

WERE AND THE REAL POINT

Report to the Community 2022

TABLE OF CONTENTS

Executive Message	3	
Your Airshed	4	
What We Do	4	
Strategic Plan 2022	4	
Airshed Monitoring	5	
Alberta Airsheds Council (AAC)	5	
WCAS Monitoring Network Map	6	
Hinton Hillcrest Station	6	
What We Monitor and Why	7	
How Air Quality Monitoring Works	9	
Air Quality Standards	10	
Monitoring Plan	11	
Air Quality Results 2022	12	
Air Quality Health Index (AQHI)	14	
What Is AQHI?	14	
AQHI Ratings 2022	15	
Wildfire Smoke and AQHI	16	
How to Find the AQHI	16	

Education & Outreach	17
Working with Communities	17
Education Materials	19
Clean Air Webinars	19
Community Outreach	20
Revenue and Expenses	22
Members and People of WCAS	23
Contributing WCAS Members	23
Science and Technology	
Advisory Committee (STAC)	23
WCAS Board Of Directors	23
Staff	23
Membership	23
Contact Us	24



WCAS is on Treaty 6 and Treaty 8 territories - the traditional and ancestral territories of many First Nations, including the Cree, Dene, Blackfoot, Saulteux and Nakota Sioux, as well as home to the Métis Nation of Alberta. We wish to honour the many First Nations, Métis and Inuit who have been on this land since time immemorial, by being thoughtful about the air we breathe, and how we can work to ensure it is healthy and lifegiving for our earth, the current generation, and for many generations to come.

EXECUTIVE MESSAGE

West Central Airshed Society (WCAS) continues to bring valuable information to stakeholders and partners. As Alberta's first Airshed organization, WCAS continues to expand its capacity and engagement with west central Alberta communities. As a local organization, we were born from a community's desire to have access to better air quality information, and this motivation continues to shape our work today.

As we emerge from challenges related to COVID-19, WCAS is pleased to focus resources once again towards inperson engagements in our communities. In 2022, WCAS successfully recruited a new Engagement Coordinator based in Hinton who, supported by a concerted effort by our whole team, engaged with WCAS communities and other stakeholders. This effort was rewarded with several municipalities joining as members of WCAS and many discussions of future monitoring needs and opportunities. The core of our work is ambient air monitoring and WCAS continues to operate its broad network of continuous monitoring stations at the highest professional standards. These stations are supplemented by micro sensors and passive monitoring sites to ensure we have an accurate picture of regional and local air quality.

Each year we look for opportunities to upgrade our monitoring equipment technology and expand our network with the aim of continual improvement of regional air quality data. WCAS did make major network changes in 2022. Thanks to an external third-party review conducted in 2020, Tomahawk station was identified as redundant, given its proximity to WCAS' Drayton Valley regional monitoring station and the closure of the nearby coal mine. Tomahawk station was decommissioned in 2022 and the monitoring assets transferred to WCAS' newest station - Hinton Hillcrest. Having this new station at a high elevation in the southwest end of Hinton is a much needed addition to WCAS's air monitoring in this area. Due to frequent air quality challenges experienced in Hinton, this second station provides invaluable data for the community, WCAS members, and government/regulators. Real time data is streamed from our monitoring stations and available to the public on our website (wcas.ca). This data is used to inform the Air Quality Health Index, a Canada-wide system that uses several common air pollutants to rate the overall air quality. WCAS data is then checked through a rigorous quality assurance process before reporting to government and regulators.

In addition to our website resources, WCAS engages with stakeholders and partners through social media like Facebook, LinkedIn and Twitter, monthly newsletters, and various community events. The WCAS website has a "Members' Portal" that provides a deeper dive into air quality data and other resources exclusively for WCAS members.

This past year was an exciting one for WCAS and we look forward to continued growth and success in the year ahead.

President

Melissa Nelson

Gary Redmond Executive Director



YOUR AIRSHED

WHAT WE DO

WCAS is the first of Alberta's ten Airsheds, who together serve as the air monitoring partnership for Albertans. WCAS gathers air quality monitoring data and ensures all stakeholders have access to this important information. WCAS operates a broad network of air monitoring sites including permanent and portable continuous monitoring stations.

Multi-Stakeholder Collaboration

While our members have various mandates and interests regarding air quality, WCAS offers important partnerships and synergies where collaboration, engagement, and coalitions on topics of mutual interest can occur.

Credible Voice in the Region

WCAS is an important voice for its members by increasing awareness of regional air quality, bringing attention to air quality issues, and offering solutions and opportunities to improve air quality.

Expertise & Information

WCAS provides air quality data and other information to its members and the public.

Responsive

WCAS is a member-focused organization that is also responsive to all public inquiries.

STRATEGIC PLAN 2022

Every year WCAS Board updates the Strategic Plan. The current plan includes the following four goals:

GOAL #1 – Air quality data, representative of the Airshed and compliant with Alberta's Air Monitoring Directive, is collected and available to all stakeholders.

GOAL #2 – Increase general awareness of regional air quality.

- GOAL #3 Facilitate multi-stakeholder approaches to addressing local air quality issues.
- **GOAL #4 –** WCAS has the necessary organizational capacity to meet its objectives.







AIRSHED MONITORING

ALBERTA AIRSHEDS COUNCIL (AAC)

WCAS is a member of 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 <u>2022 Alberta Airsheds Air Quality Report</u> provides a summary of the air quality data that is monitored and collected in our province by Alberta's Airsheds.

WCAS MONITORING NETWORK MAP



HINTON HILLCREST STATION

For many years, WCAS has identified Hinton as a community with air quality challenges.

In 2022, WCAS commissioned a new continuous monitoring station - the Hinton Hillcrest station, embedded within Hinton's largest residential area and adjacent to the local high school.

In addition to the supplementary air quality data, Hillcrest is a high-profile community asset that has strengthened WCAS' relationship with local residents. The grand opening event was attended by the Acting Mayor, High School Principal, Chamber of Commerce, local media, and many local residents.



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 anthropogenically (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 O_3 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 O_3 can cause the muscles in the airways to constrict, trapping air inside the tiny air sacs 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. Oil and gas activities and transportation account for approximately 85% of the nitrogen emissions in Alberta; however, any combustion source will emit nitrogen dioxide (e.g. power plants, furnaces, space heaters). Some natural sources include volcances, lightning, biological decay, and oceans.

 NO_2 has been linked to respiratory disease. Short-term exposure to NO_2 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 (PM₁₀) 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. Trees and plants are major natural emitters of reactive hydrocarbons and large amounts of methane are produced naturally through the decay of vegetation. Other significant sources include motor vehicles, petroleum refineries, petrochemical plants, chemical solvents, 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 (H₂S), 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.

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
- Relative humidity



Air Pollution Sources

Pollution is emitted into the air from a variety of human-made and natural sources.

Monitoring

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Technician oversight of ambient air monitoring stations to measure concentrations of pollutants in the air.



Public Information

The real-time data is streamed on WCAS' website (wcas.ca) and informs the Air Quality Health Index, also available through the WeatherCAN mobile app.

4 Quality Assurance and Validation

All data and reports are scrutinized to ensure accuracy.

5 Data Reports and Public Information

This data is used for reporting to regulators, stakeholders and partners. It is analyzed for insights and trends in air quality.

Canada

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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.

Paramotor	1-hour	8-hour	24-hour	30-day	Annual
	Average	Average	Average	Average	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})	-	-	29 µg/m³	-	-
Carbon Monoxide (CO)	13 ppm	5 ppm	-	-	-
Ozone (O ₃)	76 ppb	-	-	-	-
AAAQG					
PM _{2.5}	80 µg/m³	-	-	-	-

Canadian Ambient Air Quality Standards

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 <u>website</u>.



MONITORING PLAN

In an effort to ensure monitoring resources are deployed strategically throughout the Airshed, and to effectively provide air quality data for the entire region, WCAS regularly reviews and updates our monitoring network. Relevant information is analyzed, including a 2020 external report commissioned by WCAS, Alberta Environment and Protected Areas' 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 is reviewed and updated annually to ensure WCAS remains nimble within a quickly changing environment.

Highlights of the Monitoring Plan for 2022 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
- Decommissioning of Tomahawk station as a result of reduced emissions in the area and challenging siting of the station
- Siting for a monitoring station location in the Whitecourt area, a population centre in WCAS
- Ongoing deployment of air quality sensors in communities without monitoring stations

AIR QUALITY RESULTS 2022

Air quality data highlights from the monitoring network in 2022, and a review of the 2022 data in relation to changes from 2021 for specific parameters, are outlined below:

Sulphur Dioxide (SO₂)

- From 92,000 hours of SO₂ data collected at 12 stations, there were no exceedances of the AAAQO 1-hour average (172 ppb), with the highest reading recorded at 45 ppb.
- In general, SO₂ levels were consistent between 2021 and 2022 and below the AAAQO annual average (8 ppb). Annual readings were less than 1 ppb (ranging from 0.2 to 0.7 ppb in 2021, and 0.1 to 0.7 ppb in 2022).

Hydrogen Sulphide (H₂S) and Total Reduced Sulphur (TRS)

- 8,300 hours of H_2S data was collected from one station.
- 11,000 hours of TRS data was collected from two stations (Hinton Hillcrest was operational for a partial year).
- No significant changes were observed in the readings from 2021 to 2022 with annual averages of H₂S ranging from 0.8 to 0.9 ppb (2021 to 2022), and TRS annual averages ranging from 1.1 to 1.0 ppb (2021 to 2022).
- There was an increase in the number of readings above the 1-hour AAAQO average for H₂S (10 ppb) from 40 readings in 2021 to 67 readings in 2022.

Nitrogen Dioxide (NO₂)

- From 92,000 hours of NO₂ data collected at 12 stations, there were no readings above the 1-hour AAAQO (159 ppb), with the highest reading recorded at 61 ppb.
- NO₂ readings were below the AAAQO annual average of 24 ppb, and all less than 10 ppb in both 2021 and 2022 (ranging from 0.9 to 7.9 ppb in 2021 and 1.0 to 8.0 ppb in 2022).

Ozone (O_3)

- From 67,000 hours of O_3 data collected at nine stations, there was a maximum 1-hour reading at 66 ppb (below the AAAQO of 76 ppb).
- No significant change was observed in O_3 concentrations between 2021 to 2022, with annual readings ranging from 23.4 to 36.1 ppb in 2021 and 23.4 to 35.8 ppb in 2022.

Carbon Monoxide (CO)

- From 8,300 hours of CO data collected at one station, there was a maximum 1-hour reading at 1.2 ppm (below the AAAQO 1-hour average of 13 ppm).
- The annual average CO concentration of 0.2 ppm was the same in both 2021 and 2022.

Particulate Matter (PM_{2.5})

- From 62,000 hours of PM_{2.5} data collected at seven stations, there was a maximum 1-hour reading of 348 μg/m³ above the AAAQG (80 μg/m³).
- There was a total of 54 hours recorded above the 1-hour AAAQG average (80 μg/m³) and 23 hours recorded above the 24-hour average AAAQO (29 μg/m³) in 2022. This is less than 2021 where there were 181 hours above the AAAQG and 74 hours above the AAAQO.
- Similar in both years, the majority of elevated PM_{2.5} concentrations were during wildfire events (42 of 54 1-hour events).

Weather

- In 2022, the warmest hourly period was recorded at 37.7°C and coldest hourly period at -39.7°C.
- Temperatures were above 20°C for 9,232 hours, and below -20°C for 5,731 hours of the data collected.



WCAS Weather Chart



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.

The pollutants used in the calculation are particulate matter ($PM_{2.5}$), nitrogen dioxide (NO_2) and ground-level ozone (O_3); all 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.		

AQHI RATINGS 2022

A total of 50,379 hours of AQHI data was collected from seven stations throughout 2022 to calculate both current and forecasted hourly AQHI values in the West Central Region. These stations included Drayton Valley, Edson, Genesee, Hinton Drinnan, Hinton Hillcrest, Steeper, and Tomahawk (prior to decommissioning). 98% of this data had an AQHI <3, or was considered "low health risk". There were 38 hours of AQHI data recorded in 2022 that had a "high" or "very high health risk" and were attributable to high smoke events, specifically wildfires in September and October 2022. The AAC shared in the <u>2022 Alberta Airsheds Air Quality</u> <u>Report</u>, that all monitoring stations in Alberta 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).



WCAS AQHI 2022 Results



WILDFIRE SMOKE AND AQHI

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 AQHI. Visit <u>wcas.ca</u> to access information related to wildfires, firesmoke, and AQHI in your region.

HOW TO FIND THE AQHI

Current and forecasted AQHI values for WCAS stations are available on the WCAS website. AQHI is also readily accessible through the free Environment Canada WeatherCAN app, where you can also set alerts for specified AQHI values and be notified of "Special Air Quality Statements" in your region.



EDUCATION & OUTREACH

WORKING WITH COMMUNITIES

Particulate Sensors

WCAS continues to seek out host sites from municipalities and engaged community members and grow its network of lowcost particulate matter sensors, which are particularly helpful during times of wildfire smoke. By recruiting community hosts, WCAS can engage with local communities who otherwise do not have access to air quality data. These community hosts include small municipalities, schools, and concerned members of the public.

The data can be very helpful to the community and as importantly, it engages people into the collection of data, that directly impacts their lives. Part of our program is a partnership with Environment and Climate Change Canada, who provides the sensors and WCAS works with local communities to install and operate.

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

- Barrhead
- Breton
- Carrot Creek
- Entwistle
- Hinton
- Jasper

- Lodgepole
- Mayerthorpe
- Meadows
- Tomahawk
- Wagner
- Warburg

WCAS invites individuals and municipalities interested in hosting a particulate sensor to contact us at info@wcas.ca. This data is shared on our Live Air Data map on our website: <u>wcas.ca</u>.





Chambers of Commerce

Membership in the Chambers of Commerce for communities within WCAS is very important. We have become members of the Chambers of Hinton, Edson, Whitecourt, Evansburg & Entwistle, Jasper, Drayton Valley, Barrhead, and Swan Hills. WCAS attends various Chamber meetings to provide information about WCAS and to promote and expand the visibility of WCAS monitoring in these areas.

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.







Indigenous Awareness

WCAS recognizes the need for greater awareness of Indigenous Peoples within our region. By incorporating learnings from the Truth and Reconciliation Commission and external expertise we have been able to identify and learn about First Nations and Métis in WCAS. The hope is to effectively engage on issues related to air quality, in a way that respectfully appreciates the unique elements of Indigenous communities.

WCAS staff and board members attended a professional learning session that touched on Treaty, land acknowledgments, history and legacy of colonization, trauma, reconciliation and working together with Indigenous Peoples.

EDUCATION MATERIALS

With the support of an Alberta Environment and Protected Areas 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 <u>wcas.ca</u> to download these free educational resources and to browse our video and resource library.



CLEAN AIR WEBINARS

In partnership with Alberta Capital Airshed, WCAS co-hosted seven webinars on a variety of topics, including:

- How the Federal CAAQS Informs Air Quality
- Alberta's Air Monitoring Plan The Next Five Years
- Camrose Project Community Science, Environmental Studies, and Flow2 Air Quality Sensors
- What to do About Wildfire Smoke and Poor Air Quality Days
- Exploring the Relationship Between Climate Change & Air Quality
- Climate Change & Air Quality Linkages— Implications for Health
- Reduced Transportation from COVID—Impacts on Air Quality

All webinar playbacks are available at wcas.ca under the <u>"News & Events"</u> tab.



COMMUNITY OUTREACH

WCAS **e-newsletters** are distributed monthly to over 200 members, stakeholders, and individual subscribers. These updates keep our audiences informed on WCAS, recognize those that contribute to our work, bring attention to important topics and delve into air quality matters to help community members understand air quality data and how it relates to them.



WCAS' social media presence continued to grow in 2022 with the addition of our LinkedIn account. Follow us on Twitter **@AirshedWest**, Facebook **@WestCentralAirshedSociety** and LinkedIn **@west-central-airshed-society** to keep up-to-date on local air quality, advisories, special events, campaigns, and other highlights within our region and across Alberta.



WCAS launched two **Stop Needless Idling** campaigns in 2022 - one in March and one in November. Both campaigns were a coordinated effort with all Alberta Airsheds to share informational video reels and posts to social media platforms, including Twitter, Facebook, and LinkedIn.

WCAS continues to collaborate with other Alberta Airsheds to create impactful and inspiring educational content through regular campaigns and air quality monitoring content.



AAC

PLEDGE TO TURN OFF YOUR VEHICLE IF YOU'RE PARKED FOR LONGER THAN 60 SECONDS. TAKE THE PLEDGE AT ALBERTAAIRSHEDSCOUNCIL.CA



Clean Air Day took place on June 8, 2022. WCAS used the opportunity to connect to communities and individuals via social media channels and extended the invitation to participate in the virtual Clean Air Day event hosted by the Canadian Environment Network and Health Canada, to explore the intersections between air quality, climate change and health.

REVENUE AND EXPENSES

WCAS 2022 Revenue Sources



Membership 407,628

Sponsorships 15,000

EPA Grant 203,000

Monitoring Agreements 473,328

WCAS 2022 Expenses



Program and Data Management 161,084

Communications & Engagement 73,942

Monitoring Operations 801,234

MEMBERS AND PEOPLE OF WCAS

Contributing WCAS Members

Alberta Newsprint Company ATCO Energy Solutions Axiom Oil & Gas Baytex Energy Ltd. Big Horn Mining Bonavista Energy Corp. Bonterra Energy Brazeau County Canadian Natural Resources Limited Canlin Energy Corp. **Capital Power Corporation** Cenovus Energy Inc. Crescent Point Energy Corp. Hawthorne Energy Inception Oil Journey Energy Keyera Corporation Kineticor Long Run Exploration Ltd. Loyal Energy Operating Ltd. Municipality of Jasper **Obsidian Energy Repsol Energy** Ricochet Oil Corp. Sinopec Canada Teck Coal Limited Tidewater Midstream Town of Edson Town of Hinton TransAlta Generation Partnership West Fraser Hinton Pulp Westmoreland Mining/ Prairie Mines & Royalty Weyerhaeuser

Science and Technology Advisory Committee (STAC)

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

WCAS Board of Directors

Melissa Nelson (President) Capital Power Corporation Curtis Brock (Vice-President) Alberta Environment and Protected Areas Dan Moore (Secretary/Treasurer) Alberta Newsprint Company Carter Marr, Weyerhaeuser Charlie Martin Landowner - Agriculture Donna Wiltse, Brazeau County Jennifer Knievel West Fraser Hinton Pulp Maureen Tang TransAlta Generation Partnership

Staff

Gary Redmond, Executive Director Kevin McCullum, Data Manager Lily Lin, Data Validation Officer Robert Chrobak, Operations Manager Leon Burns, Technician Dean Yustak, Technician Nathan Radke, Technician Brenda Barber, Business Manager Jordan Peterson, Membership Coordinator Yvonne Barker, Engagement Coordinator Serena Tang, Social Media Specialist

MEMBERSHIP

Our primary responsibilities are 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 in @West-Central-Airshed-Society