

A scenic landscape featuring a river, a bridge, a town, and mountains under a blue sky with clouds. The image is split into two main sections. The left section is a dark blue triangle containing white text. The right section is a photograph of a river flowing through a valley. A bridge crosses the river in the foreground. In the background, there is a town with many houses, a green field, and mountains covered in trees. The sky is blue with white clouds.

Teck

AIR QUALITY IMPROVEMENT PROGRAMS

2026 UPDATE TO THEC

10 September 2026

Keith Klimchuk

Tim Moore

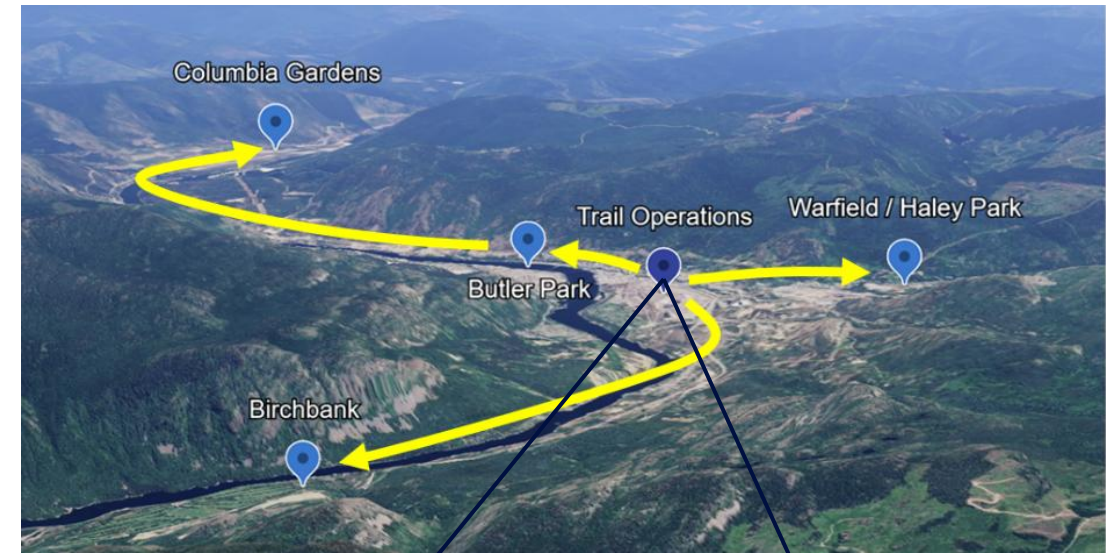
SO₂ REDUCTION PROGRAM UPDATE

OUTLINE

- **Trail Operations and SO₂**
- **SO₂ Emissions Reductions**
- **SO₂ Ambient Performance**
- **SO₂ Ambient Performance Initiatives**

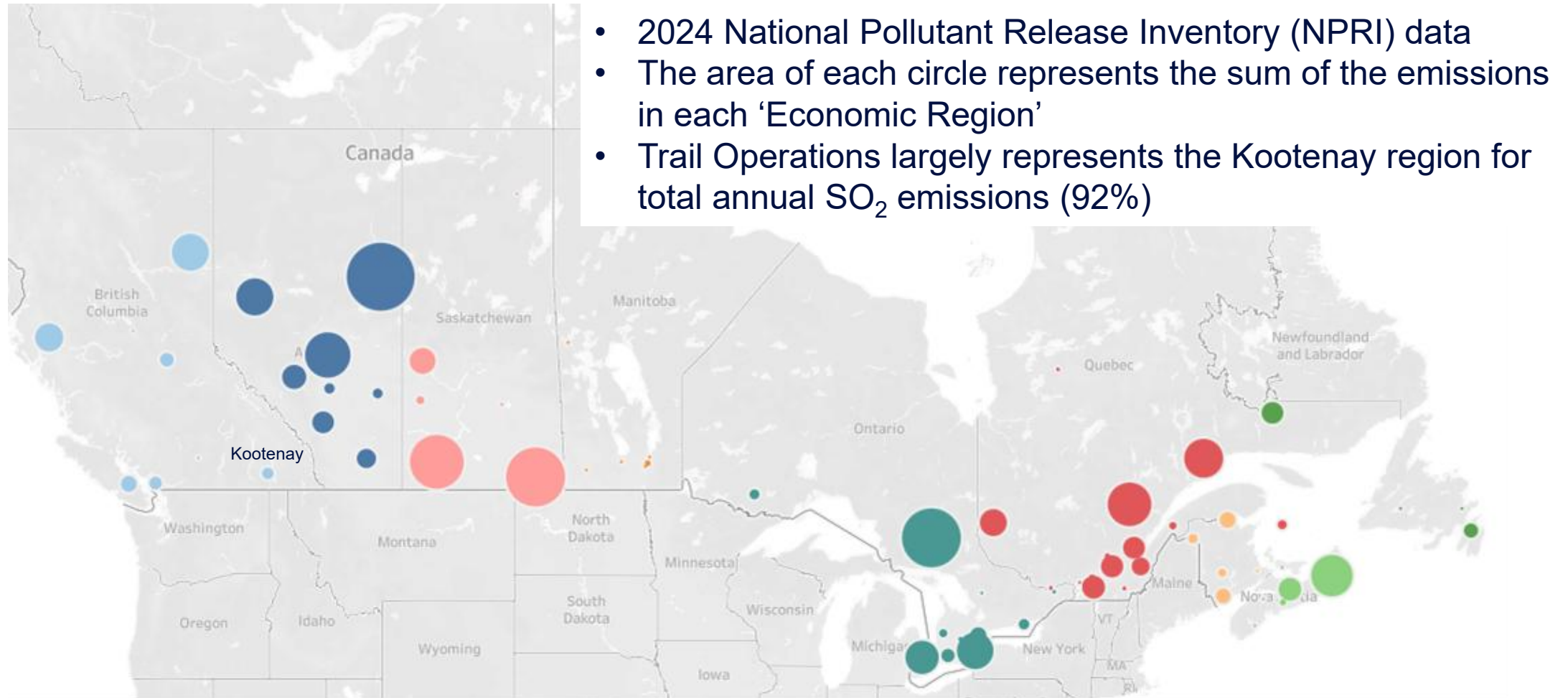
TRAIL OPERATIONS AND SO₂

- Trail Operations captures > 99% sulphur; meets federal Base-Level Industrial Air Emissions Requirements (BLIERS) for a new plant
- Location, weather and topography constrain dispersion of emissions
- Permit limits for ambient SO₂ levels were lowered in January 2021, and further lowered in May 2024
- SO₂ Reduction Program has been underway since 2016 to implement measures to lower emissions and achieve the new permit limits
- Annual SO₂ Improvement Plan update submitted to ENV in March 2026

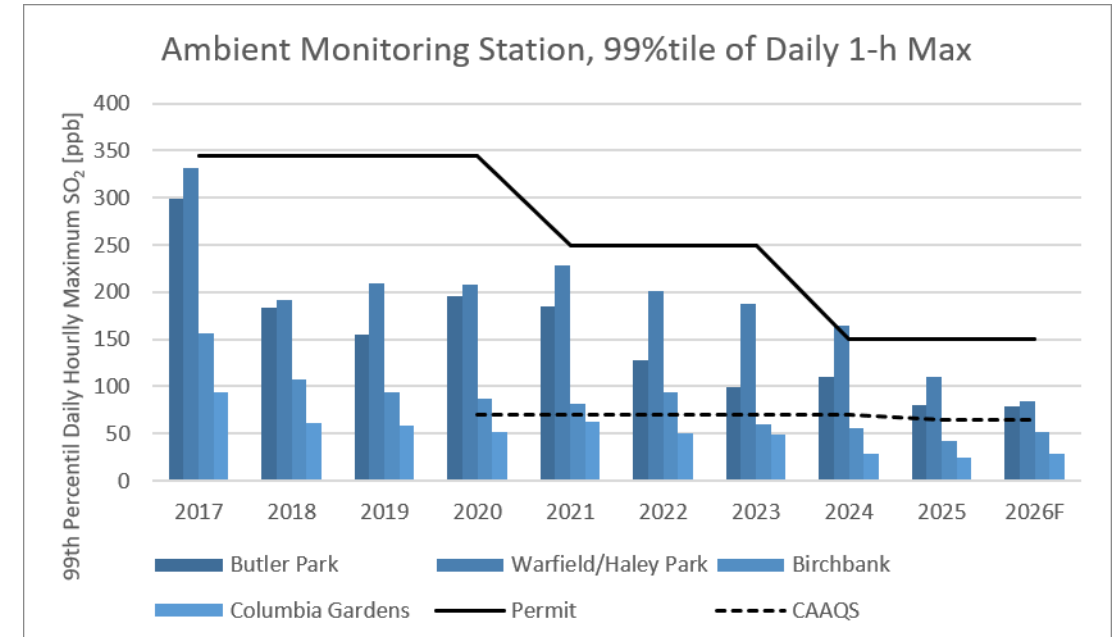
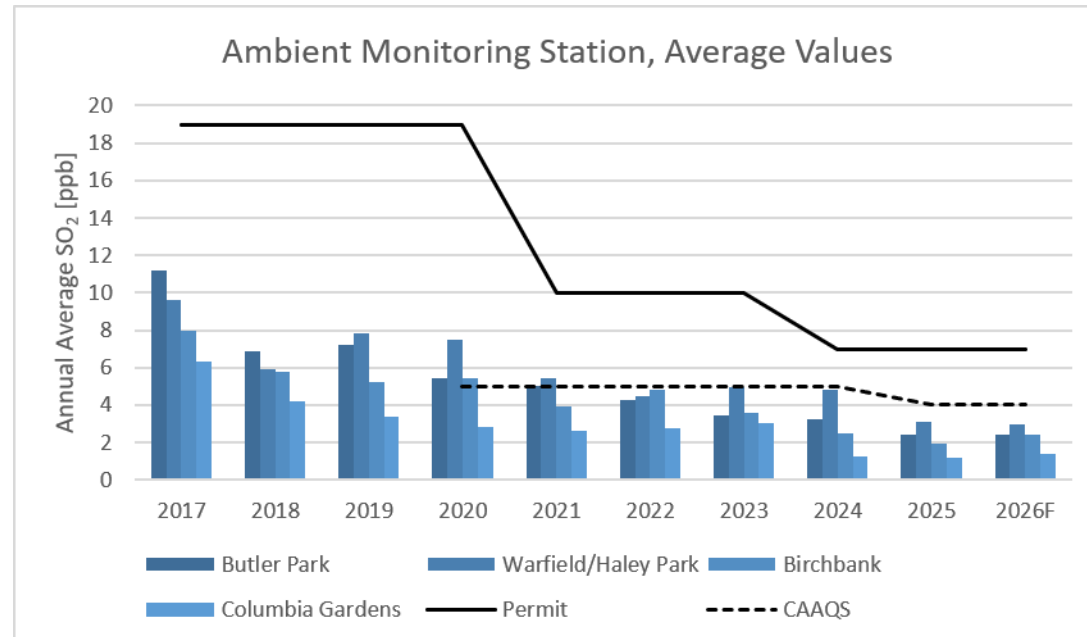


CANADIAN SO₂ EMISSIONS CONTEXT

Trail Operations emissions are low compared to other industrial areas in Canada



SO₂ AMBIENT PERFORMANCE – 2026 UPDATE



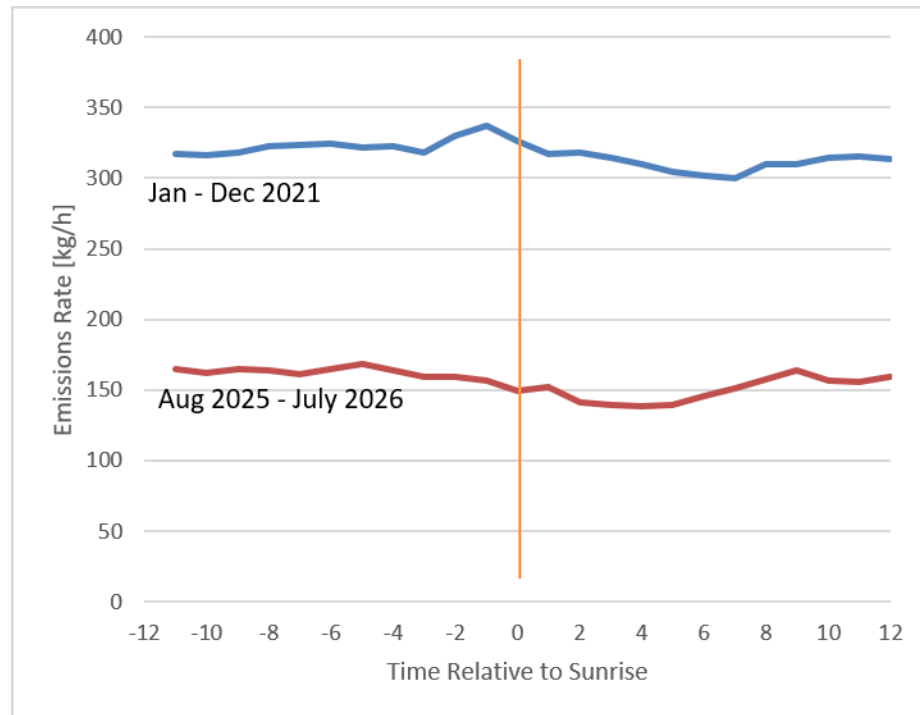
Warf/HP = Warfield Haley Park, BP = Butler Park, BB = Birchbank, CG = Columbia Gardens, Permit = Air Permit, CAAQs = Canadian Ambient Air Quality Standards

- Ambient SO₂ levels at the community monitoring stations have fallen over time and are below permit limits
- Reduction in average emissions and control strategy has shown to be effective (see next slide)
 - Based on the results, Teck recently (July 2026) retracted our permit amendment request to adjust permit levels at Haley Park – application was submitted in May 2025 and discussed with THEC.

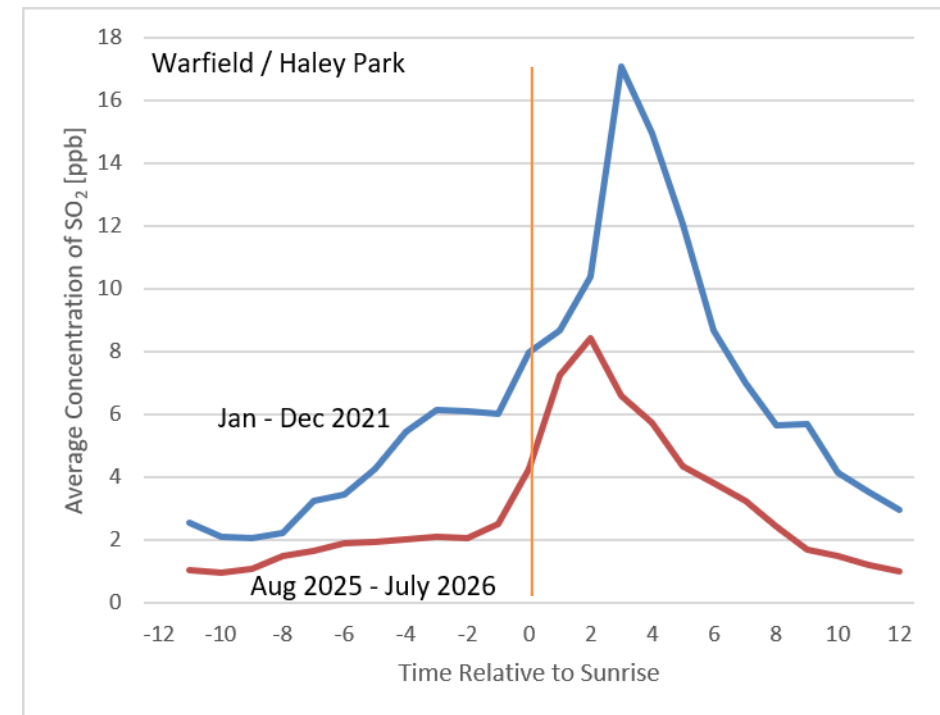
SO₂ AMBIENT PERFORMANCE - IMPACT OF DAILY WEATHER CYCLE

Variation in mid-morning peaks are driven by weather, not emissions rates

Average Total SO₂ Emissions



Average Ambient Levels



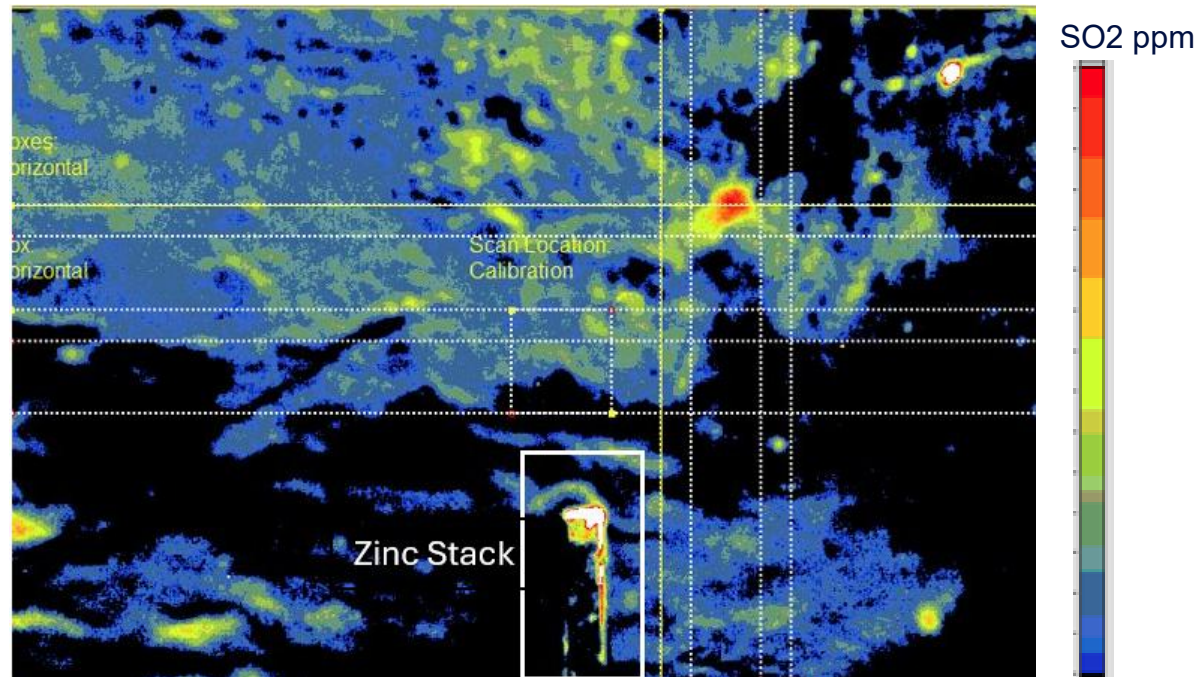
Reduction in average emissions and control have reduced peaks significantly.

SO₂ CAMERA TECHNOLOGY TRIAL

Trial was initiated in August 2026. Camera provides real-time monitoring of SO₂ propagation from site to community.

Results may:

- Help to understand the influence of weather on SO₂ transport
- Support SO₂ improvement initiatives.



SO₂ monitoring of Zinc Stack
September 4, 2026 10:30-11:00 am



PORTABLE SO₂ MONITORING

New portable SO₂ sensors at Haley Park
Calibrated against reference station sensor
December 2025 – June 2026



Installation of portable SO₂ sensors at 5 additional
locations in September 2026
Data collection for 1 year



FUGITIVE DUST REDUCTION PROGRAM UPDATE

OUTLINE

- **Fugitive Dust Overview**
- **Lead in Air and Children's Blood Lead Over Time**
- **Fugitive Dust Reduction – Current Initiatives**

WHAT IS FUGITIVE DUST AND WHY ARE WE TALKING ABOUT IT?

Fugitive dust is dust that escapes from stockpiles, open handling of materials, buildings and vehicle traffic on/offsite

Fugitive dust is a source of lead in airborne dust



Analysis conducted in Trail identified a correlation between children's blood lead and lead in airborne dust.

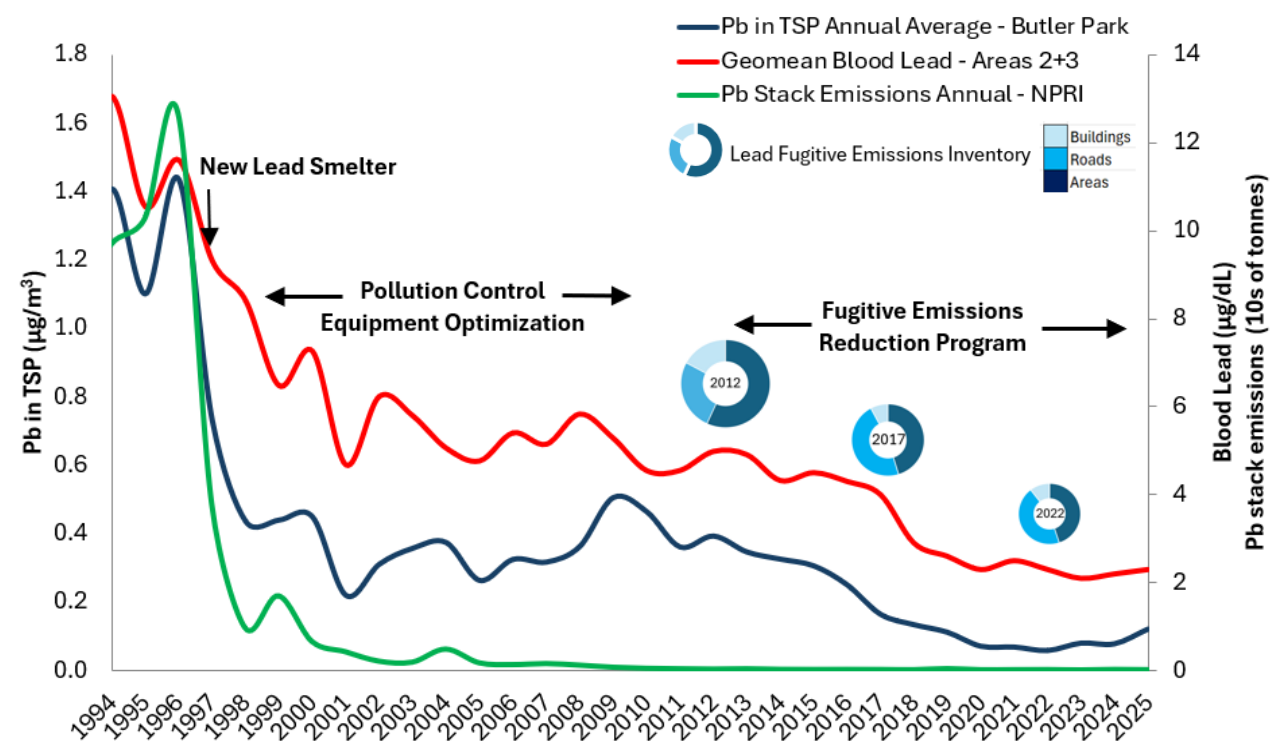


LEAD IN AIR AND CHILDREN'S BLOOD LEAD TRENDING

Trail Operations remains focused on reducing dust emission to continue to reduce levels of lead in community air.

Air quality improvements over three decades have been a key driver for reducing blood lead levels among children in the community and further improvement opportunities continue to be identified and implemented through Teck's Fugitive Dust Reduction Program.

Levels of lead in community air continue to meet the US Environmental Protection Agency standard.



Placing dust suppressant for less active piles



Smelter wheel wash (2025)



Indoor material handling of Lead concentrate



Sweeper removing road dust



Wind fence to reduce wind speeds that cause dust (Phase 1, 2018, Phase 2, 2025)

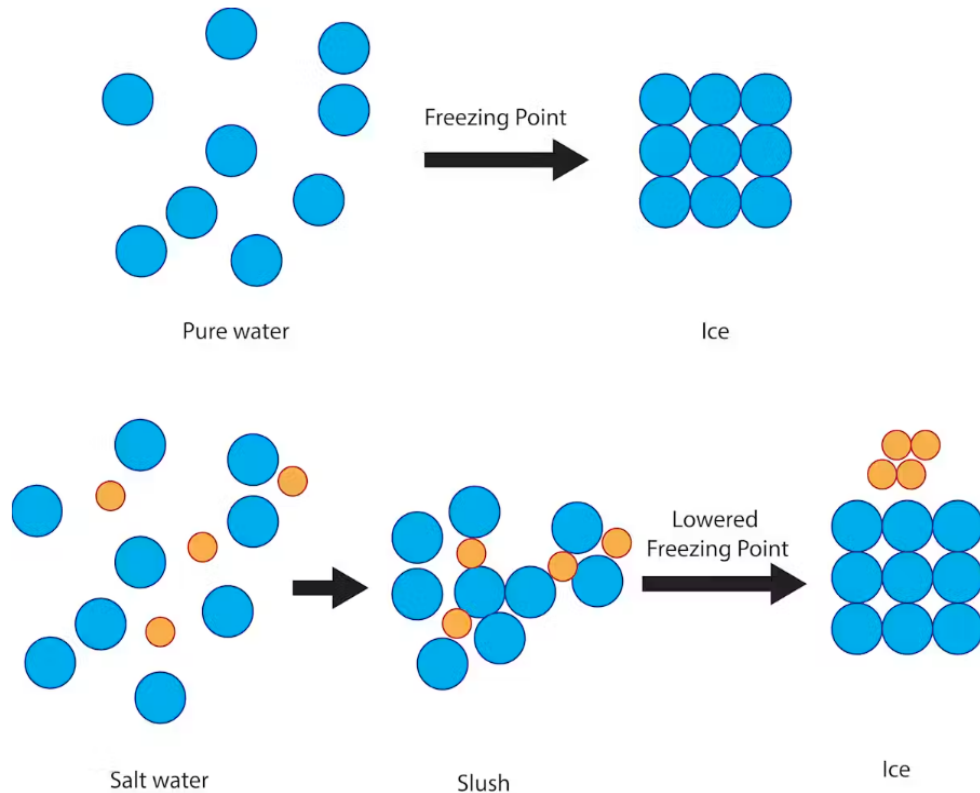


Wetting exposed piles during wind events

FUGITIVE DUST REDUCTION – CURRENT INITIATIVES

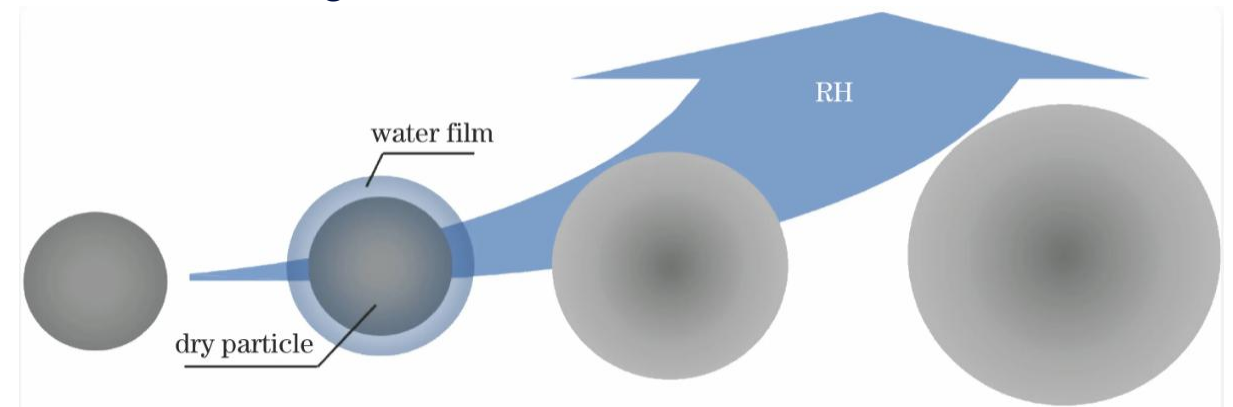
Road dust reduction – road dust suppressant for cold, dry weather

Rock salt and salt brine are applied to winter roads to prevent ice formation



Salt can also be used to suppress dust

- The active ingredient is calcium chloride, CaCl_2
 - It absorbs moisture from air that wets the surface and surrounds dust particles to make them heavier and resistant to dusting
 - It can dry out during the day at lower levels of moisture in air but then regenerates over night at high moisture levels



FUGITIVE DUST REDUCTION – CURRENT INITIATIVES

Road dust reduction – road dust suppressant for cold, dry weather

Testing January to March 2026

- Local Contractor – Dynamic (Castlegar)
- Applied RoadGuard+ solution
 - Binder – molasses
 - Active ingredient, calcium chloride

RoadGuard+ applied on January 26, 2026



FUGITIVE DUST REDUCTION – CURRENT INITIATIVES

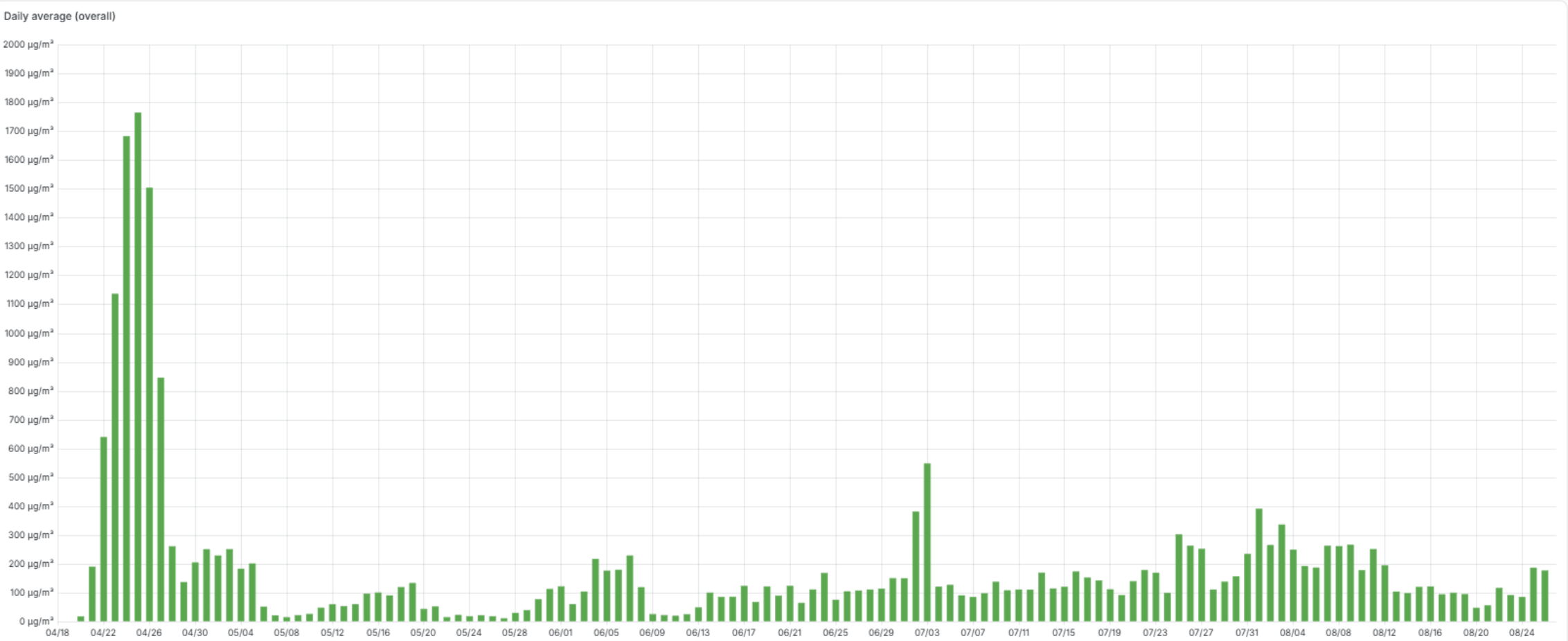
Real-time dust monitoring
42 sensors installed at Lead Operations (April 2026)

VersaSense dust
sensor



FUGITIVE DUST REDUCTION – CURRENT INITIATIVES

Lead Operations Overall Dust Daily Average – April 2026 to current



FUGITIVE DUST REDUCTION – CURRENT INITIATIVES

New air monitoring stations

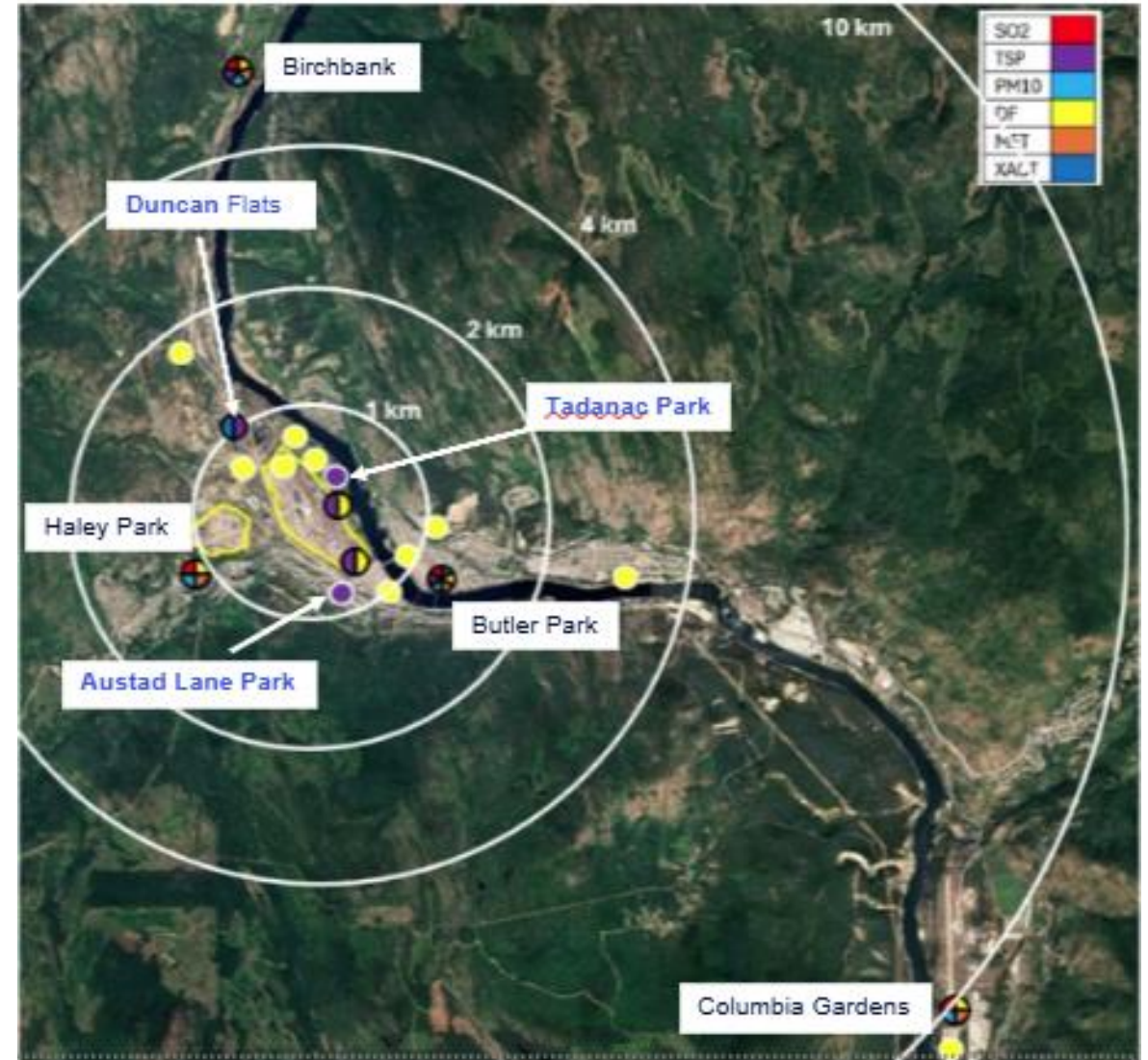
3 new air quality monitoring stations will be added to the community monitoring network in 2027:

- Duncan Flats
- Tadanac Park
- Austad Lane Park (West Trail)

The new stations will:

- Monitor Total Suspended Particulate (airborne dust) and associated metals such as arsenic, zinc, and lead
- Increase data at near field locations (500-1,000m from site)

Similar stations exist at Birchbank, Butler Park, Haley Park, and Columbia Gardens



FUGITIVE DUST REDUCTION – CURRENT INITIATIVES

New air monitoring stations – installation plans



ECCC-TECK AGREEMENT RENEWAL



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RENEWAL OF ENVIRONMENTAL PERFORMANCE AGREEMENT CONCERNING AIR POLLUTANTS FROM BASE METAL FACILITIES

- **Environment and Climate Change Canada (ECCC)** holds **voluntary** agreements with base metal smelting and refining companies: **Teck, Vale, Glencore, and Hudbay Minerals**
- ECCC is in the process of **renewing the prior 2018 Agreements** and has sought initial company feedback
- Main renewal purpose is to continue implementing **targets for particulate matter emission intensity and sulphur capture rate**
- **Teck continues to meet all requirements** of the 2018 Agreement
- **Benefits of renewal** include ongoing collaboration with other smelting and refining companies through site visits, working groups, and discussion forums
- ECCC is proposing the **renewed agreements would be similar to the 2018 Agreements.**
 - Annual SO₂ capture rate, 95% (no change planned)
 - Annual PM emissions intensity, 2 kg/tonne (no change planned)
 - Update of Code of Practice (new)
 - Update to technical source appendix (if needed)
- As part of its public consultation process, ECCC reached out to THEC/THEP to invite comments by **September 30, 2026**. Comments to be sent to mmp-tmm@ec.gc.ca

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THANK YOU
QUESTIONS?