

Kitimat Airshed Group

Key Messages

Prepared and reviewed by:

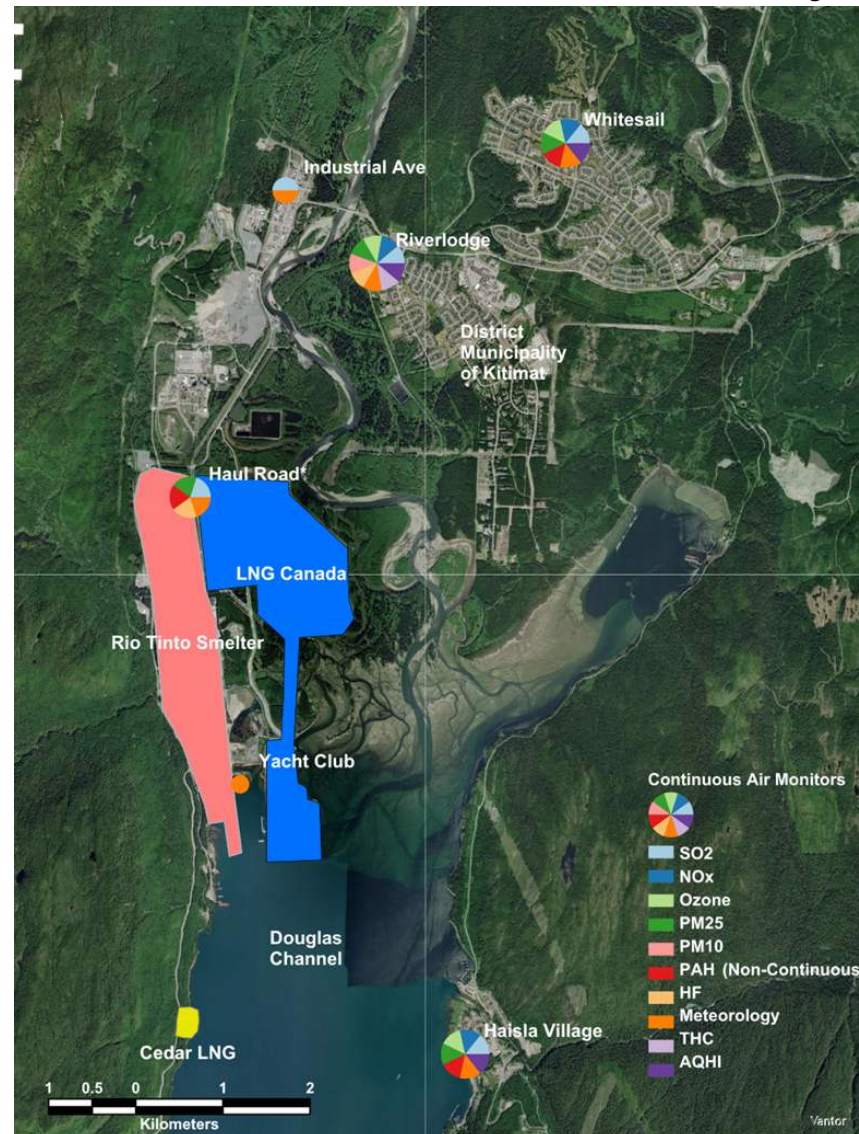
Lindsay Sackett, KAG Secretariat. Paula Tait, Northern Health. Lis Stannus, KAG Vice-Chair

Category	Sub-Category	Key Messages	Sources and/or learn more
Who is KAG?	History	- KAG formed as an outcome of the mediated settlement between Rio Tinto, BCENV, Unifor 2301, and residents Lis Stannus & Emily Toews, in 2019. - The settlement provided resolution to the appeals of the SO2 Environmental Effect Monitoring Program of the Rio Tinto Environmental Management Act (EMA) program. - KAG's core members were contacted by the BCENV to participate in the development process of KAG. - The Kitimat Airshed Group became a registered non-profit in March 2021. - Main sources of funding: District of Kitimat, Rio Tinto, LNG Canada, BC Ministry of Environment and Parks.	FACTSHEET: Permit amendment for Rio Tinto Alcan Kitimat smelter
	Governance	- Members: - Michelle Martins (District of Kitimat) - Chair - Lis Stannus - Vice Chair - Shawn Zettler (Rio Tinto) - Secretary Treasurer - Sandra Knowles (Kitimat Terrace Clean Air Coalition) - Paul LeBlanc (Kitimat Chamber of Commerce) - Gillian Mullins (Kitimat Valley Naturalists) - Wendy Ross (LNG Canada) - Marc Young (Unifor)	Governance - Kitimat Airshed

KAG's Work	Purpose	- Mission: We connect people and science, to turn data into understanding and concern into collective action for a healthier, more informed community. - Vision: People in our community have access to easily understood and trusted air quality information to make informed decisions. - Airshed Management: Air Quality Management is a collaborative effort between multiple stakeholders in a community. Information from data assessment, emissions inventory, and modelling results are used to understand the source, location and types of emissions in an area and build a plan of action to reduce priority contaminants in a region.	KAG 2025-2028 Strategic Plan Air Quality Management - Province of British Columbia
	Data Review Committee	- KAG's Data Review Committee (DRC) is made up of a diverse selection of KAG's members including, but not limited to: - BC Energy Regulator - BC Ministry of Environment and Parks - Northern Health - Industry representatives - Members in academia - Community members - The DRC functions to provide guidance on air pollutant monitoring data in the Kitimat airshed, so that KAG can be a trusted source of ambient air quality information to the public. - They provide valuable input that informs KAG's Quarterly Air Quality Data Reports, which are created for public consumption. - They aim to identify gaps, inconsistencies and concerns in reported ambient air quality data to support accountability to the public, and undertake technical projects related to the airshed and the monitoring network.	Reports - Kitimat Airshed Most Recent Data - BC Air Data Archive - Province of British Columbia
	Community Projects and Events	- KAG runs community projects and events to engage airshed residents in activities geared toward air quality improvement and protection. - Events and projects are usually reliant on additional funding and grants.	Events - Kitimat Airshed

Airshed
Profile and
Monitoring

- The Province collects data from 6 regulatory-grade monitoring stations in the Kitimat area and 1 in Terrace.
- The Kitimat area stations are owned and operated by Rio Tinto. Rio Tinto contracts Trinity Consultants to manage the maintenance and calibration activities.
- The Terrace monitoring station is owned and operated by the BC Ministry of Environment and Parks
- Total hydrocarbons (THC) are monitored at Riverlodge Station in Kitimat
- Pollutants monitored and station locations in Kitimat can be seen in the following map:



[Latest Air Monitoring Data Map - BC Air Quality - Province of British Columbia](#)

[SO² Environmental Effects Monitoring in the Kitimat Valley - ESSA](#)

- Kitimat and Terrace have good air quality.
- The work of KAG will support the health of the community since, even when air quality is good, any improvement in air quality will yield a positive health impact in the community.
- In Health Canada's 2023 report *Health Impacts of Air Pollution from Transportation, Industry and Residential Sources in Canada*, B.C. sectors predominantly impacting all-cause air pollution-related premature mortality estimates are **home firewood burning, all on-road transportation, and off-road transportation**. However, the coastal air zone (which includes Terrace and Kitimat) has such low estimated counts of premature deaths, they did not impact the overall estimates since they are largely rural with comparably fewer sources and lower and dispersed populations.

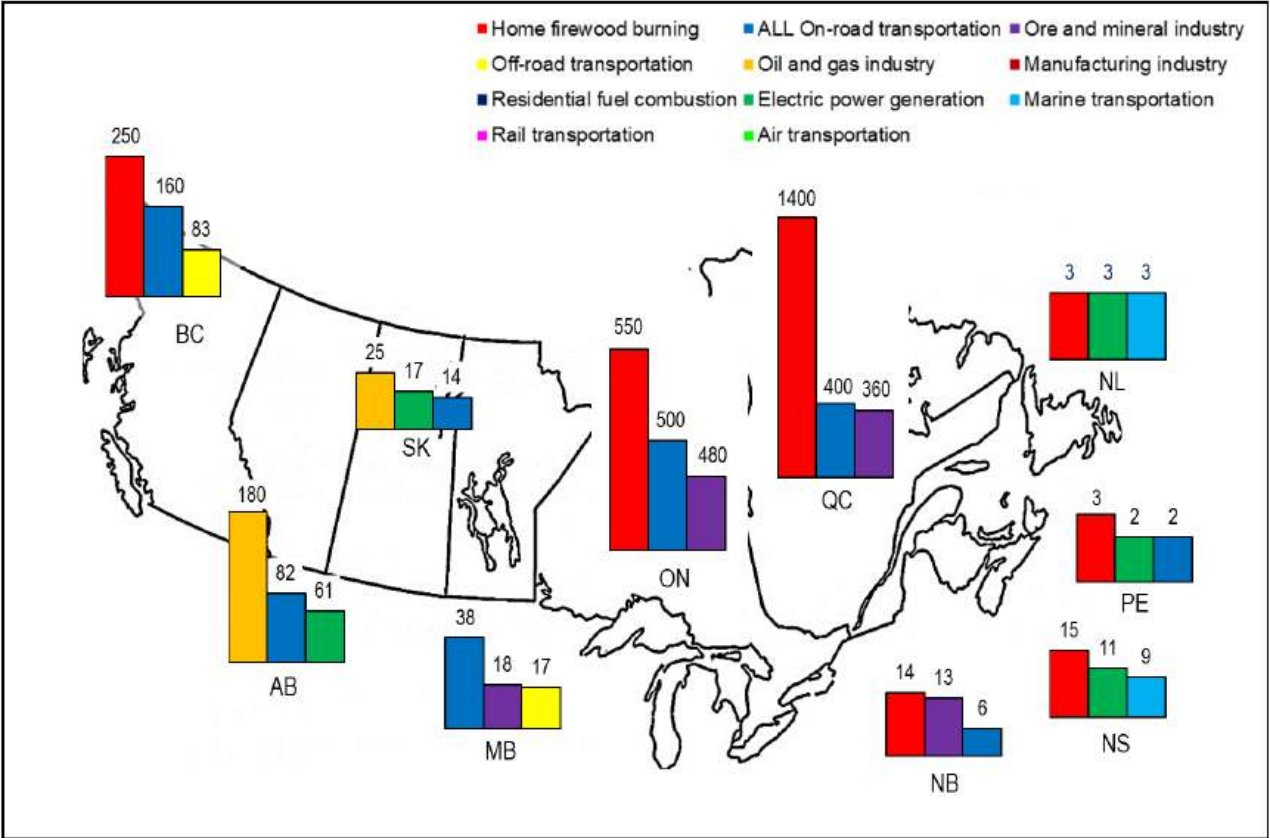


Figure 3-2 All-cause premature mortality counts (PM_{2.5}, NO₂, O₃, summer O₃) by top three sectors in each province (2015).

[Even low levels of air pollution contribute to increased health risk](#)

[Health impacts of air pollution from transportation, industry and residential sources in Canada : estimates of premature mortality and morbidity outcomes at national, provincial, territorial, and air zone levels.: H144-112/2022E-PDF - Government of Canada Publications - Canada.ca](#)

		- Even at low levels, health impacts increase, incrementally, as levels of air pollution increase. Communities may experience episodes of poor air quality that can be harmful to health and conditions can change very quickly. In northern B.C., these are predominantly driven by wildfire smoke and residential wood smoke. Communities in proximity to specific industrial sectors, such as upstream oil and gas, metal smelting, and pulp and paper, may also experience episodes of poor air quality due to elevated levels of sulphur dioxide (SO₂). - A wide body of scientific literature provides evidence that exposure to ambient air pollution is associated with adverse health effects ranging from morbidity to mortality. In B.C., it is estimated that 1,900 premature deaths annually are associated with the above-background component of ambient air pollution, with an estimated value of \$13.9 billion per year. - The BC Chronic Disease Registry, using data from 2001/2-2022/23 shows us that, generally in the northwest, the incidence of <u>asthma</u> (the number of new cases in a year) has been decreasing and the prevalence of asthma (the number of people living with the condition each year) has been increasing which can mean that people are living longer with the illness. There are many different risk factors for asthma. - The BC Chronic Disease Registry, using data from 2001/2-2022/23 shows us that, generally in the northwest, there is variability in the incidence rates for <u>chronic obstructive pulmonary disorder (COPD)</u> over time and COPD prevalence is notably higher in the Northern Health population and has been continuing to rise over time. Notably, Northern Health has the highest COPD prevalence among all BC health authorities and is the only health authority seeing a continuing increase in rates over time. While several modifiable risk factors contribute to COPD, in 80% to 90% of COPD cases, cigarette smoking is the principal underlying cause. - As knowledge users, we encourage partners who initiate air quality and health impact assessment research since knowledge and research gaps exist in northern rural remote communities. At the same time, we recognize that smaller rural and remote communities present unique barriers or challenges in health research due to small numbers, statistical power, limits in health data, and confounding factors. - Since many pollutants are not source specific but often have multiple sources, it can be difficult to accurately estimate the contribution of specific sources to total pollutant concentrations.	2021 BC Lung Foundation State of the Air Report Health Impacts of Air Pollution in Canada 2021 Report - Canada.ca Chronic Respiratory Disease (Asthma/COPD) in the Kitimat Region Presentation to the Kitimat Airshed Group, June 24, 2025 Chronic Disease Dashboard Chronic Obstructive Pulmonary Disease (COPD) - Canada.ca NCCEH, 2011, Air Quality Assessment Tools: A Guide for Public Health Practitioners
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	Air Quality Health Index (AQHI)	- The Air Quality Health Index (AQHI) is a tool designed to inform Canadians about air quality conditions in their community and how these conditions may affect their health with recommendations to protect their health. - The AQHI is calculated based on the relative risks of a combination of common air pollutants that are known to harm human health. These pollutants are: - ozone (O₃) at ground level - particulate matter (PM_{2.5}) - nitrogen dioxide (NO₂). - AQHI is measured on a scale ranging from 1-10+ - An adjustment to the AQHI, called AQHI-Plus, has been developed using only PM2.5 data to improve the accuracy of the reported health risk from smoke. In B.C., both the AQHI and the AQHI-Plus are calculated hourly and the highest of the two values is reported. - The AQHI-Plus for SO₂ is reported in Kitimat to alert the public to those levels of SO₂ that may affect the general population as well as persons with chronic respiratory conditions like asthma. - The highest of the three-pollutant AQHI, the AQHI-Plus for PM_{2.5} and the AQHI-Plus for SO₂ are reported as the “AQHI” value.	Air Quality Health Index - Province of British Columbia Health Impacts of Air Pollution in Canada 2021 Report - Canada.ca Kitimat SO2 Alert Pilot Project - Province of British Columbia
State of the Terrace-Kitimat Airshed		- Data regarding B.C. air quality warnings from June 2025 to present indicate that while many northern BC communities have experienced multiple air quality warnings due to wildfire smoke and other air quality pollutants, Kitimat and Terrace have not experienced air quality warnings in this period. - The ‘State of B.C.’s Air Quality (2020-2022)’ air zone report shows management levels increasing in severity from green (keep clean areas clean) to red (achieve CAAQS). Kitimat and Terrace have good air quality that should be maintained. - PM2.5: Kitimat is green and Terrace is yellow (prevent air quality deterioration) - Ozone: Kitimat and Terrace are green - NO2: Kitimat is green and Terrace is yellow - SO2: Kitimat and Terrace are green - In the last 5 annual BC Lung Foundation State of the Air reports, bar graphs show that Kitimat and Terrace have had lower levels of PM2.5, O3, NO2, and SO2 compared to many other B.C. communities monitored. For example, in 2024 the Kitimat-Whitesail monitor had the lowest annual average NO2 than all monitored sites in the report. - The robust monitoring network in Kitimat will enable KAG to see what is happening as industrial development expands in the region. To date, there have been no air quality warnings for PM2.5, O3, NO2, or SO2 since the LNG facility start-up.	Historical warnings – Air quality warnings ENV - State of B.C.’s Air Quality (2020-2022) Air Quality – BC Lung Foundation

		- Generally in B.C., the trends of pollutants have been gradually decreasing over the last 20 years due to a variety of management actions. Wildfires are disrupting this trend as many communities are impacted by more prolonged or intense wildfire smoke seasons. To date, Kitimat and Terrace have been much less impacted by wildfire smoke than other parts of B.C. - KAG is working with Northern Health to obtain updated community health profiles.	BC Community Health Data
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