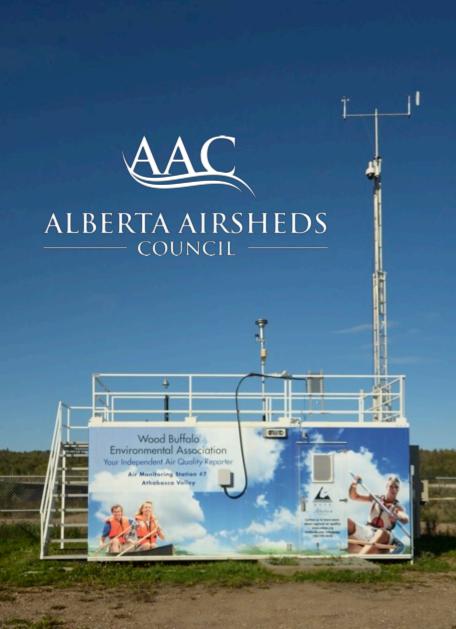


ALBERTA AIRSHEDS

Alberta Airsheds Council Update



Airsheds serve in the public interest by:

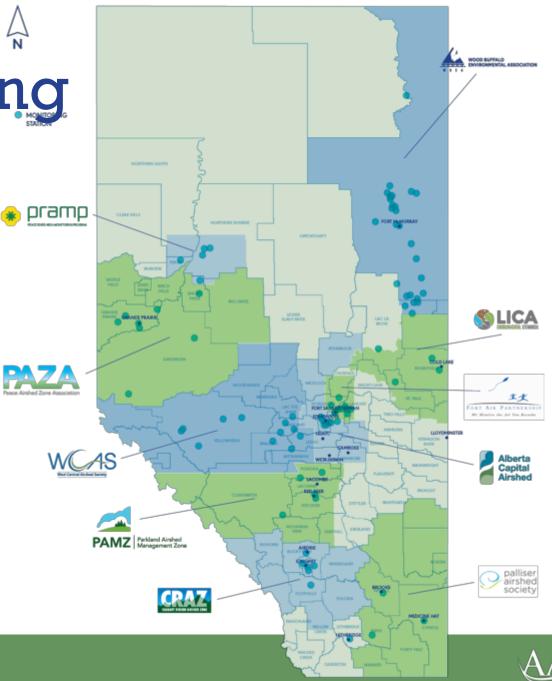
- meeting or exceeding the highest air monitoring standards
- ensuring unbiased data and analysis is available to all stakeholders and partners
- being responsive to community concerns
- raising awareness through community engagement and education



Air Quality Monitoring

Where we Monitor

- 10 Airsheds
- 88 continuous monitoring stations
- Hundreds of other monitoring sites measuring a variety of air quality parameters using an assortment of monitoring technologies

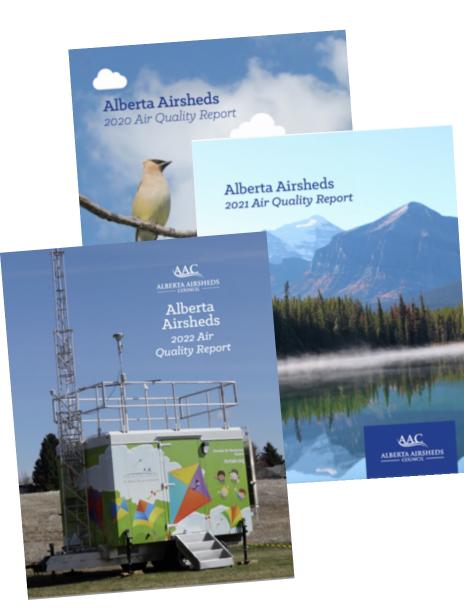


Innovative Air Education Program (IAEP)



- 1. Alberta Environment (EPA) asked AAC to take on the project and provided \$300K grant.
- 2. Goal: Reduce NOx emissions in Alberta, and particularly in urban areas.
- 3. ZGM has been retained (RFP process) to develop education and social change campaign.





Education and Outreach

The AAC prepares annual **Alberta Airsheds Air Quality Reports** that provide a summary of the air quality data collected and verified by Alberta's Airsheds, on behalf of all of Alberta's air quality stakeholders and partners.

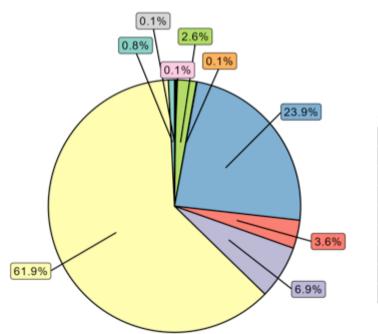




2022 Air Quality Monitoring Profiles

- Description of impacts to human health of four common air pollutants (NO₂, PM_{2.5}, SO₂, O₃)
- Sources of common air pollutants using pie charts
- Air quality data from continuous monitoring stations using graphs displaying annual averages and 95th percentile markers

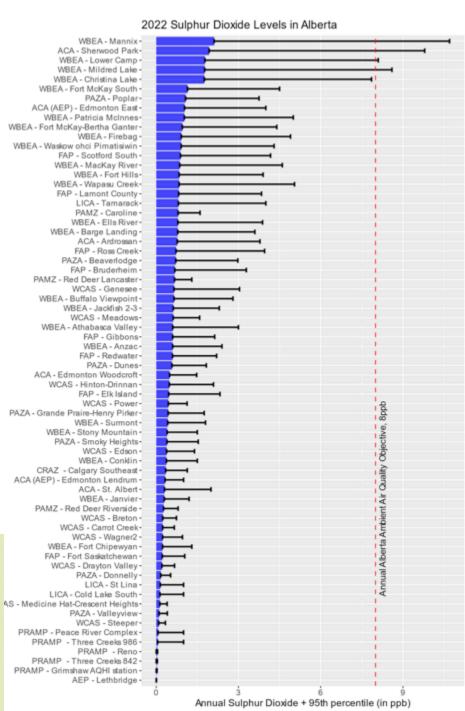


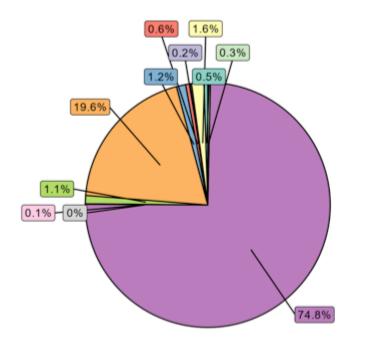


Source (ABAir Pollutant Emissions Inventory)

- Ore and Mineral Industries
- Oil and Gas Industry
- Electric Power Generation
- Manuf acturing
- Transportation and Mobile Equipment
- Agriculture
- Commercial, Residential, Institutional
- Incineration and Waste
- Fires (perscribed, structural)

2022 NO₂ Profiles





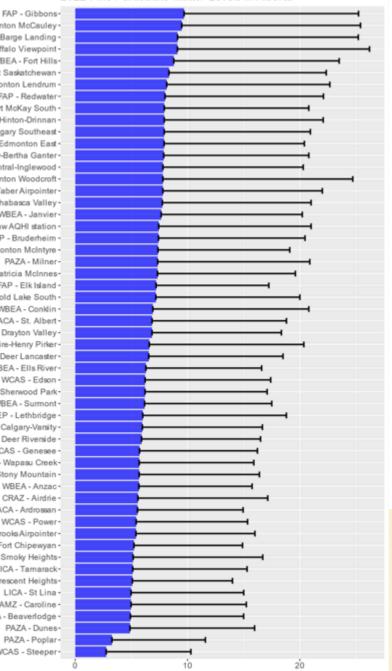
Source (ABAir Pollutant Emissions Inventory)

Ore and Mineral Industries Oil and Gas Industry Electric Power Generation Manuf acturing Transportation and Mobile Equipment Agriculture Commercial, Residential, Institutional Incineration and Waste Paints and Solvents Dust (roads, construction, tailings) Fires (perscribed, structural)

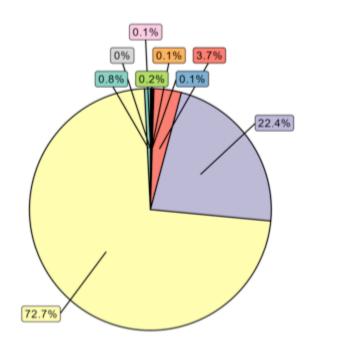
2022 PM_{2.5} Profiles

ACA - Edmonton McCauley -WBEA - Barge Landing -WBEA - Buffalo Viewpoint -WBEA - Fort Hills-FAP - Fort Saskatchewan -ACA (AEP) - Edmonton Lendrum -FAP - Redwater -WBEA - Fort McKay South -WCAS - Hinton-Drinnan -CRAZ - Calgary Southeast -ACA (AEP) - Edmonton East -WBEA - Fort McKay-Bertha Ganter -CRAZ - Calgary Central-Inglewood -ACA - Edmonton Woodcroft -PAS - Taber Airpointer -WBEA - Athabasca Valley -WBEA - Janvier -PRAMP - Grimshaw AQHI station -FAP - Bruderheim -ACA (AEP) - Edmonton McIntyre -PAZA - Milner-WBEA - Patricia McInnes-FAP - Elk Island -LICA - Cold Lake South -WBEA - Conklin -ACA - St. Albert -WCAS - Drayton Valley -PAZA - Grande Praire-Henry Pirker -PAMZ - Red Deer Lancaster -WBEA - Ells River-WCAS - Edson -ACA - Sherwood Park-WBEA - Surmont -AEP - Lethbridge -CRAZ - Calgary-Varsity -PAMZ - Red Deer Riverside -WCAS - Genesee -WBEA - Wapasu Creek-WBEA - Stony Mountain -WBEA - Anzac -CRAZ - Airdrie -ACA - Ardrossan -WCAS - Power-PAS - Brooks Airpointer -WBEA - Fort Chipewyan -PAZA - Smoky Heights-LICA - Tamarack-AS - Medicine Hat-Crescent Heights-LICA - St Lina -PAMZ - Caroline -PAZA - Beaverlodge -PAZA - Dunes-PAZA - Poplar-WCAS - Steeper-

2022 Fine Particulate Matter Levels in Alberta



Annual Fine Particulate Matter + 95th percentile (in µg/m³)

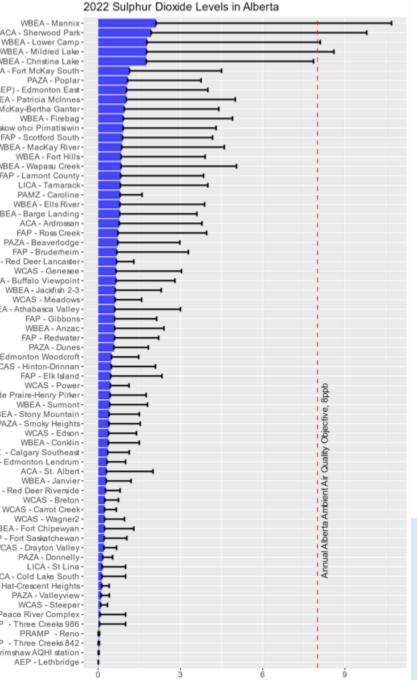


Source (AB Air Pollutant Emissions Inventory) Ore and Mineral Industries Oil and Gas Industry Electric Power Generation Manuf acturing Transportation and Mobile Equipment Agriculture Commercial, Residential, Institutional Incineration and Waste

Fires (perscribed, structural)

2022 SO₂ Profiles

WBEA - Mannix -ACA - Sherwood Park-WBEA - Lower Camp -WBEA - Mildred Lake -WBEA - Christina Lake -WBEA - Fort McKay South -PAZA - Poplar-ACA (AEP) - Edmonton East -WBEA - Patricia McInnes-WBEA - Fort McKay-Bertha Ganter-WBEA - Firebag -WBEA - Waskow ohci Pimatisiwin -FAP - Scotford South -WBEA - MacKay River-WBEA - Fort Hills-WBEA - Wapasu Creek-FAP - Lamont County -LICA - Tamarack-PAMZ - Caroline -WBEA - Ells River-WBEA - Barge Landing -ACA - Ardrossan -FAP - Ross Creek-PAZA - Beaverlodge -FAP - Bruderheim -PAMZ - Red Deer Lancaster-WCAS - Genesee -WBEA - Buffalo Viewpoint -WBEA - Jackfish 2-3 -WCAS - Meadows-WBEA - Athabasca Valley -FAP - Gibbons-WBEA - Anzac -FAP - Redwater-PAZA - Dunes-ACA - Edmonton Woodcroft -WCAS - Hinton-Drinnan -FAP - Elk Island -WCAS - Power-PAZA - Grande Praire-Henry Pirker -WBEA - Surmont -WBEA - Stony Mountain -PAZA - Smoky Heights-WCAS - Edson -WBEA - Conklin -CRAZ - Calgary Southeast -ACA (AEP) - Edmonton Lendrum -ACA - St. Albert -WBEA - Janvier -PAMZ - Red Deer Riverside -WCAS - Breton -WCAS - Carrot Creek-WCAS - Wagner2 -WBEA - Fort Chipewyan -FAP - Fort Saskatchewan -WCAS - Drayton Valley -PAZA - Donnelly -LICA - St Lina -LICA - Cold Lake South -AS - Medicine Hat-Crescent Heights-PAZA - Valleyview -WCAS - Steeper-PRAMP - Peace River Complex -PRAMP - Three Creeks 986 -PRAMP - Reno -PRAMP - Three Creeks 842 -PRAMP - Grimshaw AQHI station -AEP - Lethbridge -



Annual Sulphur Dioxide + 95th percentile (in ppb)

Air Quality Health Index (AQHI)

- Data collected by Alberta's Airsheds is used to calculate the AQHI, a real-time air quality rating which is reported in over 35 Alberta communities.
- In Alberta, all monitoring stations saw AQHI ratings in the low-risk range for 88% to 99.5% of the 2022 year, with a provincial average AQHI reading of 2.2 (based on 334,017 hours of data).

