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Presentation to Strathcona County Council

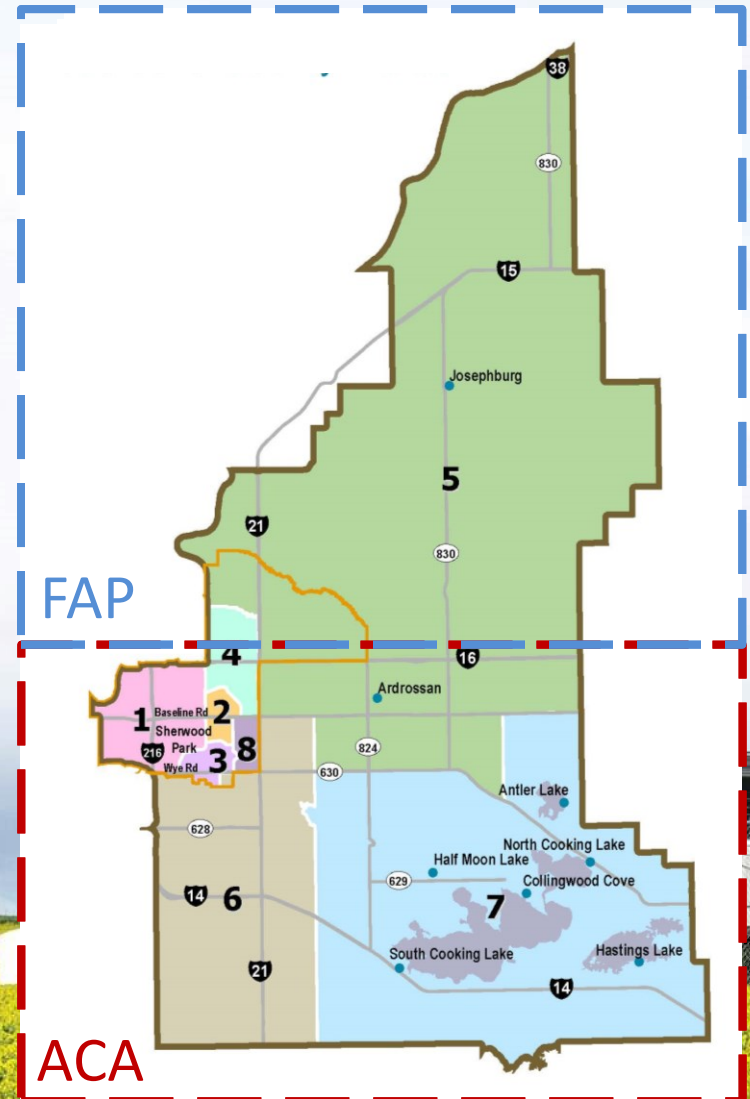
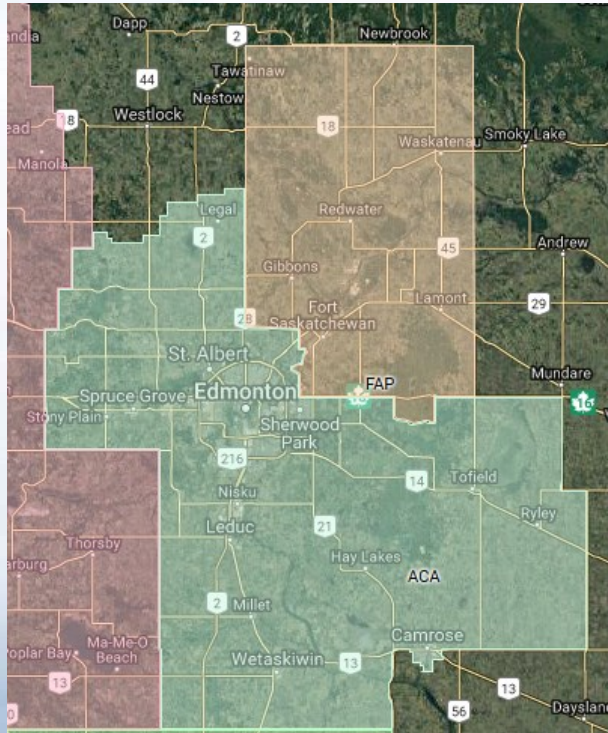
May 15, 2018



Strathcona County



- Active on ACA Board and ACA/FAP Technical Working Groups



FAP: Governance Board



- Independent, transparent, non-profit, multi-stakeholder group. Established in 1997.
- Board composed of public, industry and government representatives.
- Funded by industry, province and municipalities.
- *Mission: Operate a regional network to monitor and report on credible and comprehensive ambient air quality information.*



ACA: Governance Board

- Independent, transparent, non-profit, multi-stakeholder group, established in 2005.
- Board composed of municipal, industry, ENGO and government representatives.
- Funded by members and provincial grants.
- *ACA Mission: We facilitate the sharing of easily accessible air quality data and the development of comprehensive air quality management plans with all stakeholders.*



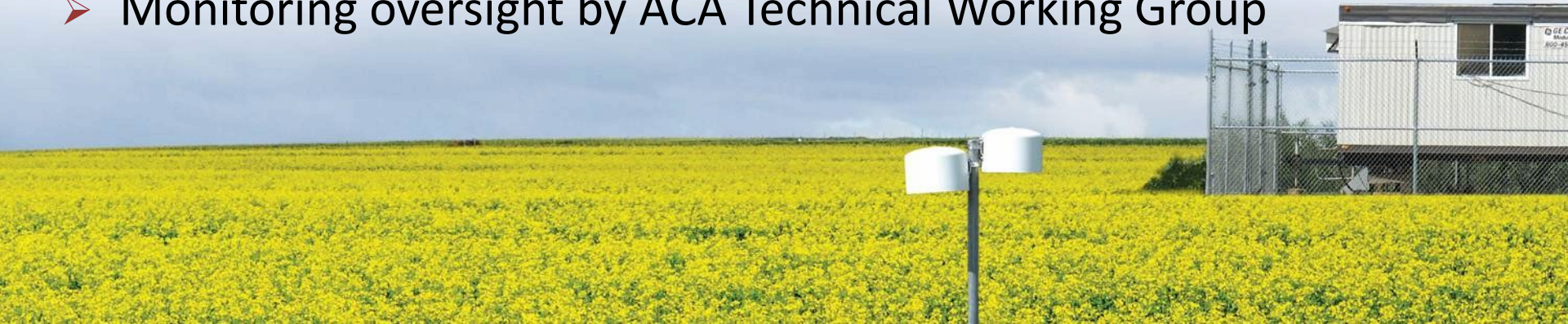
FAP: Operations

- Network managed by qualified and dedicated contractors:
 - Network Manager with 30+ years of experience
 - Operations and Maintenance contractor
 - Data Validation contractor
- Air quality monitoring is regulated by national and provincial standards. Government of Alberta alerted when there is an exceedance.
- Comprehensive quality assurance program.
- Monitoring decisions guided by a scientific advisory group.



ACA: Operations

- Network managed by different members:
 - Alberta Environment and Parks
 - Strathcona Industrial Association
 - Lehigh Cement
- Air quality monitoring is regulated by national and provincial standards. Government of Alberta alerted when there is an exceedance.
- Comprehensive quality assurance program.
- Monitoring oversight by ACA Technical Working Group

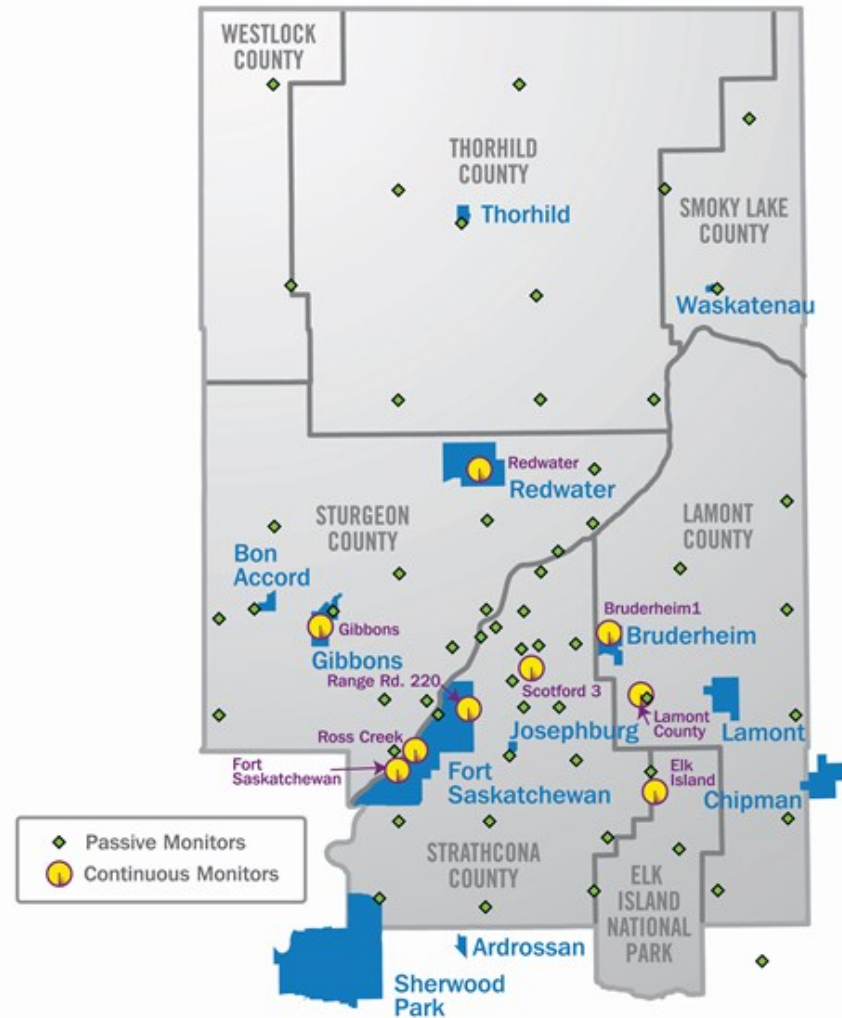


FAP Network

Boundary: 4500 km²

Monitoring Sites:

- Nine continuous stations
- Portable Station added in 2018
- 63 passive sites

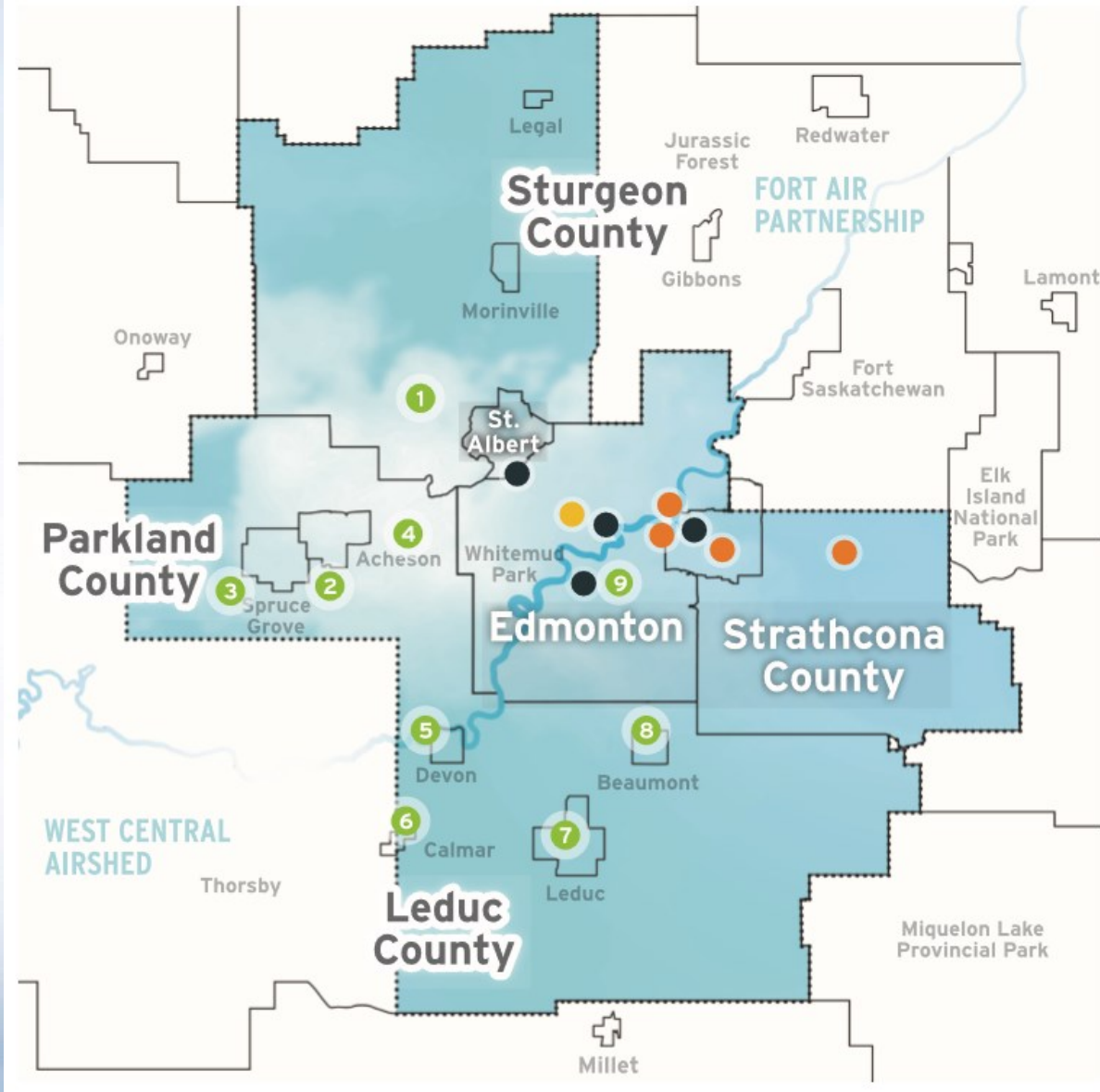


ACA Network

Monitoring Sites:

9 continuous stations ●

10 passive sites ▲



Continuous Monitors

- Measure 19 substances + weather conditions
- Operate 24 hours a day, 7 days a week
- Collect instant measurements
- Report exceedances
- Provide data for Air Quality Health Index calculation



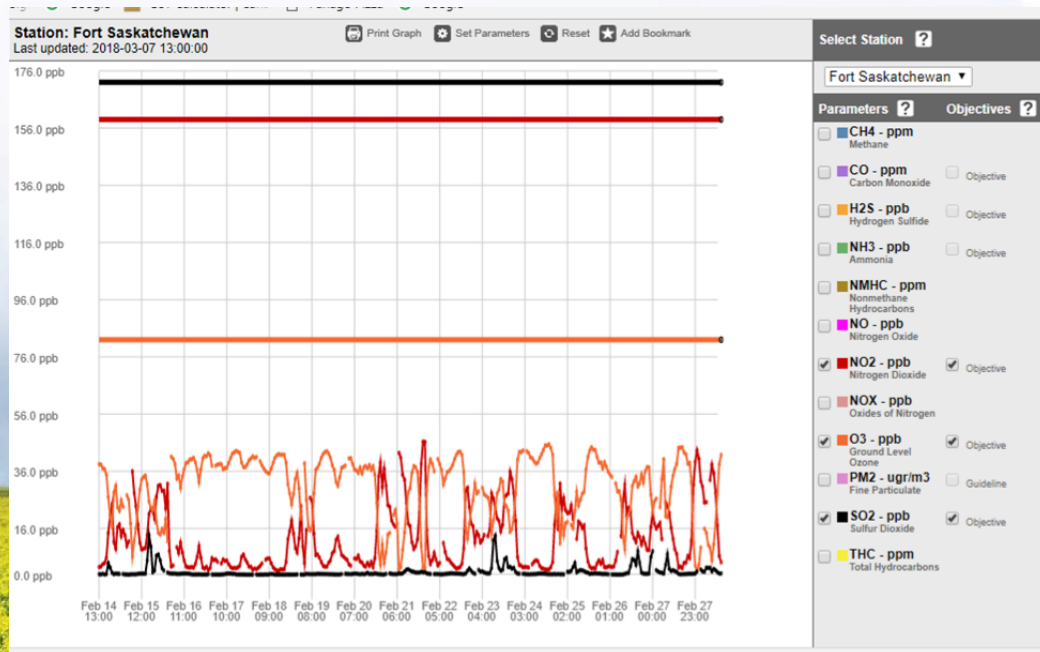
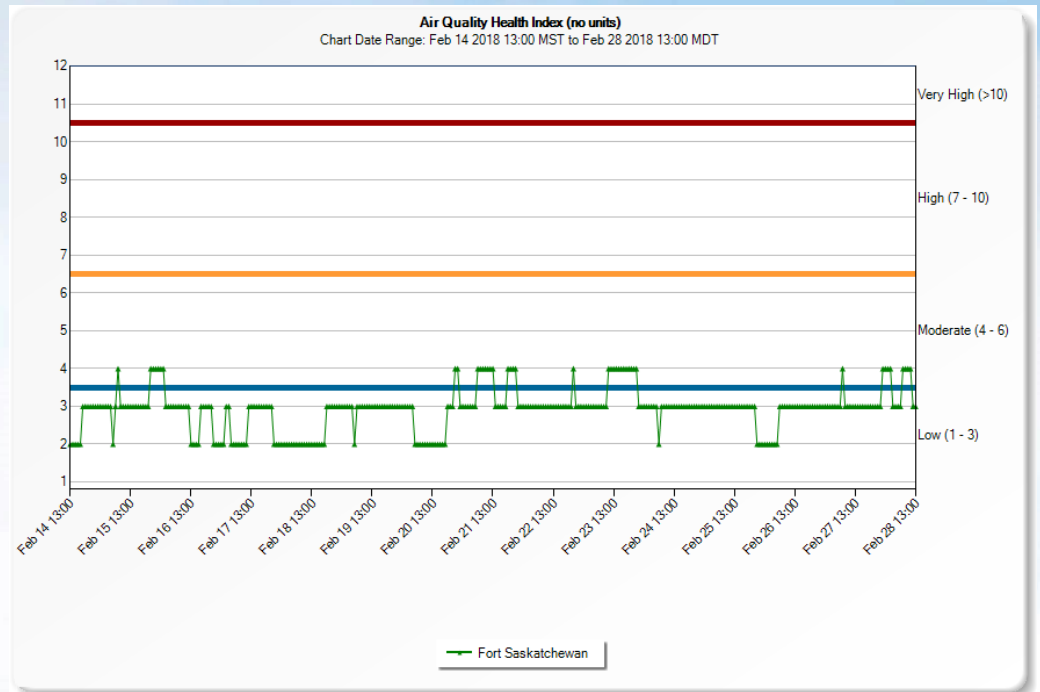
Passive Monitors

- Measure 2 substances, monthly average
- Useful “feelers” to determine trends and future monitoring



Real Time Air Quality Information

- Air Quality Health Index
 - Current and forecast
 - Updated hourly
 - AQHI graph for all six stations posted weekly.
- Live data feed to website
 - Continuous, hour by hour
 - Can search by station and by substance

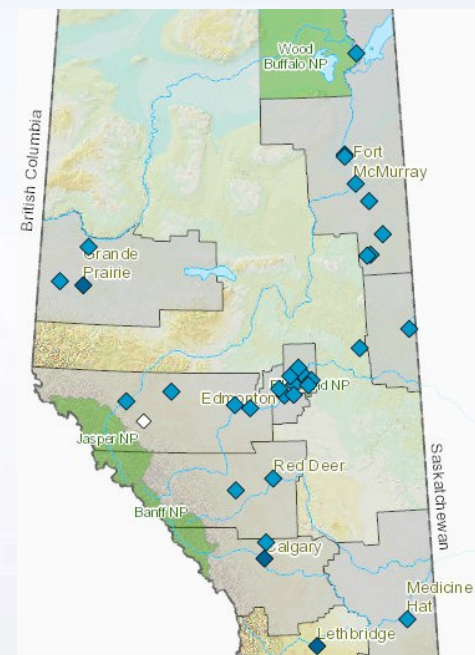


Air Quality Health Index



Measures pollutants known to affect health:

- Ozone
- Sulphur Dioxide
- Fine Particulate Matter (PM_{2.5})
- Hydrogen Sulphide
- Nitrogen Dioxide
- Carbon Monoxide



2017 Air Quality Health Index Summary

| | | Risk Level (% of time in each) | | | |
|-------------------|-----------------|--------------------------------|----------|-------|-----------|
| Station Name | Hours Monitored | Low | Moderate | High | Very High |
| Bruderheim | 8465 | 97.69% | 2.16% | 0.15% | 0% |
| Elk Island | 8166 | 97.07% | 2.78% | 0.11% | 0.04% |
| Fort Saskatchewan | 8056 | 93.05% | 6.93% | 0.02% | 0% |
| Gibbons | 8493 | 94.97% | 4.83% | 0.15% | 0.05% |
| Lamont County | 8431 | 98.12% | 1.73% | 0.15% | 0% |
| Redwater* | 1403 | 97.36% | 2.64% | 0% | 0% |
| Total hours | 43014 | 41396 | 1561 | 50 | 7 |

2017 Air Quality Health Index Summary

| | | Risk Level (% of time in each) | | | |
|-------------------------|-----------------|--------------------------------|---------------|--------------|--------------|
| Station Name | Hours Monitored | Low | Moderate | High | Very High |
| Ardrossan | 8758 | 85.76% | 14.07% | 0.15% | 0.02% |
| Edmonton East | 8564 | 65.23% | 33.76% | 0.98% | 0.04% |
| Edmonton Central | 7884 | 67.44% | 31.63% | 0.93% | 0.00% |
| Edmonton South | 8611 | 73.02% | 26.50% | 0.45% | 0.02% |
| St. Albert | 8758 | 79.53% | 20.35% | 0.13% | 0.00% |
| Sherwood Park | 8247 | 79.71% | 19.91% | 0.38% | 0.00% |
| Woodcroft | 6785 | 63.95% | 35.39% | 0.66% | 0.00% |

FAP - Other Initiatives

- FAP Network:
 - Portable station
 - Volatile Organic Compound Speciation
 - Particulate Matter Speciation
- Life in the Heartland
- School tours program



FAP – Other Initiatives

➤ 2017 Telephone Survey

- Concerns about air quality have declined but still 2nd most important issue to people in the region.
- Perception of air quality and air quality management improving but there is a strong appetite for proactive and transparent information about air quality.
- Support for FAP to continue its work as an independent organization that meets both federal and provincial standards for air quality monitoring.

➤ Vision 2030

- Create a blueprint for FAP's future growth and development as per our mission, which is to monitor and report on ambient air quality.
- All stakeholders (including public, government, industry and other organizations in the region) invited to provide input.

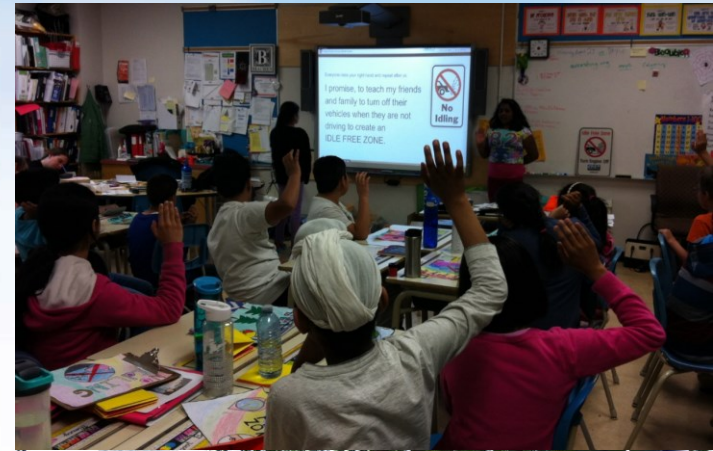
ACA - Other Initiatives

➤ Citizen Science

- Testing and deploying handheld devices for educational purposes

➤ CARS (Clean Air Responsible Schools)

- Professional Development for teachers
- Classroom presentations
- Citizen science
- Student-led education and stewardship campaign (idling around schools)



Provincial Airshed Framework

- Discussions continuing between Alberta Airsheds Council and Alberta Environment and Parks.
- FAP, ACA and the other Airsheds continue to advocate for the retention of the current Airshed model and sustainable funding.
- Alberta Environment and Parks will continue to have FAP operate its stations in this region.
- Indications are that the current Airshed structure will remain.
- AEP wants to fill gaps in monitoring across the province.



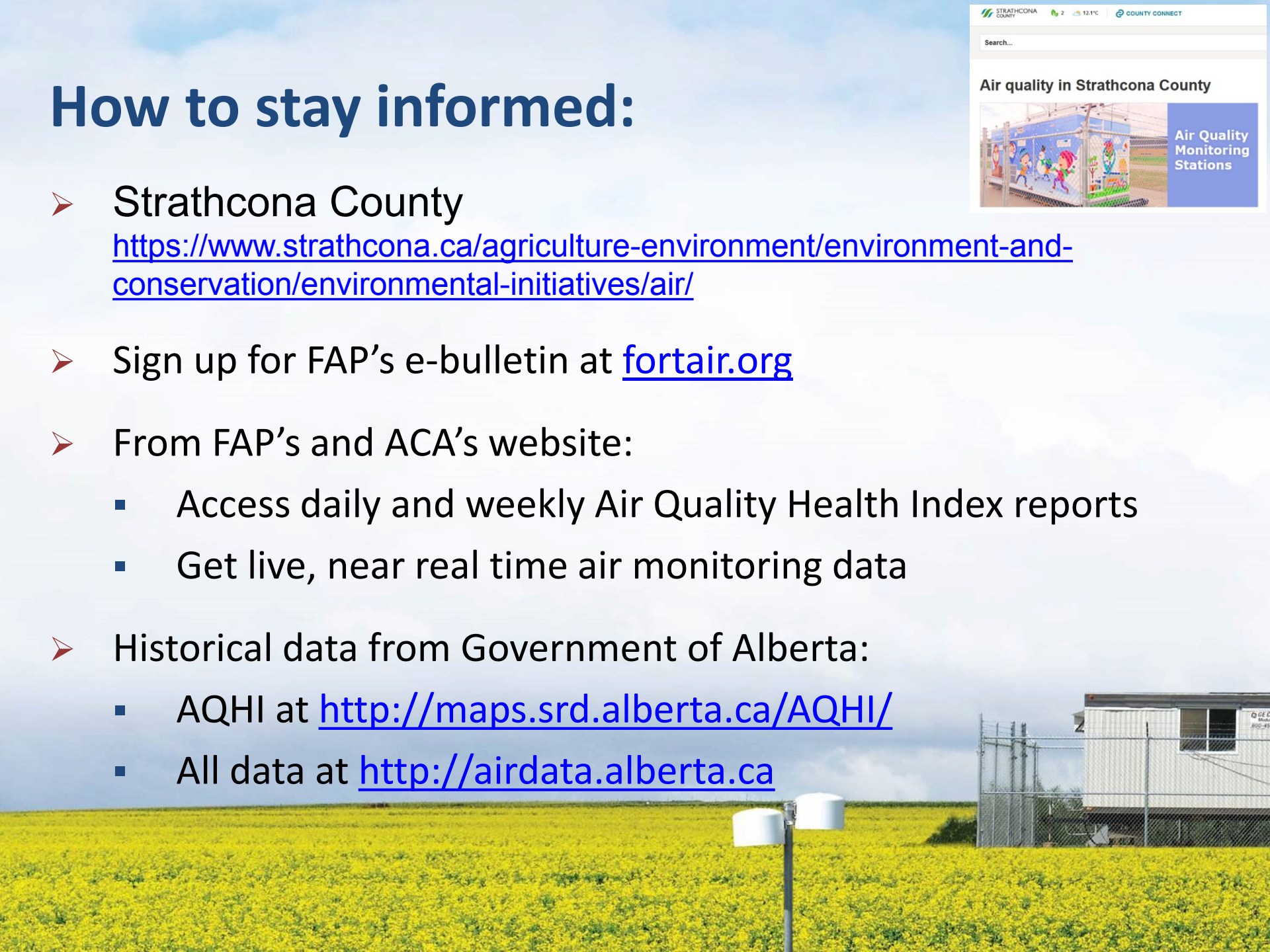
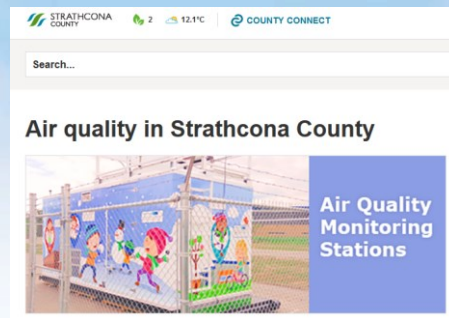
“Alberta Airsheds are key partners in protecting the air quality in our province. Through a multi-stakeholder process, Alberta’s Airsheds operate local monitoring stations and provide data that contributes to the Air Quality Health Index. With local, engaged participants across the province, Airsheds show how collective efforts can go a long way in protecting the valuable services our environment provides.”

-Alberta Environment and Parks Minister Shannon Phillips



How to stay informed:

- Strathcona County
<https://www.strathcona.ca/agriculture-environment/environment-and-conservation/environmental-initiatives/air/>
- Sign up for FAP's e-bulletin at fortair.org
- From FAP's and ACA's website:
 - Access daily and weekly Air Quality Health Index reports
 - Get live, near real time air monitoring data
- Historical data from Government of Alberta:
 - AQHI at <http://maps.srd.alberta.ca/AQHI/>
 - All data at <http://airdata.alberta.ca>





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