

Flaring is a routine, safe part of operating an LNG facility. This fact sheet explains how predicted air quality and human health effects from facility and flaring emissions were assessed.

Detectable vs. harmful

Flaring may be visible, audible or measurable during certain operating conditions, but that does not mean it will cause harmful effects to human health. Air quality modelling looks at whether emissions could exceed **health-based air quality objectives** where people live, work and gather — not just whether emissions can be detected.

What the modelling shows

Modelling completed by Stantec indicates air emissions are greatest at or near the facility and rapidly decrease as you move away. Levels in nearby communities — such as Squamish, Britannia Beach and Stá7mes — are expected to remain well below the B.C. Air Quality Objectives and other accepted guidelines. These objectives are specifically designed to protect human health and the environment.

Potential impacts

Predicted volatile organic compound (VOC) concentrations in surrounding communities are far below applicable screening levels — in some cases **1,000 to 1,000,000 times lower**. This holds across every scenario assessed: commissioning, steady-state operations and unplanned events.

Maximum predicted hourly values of nitrogen dioxide (NO₂) and sulphur dioxide (SO₂) in nearby communities are below World Health Organization guidelines and B.C. Air Quality Objectives, so human health risks are expected to be negligible.



Detectable ≠ Harmful

Two different questions, assessed separately



Detectable

Can be seen, heard or measured



Harmful

Exceeds health-based air quality objectives

Flaring can be detectable without being harmful — modelling assesses the second question, not just the first.

Scientific assessments

Modelling supporting the Environmental Assessment Certificate application, along with more recent modelling for the Waste Discharge Authorization (WDA) permit application, was completed by Stantec — a qualified environmental consulting firm with extensive experience assessing air quality and human health effects for industrial and LNG facilities.

Air quality modelling was carried out across a 40 km × 40 km area around Woodfibre LNG to understand how emissions may disperse in the region. The assessment included receptor points in surrounding communities and population centres.

Communities assessed

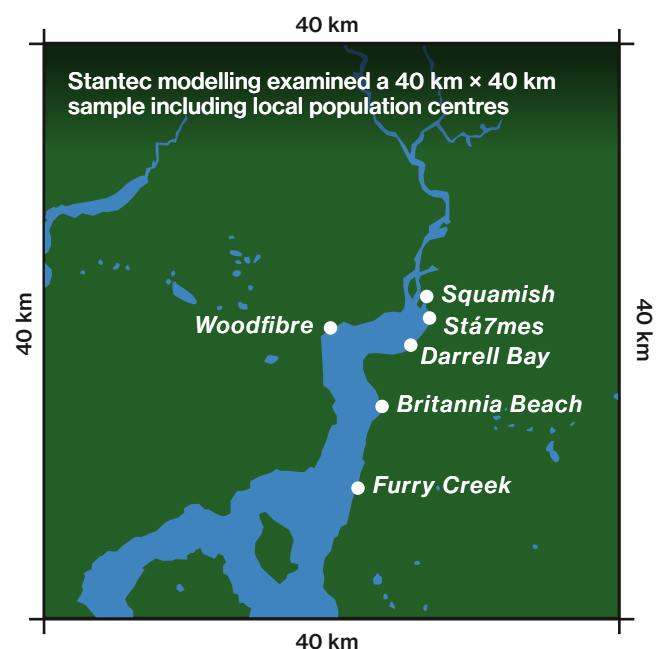
Britannia Beach

Darrell Bay

Furry Creek

Squamish

Stá7mes



Pollutants Assessed at Each Location

Nitrogen Oxides (NO_x)

Sulphur Dioxide (SO₂)

Fine Particulate Matter (PM_{2.5})

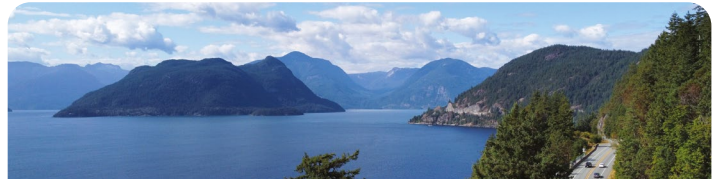
Carbon Monoxide (CO)

Volatile Organic Compounds (VOCs)

Regulatory Thresholds & Oversight

Woodfibre LNG's WDA permit application is built on external air quality dispersion modelling – covering NO_x, SO₂, PM_{2.5} and CO from several flaring scenarios – based on five years of meteorological data from the area. Skwxwú7mesh Úxwumixw have been consulted in developing the application and remains an important collaborator; the BC Energy Regulator (BCER) will also engage with Skwxwú7mesh Úxwumixw to inform its permit decision. In accordance with the Environmental Assessment Certificate (EAC), Woodfibre LNG will

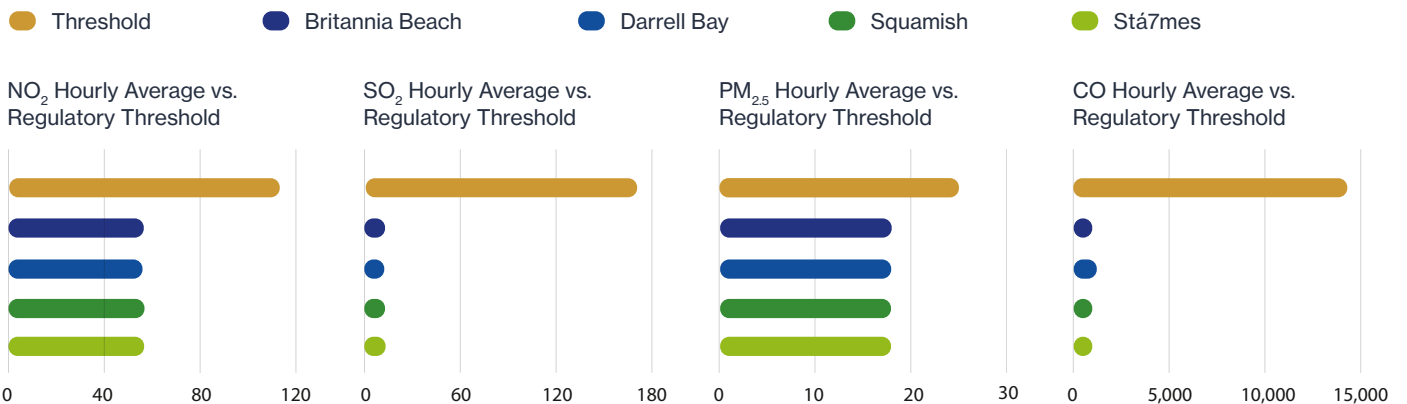
develop an Air Quality Mitigation and Monitoring Plan (AQMMP) in consultation with the BCER, Skwxwú7mesh Úxwumixw, B.C. Ministry of Environment and Parks, B.C. Ministry of Health, Vancouver Coastal Health and Tsleil-Waututh Nation, and will have it in place prior to commencement



Putting Emissions in Context

Nearby residents are already exposed to more emissions (volatile organic compounds and hydrocarbons) from everyday local sources – like cars, trucks, boats, home heating and businesses – than they would be from the Woodfibre LNG facility.

Modelling Results for Air Emissions in Nearby Communities – Process Upset Case with Pre-Existing Conditions in Surrounding Environment (measured in µg/m³)



Questions or Feedback?

For up-to-date information on flaring at Woodfibre LNG, visit woodfibrelng.ca/flaring. Share your feedback on flaring notifications and communications at info@wlng.ca.

