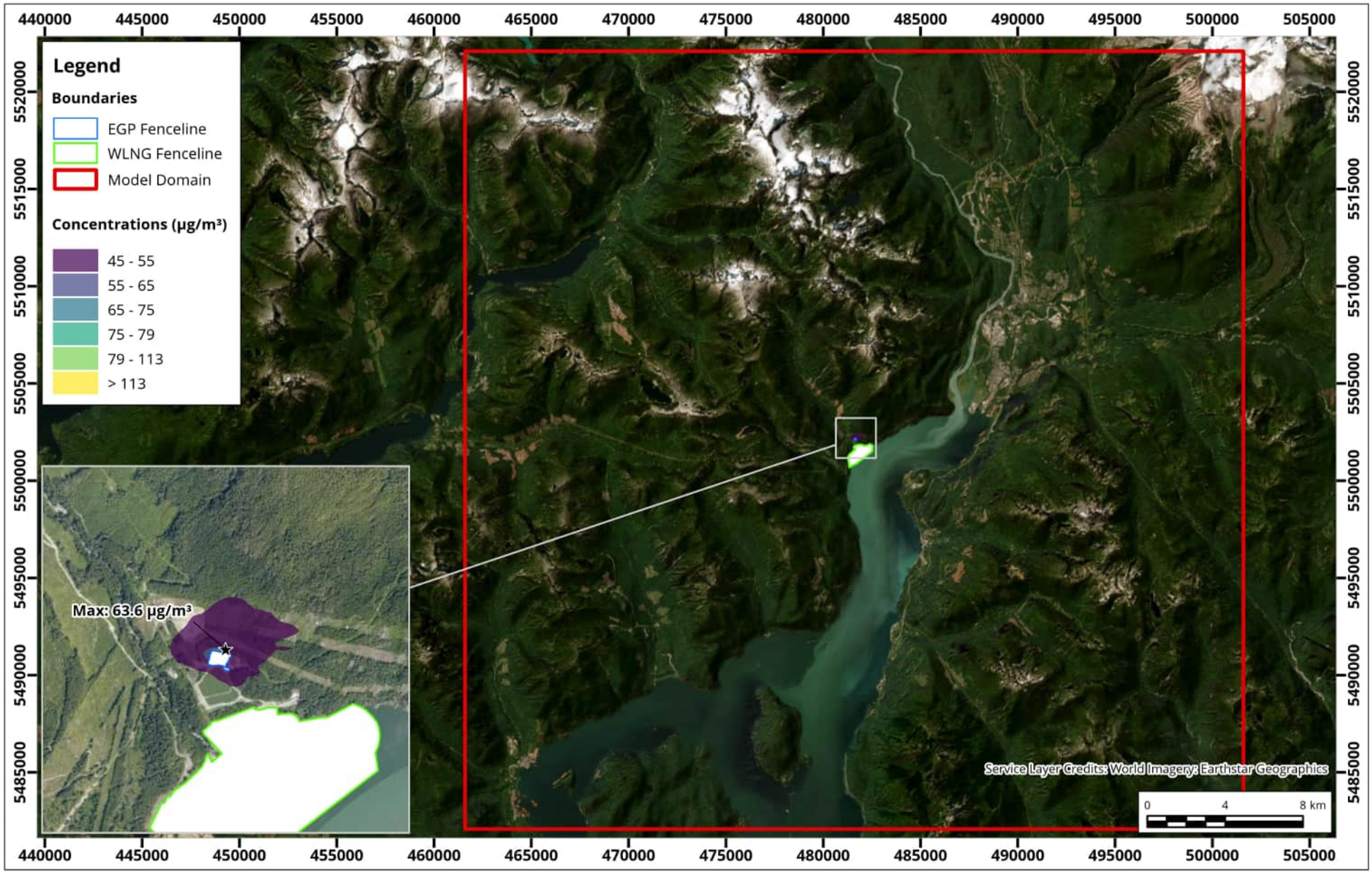
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.2
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2013 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

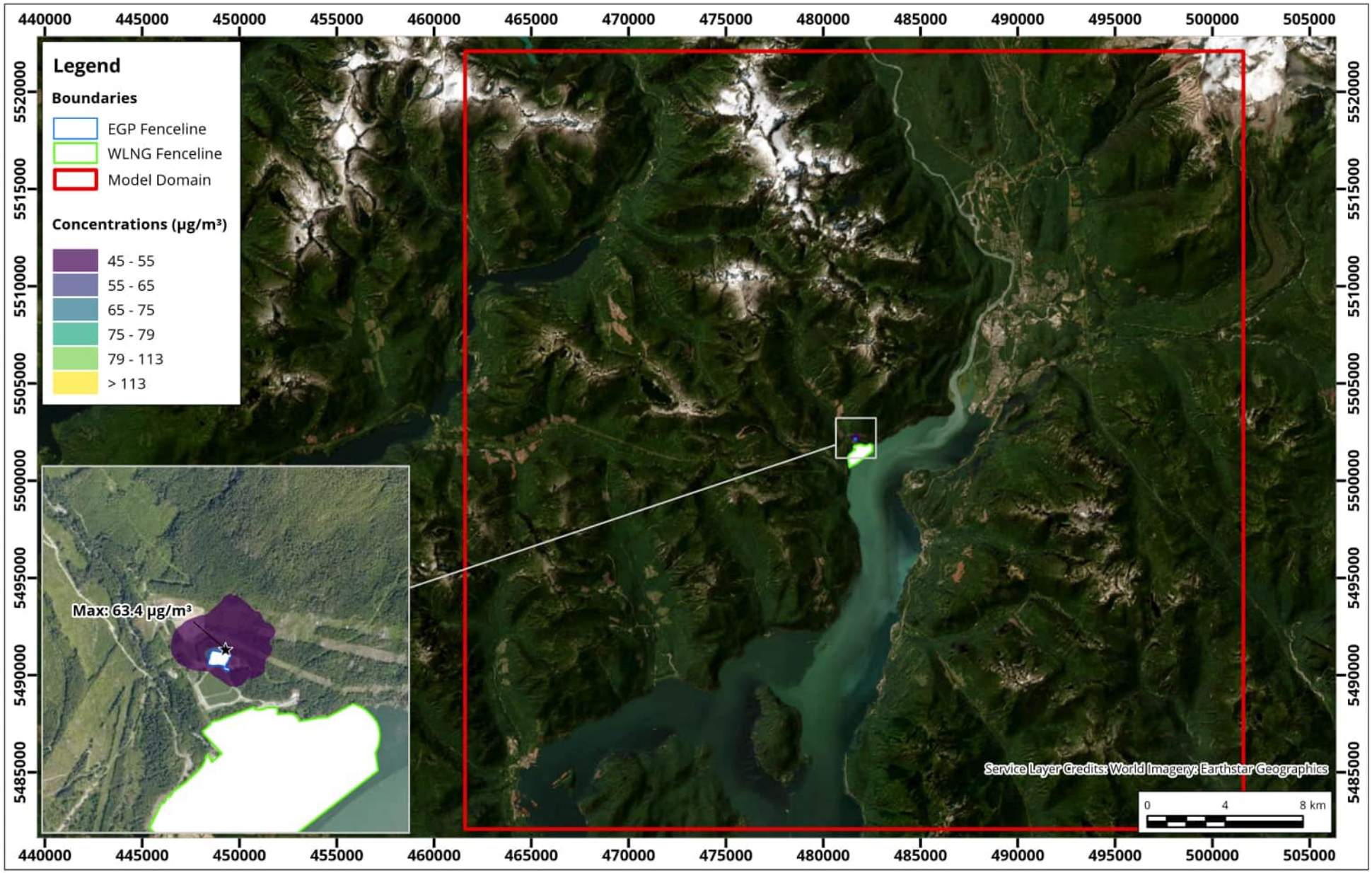
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.3
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2014 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

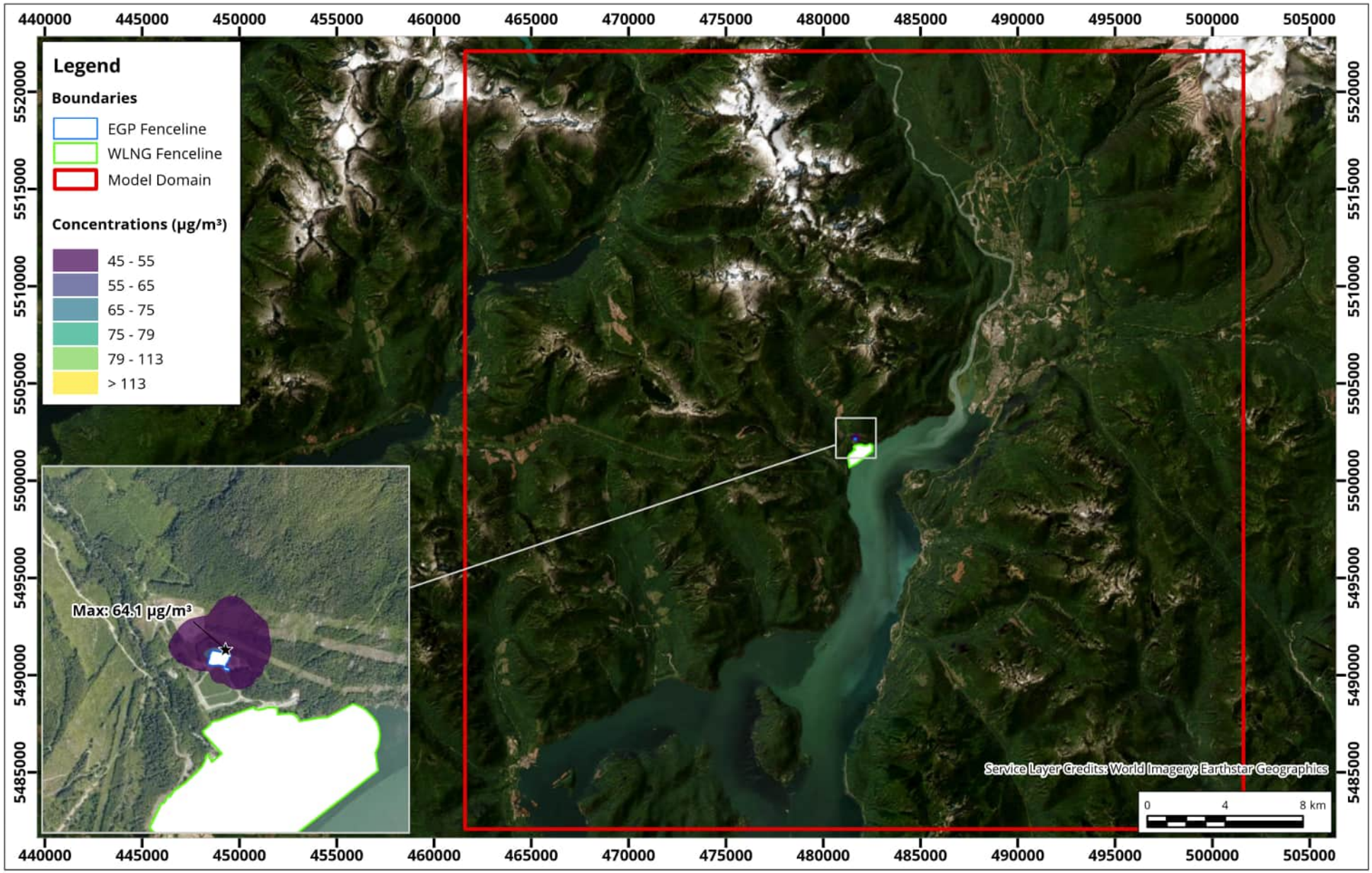
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.4
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

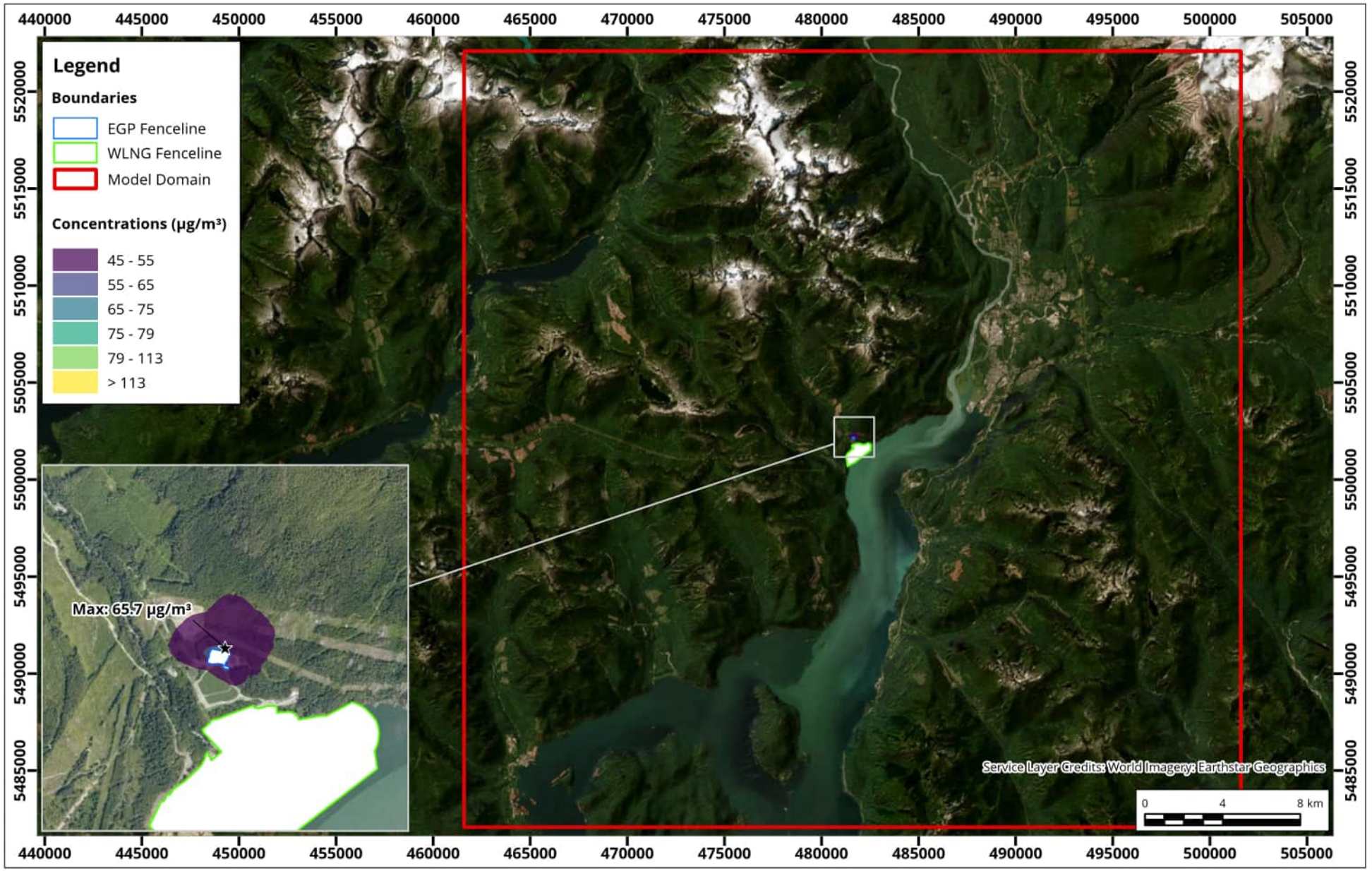
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.5
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

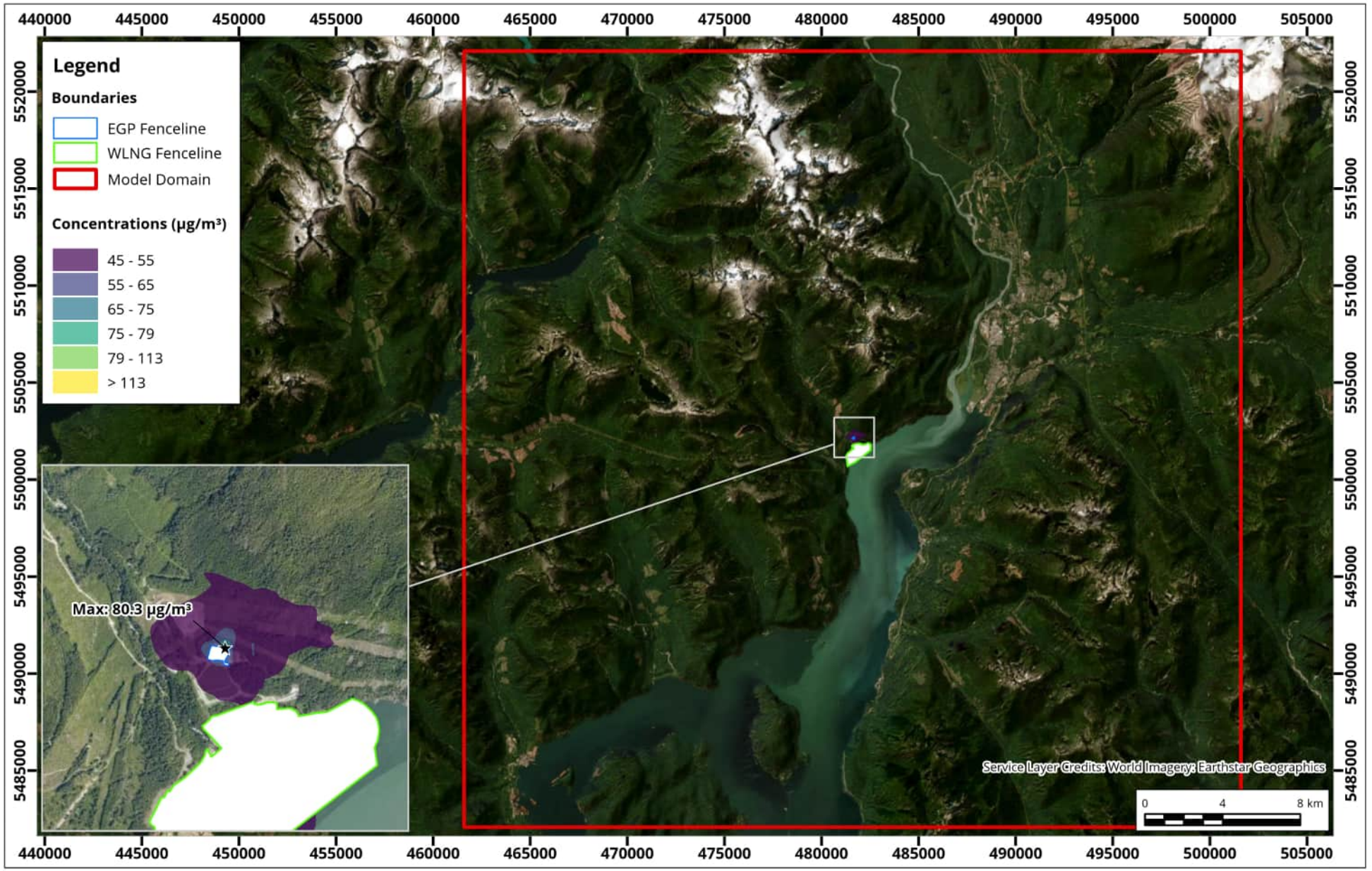
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.6
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of D1HM NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 41.56 µg/m³

True North

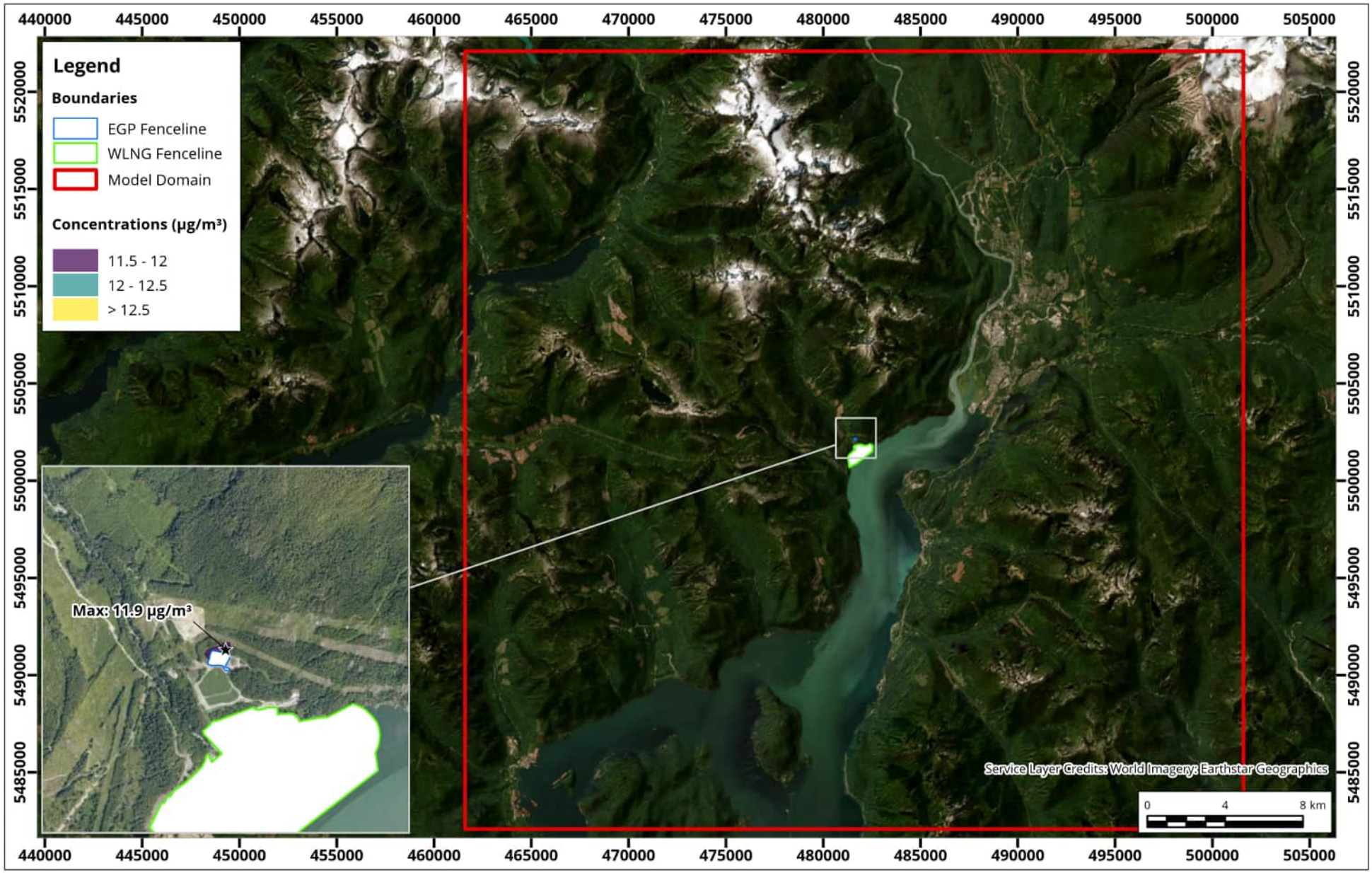
Drawn by: PIP	Figure: C.7
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

Project #: 2301269

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 99th %ile of D1HM SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 11.11 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

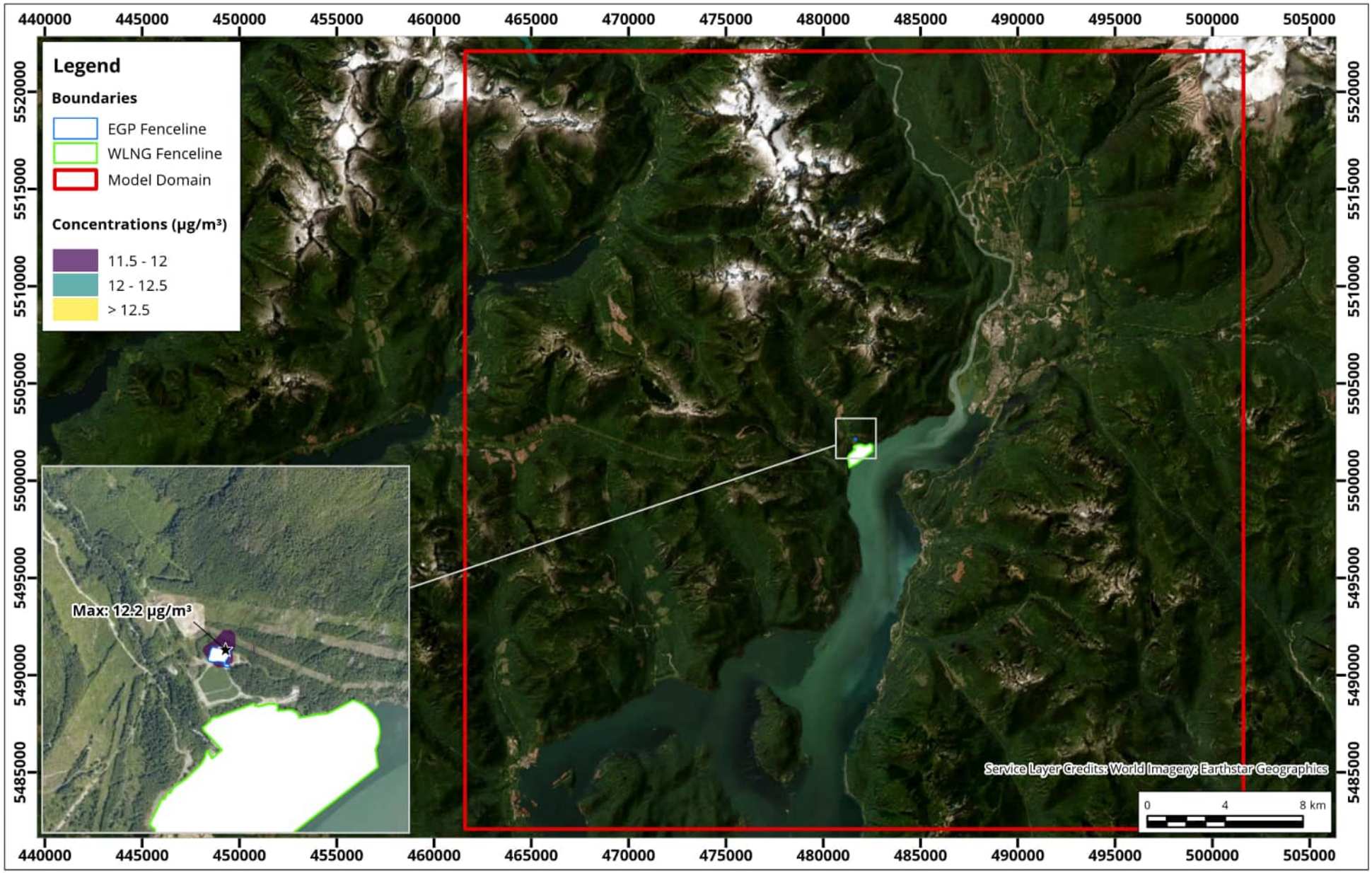
BCAAQO: 170 µg/m³
CAAQS 2025: 170 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.8
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual 100th %ile of D1HM SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 11.11 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

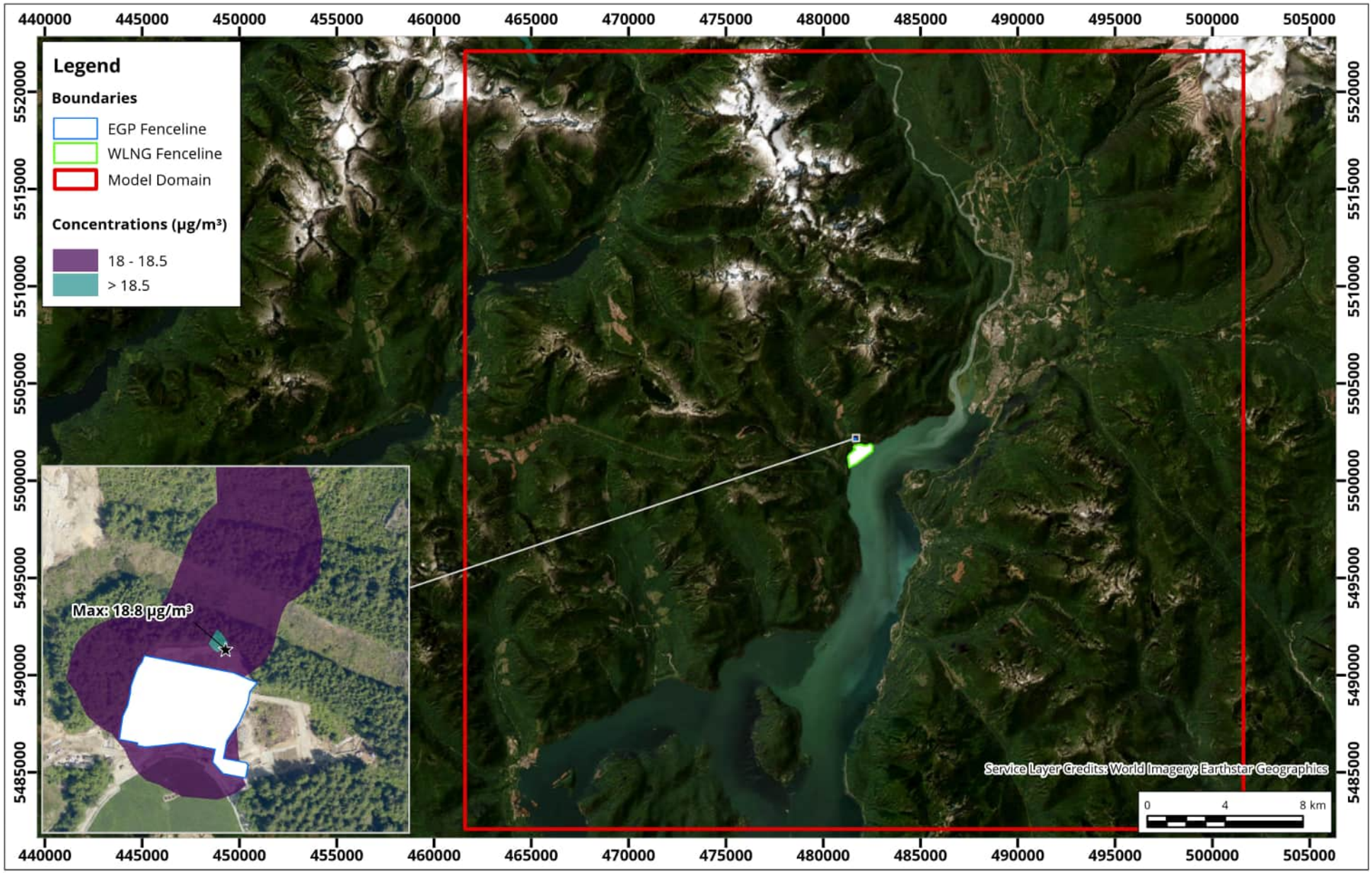
BCAAQO: 170 µg/m³
CAAQS 2025: 170 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.9
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of 24-Hour $PM_{2.5}$ Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 17.69 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

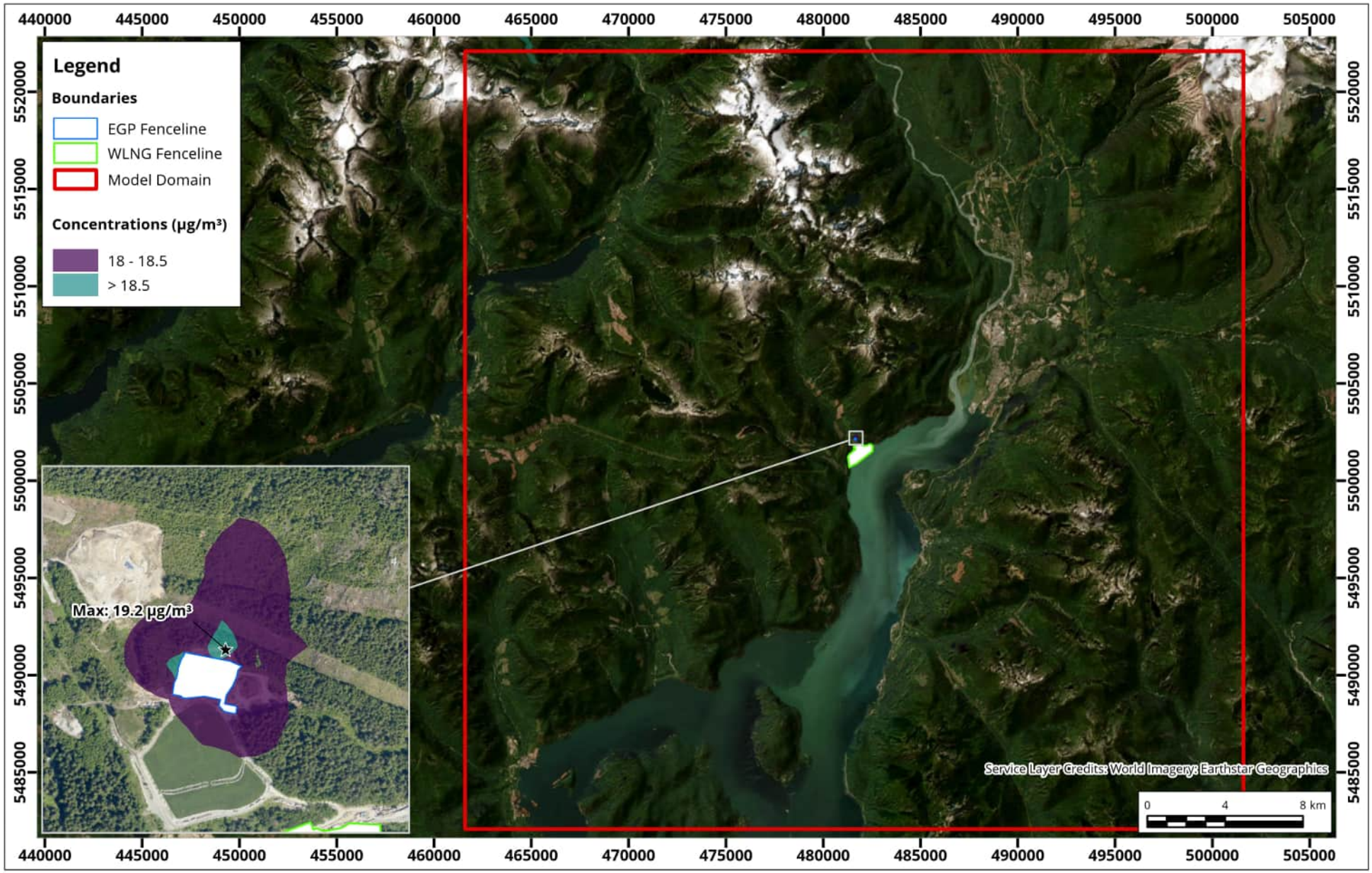
BCAAQO: 25 µg/m³
CAAQS 2025: 27 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.10
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of 24-Hour PM_{10} Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Normal Operations Scenario; Background = 17.69 µg/m³

True North

Drawn by: PIP	Figure: C.11
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

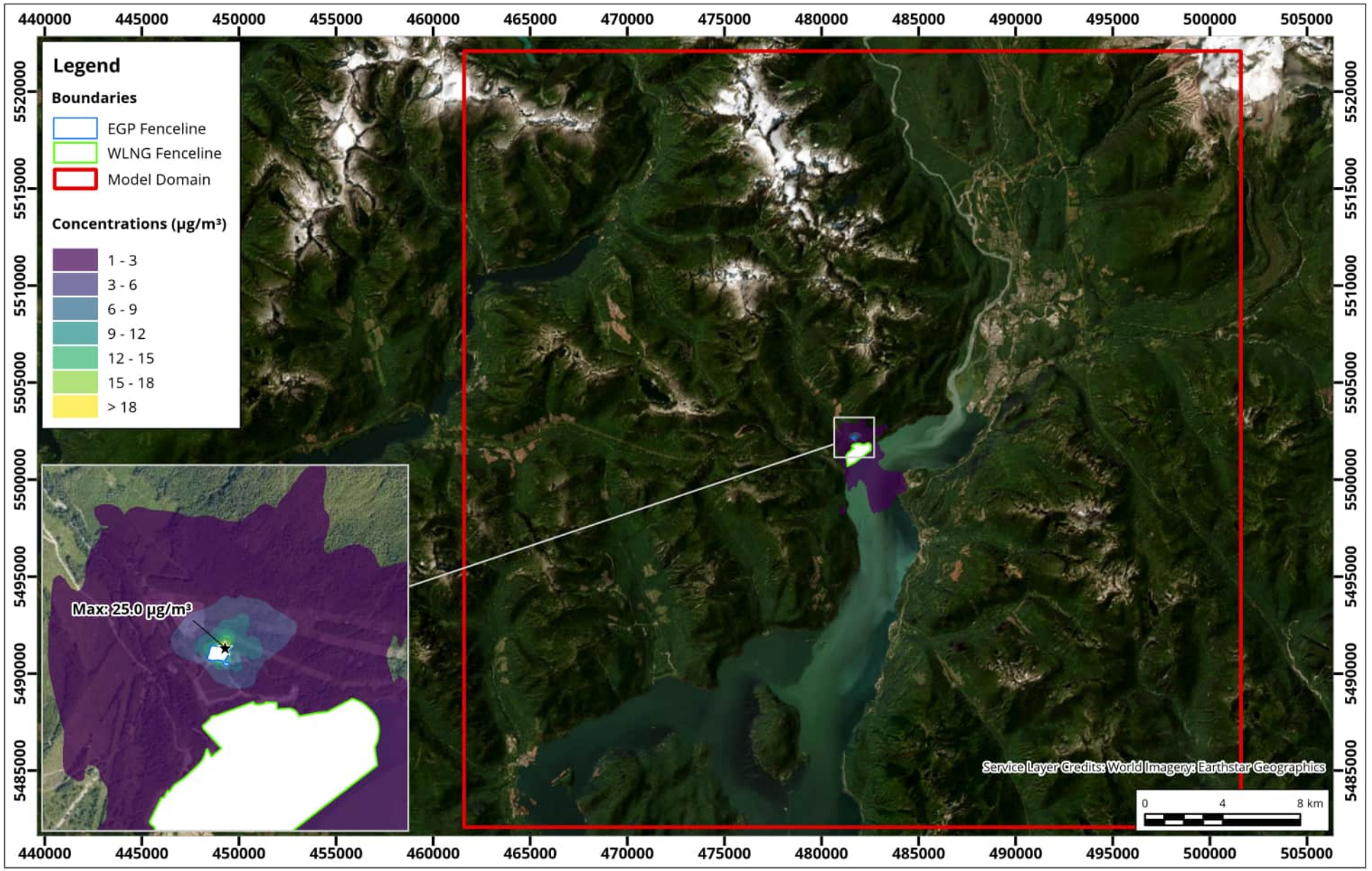
Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 50 µg/m³

Project #: 2301269

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of 1-Hour VOC Concentrations Averaged over 2011-2015 - Project

Short-term Concentrations: Normal Operations Scenario

Map Projection: NAD 1983 UTM Zone 10N

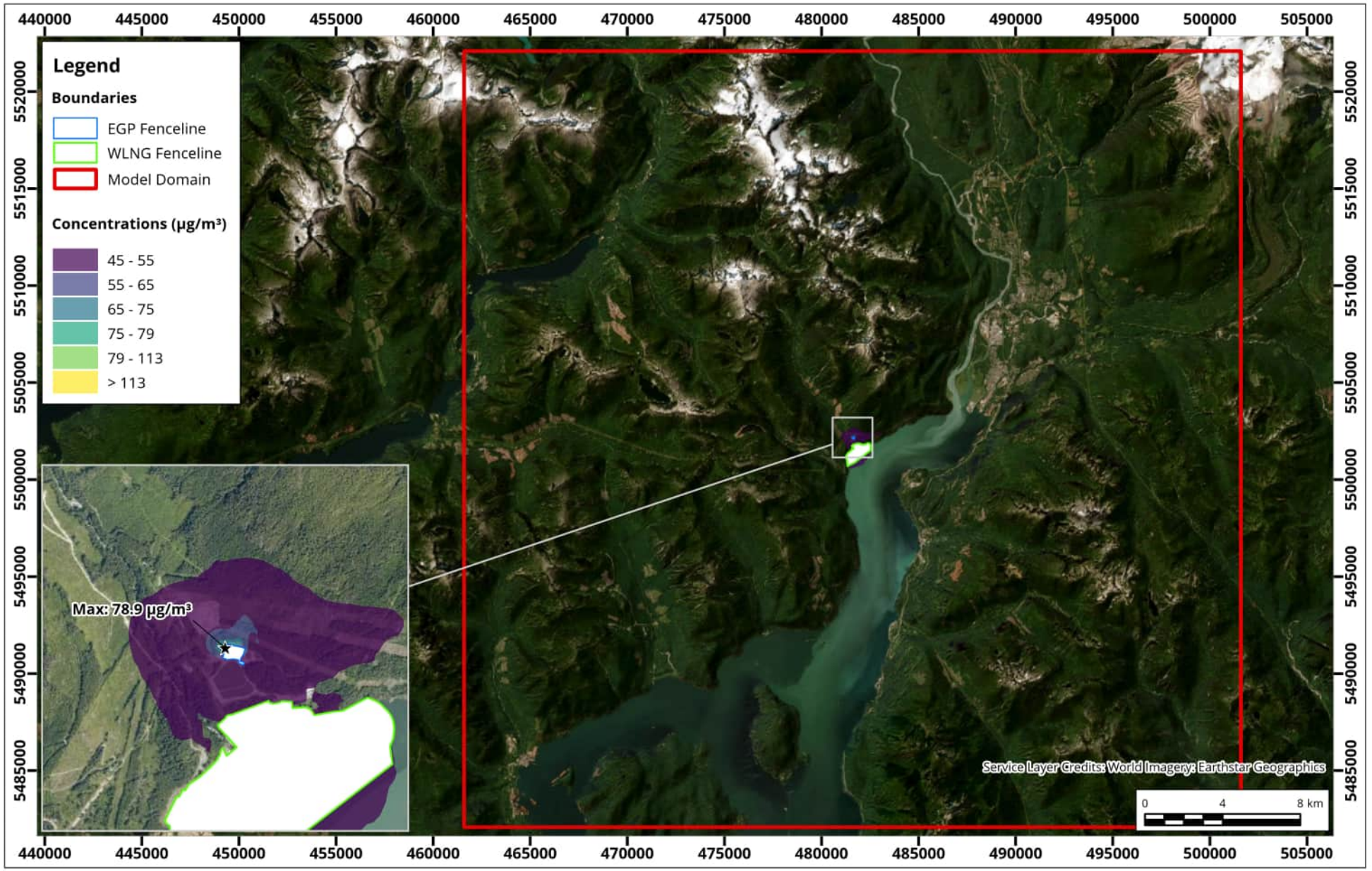
Squamish Compressor Station - Squamish, B.C.

True North

Project #: 2301269

Drawn by: PIP	Figure: C.12
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Peak Operations Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

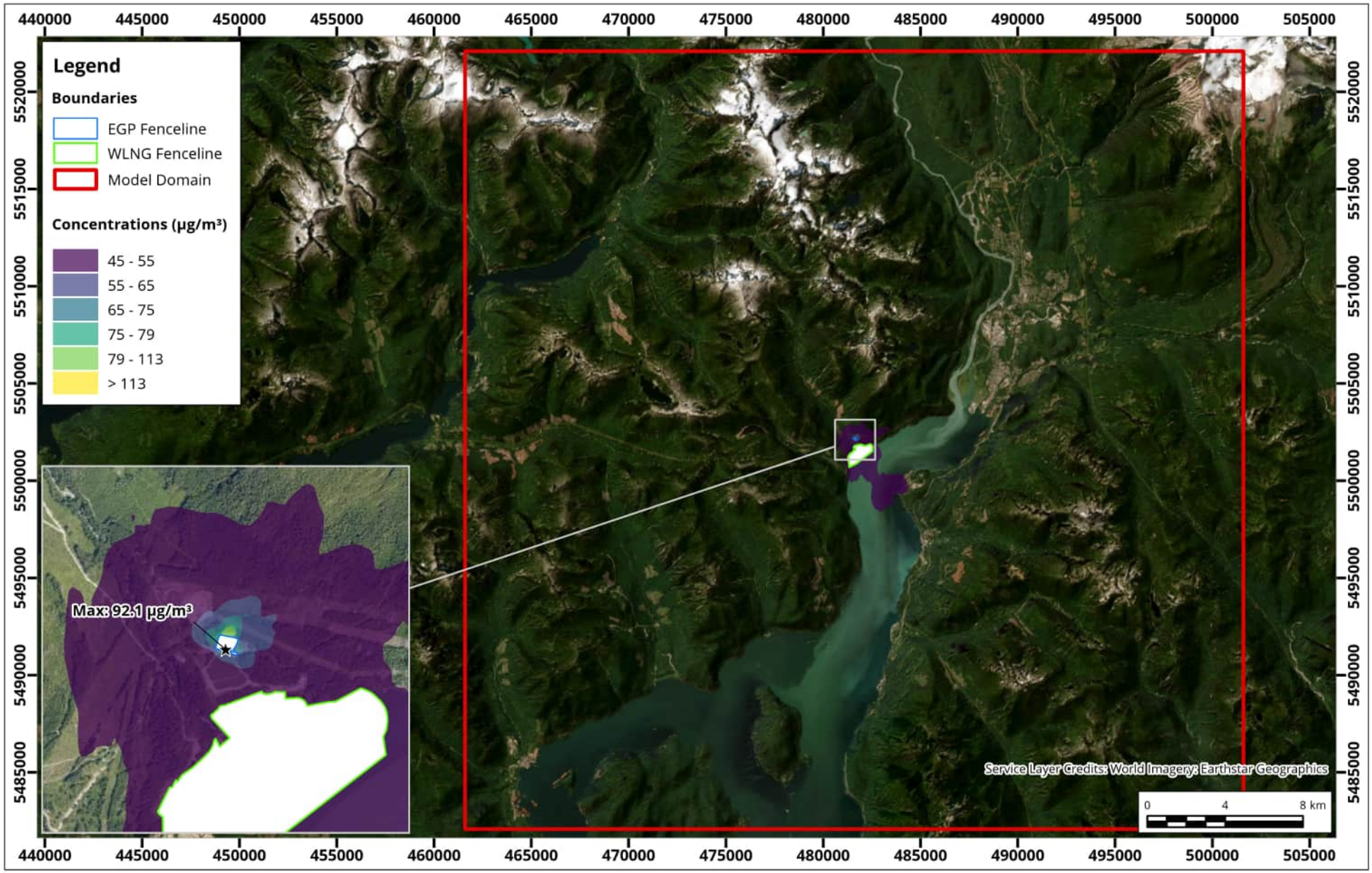
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.13
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of D1HM NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Peak Operations Scenario; Background = 41.56 µg/m³

True North

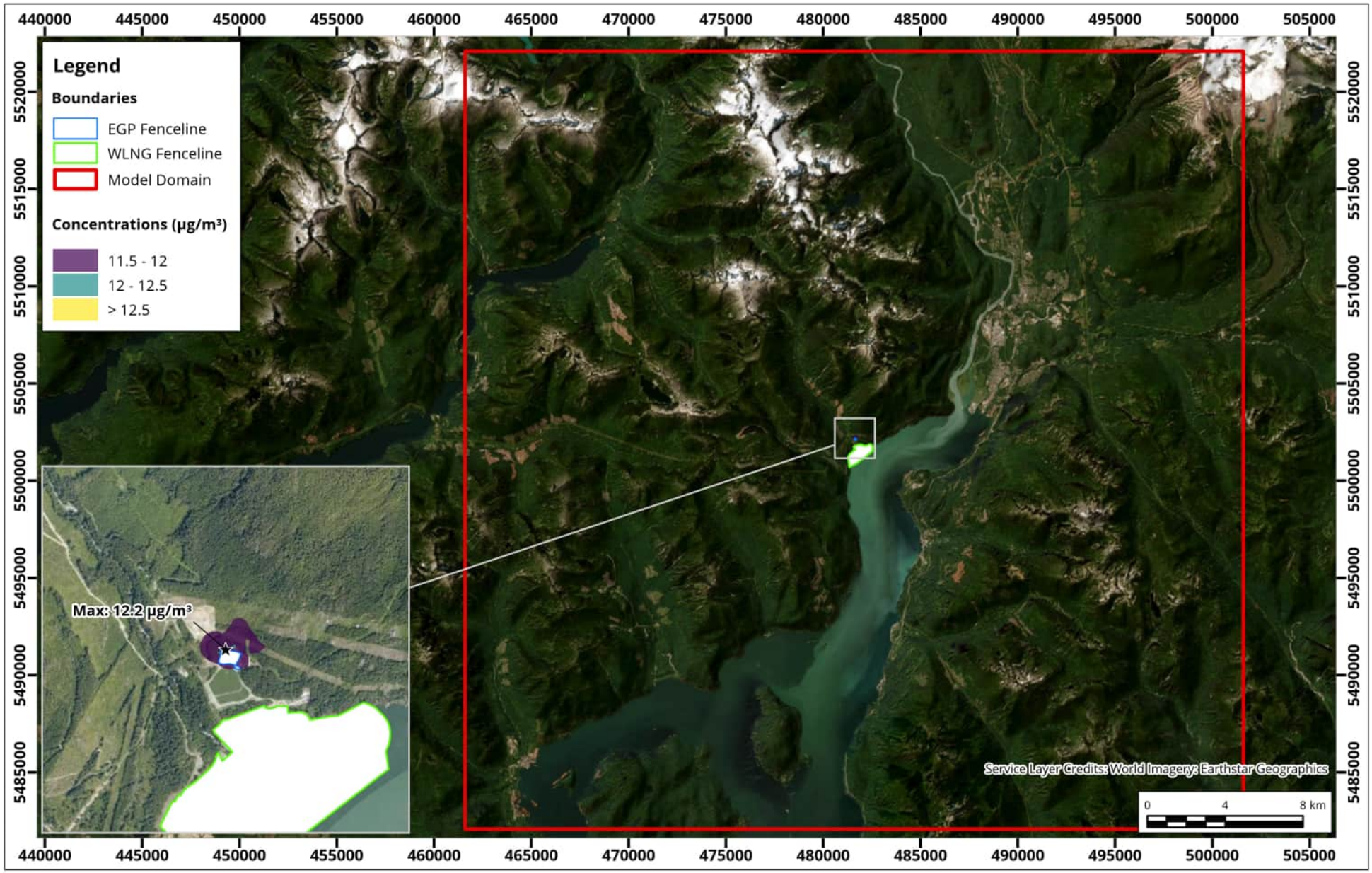
Drawn by: PIP	Figure: C.14
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

Project #: 2301269

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 99th %ile of D1HM SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Peak Operations Scenario; Background = 11.11 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

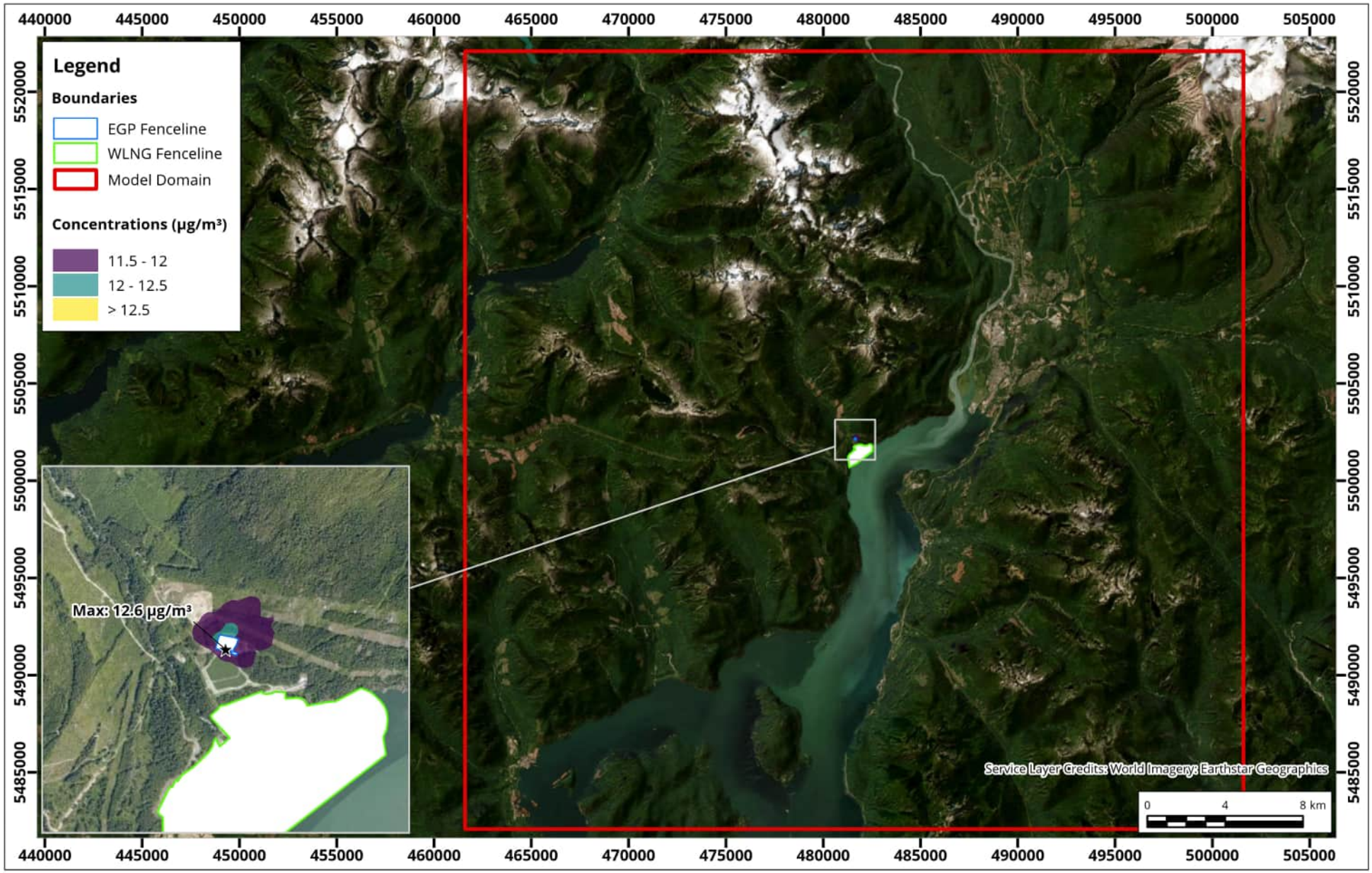
BCAAQO: 170 µg/m³
CAAQS 2025: 170 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.15
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of D1HM SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Peak Operations Scenario; Background = 11.11 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

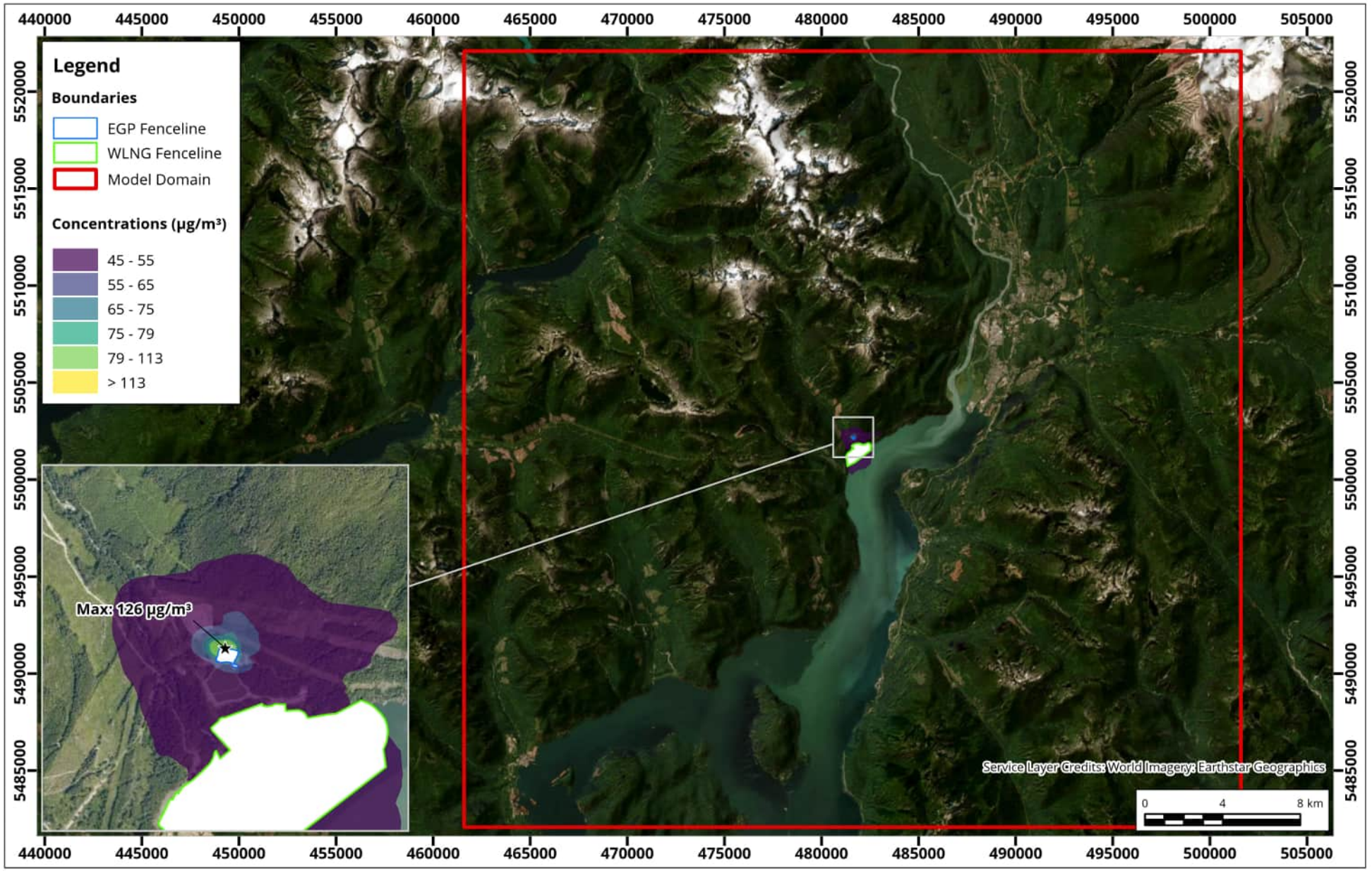
BCAAQO: 170 µg/m³
CAAQS 2025: 170 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.16
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

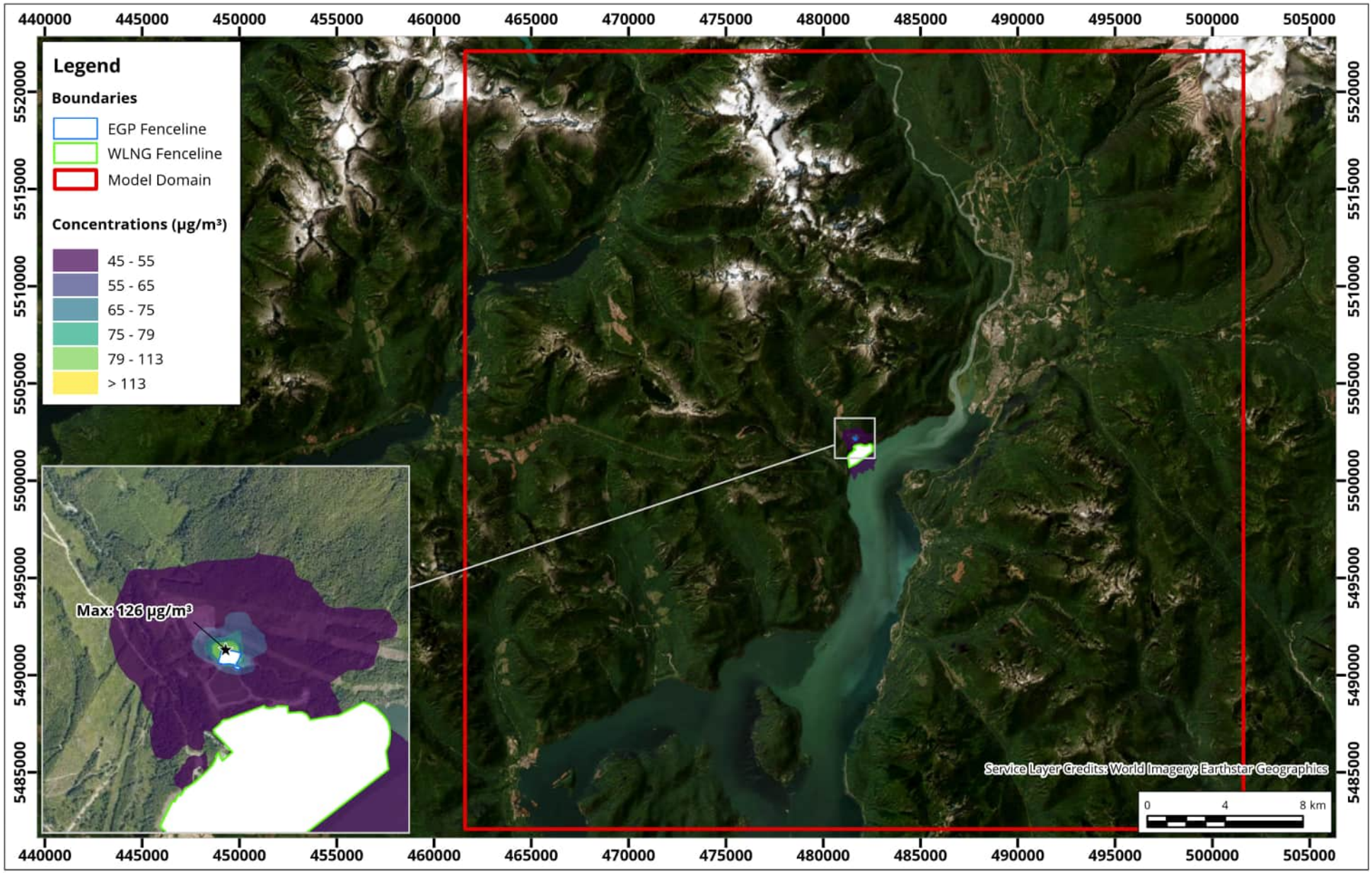
BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.17
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2011 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

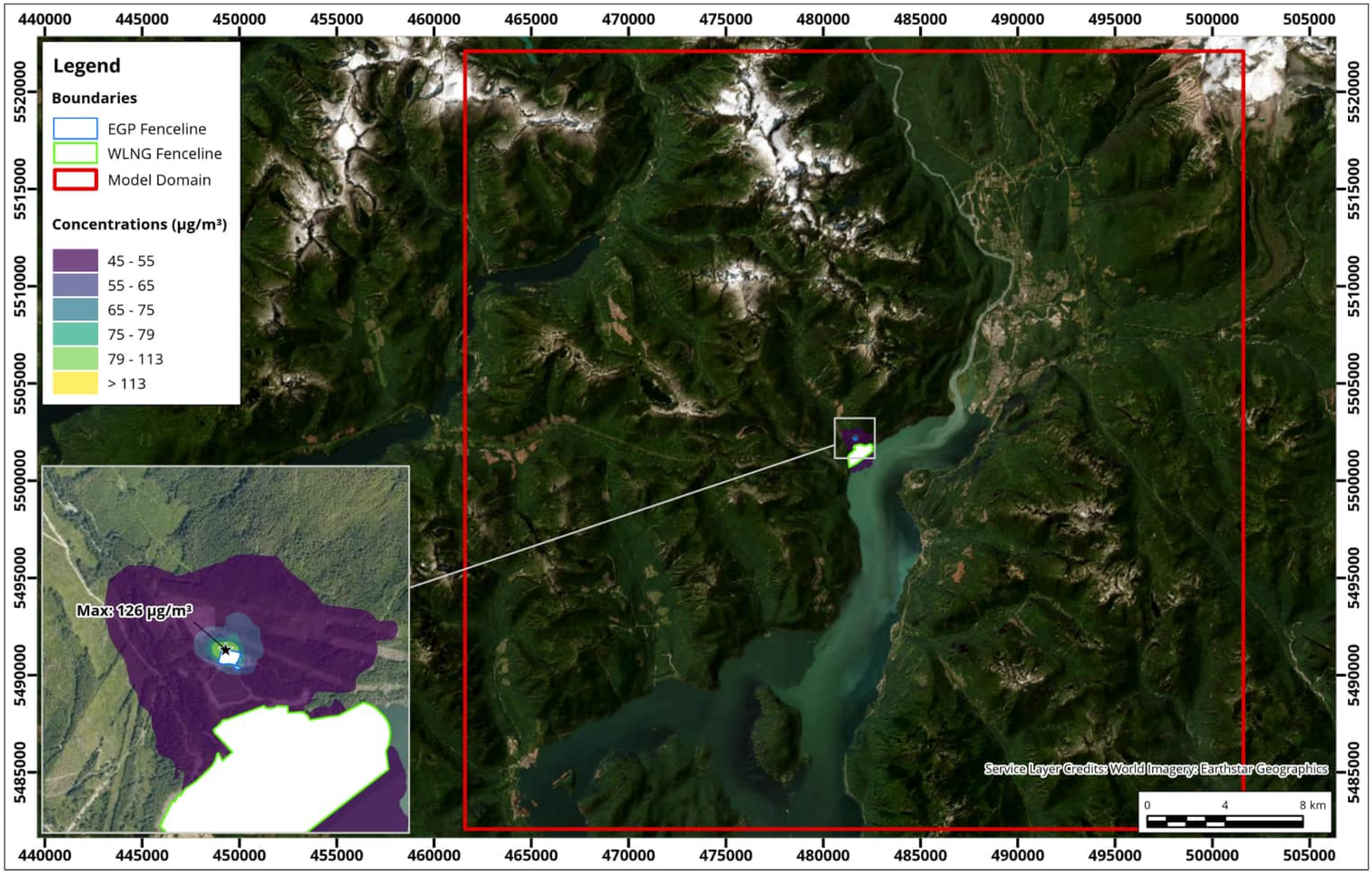
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.18
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2012 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

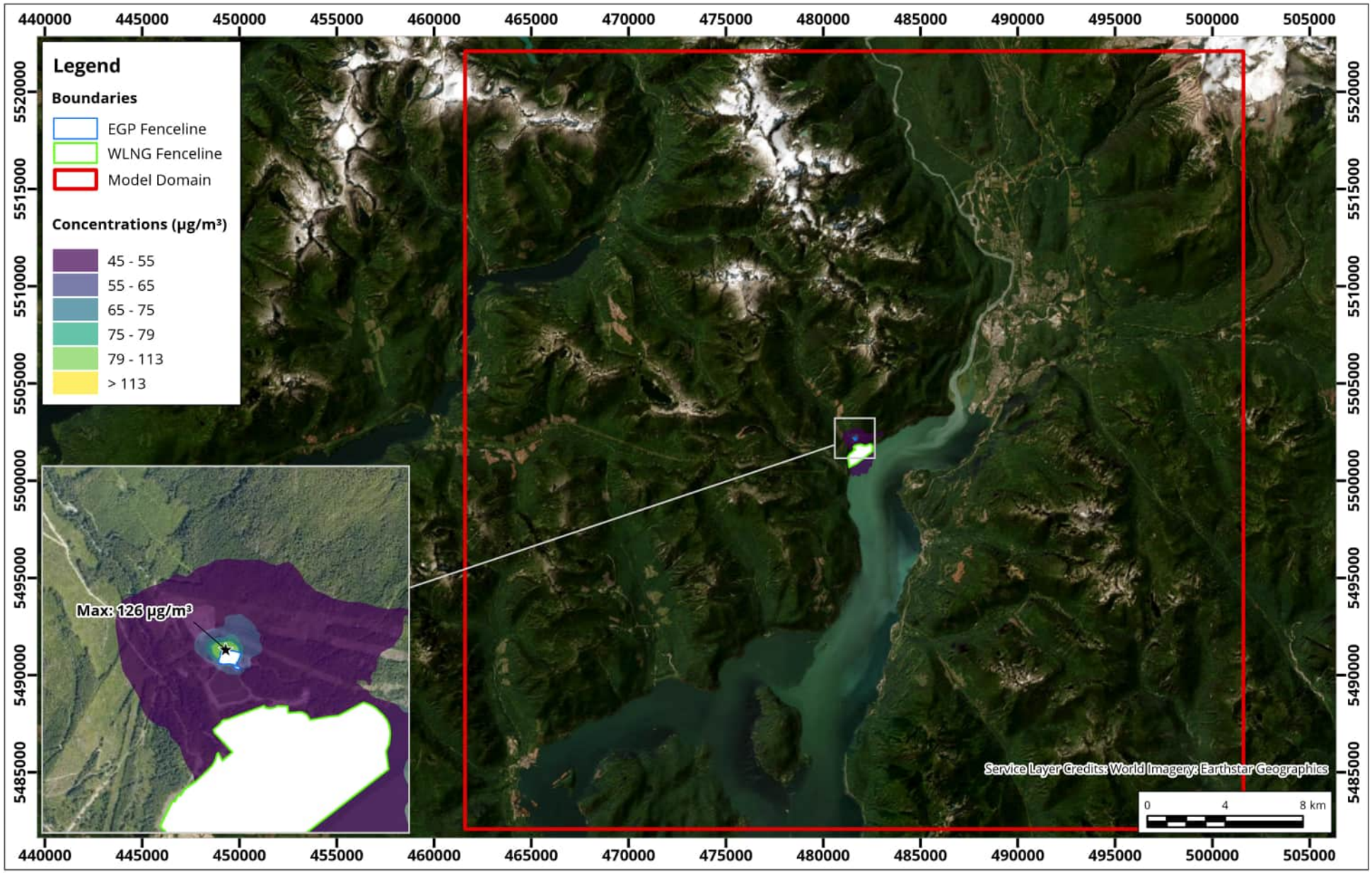
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.19
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2013 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

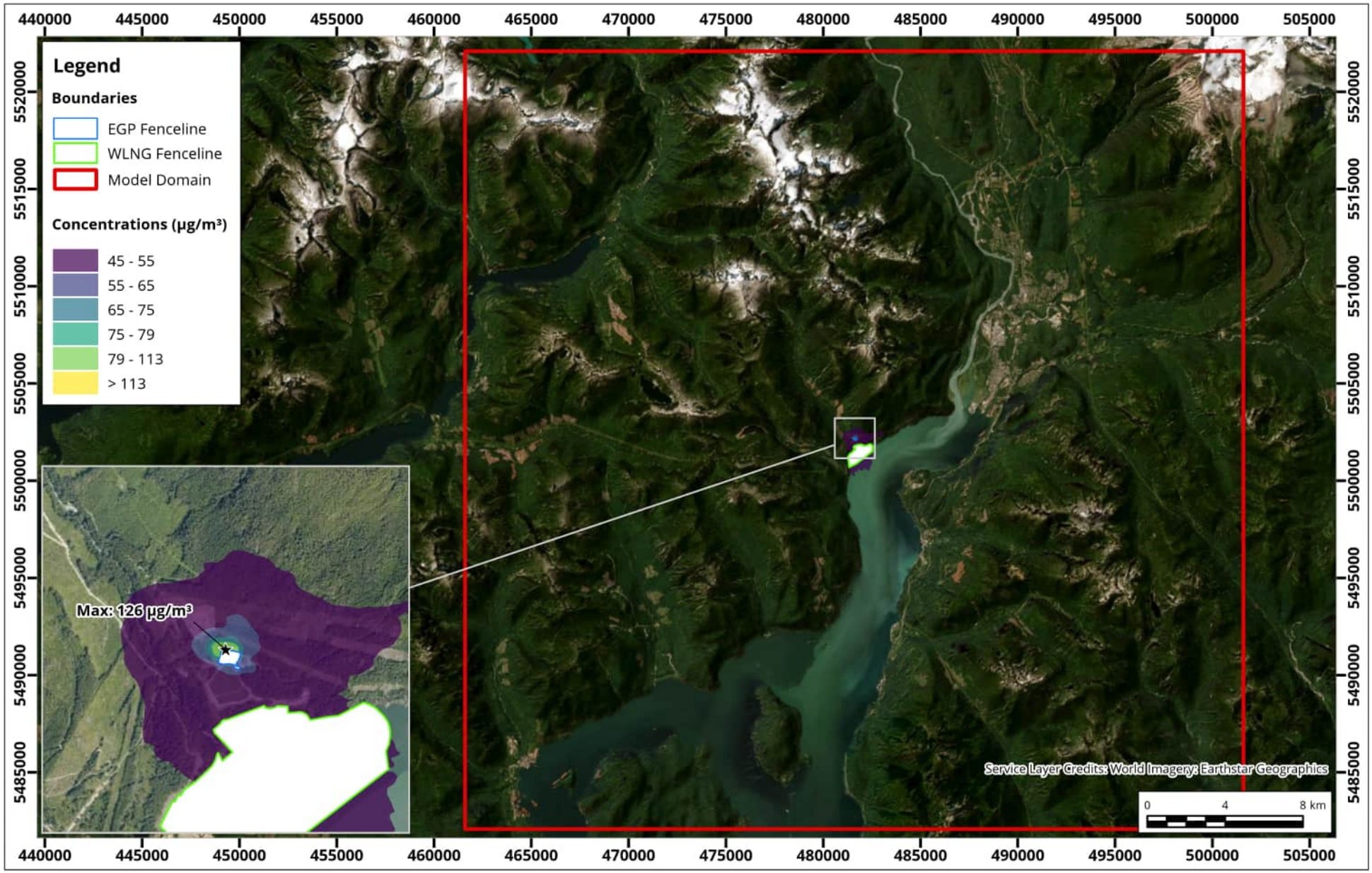
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.20
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2014 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

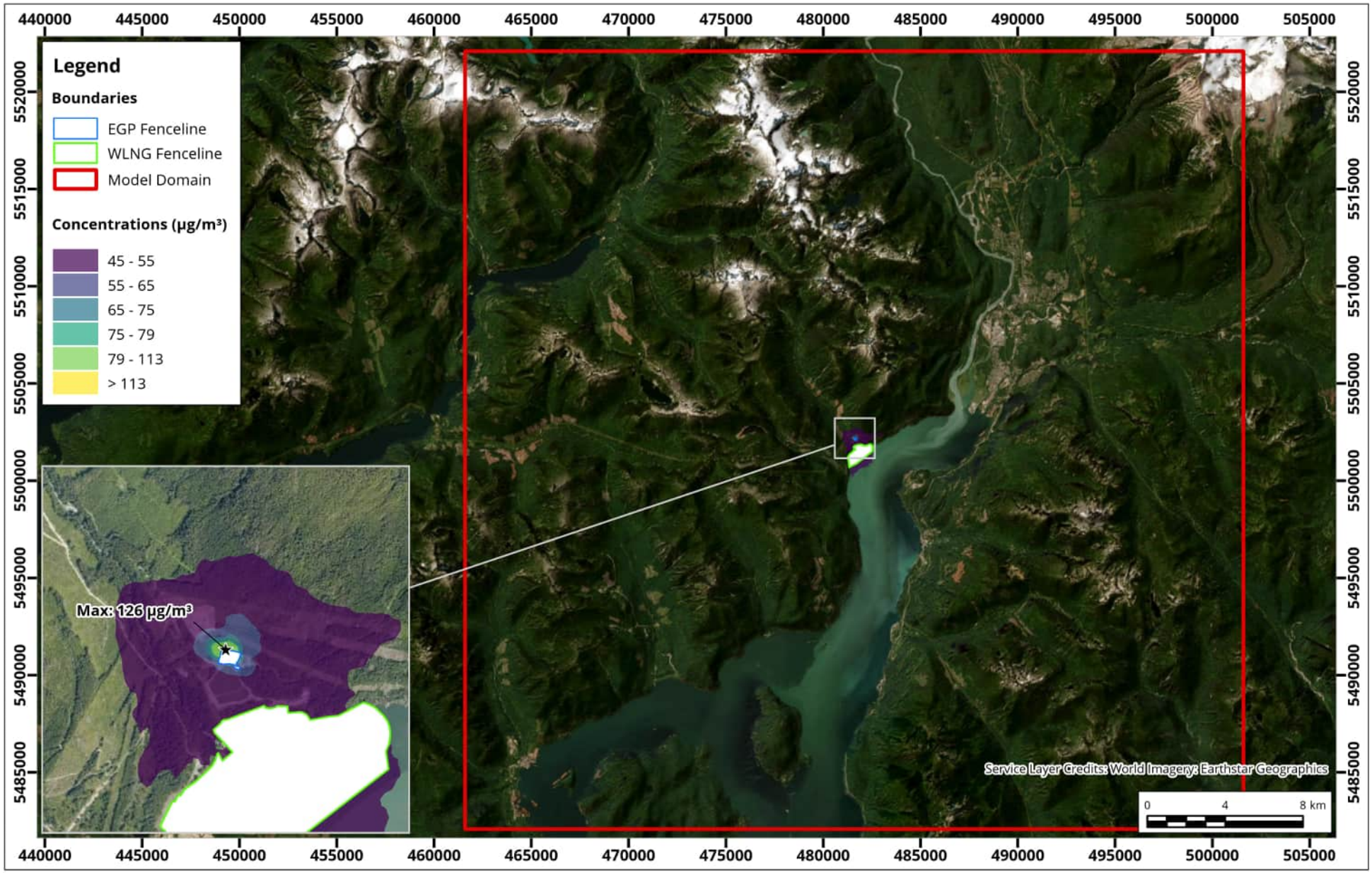
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.21
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 98th %ile of D1HM NO_2 (ARM2) Concentrations for 2015 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

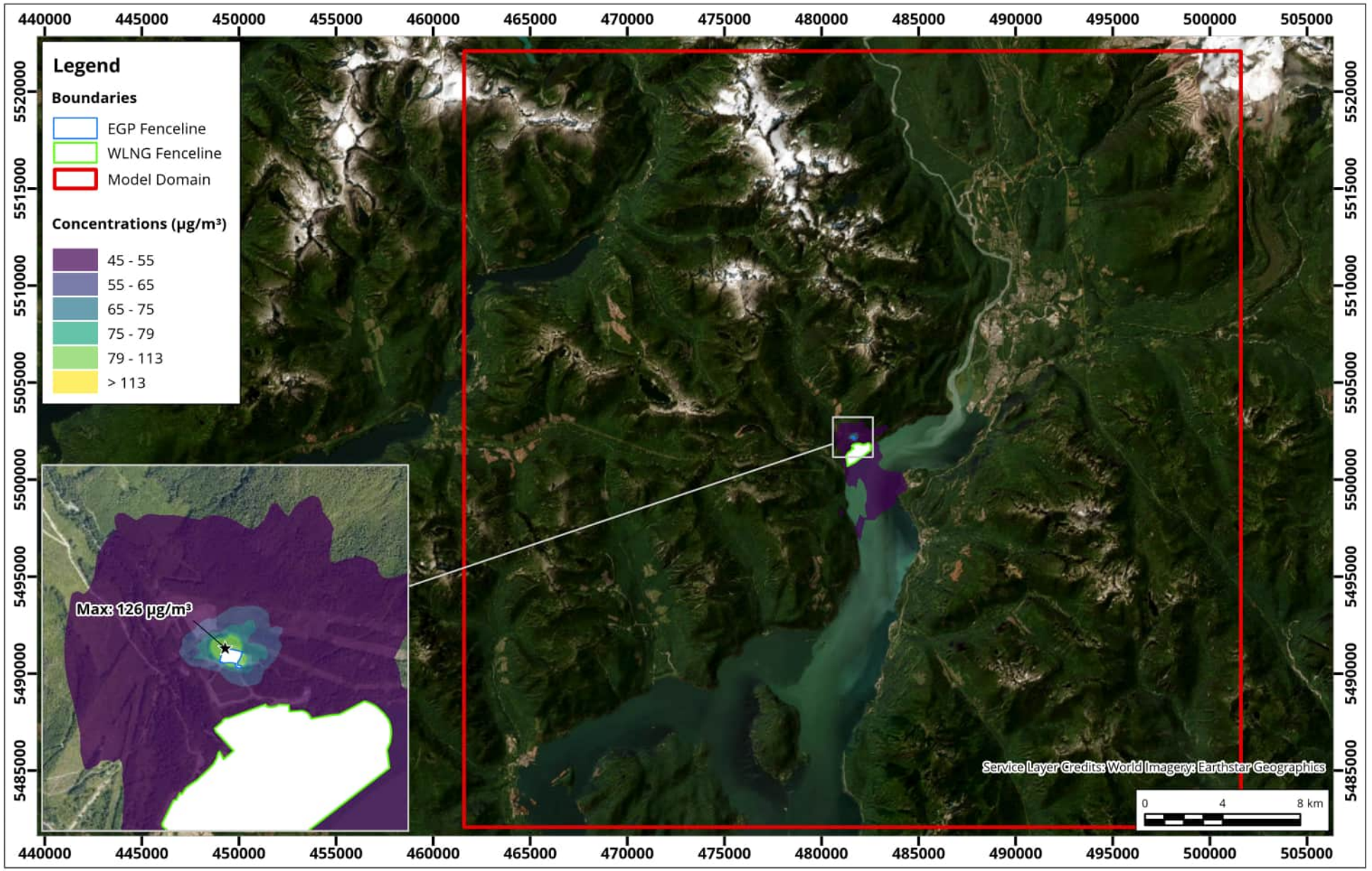
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.22
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of D1HM NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

True North

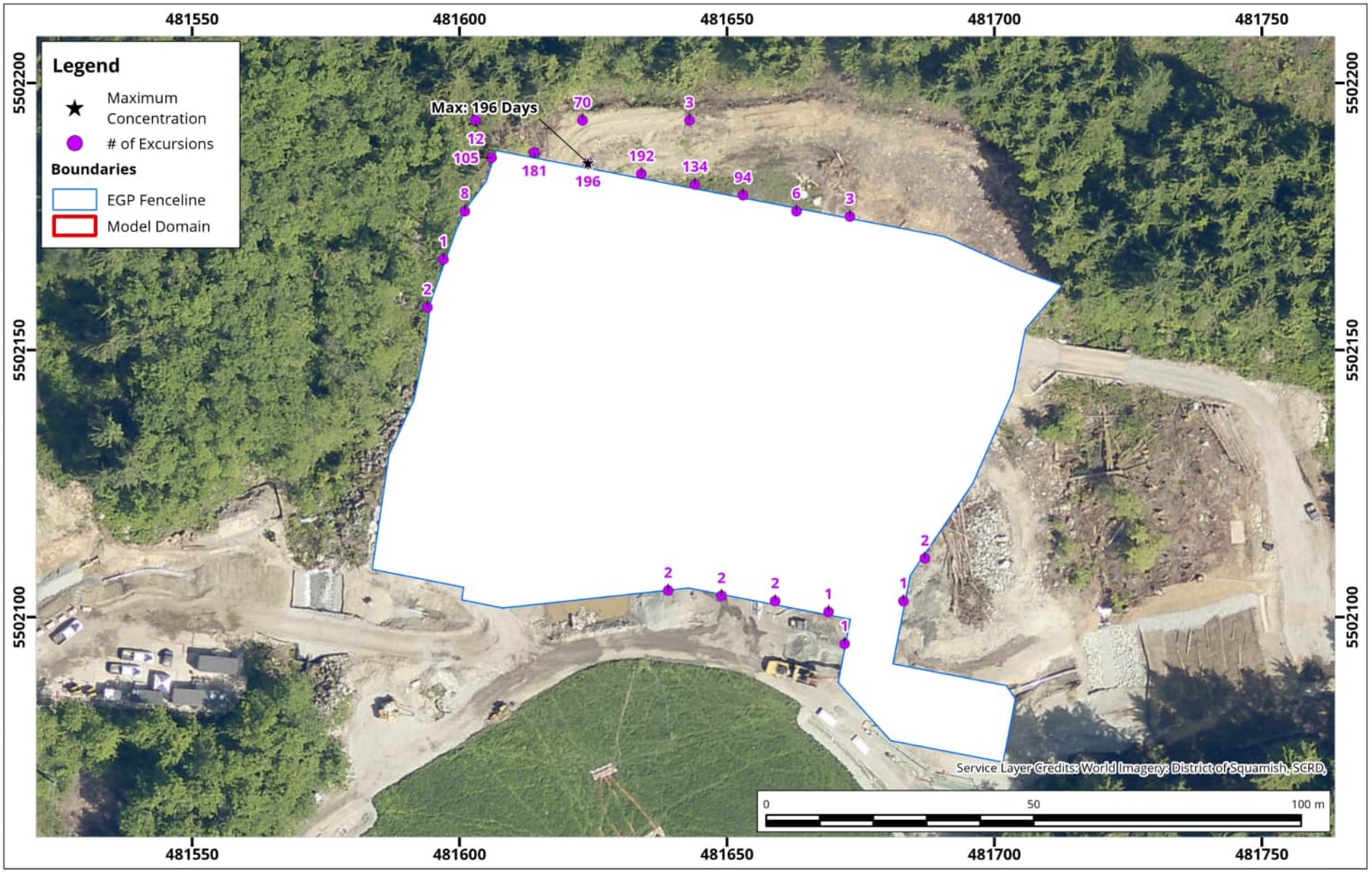
Drawn by: PIP	Figure: C.23
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³
CAAQS 2025: 79 µg/m³

Project #: 2301269

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



No. of Excursions for Receptors in Excursion of BC AAQO for D1HM NO_2 (ARM2) in 2011 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

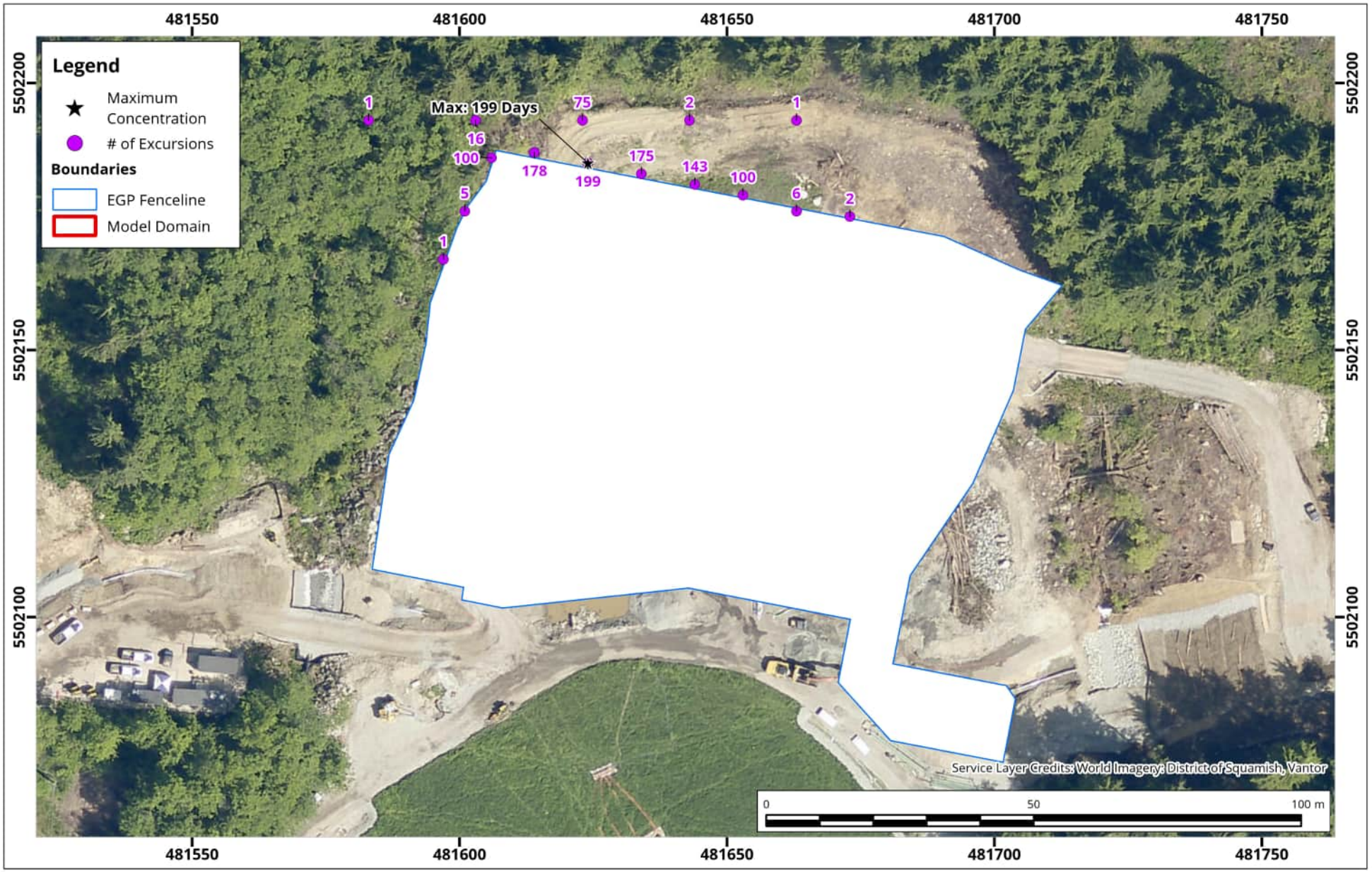
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.24
Approx. Scale:	1:1,000
Date Revised: Feb 20, 2026	

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



No. of Excursions for Receptors in Excursion of BC AAQO for D1HM NO_2 (ARM2) in 2012 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

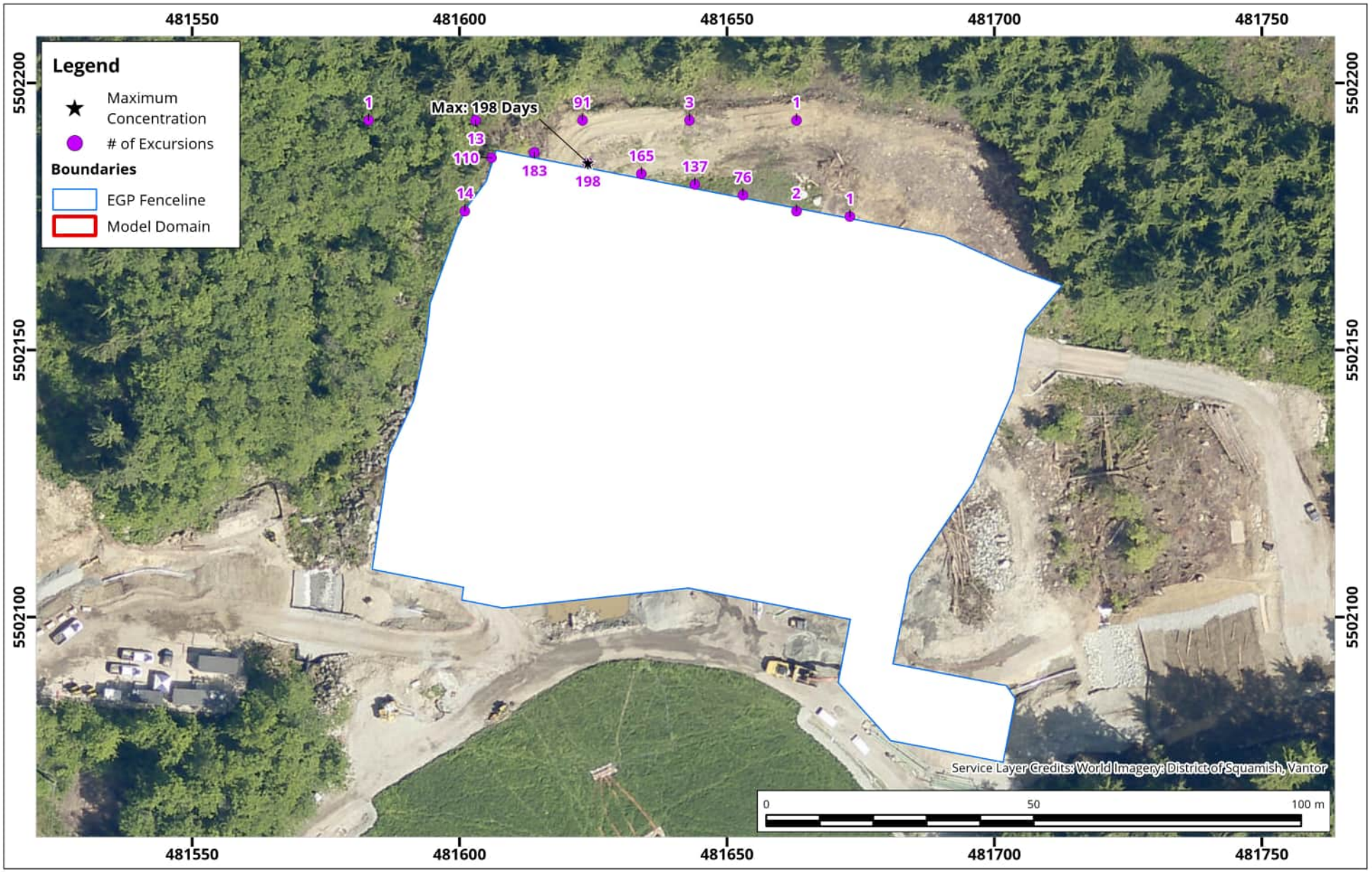
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.25
Approx. Scale:	1:1,000
Date Revised: Feb 20, 2026	

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



No. of Excursions for Receptors in Excursion of BC AAQO for D1HM NO_2 (ARM2) in 2013 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

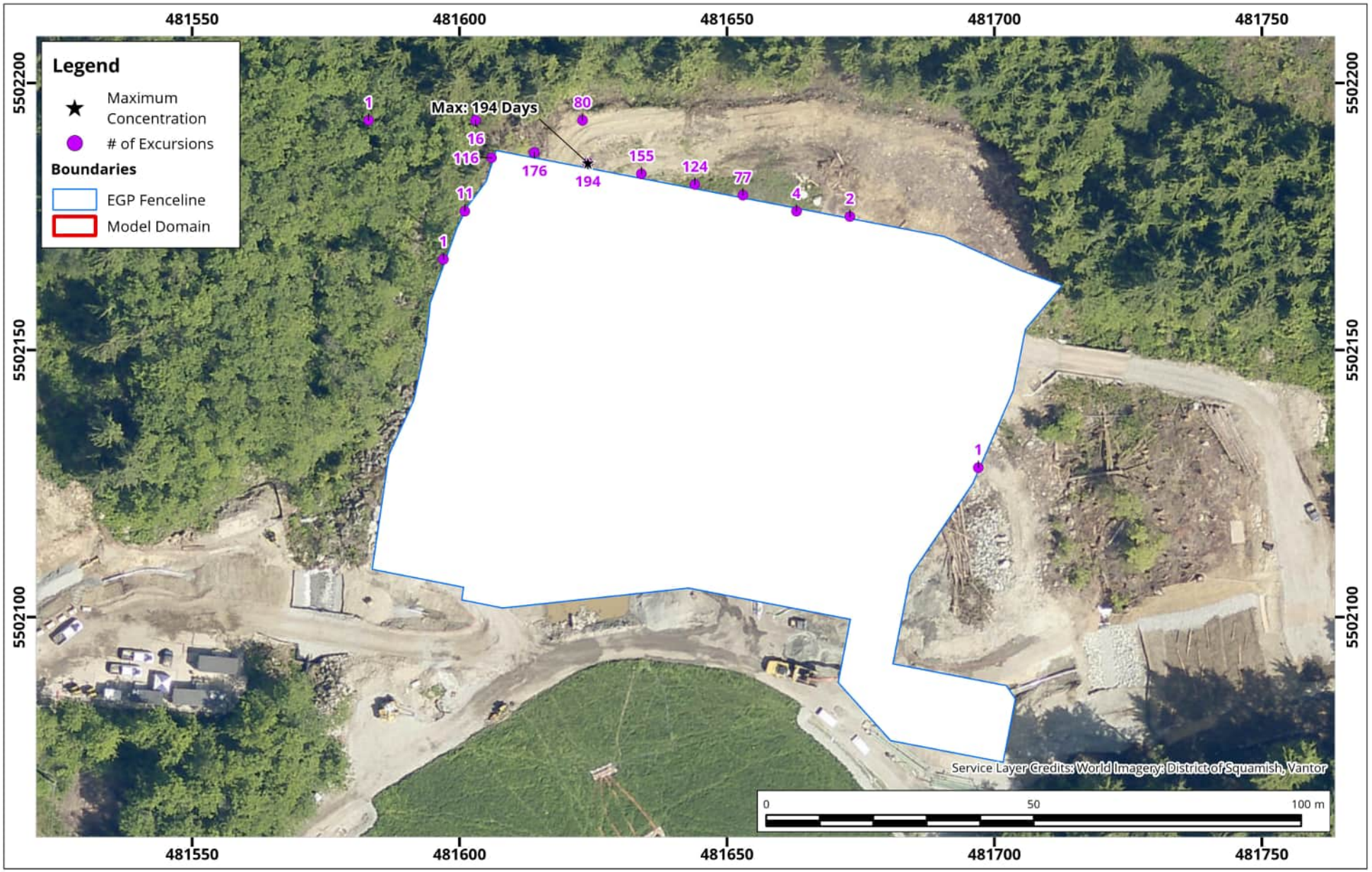
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.26
Approx. Scale:	1:1,000
Date Revised: Feb 20, 2026	

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



No. of Excursions for Receptors in Excursion of BC AAQO for D1HM NO_2 (ARM2) in 2014 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

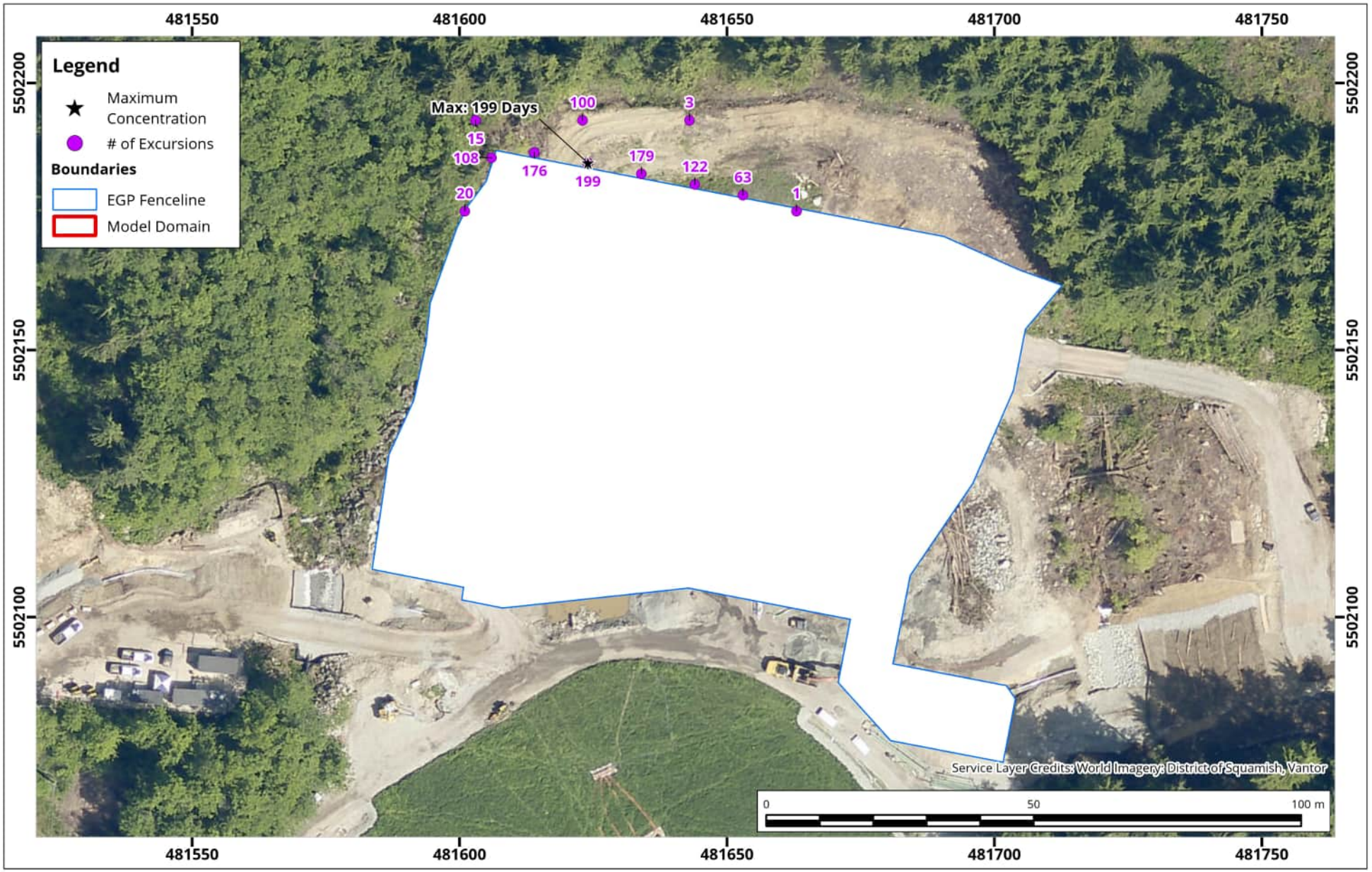
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.27
Approx. Scale:	1:1,000
Date Revised: Feb 20, 2026	

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



No. of Excursions for Receptors in Excursion of BC AAQO for D1HM NO_2 (ARM2) in 2015 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 41.56 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 113 µg/m³

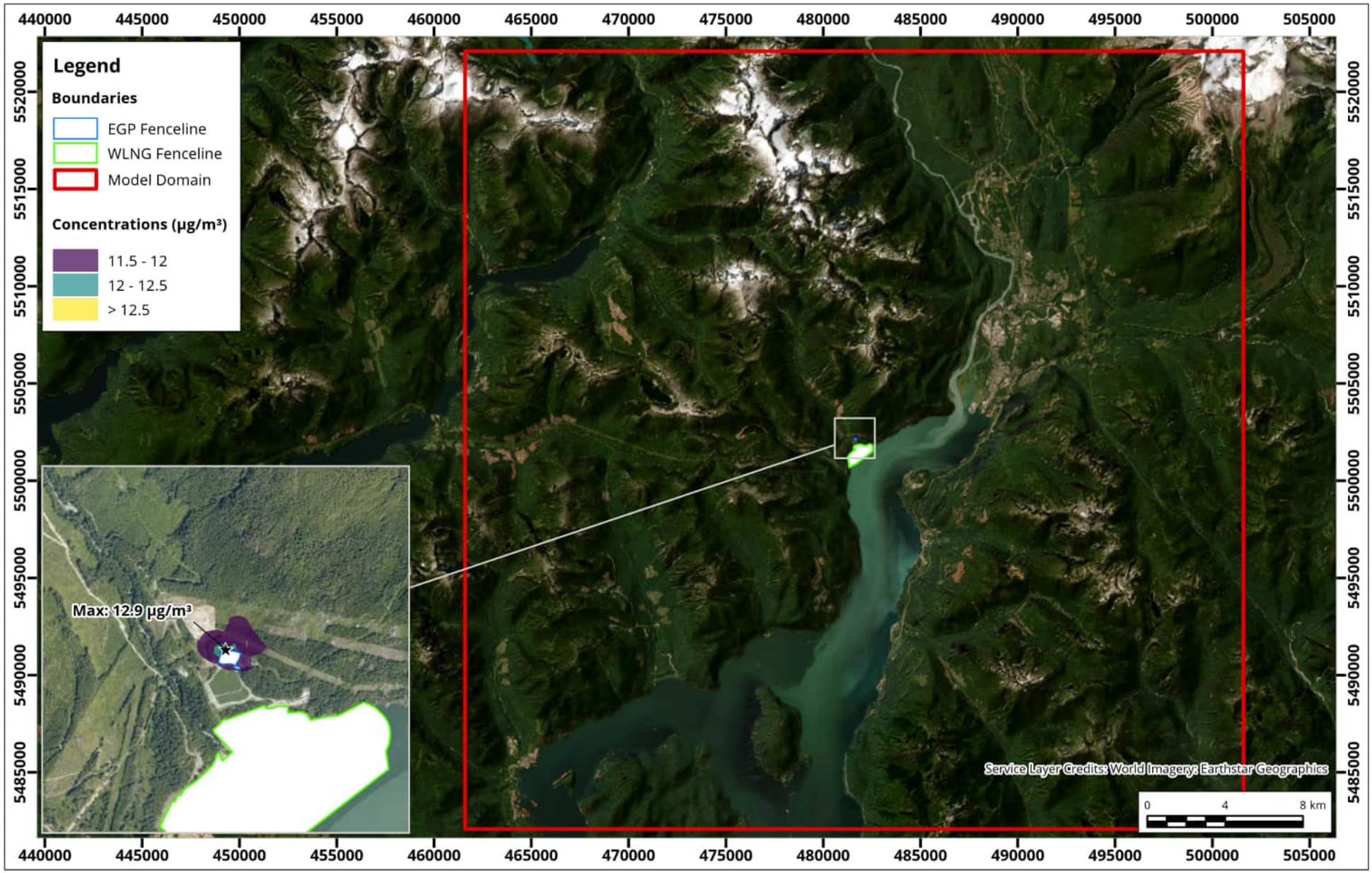
CAAQS 2025: 79 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.28
Approx. Scale:	1:1,000
Date Revised: Feb 20, 2026	

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 99th %ile of D1HM SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 11.11 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

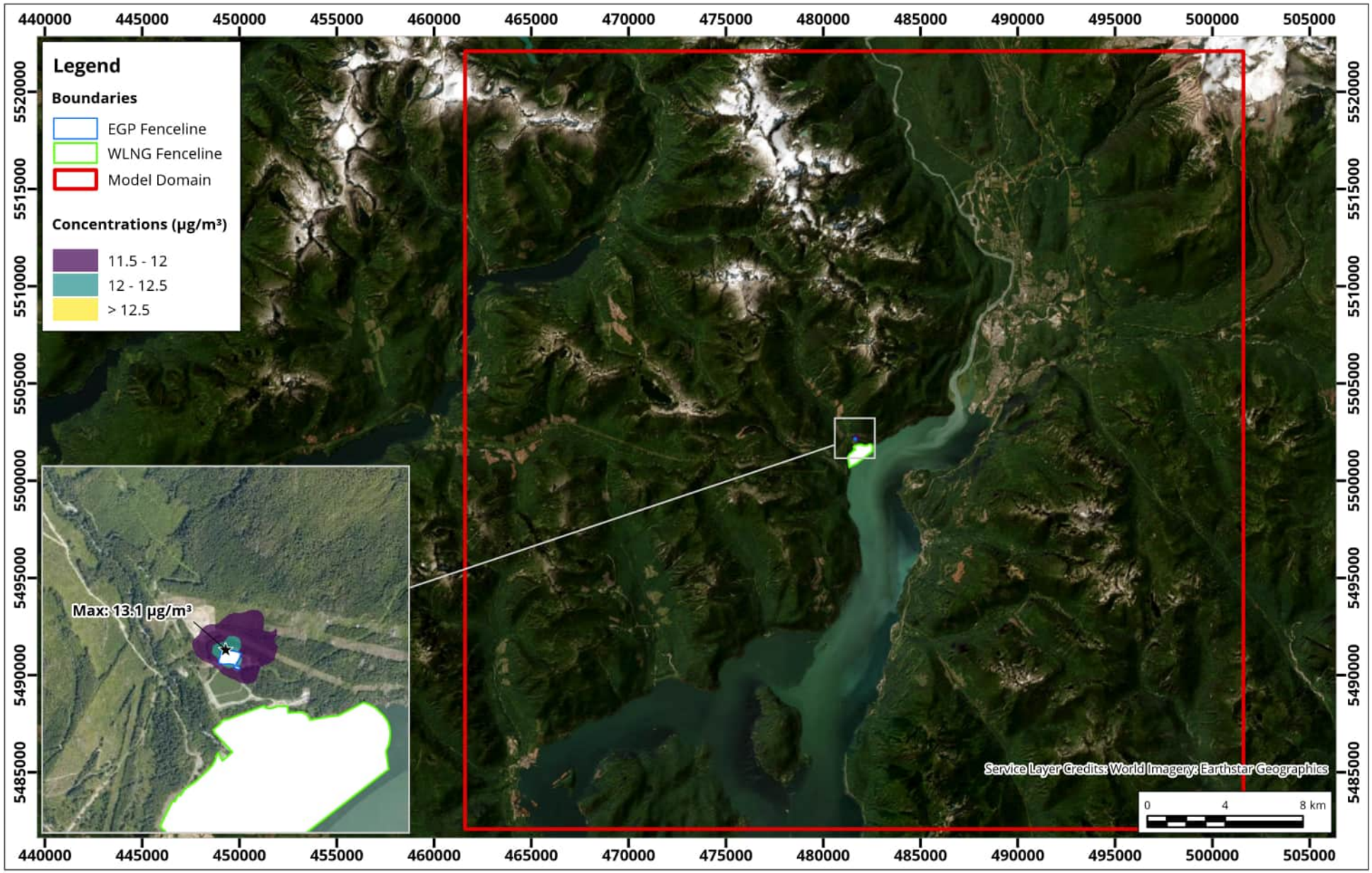
BCAAQO: 170 µg/m³
CAAQS 2025: 170 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.29
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual 100th %ile of D1HM SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Short-term Concentrations: Abnormal Emission Scenario; Background = 11.11 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

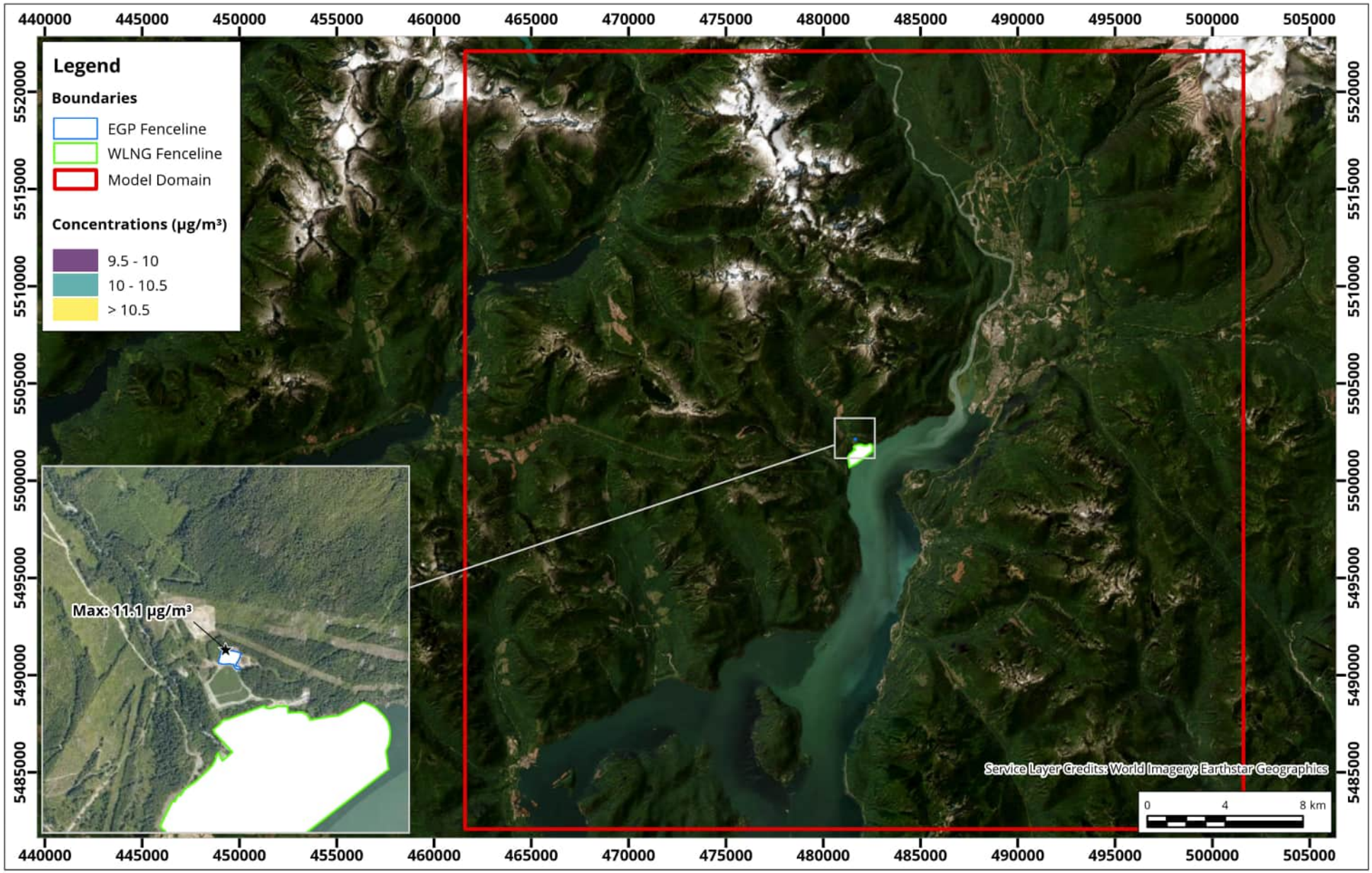
BCAAQO: 170 µg/m³
CAAQS 2025: 170 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.30
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual Average NO_2 (ARM2) Concentrations for 2011 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 9.40 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 32 µg/m³

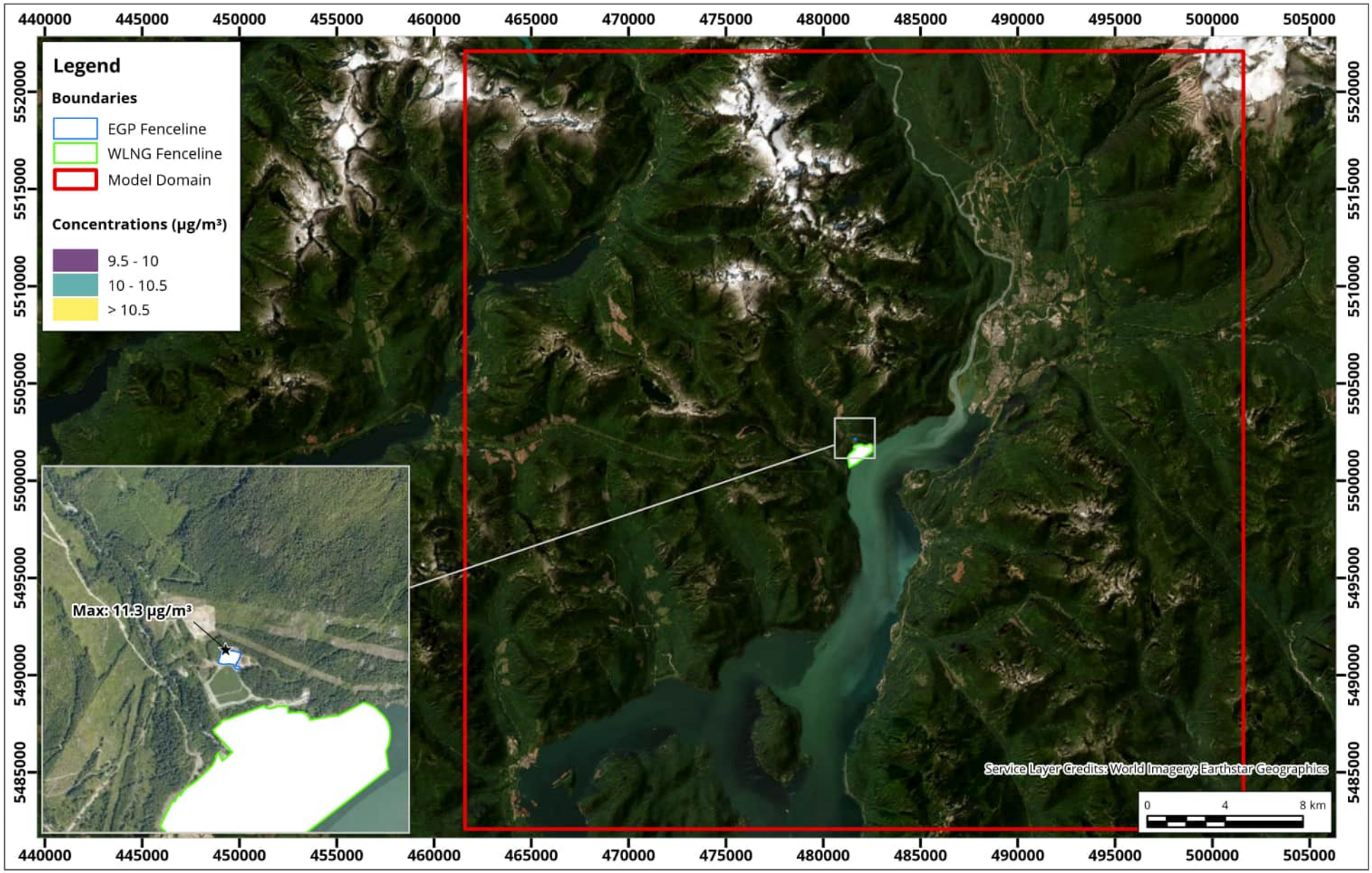
CAAQS 2025: 23 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.31
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual Average NO_2 (ARM2) Concentrations for 2012 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 9.40 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 32 µg/m³

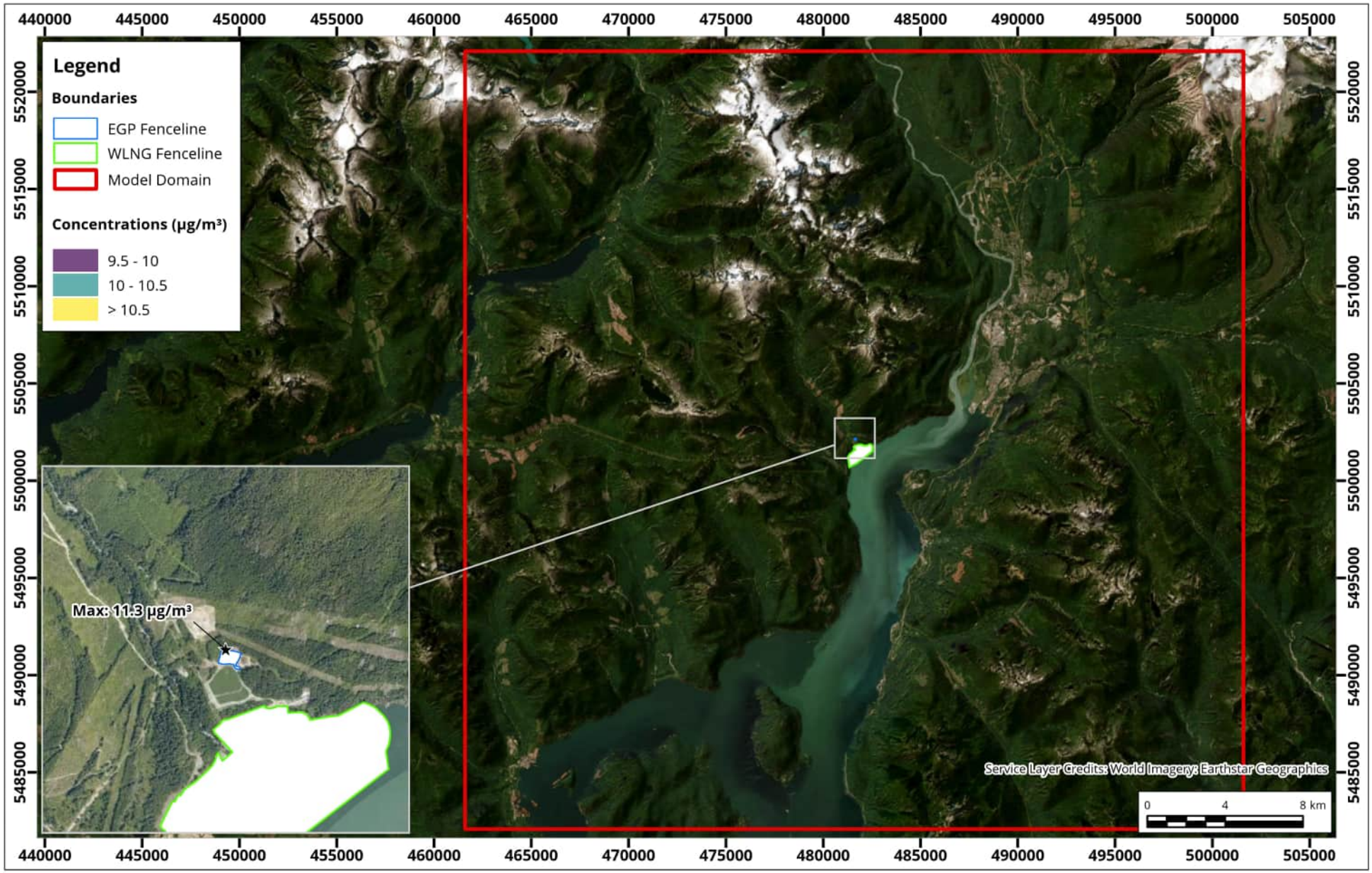
CAAQS 2025: 23 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.32
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual Average NO_2 (ARM2) Concentrations for 2013 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 9.40 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 32 µg/m³

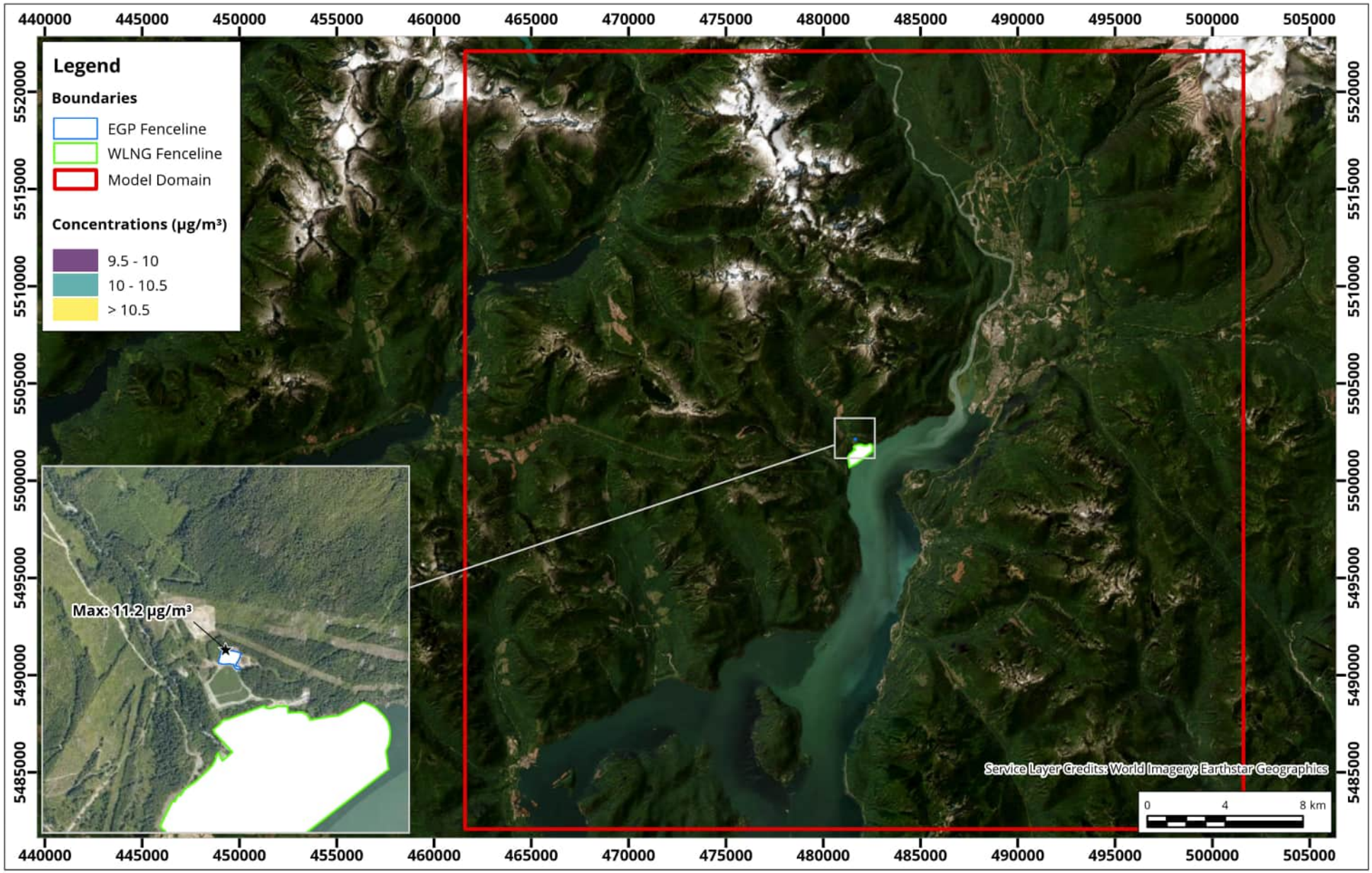
CAAQS 2025: 23 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.33
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual Average NO_2 (ARM2) Concentrations for 2014 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 9.40 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 32 µg/m³

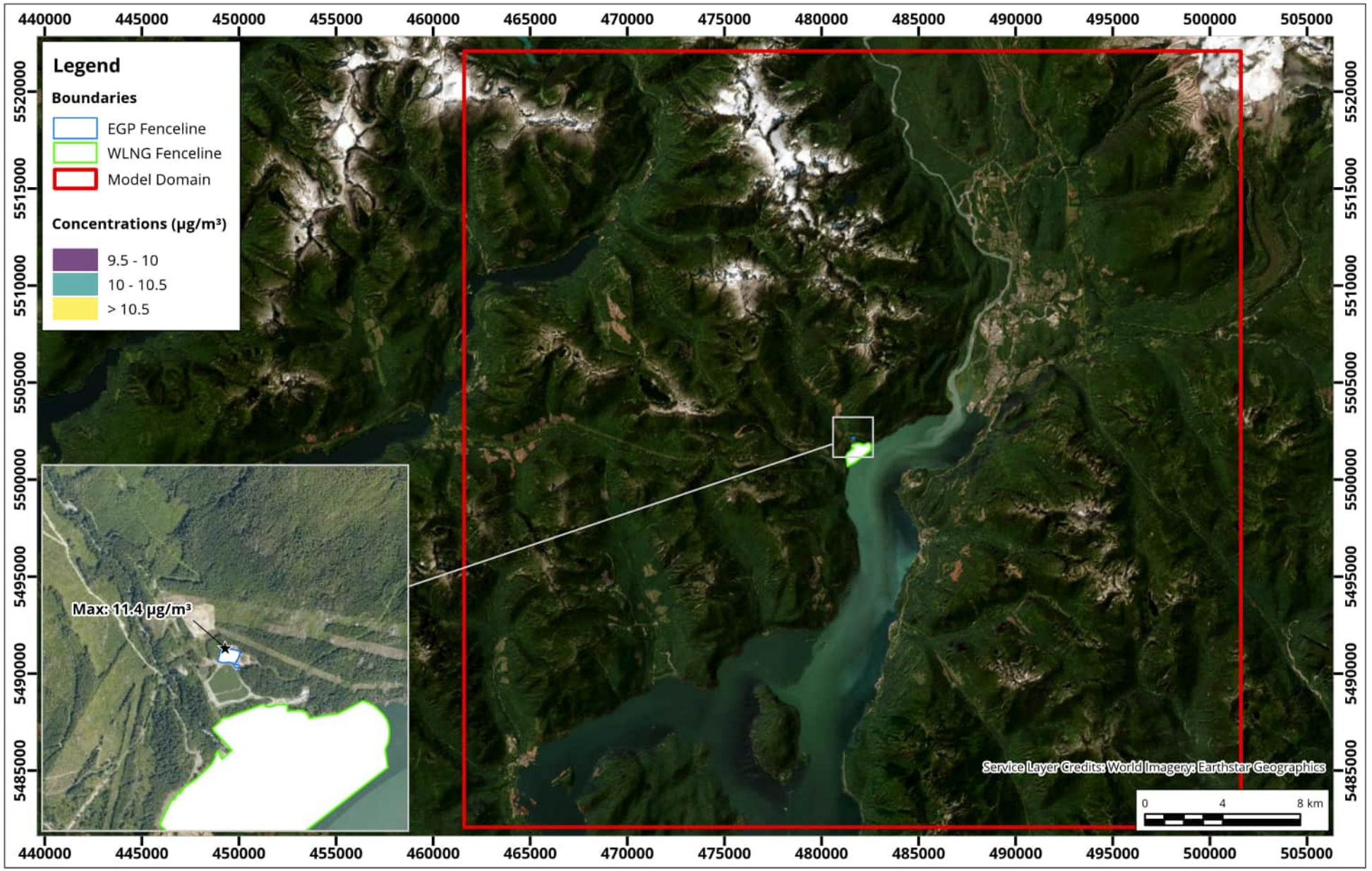
CAAQS 2025: 23 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.34
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual Average NO_2 (ARM2) Concentrations for 2015 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 9.40 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 32 µg/m³

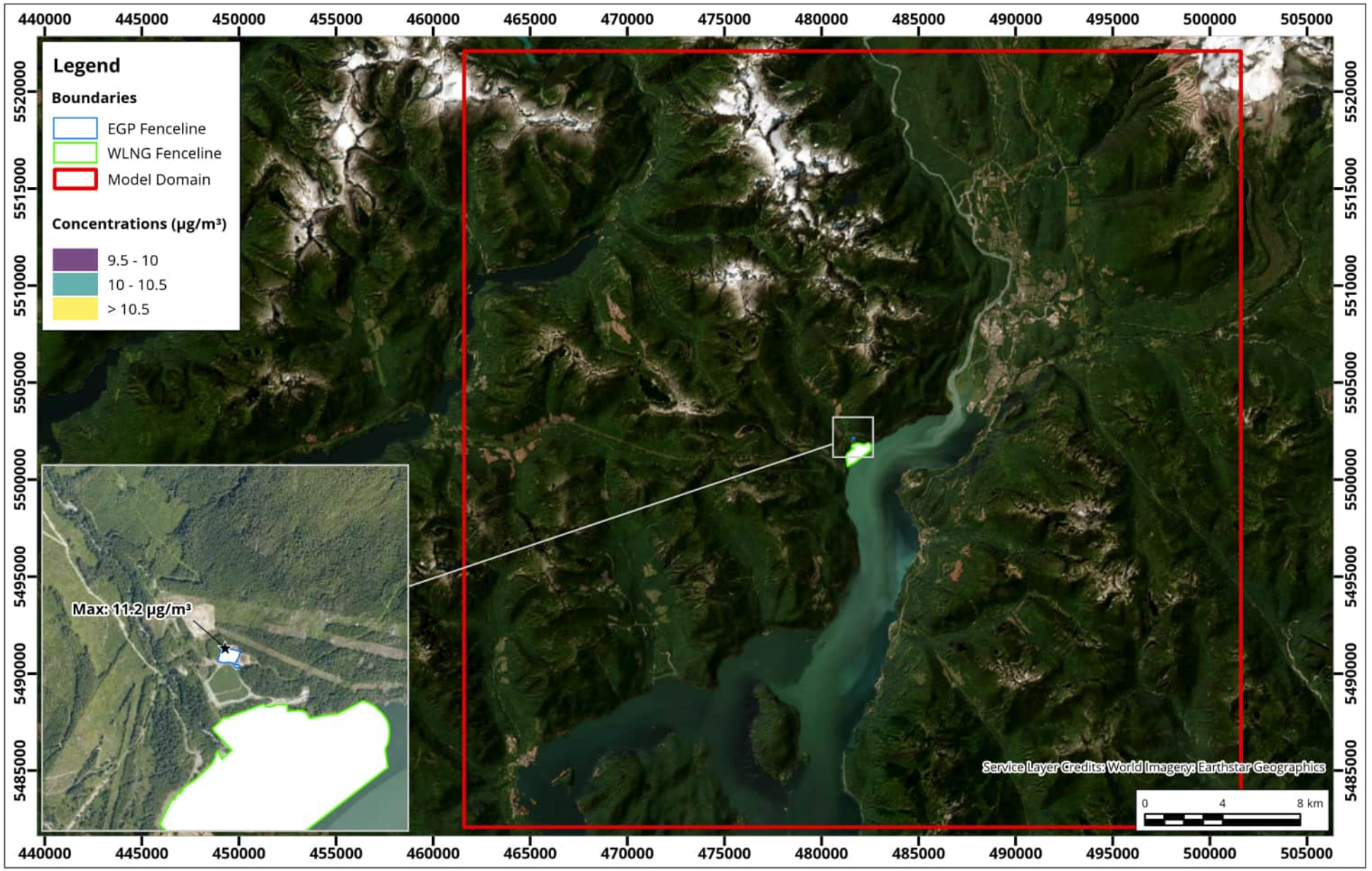
CAAQS 2025: 23 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.35
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual Average NO_2 (ARM2) Concentrations Averaged over 2011-2015 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 9.40 µg/m³

Map Projection: NAD 1983 UTM Zone 10N

Squamish Compressor Station - Squamish, B.C.

BCAAQO: 32 µg/m³

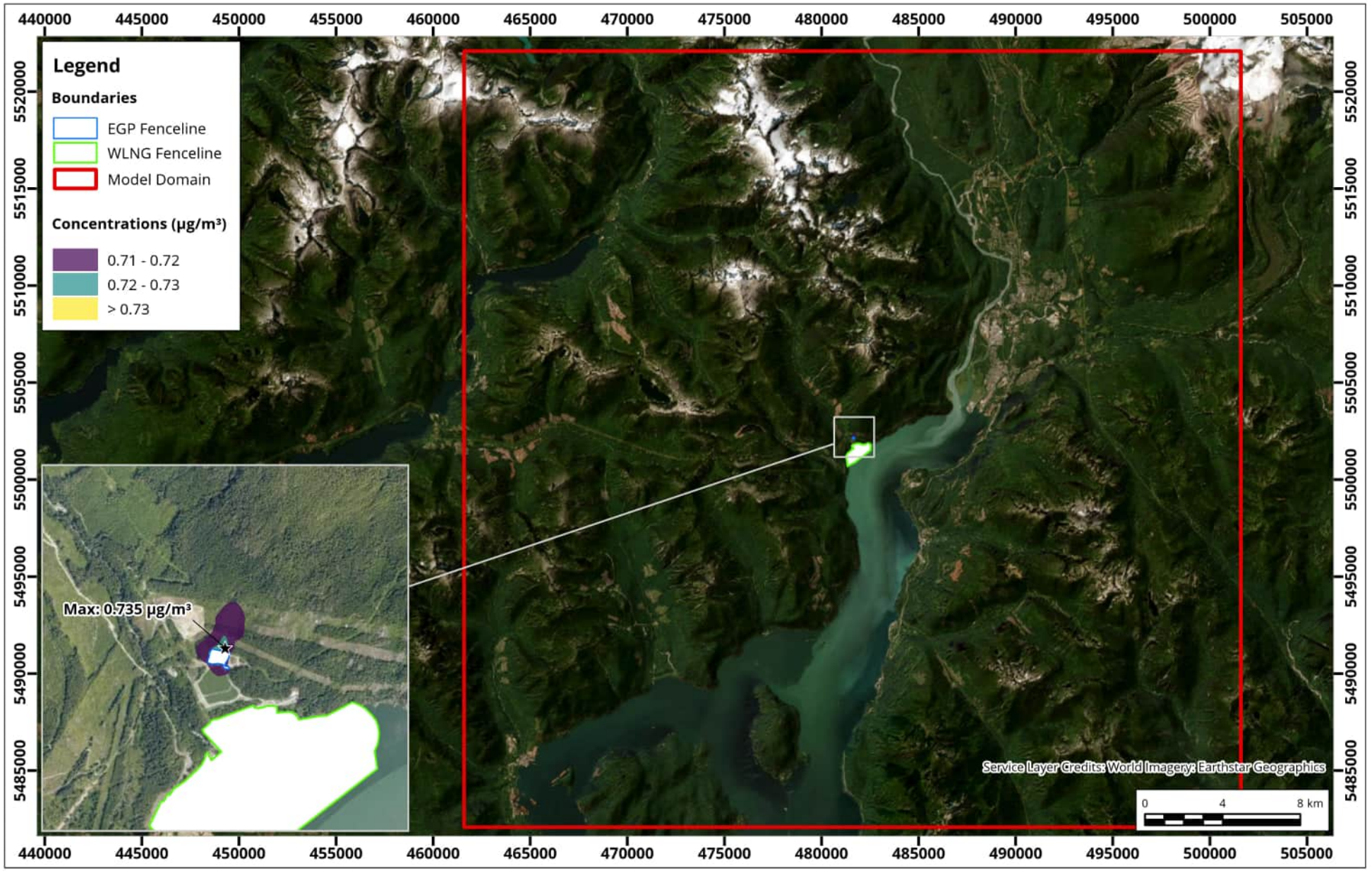
CAAQS 2025: 23 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.36
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPS_Figures.aprx



Predicted Annual Average SO_2 Concentrations Averaged over 2011-2015 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 0.70 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

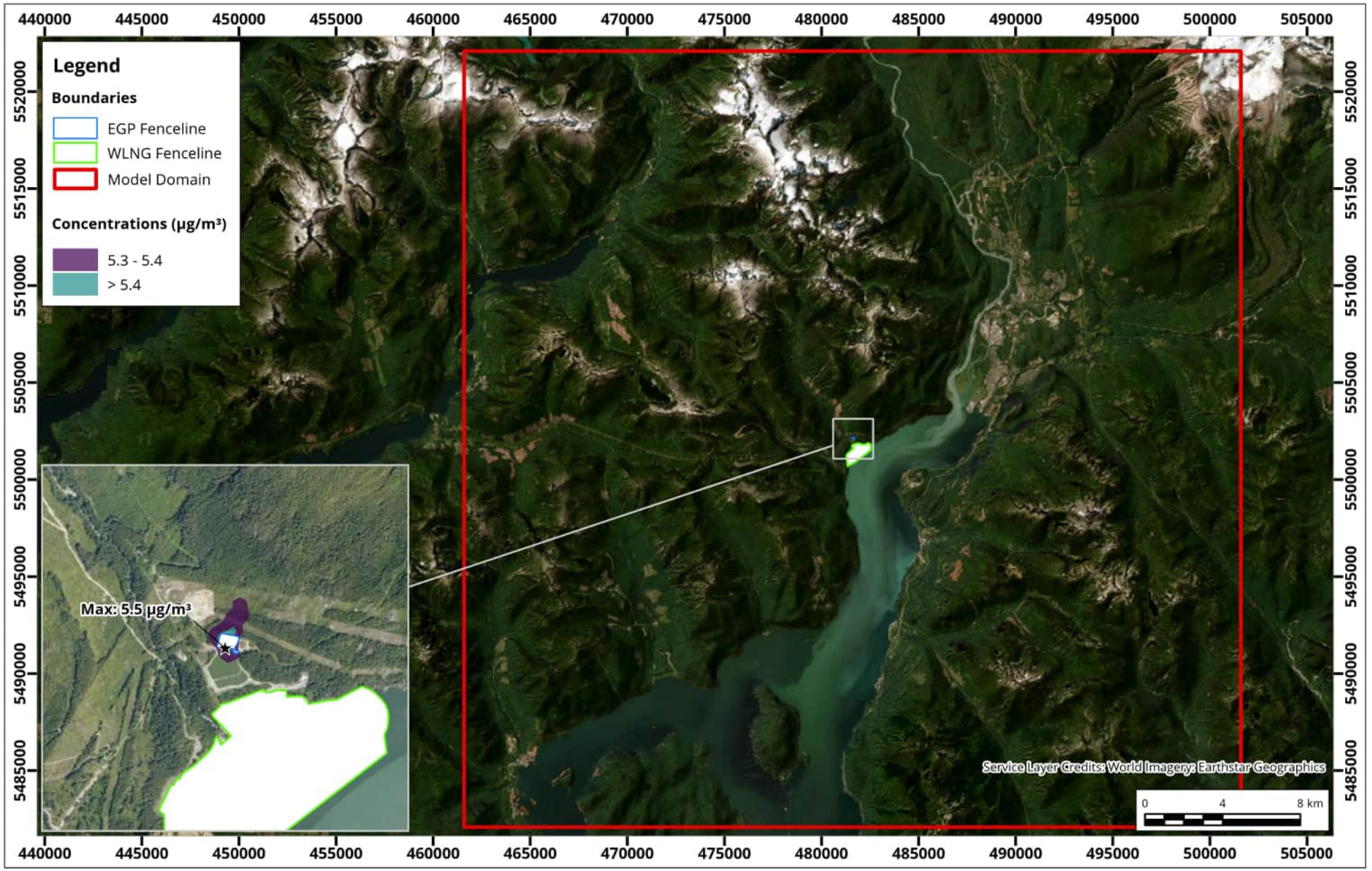
BCAAQO: 10 µg/m³
CAAQS 2025: 10 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.37
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx



Predicted Annual Average $PM_{2.5}$ Concentrations Averaged over 2011-2015 - Project + Background

Long-term Concentrations: Annual Concentrations; Background = 5.20 µg/m³

Map Projection: NAD 1983 UTM Zone 10N
Squamish Compressor Station - Squamish, B.C.

BCAAQO: 8 µg/m³
CAAQS 2025: 8.8 µg/m³

True North

Project #: 2301269

Drawn by: PIP	Figure: C.38
Approx. Scale:	1:275,000
Date Revised:	Feb 23, 2026

Map Document: C:\Working\Folder\Jobs_AMER\P2301269\SQUAMISH\CALPUFF\P2301268_FortisBC_EPG_Figures.aprx