



Report to the Community 2021

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EXECUTIVE MESSAGE

Despite the ongoing pandemic which affected so much in our world, WCAS was able to continue its important work, without interruption. Monitoring air quality is such an important aspect of environmental health and community well-being that our work was deemed to be critical.

As the first Airshed in Alberta, WCAS boasts a proud history of providing the highest standard of air monitoring through a comprehensive network of stations. Providing monitoring through a multi-stakeholder, not-for-profit Airshed organization ensures a high level of public trust in the data. Decisions about what is monitored and where are based on scientific analysis and engagement with all stakeholders. Our impressive network of long-standing monitoring locations, coupled with some new ones, means WCAS is able to provide a comprehensive picture of ambient air quality in our region.

This past year saw us continue to upgrade our monitoring stations as well as launch a new program of deploying fine particulate matter sensors in communities without a monitoring station. This program is thanks to a partnership with *Environment and Climate Change Canada* as well as a number of community hosts who volunteered to support the program. While not full monitoring stations that provide real-time reporting of air pollutants and meteorological conditions, these devices are a good indicator of air quality, particularly during times of heavy wildfire smoke, which is laden with particulates that are harmful to human health.

In an effort to strengthen our connections with partner organizations, we were pleased to launch our new Science and Technology Advisory Committee, comprised of experts from partner organizations such as Alberta Environment and Parks, Environment and Climate Change Canada, Alberta Health Services, Alberta Energy Regulator, Farmers' Advocate Office, and NorQuest College.

Despite limited opportunities for in-person connections, our Communications and Engagement programs continued to expand thanks to ongoing support of *Alberta Environment and Parks (AEP)*. With an annual grant from AEP, WCAS is able to share information and engage with stakeholders through a variety of means including on our website, social media (Facebook and Twitter), webinars, newsletters, as well as through direct engagement with communities and residents who have air quality questions or concerns.

All in all, 2021 was a successful year and we look forward to continued growth and increased opportunities to engage with stakeholders in the coming year!

Melissa Nelson
President



Gary Redmond
Executive Director



YOUR AIRSHED

WHAT WE DO

We are the multi-stakeholder, not-for-profit organization responsible for collecting and sharing information on ambient air quality in West Central Alberta. WCAS is a diverse and consensus-driven group with members from agriculture, industry, municipal and provincial governments, and non-governmental organizations.

West Central Airshed Society (WCAS) does the following:

Monitors air quality in the region

- Monitor data from 12 continuous air quality monitoring stations located throughout the Airshed region

Provides credible, science-based data and educational outreach to all stakeholders

- Identify and quantify air quality concerns
- Coordinate and integrate air monitoring within the region
- Promote understanding between governments, stakeholders, the public, and other organizations about the environmental impacts of activities inside and outside the Airshed regarding air quality

Works collaboratively to better air quality in West Central Alberta

- Provide a forum for discussion and co-ordination on matters related to the management of air monitoring
- Design monitoring programs to identify and quantify air quality concerns

STRATEGIC PLAN 2021

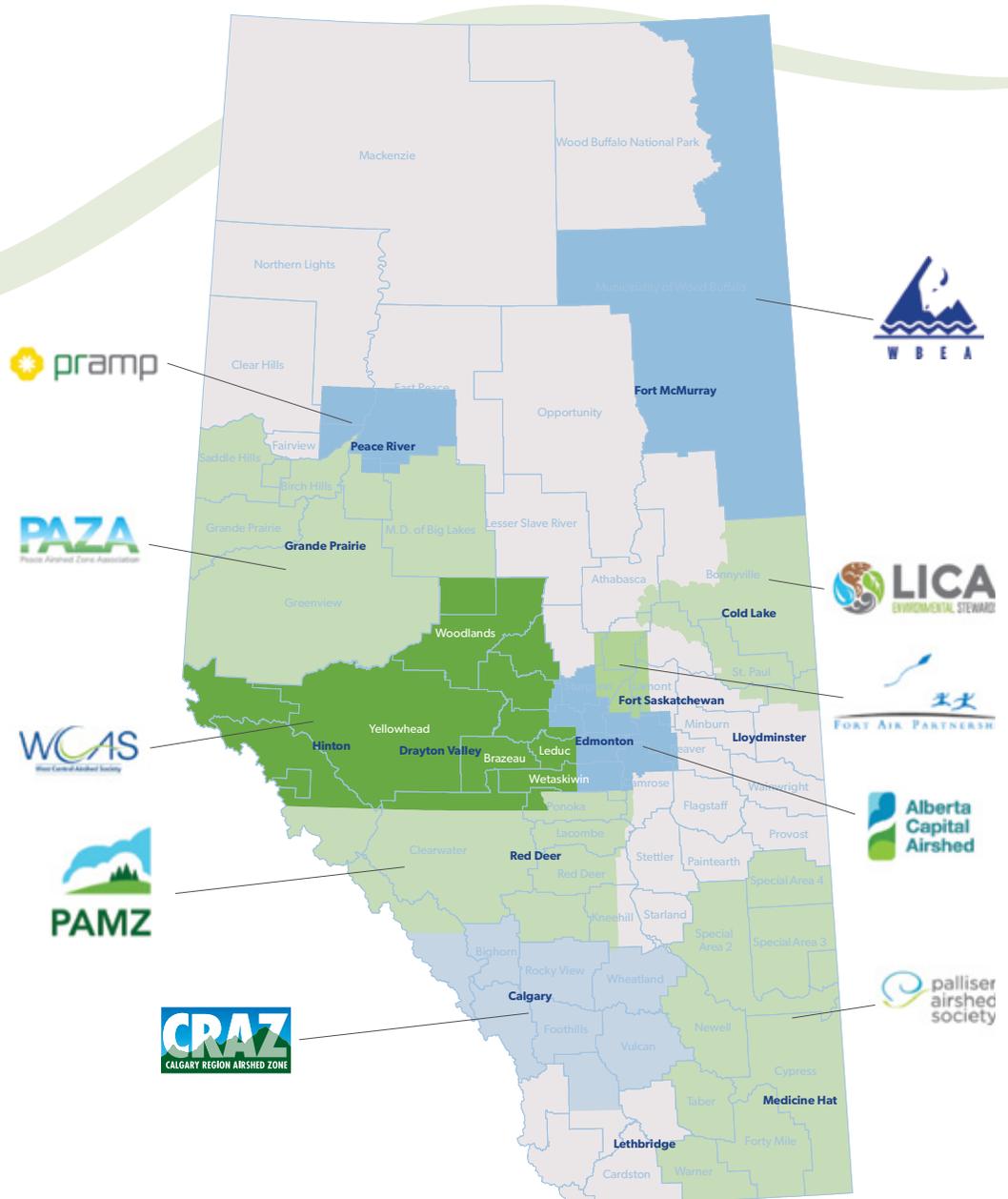
Each year WCAS Executive Director Gary Redmond leads the Board of Directors through a process of evaluating the past year, identifying priorities, and strategizing programs and tactics. The plan serves as the basis for quarterly Board meetings and ensures a commitment toward continual improvement from year-to-year.

OUR FOCUS AREAS

WCAS has three areas of focus that provide service to the members...

and a fourth area to ensure resources are in place to accomplish the first three.





AIRSHED MONITORING

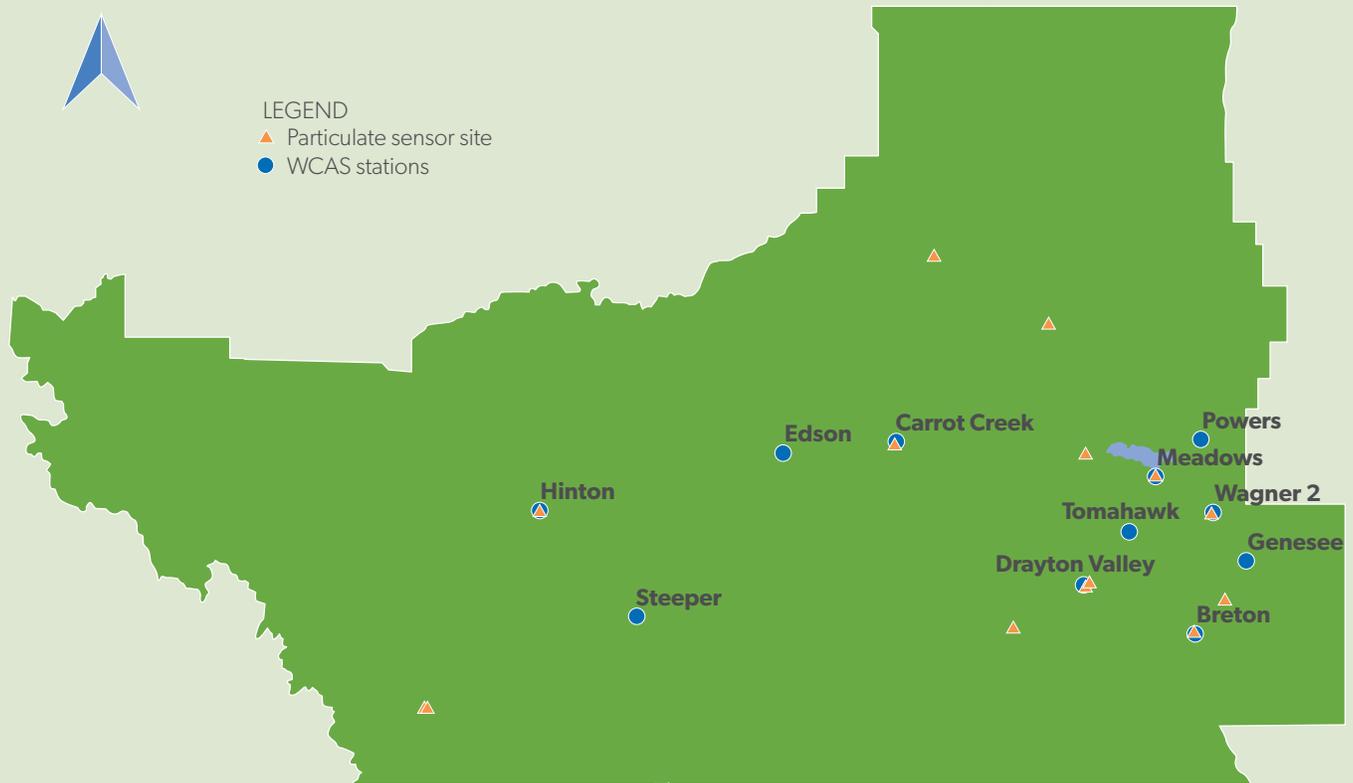
ALBERTA AIRSHEDS COUNCIL (AAC)

WCAS is a member of **Alberta Airsheds Council (AAC)**, a partnership of Alberta’s Airsheds providing leadership in support of healthy air quality for Albertans and the environment. Initiated in 2006, AAC includes membership from all ten Airsheds in Alberta and was formed to represent the collective interests of this collaborative group.

AAC provides a forum for Airsheds to work and learn together, continue to advance effective and efficient air monitoring, conduct reporting and outreach activities, and address regional matters.

The **2021 Alberta Airsheds Air Quality Report** provides a summary of the air quality data that is monitored and collected in our province by Alberta’s Airsheds.

WCAS MONITORING NETWORK MAP



WHAT WE MONITOR AND WHY

Healthy communities need clean air. Air quality is a marker of how clean the air is. This is determined by the rate that pollutants are emitted into the atmosphere and how effectively the atmosphere can disperse those pollutants.

Dispersion is affected by:

- Wind (speed and direction)
- Temperature (at various heights)
- Turbulence
- Local topography (e.g. valleys and hills)

WCAS monitors **eight air quality parameters** in our Airshed region.



Sulphur dioxide is generated both naturally and anthropogenic (human-made), including the processing and combustion of fossil fuels containing sulphur. It is a colourless gas with a pungent odour (like a lit match) and can be detected by taste and odour at concentrations as low as 300 ppb. Sulphur dioxide reacts in the atmosphere to form sulphuric acid and acidic aerosols, which contribute to acid rain. Sulphur dioxide combines with other atmospheric gases to produce fine particles, which may reduce visibility.

Brief exposure to high concentrations of sulphur dioxide and its products can produce human health effects, irritating the upper respiratory tract and aggravating existing cardiac and respiratory disease. Long-term exposure may increase the risk of developing chronic respiratory disease. People with asthma may have increased symptoms such as chest tightness and difficulty breathing.



Ground-level ozone is formed by photochemical reactions in the atmosphere. It mainly comes from vehicle and industrial emissions in urban centres. It can be a major component of smog during the summer, especially during hot sunny weather, and is generally low in the winter. Ozone can be transported long distances and can be responsible for large regional air pollution episodes.

People most at risk from exposure to higher levels of O₃ include those with asthma, children, older adults and those who are active outdoors, especially outdoor workers. Children are at greatest risk because their lungs are still developing. High levels of O₃ can cause the muscles in the airways to constrict, trapping air inside the tiny air sacks within the lungs (alveoli). This can lead to wheezing, shortness of breath and can be serious in people with lung diseases such as asthma.



Nitrogen oxides, mostly in the form of nitric oxide (NO) and nitrogen dioxide (NO₂), are produced by high temperature combustion of fossil fuels. Nitrogen oxide is the predominant pollutant emitted by combustion sources, but it is rapidly changed to nitrogen dioxide in the atmosphere. NO_x contributes to acid rain and plays a major role in atmospheric photochemical reactions and ground level ozone formation and destruction. Motor vehicles account for over 50% of the total NO₂ generated, however, any combustion source will emit nitrogen dioxide (e.g. power plants, furnaces, space heaters). Some natural sources include volcanoes, lightning, biological decay, and oceans.

NO₂ has been linked to respiratory disease. Short-term exposure to NO₂ can cause airway inflammation. Individuals with pre-existing conditions such as asthma, chronic obstructive pulmonary disorder (COPD), and chronic bronchitis can be more sensitive to exposure.



Ambient **particulate matter** consists of a mixture of particles of varying size and chemical composition. Particles that are less than 10 micrometers in diameter (PM_{10}) can include windblown soil, road dust, and particles from industrial activities. Fine particles which are less than 2.5 micrometers in diameter ($PM_{2.5}$) can reduce visibility and contribute to acidification of soils. $PM_{2.5}$ particles are formed from gases released to the atmosphere by combustion processes such as from motor vehicles, power plants, gas processing plants, compressor stations, household heating, and forest fires. Particulate matter can also be comprised of biological material such as mold, bacteria, and pollen fragments.

Fine particles are small enough to enter the lungs and can be a human health concern. $PM_{2.5}$ has been linked to many health issues. Long-term exposure has been associated with increased lung and heart problems and even premature death.



Carbon monoxide is a colourless, odourless gas emitted into the atmosphere primarily from incomplete combustion of carbon-based fuels such as gasoline, oil, and wood. Natural and human sources of carbon monoxide include burning of vegetation such as forest fires and wildfires, and emissions from vehicles. Breathing carbon monoxide decreases the amount of oxygen carried by the blood stream and can have serious health effects.



Hydrocarbons are divided into two broad categories: non-reactive and reactive hydrocarbons. The major non-reactive hydrocarbon in the atmosphere is methane, which is a naturally occurring colourless, odourless gas recognized as a major contributor to the greenhouse effect. Reactive hydrocarbons consist of many volatile organic compounds, some of which react with oxides of nitrogen in the atmosphere to form ozone. They generally occur at much lower concentrations than methane. Large amounts of methane are produced naturally through the decay of vegetation, but human activity is contributing to a worldwide increase in methane concentrations of about 1% per year. Trees and plants are major natural emitters of reactive hydrocarbons. Other significant sources include motor vehicles, petroleum refineries, petrochemical plants, chemical solvents, vegetation decay, and combustion from burning coal, gas, and wood.

Health effects from long-term or chronic exposure to petroleum hydrocarbons are known to cause decreased immune function, breathing problems, severe kidney, and liver damage.



Total reduced sulphur includes hydrogen sulphide (H_2S), mercaptans, dimethyl sulphide, dimethyl disulphide and other sulphur compounds. Sources include fugitive emissions from petroleum refineries, tank farms for unrefined petroleum products, natural gas plants, petrochemical plants, oil sands facilities, sewage treatment facilities, pulp and paper operations that use the kraft pulp process, and animal feed lots. Hydrogen sulphide is a colourless gas with a rotten egg odour.

Health concerns related to exposure to TRS can include respiratory symptoms, decreased pulmonary function test results, and increases in pulmonary disease.



All of the continuous monitoring stations measure **meteorological parameters** including:

- Wind speed and direction
- Temperature
- Precipitation
- Relative humidity



HOW AIR QUALITY MONITORING WORKS

- 1 Air Pollution Sources**
 Pollution is emitted into the air from a variety of human-made and natural sources.
- 2 Monitoring**
 WCAS ambient air monitoring stations measure concentrations of pollutants in the air.
- 3 Data Management**
 This data is collated for reporting to regulators and stakeholders and analyzed for insights and trends in air quality.
- 4 Quality Assurance and Validation**
 All data and reports are scrutinized to ensure accuracy.
- 5 Data Reports and Public Information**
 This data is used to calculate the Air Quality Health Index (AQHI) and is available at wcas.ca or through the AQHI app on your mobile device.

AIR QUALITY STANDARDS

WCAS' ambient air quality data is compared to several established air quality thresholds, triggers, and limits including Alberta's Ambient Air Quality Objectives and Guidelines, the Canadian Ambient Air Quality Standards, and the World Health Organization Air Quality Guidelines.

Alberta Ambient Air Quality Standards

Alberta's Ambient Air Quality Objectives (AAAQOs) and Ambient Air Quality Guidelines (AAAQGs) were developed under the Alberta Environmental Protection and Enhancement Act (EPEA) to protect Alberta's air quality. AAAQOs help assess industry compliance and evaluate facility performance, and AAAQGs are a general performance indicator used to help with Airshed planning and management. Both are established for a variety of averaging periods depending on the characteristics of the pollutant.

| Parameter | 1-hour Average | 8-hour Average | 24-hour Average | 30-day Average | Annual Average |
|---|----------------------|----------------|----------------------|----------------|----------------|
| AAAQO | | | | | |
| Sulphur Dioxide (SO ₂) | 172 ppb | - | 48 ppb | 11 ppb | 8 ppb |
| Nitrogen Dioxide (NO ₂) | 159 ppb | - | - | - | 24 ppb |
| Hydrogen Sulphide (H ₂ S) | 10 ppb | - | 3 ppb | - | - |
| Particulate Matter 2.5 (PM _{2.5}) | 80 µg/m ³ | - | 29 µg/m ³ | - | - |
| Carbon Monoxide (CO) | 13 ppm | 5 ppm | - | - | - |
| Ozone (O ₃) | 76 ppb | - | - | - | - |
| AAAQG | | | | | |
| PM _{2.5} | 80 µg/m ³ | - | - | - | - |

Canadian Ambient Air Quality Standards (CAAQS)

Canadian Ambient Air Quality Standards (CAAQS) are national air quality standards designed to protect human health and the environment. CAAQS inform the development of management plans and appropriate management actions required to improve air quality. CAAQS, which are based on three years of data, are targeted to assess air quality issues that can be controlled locally through management actions (such as emissions reductions). The Government of Alberta provides additional information about CAAQS on their website.

WHO Air Quality Guidelines

World Health Organization (WHO) Air Quality Guidelines offer guidance on threshold limits for key air pollutants that pose health risks and provide a reference for setting air pollution targets at regional and national levels to improve air quality. WHO provides additional details in their guideline publication.

The table below provides a summary of WHO Air Quality Guidelines.

| Parameter | Averaging Period | Objective or Guideline Value | Units |
|--|-------------------------------------|------------------------------|-------------------|
| Fine Particulate Matter (PM _{2.5}) | 24-hour 99 th percentile | 15 | µg/m ³ |
| | Annual | 5 | µg/m ³ |
| Nitrogen Dioxide (NO ₂) | 24-hour 99 th percentile | 25 | ppb |
| | Annual | 10 | ppb |
| Ozone (O ₃) | 8-hour daily maximum | 100 | ppb |
| Sulphur Dioxide (SO ₂) | 24-hour 99 th percentile | 40 | ppb |

MONITORING PLAN

In an effort to ensure monitoring resources are deployed strategically in order to effectively provide air quality data throughout our entire region, WCAS has undertaken a process of updating our network.

To do so, we analyzed all relevant data information including a 2020 external report commissioned by WCAS, Alberta Environment and Parks' Five Year Monitoring Plan, and the latest data available on air emissions, population, transportation, and other factors.

As always, we balance these inputs with logistics and accessible funding to arrive at a new WCAS Monitoring Plan, which will be reviewed and updated annually to ensure WCAS remains nimble within a quickly changing environment.

Some of the highlights of the Monitoring Plan for 2023 include:

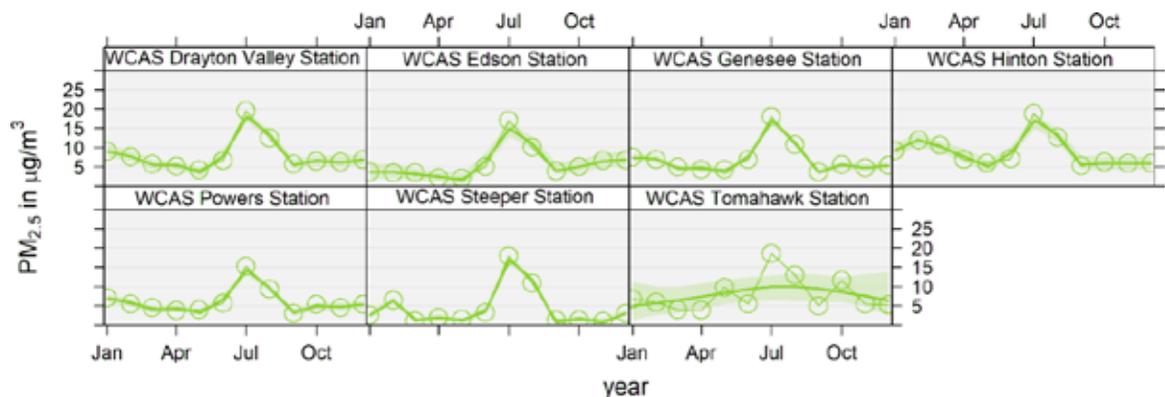
- Improvements at some sites to upgrade access and safety
- Opening of a new monitoring station in west Hinton to provide a better representation of the air quality in the community; this station will be used to provide the Air Quality Health Index for the Town of Hinton
- Decommissioning of Tomahawk station as a result of reduced emissions in the area and challenging siting of the station
- Exploration of a station in the Town of Whitecourt, which is a population centre in WCAS with several emission sources
- Deployment of air quality sensors in communities without monitoring stations

AIR QUALITY RESULTS 2021

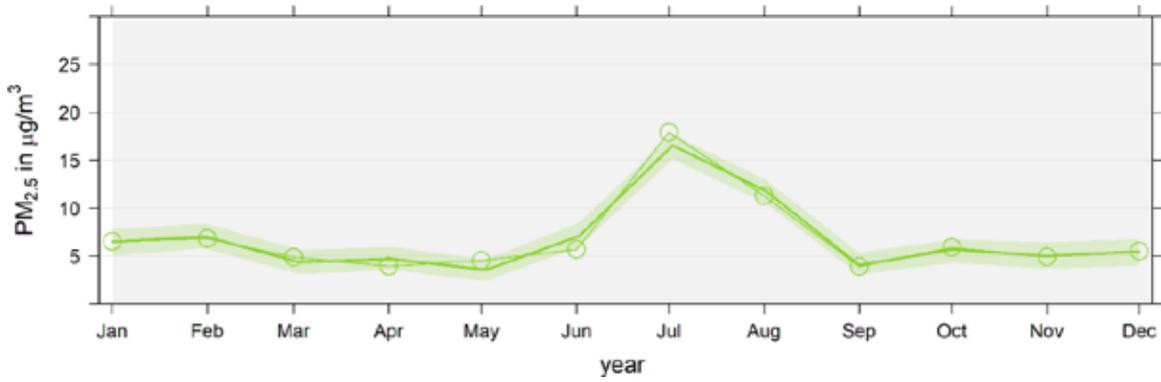
A review of the 2021 data in relation to changes from 2020 are highlighted for specific parameters as follows:

- Changes in SO₂ from 2020 to 2021 were less than 0.2ppb with some stations showing slight decreases (Genesee, Meadows, Powers) and some showing slight increases (Edson, Tomahawk) and the others remaining as no changes (Breton, Carrot Creek, Hinton, Steeper). For SO₂ we also moved the analyzer from Violet Grove to Drayton Valley, so annual averages could not be compared.
- For H₂S and TRS we have seen a slight decrease (~0.1ppb) from 2020, but have seen a substantial reduction of exceedances, where in 2020 H₂S went from 76 exceedances to 48 in 2021, in addition TRS in 2020 we went from 122 exceedances to 63 exceedances (using H₂S objective).
- Changes in O₃ from 2020 to 2021 were less than 0.5ppb with Carrot Creek and Hinton showing decreases, and remaining stations showing an increase with Tomahawk showing a higher increase of greater than 1ppb. In addition, we saw an increase of exceedances, in 2020 we had zero and in 2021 we saw nine, most of which occurred during high smoke events.
- Changes in NO₂ from 2020 to 2021 have shown an increase of less than one ppb at all stations except Meadows and Steeper. Breton, Genesee, and Powers stations are near zero difference between the years. No exceedances.
- There was a slight increase in CO at Steeper from 0.1ppm in 2020 to 0.2 ppm in 2021. No exceedances were recorded.
- The largest change we saw in 2021 was the PM_{2.5} results where we saw an increase from 2020 to 2021 with increases ranging from 0.5 to 3.9 µg/m³, with the largest increase noted at Drayton Valley. We also saw an increase of exceedances from 12 in 2020 to 257 in 2021 primarily due to wildfires. A further look at the PM_{2.5} was graphed in the following plots.
- A monthly plot for each of the stations of PM_{2.5} look very similar with exception of Tomahawk, which was exposed to several wildfires throughout 2021.
- A regional plot of the PM_{2.5} and the individual stations shows the peak occurring in July 2021. A further plot of the daily trends show the peak occurs all in July except for Tomahawk which had a peak in February as a result of localized fires.

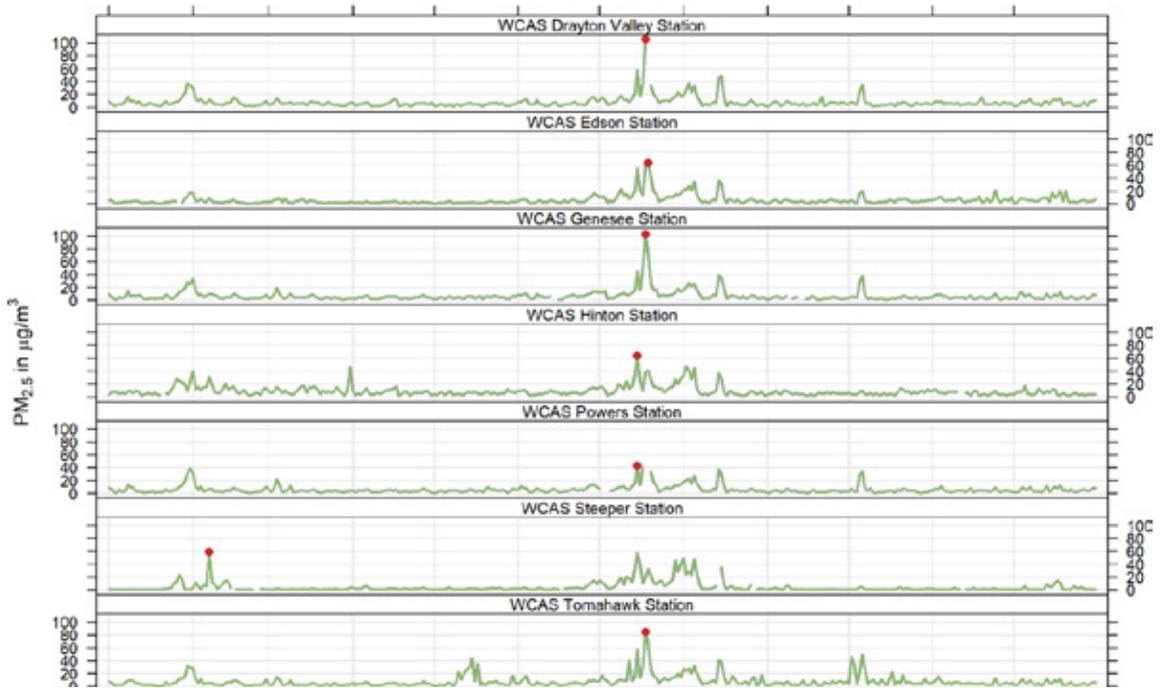
2021 PM_{2.5} Concentration Readings in WCAS



2021 Regional PM_{2.5} Concentration Readings in WCAS



Daily Concentration Readings in WCAS





WILDFIRE SMOKE

Wildfire smoke is an important air quality issue. The number and size of wildfires in North America have been increasing over the past few decades. Wildfire smoke is made up of gases and particles that can be harmful to health. Inhaling smoke is more damaging to people who have respiratory issues, and for children, pregnant women and the elderly. Reduce exposure to harmful smoke by staying informed about air quality through the use of the Air Quality Health Index (AQHI).

Health Canada Smoke Advisories

| Locations | # of Days | Dates |
|---|-----------|------------------------------|
| WCAS | 78 | Jun 28 – Aug 16, 2021 |
| Drayton Valley - Devon - Rimbey - Pigeon Lake | 14 | Jun 28 – Aug 16, 2021 |
| Hinton - Grande Cache | 21 | Jul 14 – Aug 16, 2021 |
| Jasper National Park | 24 | Jul 14 – Aug 16, 2021 |
| Westlock - Barrhead - Athabasca | 6 | Jul 15 – Jul 20, 2021 |
| Whitecourt-Edson- Fox Creek - Swan Hills | 13 | Jun 29 – Aug 16, 2021 |



AIR QUALITY HEALTH INDEX (AQHI)

WHAT IS AQHI?

Air Quality Health Index (AQHI) is a health protection tool designed to help the public make decisions to protect their health by limiting short-term exposure to air pollution and adjusting their activity levels during increased levels of air pollution.

AQHI uses readings from three air pollutants to calculate a single numerical value to evaluate the health risk associated with air pollution.

These pollutants are particulate matter (PM_{2.5}), nitrogen dioxide (NO₂) and ground-level ozone (O₃), which are three compounds that can cause respiratory effects. The higher the AQHI value, the greater the potential health risks associated with air quality.

| | | Health Messages | |
|--------------------------|----------------|--|--|
| Air Quality Health Index | Health Risk | At Risk Population | General Population |
| 1 – 3 | Low Risk | Enjoy your usual outdoor activities. | Ideal air quality for outdoor activities. |
| 4 – 6 | Moderate Risk | 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. |
| 7 – 10 | High Risk | 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. |
| Above 10 | Very High Risk | 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. |

HOW TO FIND THE AQHI

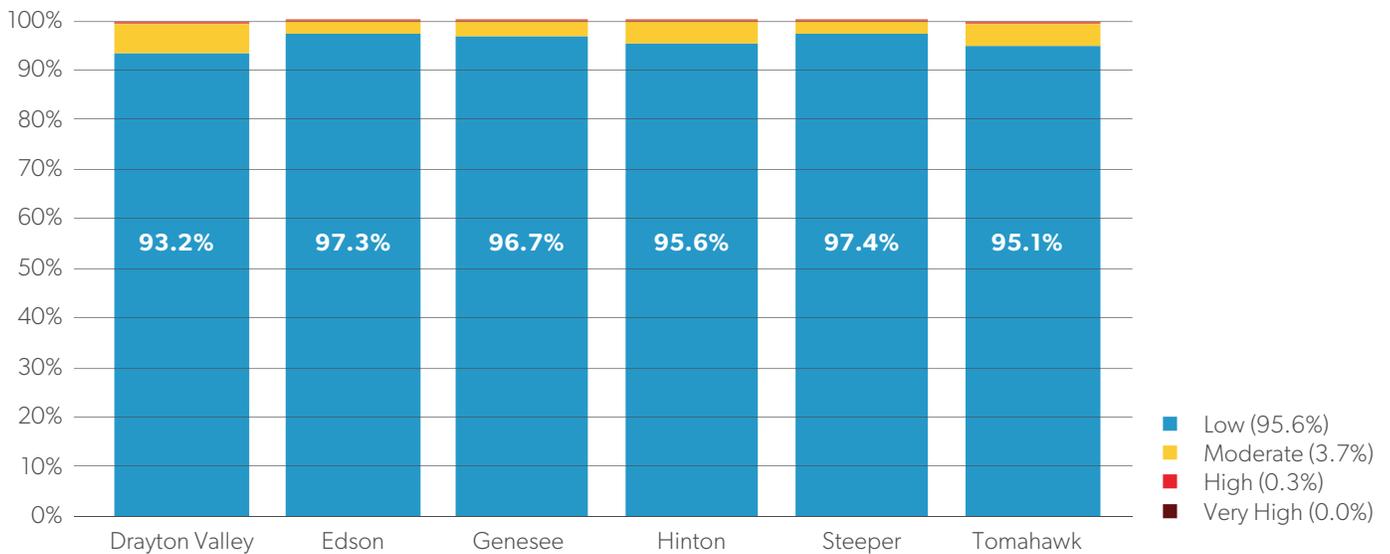
WCAS reports AQHI ratings from six communities in the West Central region. AQHI is readily accessible through the free Environment Canada AQHI app, as well as on the WCAS website.



AQHI RATINGS 2021

Six of WCAS' 12 continuous monitoring stations collect data to calculate both current and forecasted hourly AQHI values in the West Central Region.

WCAS AQHI 2021 Results



The stations Drayton Valley, Edson, Genesee, Hinton, Steeper, and Tomahawk collected a total of 51,251 hours of AQHI in 2021. Aside from the wildfires in July, which drove the AQHI higher, overall 2021 had over 95% in Low range, with approximately 4% in Moderate range, leaving less than 1% in High range (which translated to 142 hours of data in 2021).

In the 2021 Alberta Airsheds Air Quality Report, Alberta Airsheds Council (AAC) compared AQHI data collected across ambient air monitoring stations in Alberta and found stations indicated a low-risk range more than 90% of the time in 2021.



Mayor Janet Jabush and WCAS Operations Manager Robert Chrobak point to the particulate sensor on Mayerthorpe's Aquatic Centre

EDUCATION & OUTREACH

WORKING WITH COMMUNITIES

Particulate Sensors

WCAS has partnered with Environment and Climate Change Canada to install particulate sensors throughout West Central Airshed. WCAS sought out host sites from municipalities and engaged community members.

When you are traveling through West Central Airshed, see if you can spot our particulate sensors in the following areas:

- Entwistle
- Evansburg
- Jasper
- Mayerthorpe
- Seba Beach
- Sundance
- Wabamun
- Warburg

WCAS continues to take applications from individuals and municipalities interested in hosting a particulate sensor to help collect area air quality data.



Bill Givens (Chief Administrative Officer, Municipality of Jasper) and Robert Chrobak (WCAS Operations Manager) indicate the Jasper particulate sensor

Particulate sensor on the Warburg town office



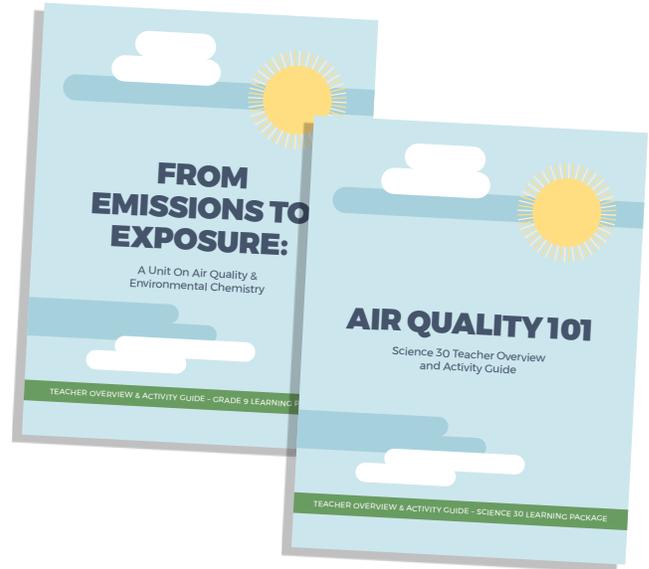
Synergy Groups

Synergy groups are community-based, multi-stakeholder groups that work collaboratively to address the pressures of resource development in ways that support social, environmental, and economic well-being for their communities. WCAS participates in the two synergy groups active in the area: Yellowhead and Pembina.

EDUCATION MATERIALS

With the support of an Alberta Environment and Parks (AEP) grant, WCAS is pleased to share free air quality learning materials developed for educators and specific to Alberta curriculum for grades five, nine, and 12 (Science 30). These user-friendly and interactive resources developed in 2021 include ready-to-go classroom presentations, accompanying Teacher's Guides (including classroom activities and games), and slide-by-slide teaching scripts to support the delivery of the presentations.

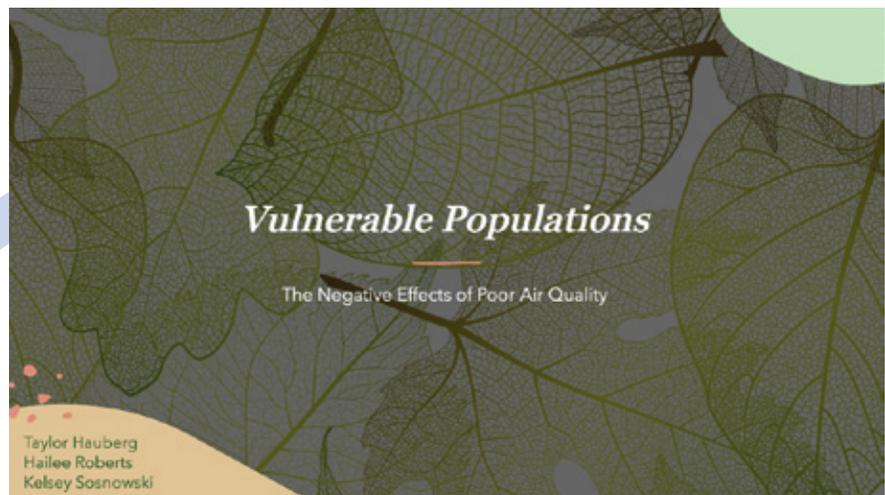
Visit our Resources page at wcas.ca for these free educational resources and browse our video and resource library.



POST-SECONDARY

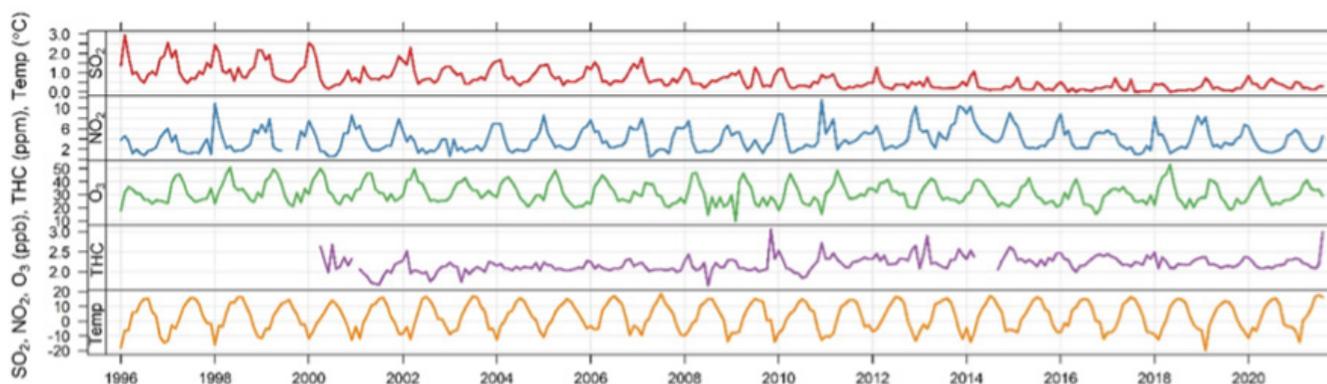
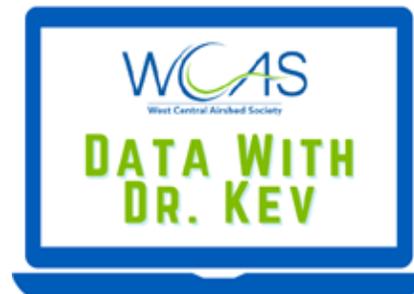
WCAS partnered with students across various post-secondary courses and programs at MacEwan University on the following projects:

- Social Work students created a presentation on groups more vulnerable to air quality impacts including seniors in Whitecourt, children in Edson, and Paul First Nation near Wabamun
- Through this project, students also identified opportunities for further outreach by WCAS in those communities
- Sustainability students (fall term) developed a brochure sample that connects the UN Sustainability Goals to air quality and the work of WCAS
- Sustainability students (winter term) developed a sample set of social media images and content for WCAS' Facebook and Twitter accounts that connected the UN Sustainability goals to air quality



COMMUNITY OUTREACH

Regular newsletters were circulated in 2021 to a growing email distribution list of over 150 community members. The newsletters incorporated a feature story, as well as a regular article entitled **“Data with Dr. Kev”** to delve into air quality topics and help community members understand air quality data and how it relates to them. Sign up to receive our newsletter directly to your inbox at wcas.ca.



WCAS' social media presence continued to grow in 2021 with the addition of our Facebook account. Follow us on Twitter **@AirshedWest** and Facebook **@WestCentralAirshedSociety** to keep up-to-date on local air quality, advisories, special events, campaigns, and other highlights within our region and across Alberta.





Early in 2021, WCAS launched the **Stop Needless Idling** campaign in collaboration with the Alberta Airsheds Council and the other nine provincial Airsheds. This provincial campaign included the regular sharing of tips and information related to the impacts of needless idling on air quality, as well as the opportunity for Albertans to pledge to stop needless idling.

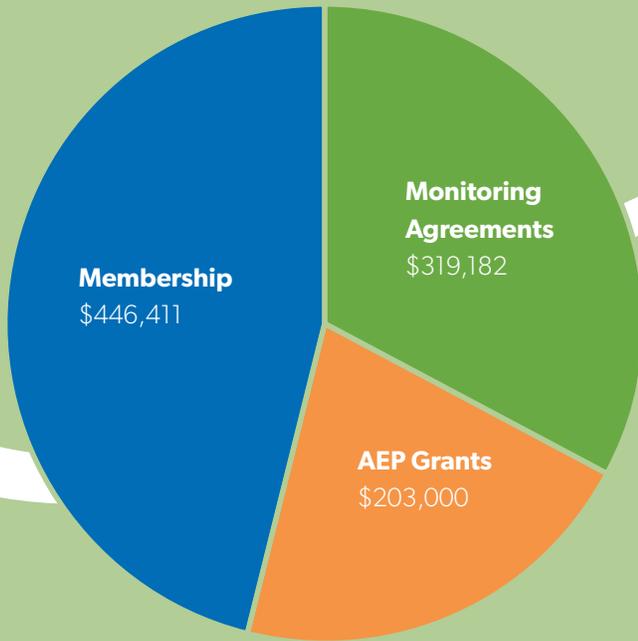
Clean Air Day took place on June 2, 2021 with Airsheds across Alberta participating in various activities to celebrate the day. WCAS used the opportunity to kick off our Community Hosted Air Quality Sensor Program. WCAS connected with communities and individual residents through social media, newspapers, and word-of-mouth.



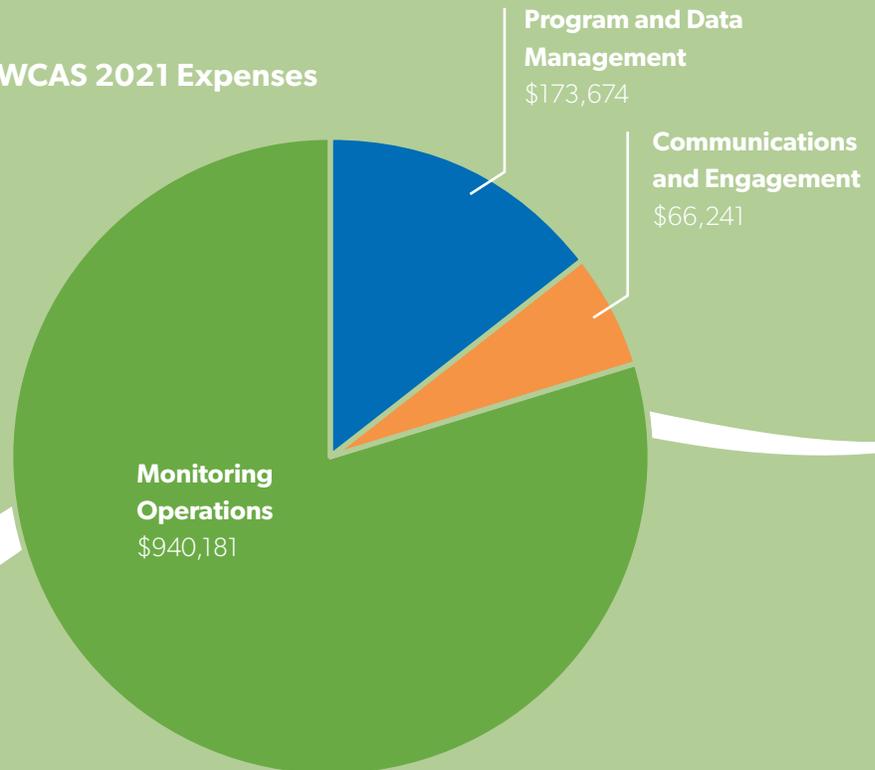
Tammy and Dennis Wade underneath the particulate sensor installed on their Entwistle home

EXPENDITURES & REVENUE SOURCES

WCAS 2021 Revenue Sources



WCAS 2021 Expenses



PEOPLE OF WCAS

2021 Contributing WCAS Members

Alberta Newsprint Company
ARC Resources Ltd.
Brazeau County
Canadian Natural Resources Limited
Capital Power Corporation
Cenovus Energy Inc.
Journey Energy
Keyera Corporation
Repsol Energy
Teck Coal Limited
Tidewater Midstream
TransAlta Generation Partnership
West Fraser Hinton Pulp
Westmoreland Mining
Weyerhaeuser
Yellowhead County

2021 WCAS Board of Directors

Melissa Nelson (President), Capital Power Corporation
Curtis Brock (Vice-President), Alberta Environment and Parks
Dan Moore (Treasurer), Alberta Newsprint Company
Carter Marr, Weyerhaeuser
Charlie Martin, Landowner - Agriculture
Cody Brooks, Brazeau County
Greg Unrau, Repsol Energy
Jennifer Knievel, West Fraser Hinton Pulp
Mark Matthews, Westmoreland Mining
Maureen Tang, TransAlta Generation Partnership
Shawn Berry, Yellowhead County

2021 Science and Technology Advisory Committee (STAC) Members

Alex Drummond, NorQuest College
Darcy Allen, Farmers' Advocate Office
Matthew Parsons, Environment and Climate Change Canada
Prabal Roy, Alberta Environment and Parks
Tiffany Wei, Alberta Energy Regulator

Staff

Gary Redmond, Executive Director
Robert Chrobak, Operations Manager
Kevin McCullum, Data Manager
Brenda Barber, Business Manager
Julie Kusiek, Communications & Outreach Coordinator
Leon Burns, Monitoring Technician
Dean Yustak, Monitoring Technician
Lily Lin, Data Validation Specialist
Serena Tang, Social Media Specialist

MEMBERSHIP

Our primary responsibility is to monitor, analyze, and report on air quality in West Central Alberta, but we also play important roles supporting our members and engaging with communities to increase their understanding of air quality.

Highlighted benefits of WCAS membership include:

- Fulfillment of regulatory obligations for air quality monitoring and reporting
- Cost effective solutions for meeting environmental responsibilities
- Access to detailed, regional air quality reports
- Liaison with other stakeholders from government, municipalities, communities, academia, and industry sectors
- Participation and support for WCAS' educational outreach programs in schools and communities
- Access to air quality expertise

For a listing of member benefits and advantages of participating in WCAS monitoring, download a copy of our Membership Brochure and learn more on our website.



Contact Us

Questions about air quality in our community?

Interested in becoming a WCAS member? Contact us!

wcas.ca

info@wcas.ca

587-499-4900

 @AirshedWest

 @WestCentralAirshedSociety