

# Strathcona County Council

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Gary Redmond, Executive Director



Alberta  
Capital  
Airshed

- Multi-stakeholder, not- for-profit regional organization
- Funded by Alberta Government and our members
- Monitor and share air quality data
- Develop comprehensive air quality management plans
- Provide education and outreach
- Our members fall into 4 categories
  - Public
  - Industry
  - Government
  - Non-governmental organization

## ACA Members

### Industry

- Strathcona Industrial Association
  - *Air Products*
  - *AltaSteel*
  - *Capital Power*
  - *Celanese*
  - *Enbridge*
  - *EPCOR Gold Bar Wastewater Treatment Plant*
  - *Imperial Oil*
  - *Keyera Alberta EnviroFuels*
  - *Kinder Morgan*
  - *Owens Corning*
  - *Rio Tinto Alcan*
  - *Suncor*
- Lehigh Cement
- Momentive Specialty Chemicals
- ATCO Energy Solutions



## ACA Members

### Government

- Alberta Environment Parks
- Alberta Health Services
- City of Edmonton
- City of St. Albert
- City of Leduc
- Strathcona County





## ACA Members

### Non-Governmental Organizations

- Alberta Lung Association
- ECO-AIR
- MacEwan University
- Northern Alberta Institute of Technology
- University of Alberta
- Pembina Institute
- Inside Education





# Monitoring



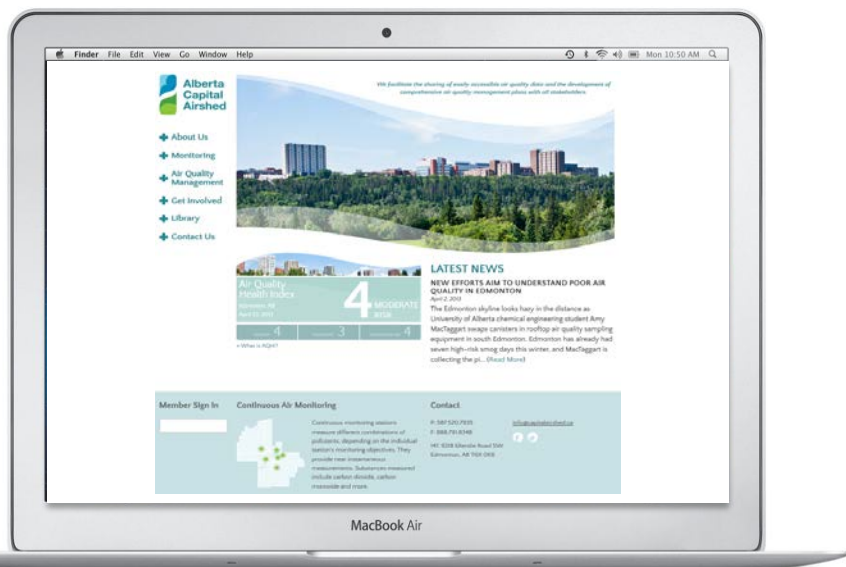


## Opening of the new Ardrossan station Clean Air Day – June 3, 2015





[www.capitalairshed.ca](http://www.capitalairshed.ca)



- Website
  - Live data of all stations
  - AQHI
  - AQ Plans
  - How to get involved
  - Library of information (including videos)

## Presentation Videos



**A Collaborative Process for Odour Mgmt - Celeste Dempster at the Odour Management...**



**Public Health Perspective on Odour - Ludmilla Rodriguez at the Odour Management ...**





- School Presentations
  - Grade 5 Weather
  - Clean Air Responsible Schools (CARS) – citizen science AirBeams



## PM and Ozone Management Framework

- Primary concerns in the capital region included Particulate Matter and Ozone
- Needed to have an airshed zone approach in the capital region to complete a PM and Ozone plan
- *In 2003, Alberta Central Airshed Zone forms informally*
- *In 2006, forms formally as the Alberta Capital Airshed Alliance*
- Emphasis is on forum for air quality management discussions
- Had some challenges with sustaining momentum



### Particulate Matter and Ozone Management Framework

Prepared by the  
Particulate Matter and Ozone Project Team  
for the  
Clean Air Strategic Alliance  
Board of Directors

September 2003

## Fine Particulate Matter Response Plan

- ACA is supporting Alberta Environment and Parks in the development and implementation of the Capital Region Fine Particulate Matter Response Plan, along with municipalities, industry and Fort Air Partnership.
- The goal is to reduce and maintain ambient fine particulate matter below the Canadian Ambient Air Quality Standards Exceedance Level at all monitoring stations within the Capital Region.
- This will be done by managing emissions that contribute to the formation of fine particulate matter. The response plan includes actions for both government and stakeholders.



# Particulate Matter Exceedances

Station	2011		2012		2013		2014		2015	
	* 1-Hr	24-Hr	* 1-Hr	24-Hr	* 1-Hr	24-Hr	* 1-Hr	24-Hr	* 1-Hr	24-Hr
Ardrossan	0	0	0	0	0	0	0	0	24	3
Edmonton Central	15	7	2	2	5	6	1	1	0	2
Edmonton East	15	3	8	4	23	12	0	7	3	1
Edmonton South	11	5	1	1	0	5	0	1	33	4
Sherwood Park	0	0	0	0	0	0	0	0	23	3
<b>Total</b>	<b>41</b>	<b>15</b>	<b>11</b>	<b>7</b>	<b>28</b>	<b>23</b>	<b>1</b>	<b>9</b>	<b>83</b>	<b>13</b>

*\*Particulate Matter emission sources include industry, vehicles, home heating, and natural sources such as forest fires. Regional weather events such as temperature inversions also influence exceedances.*

# Air Quality Health Index



## Scale of 1 to 10

The **HIGHER** the number the **HIGHER** the health risk

## Measures pollutants known to affect health:

- Ozone
- Sulphur Dioxide
- Fine Particulate Matter (PM<sub>2.5</sub>)
- Hydrogen Sulphide
- Nitrogen Dioxide
- Carbon Monoxide

Air Quality Health Index

Is the air quality affecting your health?  
Find out [www.airquality.alberta.ca](http://www.airquality.alberta.ca)

# Air Quality Health Index: 2015

Station Name	Low Risk	Moderate Risk	High Risk	Very High Risk
	%	%	%	%
<b>Edmonton</b>	<b>87.83</b>	<b>11.73</b>	<b>0.43</b>	<b>0.00</b>
<b>Bruderheim</b>	94.83	4.86	0.19	0.12
<b>Elk Island</b>	97.52	2.21	0.14	0.13
<b>Fort Saskatchewan</b>	92.63	6.77	0.43	0.17
<b>Lamont County</b>	93.60	5.96	0.25	0.19

# High Risk AQHI Events: Edmonton

High Risk AQHI Events/Hours			
Date	Jan 12	May 22	July 10-12
Number of Hours	1	2	35
Probable Cause	Wintertime Temperature Inversion*	Forest Fire Smoke**	Forest Fire Smoke***

\*Winter-time inversion event due to meteorological conditions in the Capital Region.

\*\*Smoke originating from forest fires in northern Alberta (reference May 26 AHS Air Quality Advisory)

\*\*\*Smoke originating from forest fires in northern Alberta and Northwest Territories (reference July 3 AHS Air Quality Advisory)



# Questions?

**Gary Redmond**

Executive Director, Alberta Capital Airshed

[gredmond@capitalairshed.ca](mailto:gredmond@capitalairshed.ca)

587.520.7935