

WCAS Celebrates Its Tenth Anniversary

The West Central Airshed Society reached a significant milestone this year, celebrating its tenth anniversary. This issue of the newsletter looks back at the Society's history and accomplishments in the first ten years, and forward to the future with its new challenges. The overall air quality in the west central area of Alberta continues to be good, and if there is a problem, the Society remains committed to making that information known.

The Idea

The notion of using zones as the basis for monitoring and managing air quality in Alberta was one of the recommendations in the 1991 Report to the Ministers by the Clean Air Strategy for Alberta Advisory Group. The west central area of Alberta was an ideal place to explore the new concept of regional air quality monitoring and management. There was already a high level of community awareness of environmental issues, particularly air quality issues, due in part to the Lodgepole blowout in the early 1980s. Industry, environmental organizations and government representatives were all keen to explore changes in the way ambient air quality was being monitored, and it was against this backdrop that the WCAS was born.

Through the initiative of several strong and committed individuals, representatives from the community, government, industry, and non-government organizations formed an independent non-profit society to operate and maintain a regional air quality monitoring program. In early 1995, the

Clean Air Strategic Alliance board enthusiastically endorsed their business plan and monitoring proposal for a zone.

Tim Whitford was working for Weldwood Canada when he joined the board and became its first chair in 1995.

"Regional airshed monitoring accomplished several goals," he says. "One of the most important was providing a forum where local residents and other stakeholders could work together to make sure that the air where they live, work and play is good to breathe. This concept later

became the underpinning of Canada-Wide Standards related to particulate matter, ground level ozone, mercury, benzene, and dioxin and furan, which have had an impact across the country."

Since 1995, the WCAS monitoring system has come to be recognized by all partners as reliable, scientifically credible, and trustworthy. The five zones that have since formed in Alberta looked to the WCAS model for guidance, and Saskatchewan

Environment has also adopted this model for its provincial air monitoring initiatives.

Where have we been?

The key objective of the WCAS is to monitor the air and the effects of air quality on vegetation in the west central region, and to make decisions and recommendations about air quality management based on what it finds.

The air quality monitoring program, which began in 1995 with just five stations, focuses on three main aspects: acid-forming gases (e.g., sulphur dioxide and oxides of nitrogen), air quality parameters that may affect vegetation (e.g., ozone), and

The WCAS:

- Covers 46,000 square kilometres (almost 18,000 square miles).
- Monitors regional air quality 24 hours a day, 365 days a year at 12 stations, including three in urban areas (Drayton Valley, Hinton and Edson).
- Maintains five agricultural bio-monitoring sites, two forestry bio-monitoring sites, 14 passive monitoring sites, and one portable station.
- Provides data to the public via the Internet on 11 air quality and nine meteorological parameters.
- Has nearly 100 members from government, industry and non-government organizations.
- Is a non-profit society, governed by a multi-stakeholder volunteer board of directors that makes decisions on a consensus basis.

parameters that are of interest to health professionals (e.g., particulate matter). The program provides data to track short-term events and long-term trends in the zone. For a complete description of the monitoring program, visit the WCAS website at www.wcas.org.

The board later worked with scientists and researchers to design and implement a five-year study that would correlate air quality and crop damage to two sensitive local crops – alfalfa and saskatoons. This study was completed in 2004 and the WCAS will use the results to shape the Society's future agriculture bio-monitoring program.

In 2003, the WCAS expanded its boundaries in the eastern part of the zone, which now includes the Wabamun and Genesee power generation facilities. The program was substantially enlarged to provide better coverage of more parameters as a result of the new boundaries. The program was further enhanced with the addition of new stations in Edson, Hinton and Drayton Valley, which gave the WCAS a stronger urban presence; in 2004, a portable station was set up to respond to air quality issues in areas not served by other stations.



The new WCAS air monitoring station at Hinton.

Future Directions

Building on its solid record over the last ten years, the Society will be working hard to make its program even better. Rob Macintosh, who founded the Pembina Institute in Drayton Valley, was a key player in forming the WCAS. He sees a strong role for the Society into the future. "As energy development and economic growth continue to accelerate in Alberta, environmental quality, and clean air in particular, remain important concerns for citizens living in resource communities. The design of the WCAS ensures the best technical advice as well as a strong role for the public in the governance and oversight of a system to monitor and protect our airshed."

As well as seeking ways to improve its monitoring program, the WCAS has several key priorities for the coming years.

- **Agricultural program.** A strong agricultural program is a priority to ensure that air quality is not having a negative impact on the region's crops. The WCAS is exploring partnership opportunities with organizations interested in

agricultural research to develop a solid long-term program.

- **West Central "On the Air."** With a new presence in three towns in the zone, the Society plans to strengthen its relationship with urban residents and will be working with local radio stations and newspapers to provide ongoing information to people in the west central region. The WCAS website already provides live air quality data from the zone and there are plans to update and expand the site to make it even more user friendly.
- **Working with municipal governments.** High energy prices have triggered new developments in the oil and gas sector. The Society is working closely with some municipalities in the zone to examine opportunities for additional monitoring of these developments and their impacts, focusing particularly on sour gas activities.
- **Northern boundary expansion.** Increased industrial activity north of the zone has resulted in some

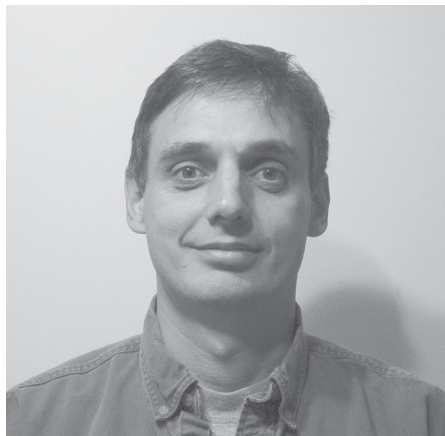
preliminary discussions about expanding the WCAS boundaries to include the Whitecourt-Fox Creek area.

- **Hightower Ridge station.** The WCAS set up and maintained the province's background air quality monitoring station at Hightower Ridge north of Hinton, until it was shut down in 2004 due to a 30-fold increase in power costs. The Society is reviewing options for alternative power or for a new site.
- **Funding.** The original funding formula for the zone, which placed most of the onus on the industry sector, has worked well, but was based on a company's emissions. Reducing emissions is something everyone wants to see, but as emissions drop, revenues to the zone also decline. All sectors would like to revisit the way in which zones are funded and explore new options; these could include how to deal with emissions from open sources (such as vehicles and forest fires) and finding mechanisms for governments to take a more active role.

Meet Mike Woods, WCAS Vice Chair

Mike Woods' involvement with the West Central Airshed Society makes him one of the "founding fathers," as he chaired the Technical Working Group that designed much of the original structure for the airshed. "Back in the early 90s, acid deposition and the potential impacts of air quality on human and animal health were key issues," he says. "Our goal was to set up an independent air quality monitoring program that would have credibility with both the residents and the regulators."

In Drayton Valley, there were specific concerns about particulate matter (PM) and formaldehyde emissions from the Weyerhaeuser plant. The company put in a trailer to monitor these substances and found that there were actually a number of sources of particulate matter in the community, including road dust, fireplaces, and agricultural activity. Weyerhaeuser has since contracted the



WCAS to monitor PM2.5 and PM10 and this arrangement has been very valuable for everyone. "Third party monitoring assures the community that their air quality is being objectively assessed and it has saved money for the company," says Woods. Weyerhaeuser is actively involved with the WCAS, but continues to monitor formaldehyde

emissions on its own, and report the results on a regular basis to the community.

Mike has watched the WCAS program grow and adapt over the years, and feels its longevity is a big accomplishment. "It has been a remarkable experience to see such a variety of people come to the table to listen, learn and work together to find solutions. We've invested a lot to get our program in place. Now the challenge is to ensure that our decisions continue to protect and improve air quality and meet the priority needs of the people who live in the airshed."

Mike Woods is the Environmental and Waste Manager for Weyerhaeuser's Drayton Valley operations, a role he has been in for over 15 years. He has served as the vice-chair of the WCAS for four years and forestry sector director for 10 years.

The 2004 WCAS annual report is now available in print and online. For more details on the WCAS monitoring program, visit the website at www.wcas.ca

Alberta airshed zones info and links are online at www.airsheds.ca. This revamped website provides a wealth of information about airshed zones in the province and links to all six zones.