

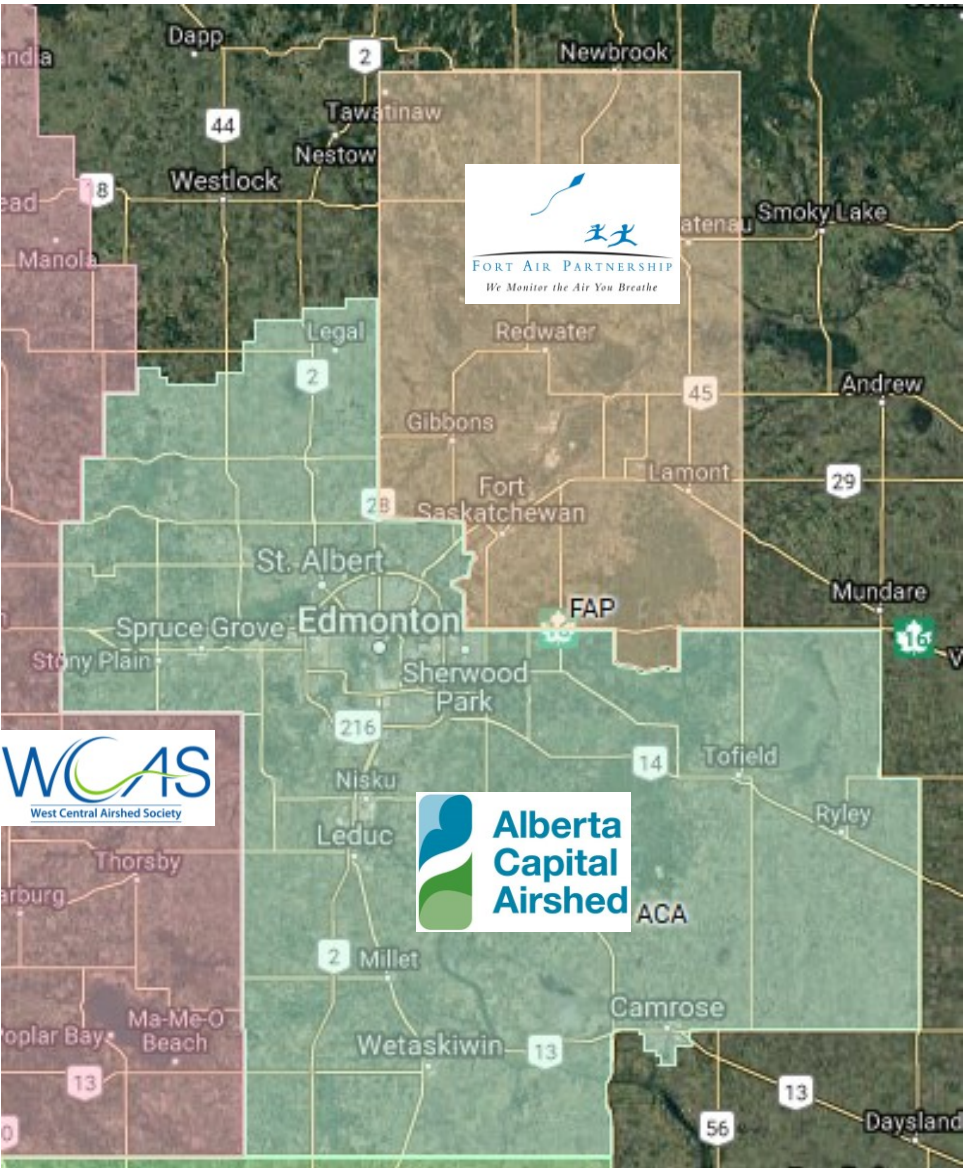
Presentation to Strathcona County Council

December 1, 2020

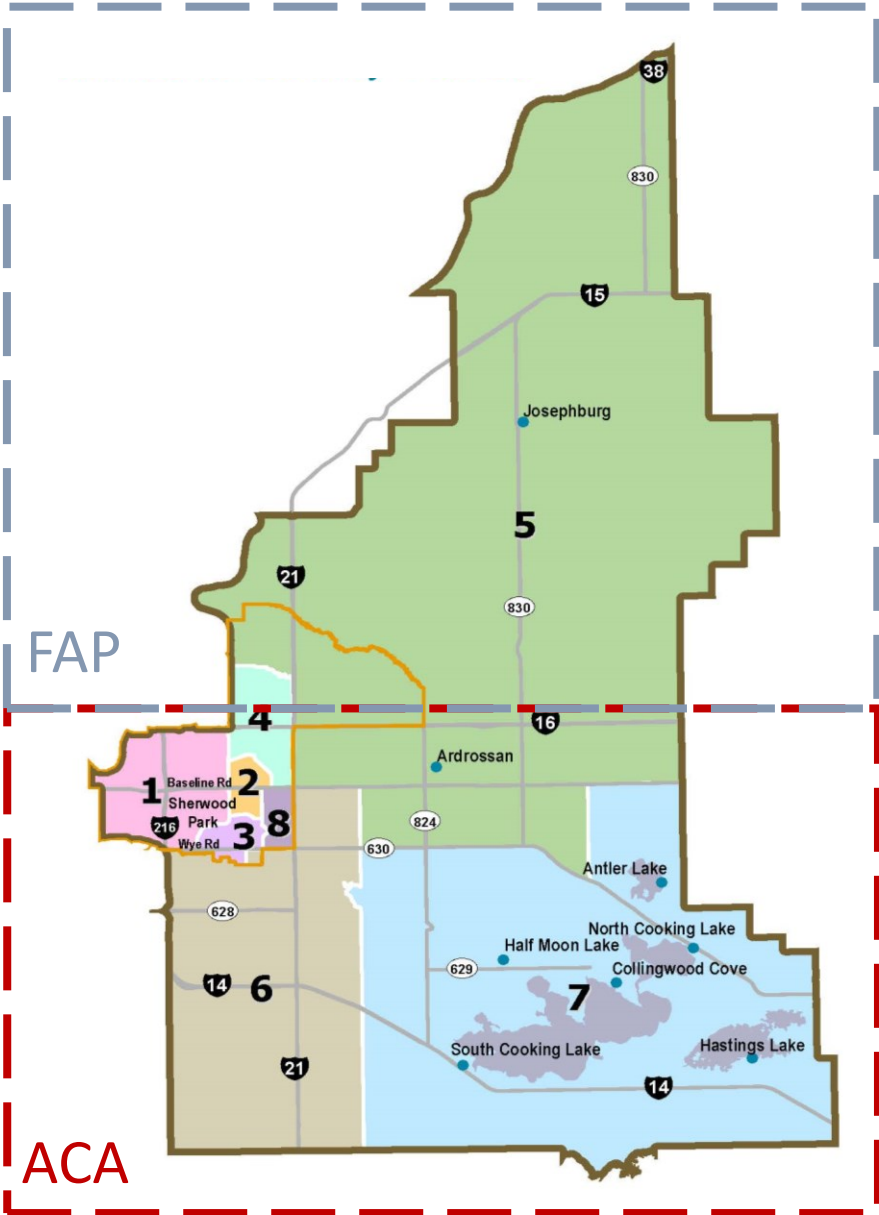
Nadine Blaney
Executive Director
Fort Air Partnership

Gary Redmond
Executive Director
Alberta Capital Airshed

Airsheds in the Capital Region



Strathcona County



Alberta's Airshed Model

Multi-Stakeholder

With participation from the community, government and industrial emitters, air quality data and information is credible and trusted by the public and other stakeholders.

Not-For-Profit

Airshed organizations operate solely for the good of the community and without competing interests. Members contribute through funding and voluntary participation. FAP is funded mostly by industry through the Northeast Capital Industrial Association, which is a partnership of industrial companies in the Industrial Heartland region, as well as from government and municipalities. ACA's funding is a mix from industry, municipalities, government and other stakeholders.

Place-Based

Airsheds are governed locally by their Board of Directors, without outside influence.

Expertise

Airsheds use scientifically defensible data collection and analysis that meets or exceeds all provincial, federal and international standards.

Cooperation

Alberta's ten Airsheds, which operate 85 continuous monitoring stations and hundreds of smaller monitoring sites, work collaboratively and support one another through the Alberta Airsheds Council, which includes a provincial Monitoring Technical Committee with representation from Alberta Environment and Parks.

Alberta's Airshed Model



Air Monitoring Sites

Continuous Monitoring

- Measure 19 substances and weather conditions
- Operate 24 hours a day, 7 days a week
- Provide real time data
- Report exceedances
- Provide data for Air Quality Health Index



Passive Monitoring

- Measure the monthly average of 2 - 3 substances
- Qualitative indicators to determine trends and future monitoring



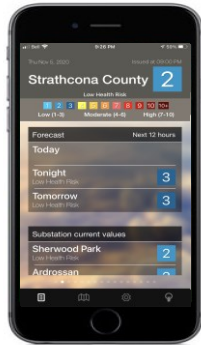
Sensor Monitoring

- Measures particulate matter and/gasses
- Operate 24 hours a day, 7 days a week
- Provides real time data
- Low cost and easy to move around



Air Monitoring Data

Air Quality Health Index

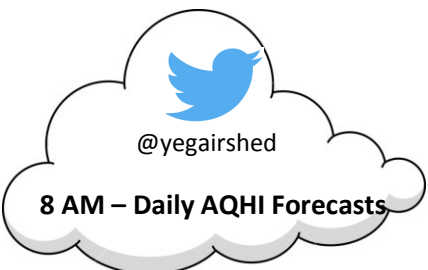
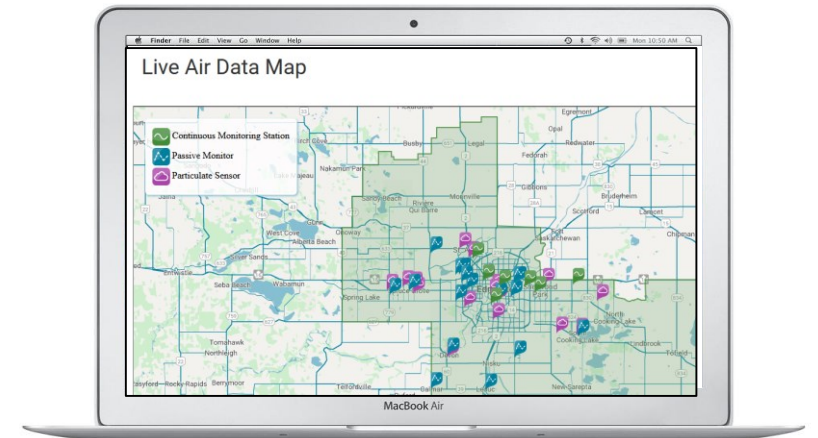


Health Risk	Air Quality Health Index	Health Messages	
		At Risk Population*	General Population
Low	1 - 3	Enjoy your usual outdoor activities.	Ideal air quality for outdoor activities.
Moderate	4 - 6	Consider reducing or rescheduling strenuous activities outdoors if you are experiencing symptoms.	No need to modify your usual outdoor activities unless you experience symptoms such as coughing and throat irritation.
High	7 - 10	Reduce or reschedule strenuous activities outdoors. Children and the elderly should also take it easy.	Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms such as coughing and throat irritation.
Very High	Above 10	Avoid strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion.	Reduce or reschedule strenuous activities outdoors, especially if you experience symptoms such as coughing and throat irritation.

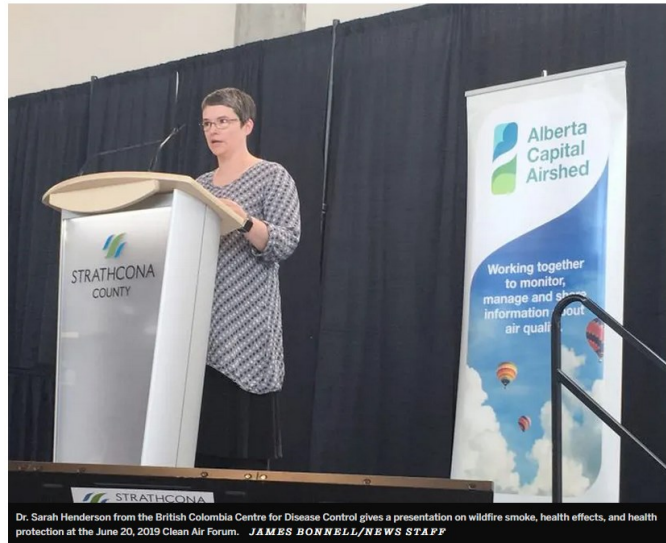
fortair.org



capitalairshed.ca



Education and Outreach



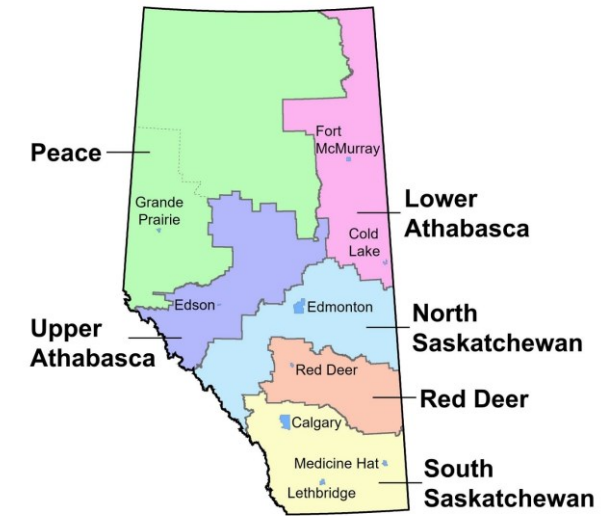
- Grade 5 CARS (Clean Air Responsible Schools Program) with Inside Education
- Launching Grade 7 (Science - Interactions and Ecosystems), Grade 9 (Science - Environmental Chemistry) and Grade 12 (Science 30 - Chemistry and the Environment) this winter.
- School Tours program
- On-line workshops with partner organizations (citizen science, air quality and agriculture, odour management)
- Building out sensors monitoring with community hosts
- Planning for Clean Air Forum 2021
- E-bulletins, Air Quality Summary Reports



Air Quality Management

Canadian Ambient Air Quality Standards (CAAQS)

- Canadian Ambient Air Quality Standards (CAAQS) are the driver for air quality management across Canada.
- CAAQS are not established to indicate whether health or environmental effects have occurred but act to give regulators a heads-up so that preventative management actions can be taken before effects are measured.
- Currently there are CAAQS metrics in place for ozone, fine particulate matter, nitrogen dioxide and sulphur dioxide.



Reduce Ambient Pollutant Concentrations below the CAAQS

Prevent CAAQS Exceedances

Prevent Air Quality Deterioration

Keep Clean Areas Clean

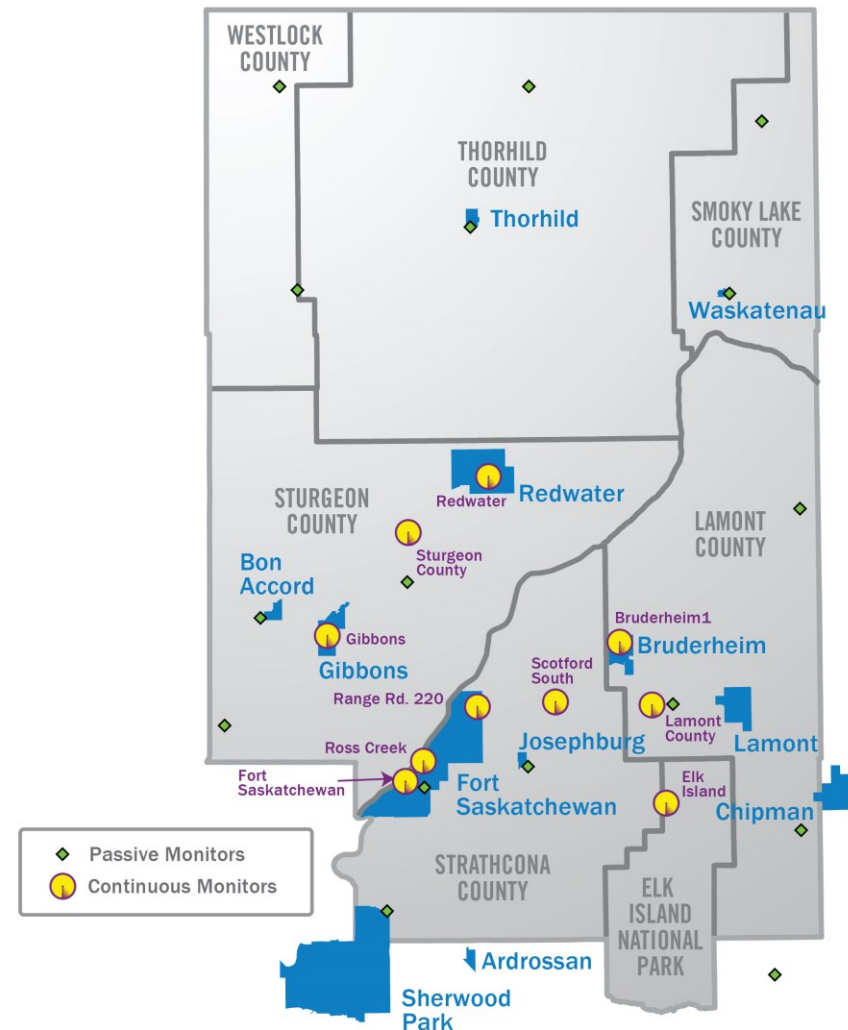


FAP Network

Boundary: 4500 km²

Monitoring Sites:

- 9 fixed continuous stations
- 1 portable station
- 16 passive sites



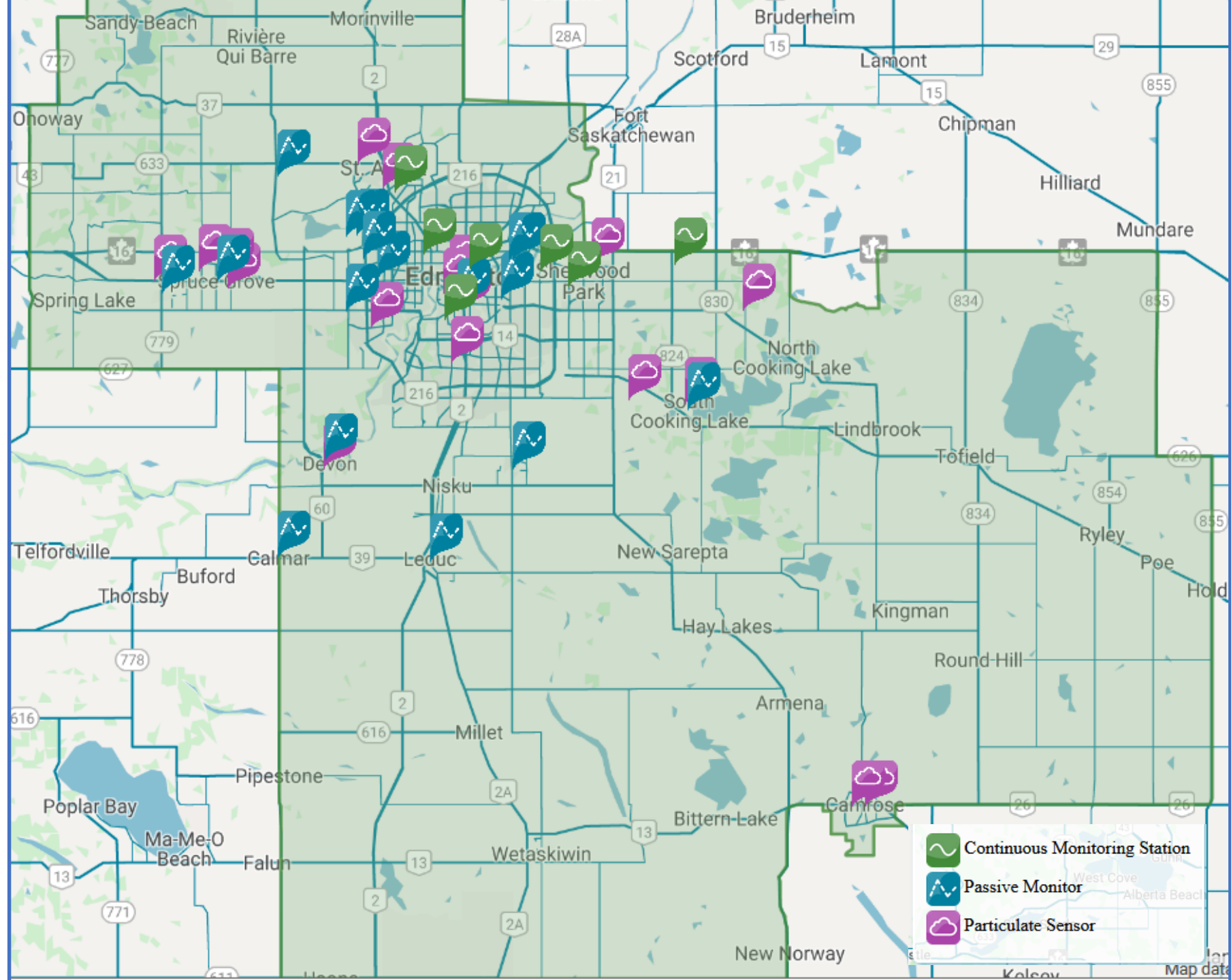
ACA Network

Boundary: 9800 km²

Monitoring Sites:

- 5 continuous stations*
- 1 portable station
(early 2021)
- 18 passive sites
- 15 sensor sites

** Not including stations in Refinery Row area,
which are industry operated stations*



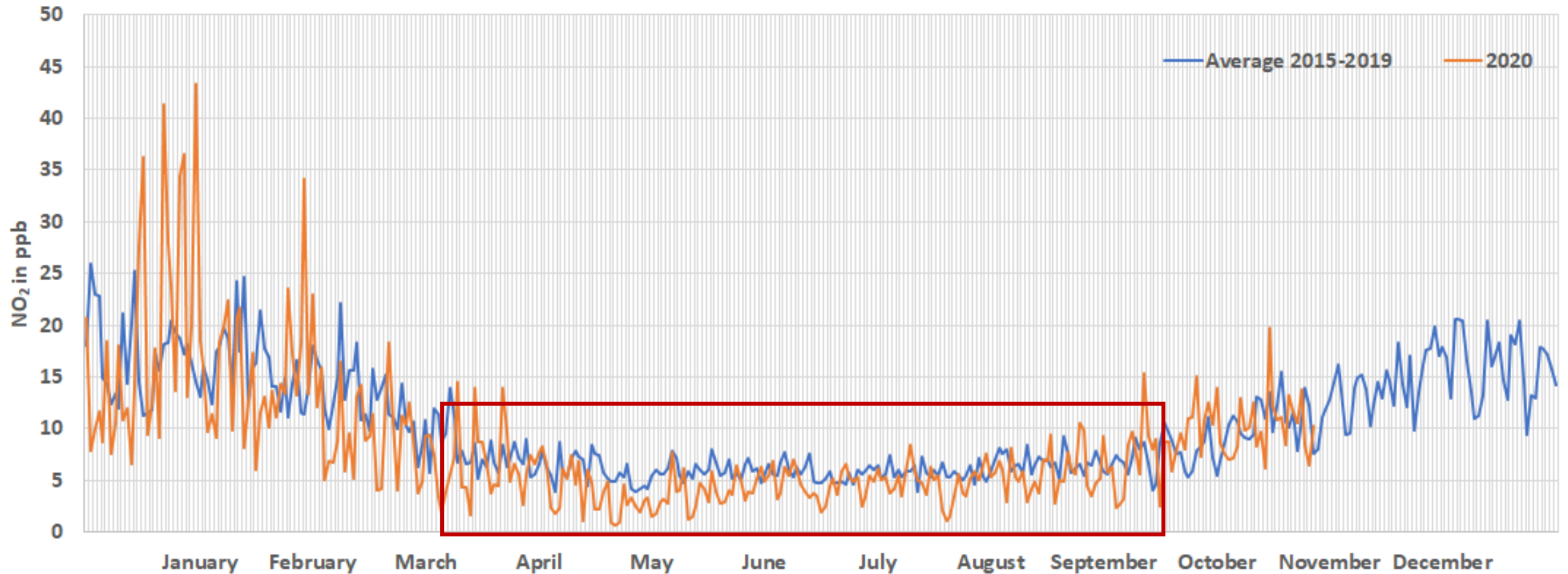
2020 Q3 AQHI results

2020 Q3			Risk Level (% of time in each)			
Station Name		Hours Monitored	Low	Moderate	High	Very High
FAP	Bruderheim	2,134	99.39%	0.61%	-	-
	Elk Island	2,086	99.28%	0.72%	-	-
	Fort Saskatchewan	2,078	99.76%	0.24%	-	-
	Gibbons	2,115	99.05%	0.90%	0.05%	-
	Lamont County	2,146	99.39%	0.61%	-	-
	Redwater	2,111	99.95%	0.05%	-	-
	Sturgeon County*	1,425	99.58%	0.42%	-	-
ACA	Edmonton (5 stations)	2,199	96.41%	3.59%	-	-
	St. Albert	1,966	98.02%	1.58%	-	-
	Strathcona County <i>(Sherwood Park + Ardrossan stations)</i>	2,013	98.66%	1.34%	-	-
Total hours		20,273	20,060	212	1	-

*The portable monitoring station in Sturgeon County began reporting AQHI data on August 1, 2020.

Impact of Covid-19 on Air Quality

Using NO₂ in Sherwood Park as an example



Additional Information:

At **fortair.org**:

- Access air quality monitoring news and information
- Sign up for FAP's e-bulletin
- Download the AQHI app



**Join Our
Mailing
List!**

At **capitalairshed.ca**:

- Access air quality monitoring data and information
- Sign up for ACA's e-newsletter
- Download the AQHI app
- Follow us on Twitter - *@yegairshed*



*Ambient Air Data Warehouse: www.alberta.ca/access-air-quality-and-deposition-data



Thank you!

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