Clean Air Strategic Alliance

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Ernie Hui
Chief Executive Officer
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Dear Mr. Hui,

The goal of the future environmental monitoring agency is to create a world-class Monitoring, Evaluation and Reporting (MER) System that has the following characteristics:

- Science-based
- Centrally coordinated
- Integrates media (air, land, water and biodiversity)
- Open and transparent data, information and reporting

The CASA and Alberta Airshed Council Joint Standing Committee (JSC) suggests the addition of a fifth bullet to be added as a goal of the future environmental monitoring agency:

- Sustainably funded

While the MER system is provincial in nature, it is understood that it will take into consideration regional and local issues both in system design and in its implementation. These design considerations may benefit from the regional experience of stakeholders participating in airshed zones. The CASA and Alberta Airshed Council Joint Standing Committee (JSC) could add substantial value to your work by serving as a mechanism for discussion of the challenges in the design and implementation of the system and for sharing the experience and learnings of the airshed zones. With this in mind, we invite you or another appropriate member of the agency, to meet regularly with the JSC as your work continues. This would enable a constructive ongoing dialogue on the design and implementation of the system that would be beneficial to all parties.

Alberta's airshed zones share a commitment to certain principles that shape their approach to air quality monitoring and associated stakeholder involvement:

- **Transparency and Accessibility**: Air quality data is available to concerned stakeholders and reported/interpreted for broader public consumption.
- **Inclusivity**: Every effort is made by airshed zones to identify and communicate openly with other local stakeholders who share their interest in air quality, often including invitations to join in airshed zone discussions.

- **Equitability**: Airshed zones recognize the full range of emission sources and emitters, encouraging all parties to participate in airshed zone discussions and to share the costs of monitoring plan implementation.
- **Responsiveness**: Airshed zones periodically receive information/complaints about air quality and assess how their monitoring plan and network can respond.
- **Credibility**: While significant funding for an airshed zones work may be provided by emitters, decisions with respect to the disposition of funds and the development and implementation of monitoring plans are made by consensus, and require the agreement of a multi-stakeholder board.
- Airshed zones focus on **science and evidence-based decision-making**, requiring Members to understand and make informed choices with respect to very technical information. While all airshed zones would benefit from having more funds and resources, the funds they do have are directed at providing the most credible and practical monitoring program within those limitations.
- **Professionalism**: Airshed zones are not-for-profit organizations with a multi-stakeholder Board of Directors. Airshed zone staff and contractors are highly trained professionals and all financial information is publically available.

Although the primary objective of ambient air quality monitoring networks has been to determine compliance with air quality standards or objectives, there is increasing emphasis on going beyond compliance to achieve multiple objectives (Chow et al., 2002; Chow and Watson, 2008; Scheffe et al., 2009). Currently some airshed zones collect data to achieve additional objectives including improving understanding of atmospheric processes; tracking trends to evaluate effects of emission changes; verifying air quality source models; quantifying source contributions with receptor models, and determining effects on ecosystems and human health. With adequate resources there is a possibility for other airshed zones to have the potential to contribute in this way.

Other key drivers for ambient air quality monitoring programs:

- **Environmental Impact Assessments** - these assessments show the incremental stresses placed on the environment by each subsequent project. Comprehensive monitoring of environmental conditions serves to verify EIA predictions and to identify the onset of any adverse effects on ecosystem components.
- **Regulatory Expectations**- Approvals under the Environmental Protection and Enhancement Act require approval holders to conduct monitoring to verify that operations are within the required limits, to provide early warning for potential environmental problems, and to track trends in operational and environmental performance. The Alberta government allows, encourages, and may require approval holders to meet their ambient monitoring obligations through the work of airshed zones where they exist.
- **Regional Plans** - Air Quality Management Frameworks will form part of the provincial regional plans. These frameworks establish a commitment to ongoing monitoring, evaluation and reporting of ambient air quality conditions and verification of triggers or limits when exceeded.
- **Stakeholder/Community Involvement** - As both industrial sites and populated centers grow, a variety of concerns arise. Surrounding the impact of industrial operations/urban growth on

human and animal health, and on the ecosystems they enjoy for recreation or for livelihood. Ambient air quality monitoring informs the air quality management plans developed in response to these concerns.

- **Non-point Sources** – Non point source emissions are an issue that airshed zones have identified and are working in their regions to gather more information and solutions on.

What follows is a summary of the types of information that airshed zones have provided previously on other projects, some of which could be used to inform Alberta's environmental monitoring system. If required, the JSC could provide more detailed information on selected areas of interest.

1. Relationships/Dialogue:
    - Airshed zones provide a variety of systems design information, including documenting the value of airshed zones (participating in Alberta Environment's *Review of Value and Funding Options for Airshed Zones and Watershed Planning & Advisory Councils to Support Cumulative Effects Management*) or providing technical expertise (*CASA PM and Ozone Lessons Learned*), which outline regional/local considerations.
    - Collaboration among stakeholders to ensure that the high quality data generated is deemed to be credible by an informed and fully engaged locally-based network of practitioners.
    - Cooperation among the airshed zones to collaborate more effectively (e.g. the sharing of policy research costs).
    - Airshed zones have the capacity to bring together stakeholders to discuss trans boundary issues
    - Airshed zones provide updates to, and liaise with, the Clean Air Strategic Alliance.

2. Land-use planning at the regional scale:
    - Airshed zones are involved in the development of air quality management plans.
    - Airshed zones provide a forum for informed discussion of local air quality conditions, monitoring siting and potential impacts. That level and quality of dialogue between proponents, municipalities and airshed zones can, in turn, lead to better informed choices and reduced conflict.
    - Many airshed zones are conducting network assessments to ensure that airshed monitoring aligns with cumulative effects management frameworks.

3. Community Engagement:
    - A key strength of the airshed zone governance model is stakeholder engagement, something that has subsequently been recognized and supported during national AQMS development.

- Airshed zones are working on greater involvement and engagement of non-regulated sectors and stakeholders (i.e. generally, non-point sources).
- Most airshed zones undertake considerable community outreach activities, regularly providing information and activities, such as vehicle emissions testing.
- The airshed zones play a valuable role in disseminating information about air quality.

4. System Credibility:
    - Consensus-based decision-making allows stakeholders to share their points of view and decide collectively, reducing tension between the parties and promoting a transparent decision-making process. This transparent process provides much-needed credibility.
    - Airshed zones submit data to the CASA Data Warehouse (CDW), and provide input on data quality and data submission. Ambient air quality data will continue to be of great interest to regional stakeholders. Regardless of how data is collected and managed, its value, credibility and transparency must be sustained.
    - The value added study conducted by Alberta Environment (noted in item 1), found the following results regarding the value of WPACs and airshed zones:
        - Effective way to communicate with community & stakeholders (100%)
        - Are aligned with current government policies (90%)
        - Add value to the community (88%)
        - Positively impact air and water management (85%)

5. Local knowledge:
    - Regional airshed zone stakeholders provide important local knowledge and interpretive capabilities not available through a strictly centralized model.
    - The value of building stakeholder familiarity with the methodology of data analysis and interpretation can itself lead to system improvements.
    - Airshed zones can provide a forum for individuals to voice their air quality concerns that may be addressed by monitoring or other activities of airshed zones

A constraint to how airshed zones currently operate is the need for secured funding and organizational support to airshed zones. This is required to ensure airshed zones have the resources, expertise, policies and processes to contribute to regional plans as they are developed. Long-term funding mechanisms would need to come from leadership from higher orders of government.

We look forward to your response to this invitation and to your thoughts on any other ways in which the JSC could provide further input to your work.

Sincerely,

The CASA and Alberta Airshed Council Joint Standing Committee

A Note on Airshed Zone Formation:

In 1995, a CASA project team determined that stakeholders' primary concern with air quality was the potential impacts on human health and ecosystems. Because of the importance of ambient air quality data to a variety of users, the project team worked closely with industry, government and environmental organizations, as well as with other CASA project teams. This process formed the basis for the multi-stakeholder, consensus based nature of airsheds when they began to form in Alberta. At the same time, the Lodge pole blowout and related concerns with oil and gas development led to the formation of a non-profit consensus based group which later became the first airshed in Alberta – the West Central Airshed Society.