Clearing the Air
Alberta's Renewed Clean Air Strategy

2012

Action Plan

This action plan specifies key actions, with associated timelines for implementation, to support the outcomes and strategic directions identified in the Renewed Clean Air Strategy.

In reading this action plan, it is important to recognize the following:

- Most actions will require more detailed implementation plans that will be developed in collaboration with stakeholders.

- Some actions have a longer-term focus and will require further scoping.

- The actions identified in this document are not an exclusive list. Provincial government departments may undertake additional actions that contribute to air quality management.

- Some actions are already being implemented as part of other provincial strategies and initiatives. Examples include regional planning under the Land-use Framework, the provincial Cumulative Effects Monitoring approach, and the development of an integrated monitoring, evaluation and reporting framework.

- The action plan does not include specific regulatory initiatives related to industry approvals, compliance and environmental impact assessments, as these would be considered as part of other provincial initiatives.

Timeframe to Implement

◆ indicates when bulk of work will occur

0

3

5

10

years

Alberta Government

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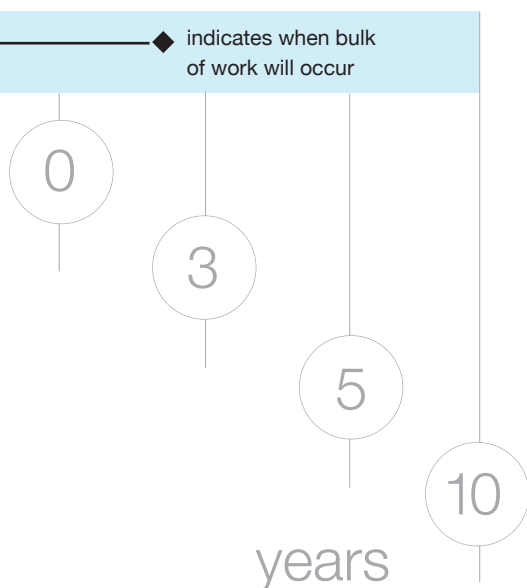
Regional air management including complementary management of point and non-point emission sources

1.1   Coordinate regional air quality management

1.1.1   Coordinate regional air management across air zones, land use regions and air shed zone organization boundaries
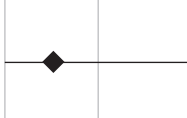
1.2   Develop and implement provincial and regional management mechanisms, including frameworks to address air quality issues
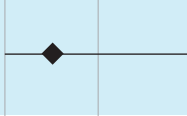
1.2.1   Implement a collaborative process to identify and address gaps in the management of air quality.

Integrate the land-use regional planning process to ensure that regional objectives and triggers are aligned with the Alberta Ambient Air Quality Objectives as well as with the Canadian Ambient Air Quality Standards and their management levels.

1.2.2   Develop and implement provincial or regional management frameworks or other mechanisms for emerging air quality issues.

Build understanding among agencies and partners whose activities could impact air quality, about the purpose and implementation requirements for management frameworks developed for their jurisdiction:

■ Develop a collaborative process to assess the need for the development of management frameworks.

■ Implement a mechanism to integrate/coordinate air-related decision making within each region to comply with the direction in regional air management frameworks and achieve regional outcomes.

■ Implement a mechanism to support agencies that regulate / permit activities that could affect air quality to address impacts through regulatory and/or non-regulatory tools.

1.3   Develop options to understand and prioritize non-regulated and non-point sources

1.3.1   Assess non-point emission sources (examples include agricultural, residential/commercial heating, transportation, and municipal sectors) and identify possible key sources for management.

Identify the best mechanisms, including modeling, to quantify and determine the fate of emissions from specific non-point source sectors.

1.4   Develop and implement policies and management tools for non-regulated and non-point sources

1.4.1   Develop policies and corresponding management actions, including but not limited to education, Best Management Practices (Best Management Practices), regulatory or economic instruments, to address non-point source emissions in the agricultural, residential/commercial heating, transportation, and municipal sectors.

Support and facilitate partnerships and educational programs targeting transportation emissions.

Develop Best Management Practices to help reduce air emissions and improve energy efficiency within the transportation sector.

1.4.2   Engage stakeholders involved in air quality management to implement community education programs and community relations.

Expand partnerships with specific transportation sector stakeholders on Best Management Practices for transportation emissions.

Work with stakeholders to determine appropriate education strategies and Best Management Practices to address specific non-point sources (e.g., implement air education programs for Albertans on minimizing emissions related to transportation).

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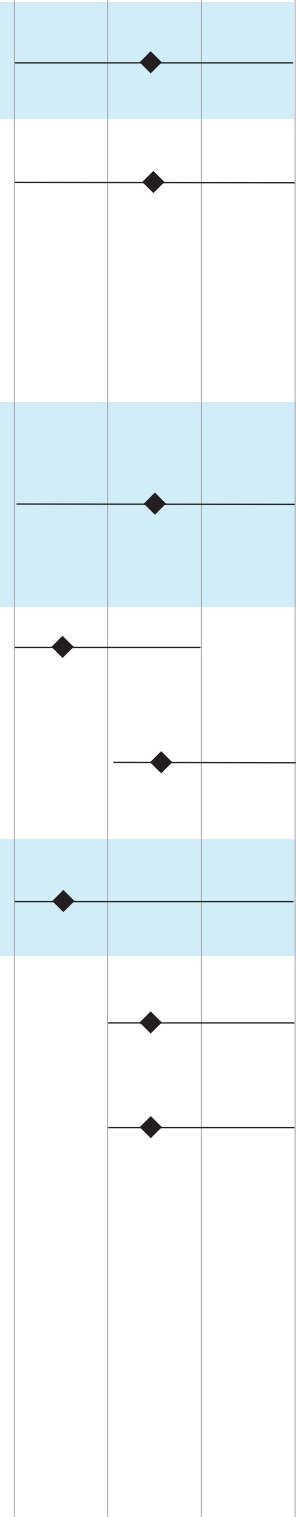
1.4.3   Identify specific actions that could be undertaken by Albertans to reduce emissions from non-regulated and non-point sources.

Develop and implement an education plan identifying appropriate education strategies and tools to manage key non-point source emissions.

Assess the feasibility of implementing select Best Management Practices as referred to in the Clean Air Strategic Alliance Confined Feeding Operations Strategic Plan reports.

1.4.4   Develop tools and/or policies, such as economic instruments or regulatory requirements, to encourage Albertans to make choices that reduce air emissions.

Assess the feasibility of implementing economic instruments such as rebates and reimbursements or disincentives (e.g., tax levies).

Expand the use of financial instruments, such as incentives, to encourage energy efficiency improvements in the residential and transportation sectors with the aim of reducing non-point source emissions.

Shared responsibility and partnerships

2.1   **Clarify and articulate the roles of cross-government and cross-ministry departments and partners**

2.1.1   Clarify the roles and accountabilities across levels of government and across provincial government ministry stakeholders and partners in the provincial Alberta Quality Management System as it operationalizes the national approach, especially in the management of non-point source emissions

Clarify the roles and responsibilities of the Government of Alberta and its stakeholders in implementing the national air quality management system in Alberta.

Clarify the roles of partners such as air shed zone organizations and Clean Air Strategic Alliance in implementing the enhanced provincial Air Quality Management System.

Review the roles of air shed zone organizations under the CEMS and include resourcing and funding mechanisms to support these roles.

Clarify the role of partners in regional planning initiatives under the Land-use Framework as it relates to air quality management.

2.2   Coordinate policy development and integration to achieve environmental outcomes

2.2.1   Implement a process to assess the impacts of major policy initiatives in areas such as energy, transportation and agriculture on air quality management and environmental outcomes.

Develop policy impact assessment tools to determine the impacts of major policy initiatives on air quality management.

Develop tools to integrate social, environmental and economic values into air management policy and planning.

Assess and expand, if appropriate, the existing nitrogen dioxides (NO_x) and sulpher dioxide (SO_2) baseline and credit system in the electricity sector.
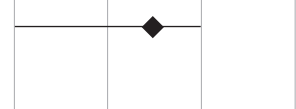
2.2.2   Coordinate policy development and implementation across levels of government and across provincial government ministries to ensure consistency in the management of air quality issues and identify any gaps.

2.2.3   Implement a mechanism to integrate/coordinate air-related decision making within each Land-use region that reflects the direction in the regional air management framework, including regional outcomes.

2.2.4   Work collaboratively with neighboring jurisdictions to manage transboundary emissions and air quality impacts.

Implement Acid Deposition Management Frameworks between Alberta and relevant neighboring jurisdictions.

Complete bilateral agreements with other levels of government as needed.

2.2.5   Work with municipal associations to assist municipalities in addressing air quality within municipal plans.

Provide municipalities with technical and scientific support on issues relating to air quality.

Provide support for enhanced educational programs around air quality management at local levels (e.g., anti-idling).
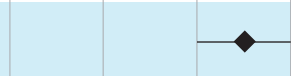
Integrated monitoring, evaluation and reporting

**3.1   Develop comprehensive monitoring programs**

3.1.1   Strengthen the province-wide ambient air monitoring system, including quality assurance for ambient monitoring information.

Ensure ambient air monitoring data meets the needs of the enhanced provincial Air Quality Management System as it operationalizes the national approach.

Update the Air Monitoring Directive

3.1.2   Ensure relevance of ambient air monitoring data to meet national commitments, contribute to regional planning, and not exceed air quality standards.
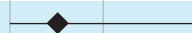
3.1.3   Clarify the expectations for industrial emissions and compliance monitoring.

Update the Continuous Emissions Monitoring System Code

3.1.4   Take into account the Ambient Monitoring Strategic Plan in regional planning initiatives.

3.1.5   Review the quality assurance mechanism for industrial sources of emissions information.

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3.1.6	Examine options for a long-term funding mechanism by which all sources of emissions contribute to funding the ambient air monitoring system.		◆		
3.1.7	Develop an integrated environmental (air, water, land, biodiversity) monitoring service delivery system.	◆			

3.2 Enhance the data management and access system

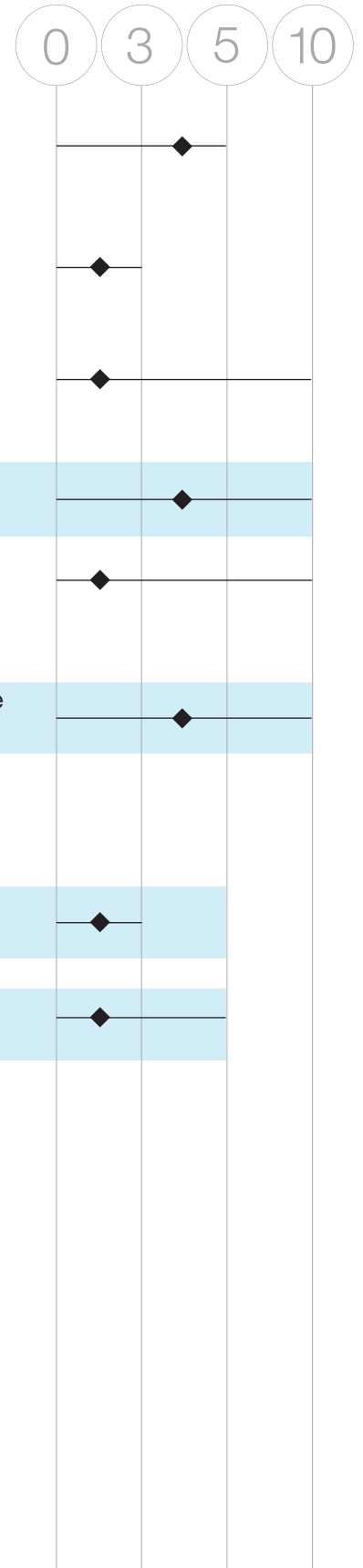|		0	3	5	10
3.2.1	Enhance and maintain one provincial, integrated repository for ambient air quality monitoring data.	◆			
	Enhance the Clean Air Strategic Alliance Data Warehouse .	◆			
	Combine the Clean Air Strategic Alliance Data Warehouse with ambient water data.	◆			
3.2.2	Make ambient and emission data and information readily accessible in a timely manner.	◆			
	Identify the level of detail and key requirements for demonstrating compliance with Air Quality and Performance Standards.	◆			
	Promote the use of the provincial integrated data repository with all stakeholders.		◆		
	Include industry ambient air monitoring data in the provincial, integrated repository.		◆		
3.2.3	Ensure public accessibility and clarity of the State of the Environment report on Alberta's air quality.	◆			
	Continuously improve the information on and accessibility of the State of the Environment website.	◆			

3.3 Strengthen the evaluation system

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3.3.1	Develop standardized monitoring indicators to ensure that air data necessary for assessing the state of Alberta's air is collected and reported.	◆			

Key Actions

Assess the relevance of current air monitoring indicators and the need for new indicators, to ensure that they provide the information needed to report on the state of Alberta's air quality.

Evaluate the effectiveness of the Air Quality Health Index in Alberta to assure that it meets the needs of Albertans.

Create a process to evaluate whether the Land-use Framework regional objectives and triggers support meeting the intent of the environmental outcomes and revise as necessary.

3.3.2   Include performance indicators on new and amended air policies.

Develop performance indicators that have strong linkages to the desired environmental outcomes (e.g., the protection of human health and ecosystems) for Alberta.

3.3.3   Support municipal governments to develop air quality policies that include performance indicators.

3.4   Enhance the data reporting system

3.4.1   Enhance a system for electronic reporting of air monitoring data and information.

3.4.2   Provide clear guidance and protocols for reporting of air data and information.

Knowledge enhancement

4.1   Increase public knowledge related to air quality and its management

4.1.1   Enhance programs to educate the next generation on air quality issues.

Increase accessibility of air education resource materials for schools by posting "on line".

Connect with youth-specific organizations/stakeholders to educate on air quality issues.

Support development of educational programs around linkages between air quality and human health.

4.1.2   Provide Albertans with information on what individual action can be undertaken to positively impact air quality

4.1.3   Provide Albertans with timely information on air quality designed to help individuals protect their own health.

Make information on air quality and potential human health effects available to Alberta health care providers.

Add potential health messaging and educational tools to the existing monitoring, evaluation and reporting system for ambient air quality in Alberta.

Initiate a public information campaign on air quality and human health.

Continue to enhance, monitor and use the BluSky Western Canada Smoke Forecasting System to provide western Canadians with up to 48 hours notice of anticipated smoke resulting from forest fires.

Assess the effectiveness of the reporting matrix for information on smoke management and public health and make adjustments as needed.

Key Actions

4.2   Enhance air research and innovation

4.2.1   Collaborate with relevant Government of Alberta ministries, the provincial research and innovation system (Alberta Innovates) and partners to develop a comprehensive Air Research and Innovation Strategy and research programs.

Provide advice on key components to develop a comprehensive Air Research and Innovation Strategy.

Develop research programs dealing with air quality as it relates to human and ecological health (including air pollutant fate and impact).

Identify major air quality management challenges and opportunities to use clean technologies.

Develop and enhance research programs dealing with clean energy as related to air quality.

Develop research programs to seek solutions from the science, research, and technology communities on clean efficient technologies.

Encourage research and technology in pollution prevention and control.

4.2.2   Create a 'Community of Practice' between Government of Alberta ministries and experts from institutions and agencies undertaking air-related work in Alberta, to exchange scientific, technical and other information on air research and air management practices in the province.

Host conferences and/or workshops on clean air science and technology.

Enhance air science capacity in Alberta, including modeling, to support air policy development and air issues prioritization.

Improve understanding of the link between forest fires and air quality (e.g., how it affects visibility).

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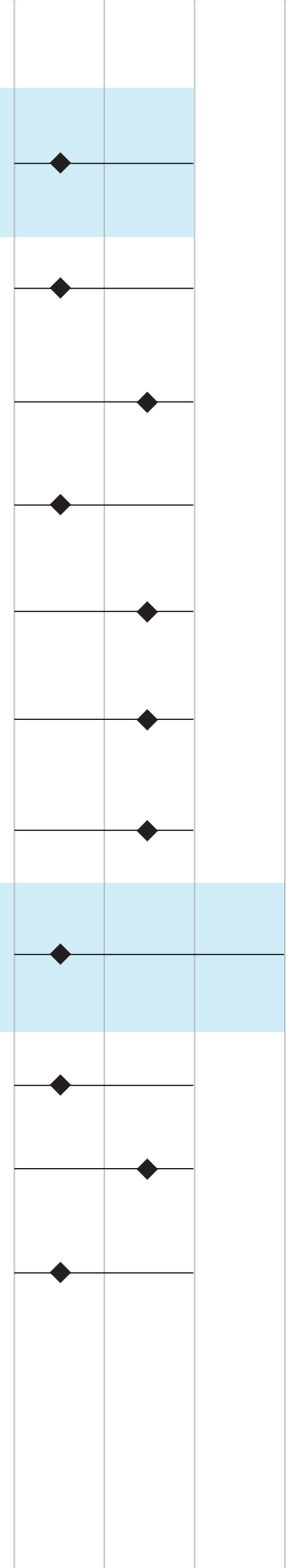
4.3   Encourage continuous improvement in emissions reduction technology

4.3.1   Develop policy as well as regulatory and non-regulatory tools to encourage implementation of new technologies to support continuous improvement.

Develop umbrella policy that will support media-specific/ substance-specific policies for continuous improvement.

Promote the use of innovative technologies and pilot new technologies for reduced emissions through partnership models with industry, the research community and post-secondary institutions.

Identify ways to provide greater regulatory flexibility for the use of economically achievable new technologies in upstream development that can result in emissions reductions.

Assess economic instruments that could be incorporated into priority energy policy to encourage the use of new technologies in resource development activities to reduce emissions.

Identify opportunities for agricultural operators to access funds in support of changing production practices to reduce emissions.

Work with partners to facilitate changes in production practices by the agriculture industry.

4.3.2   Update and streamline regulations related to air quality management.

Update Sector Codes of Practice to support the Air Quality Assurance System.

Update Substance Release Regulations to support the enhanced provincial Air Quality Management System as it operationalizes the Cumulative Effects Management System and the national air management approach.
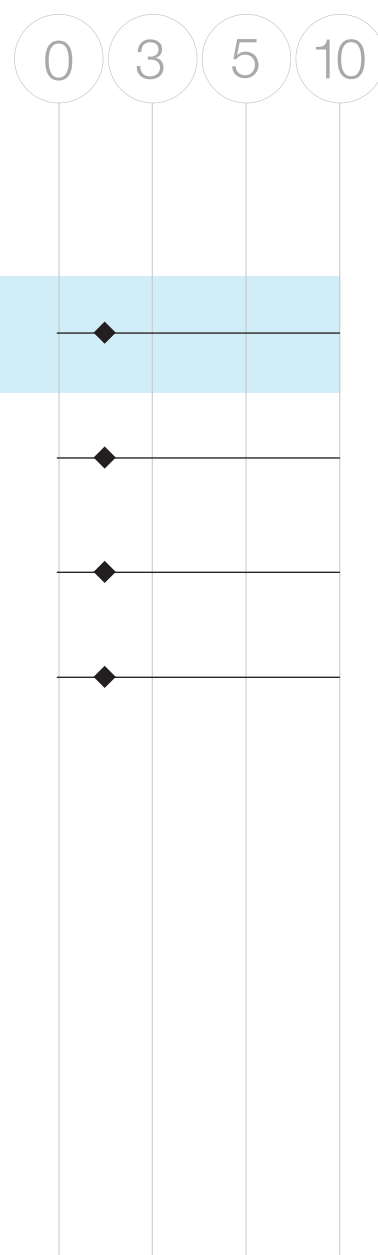
Develop standard approval clauses to promote continuous improvement planning and implementation.

Set appropriate NO_2 and SO_2 emissions standards for point sources, taking into account the national approach for air quality management.

Key Actions

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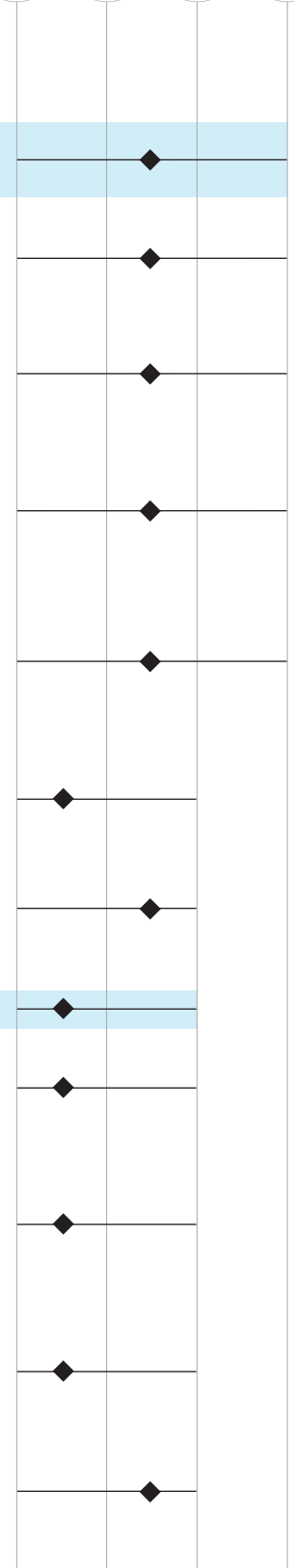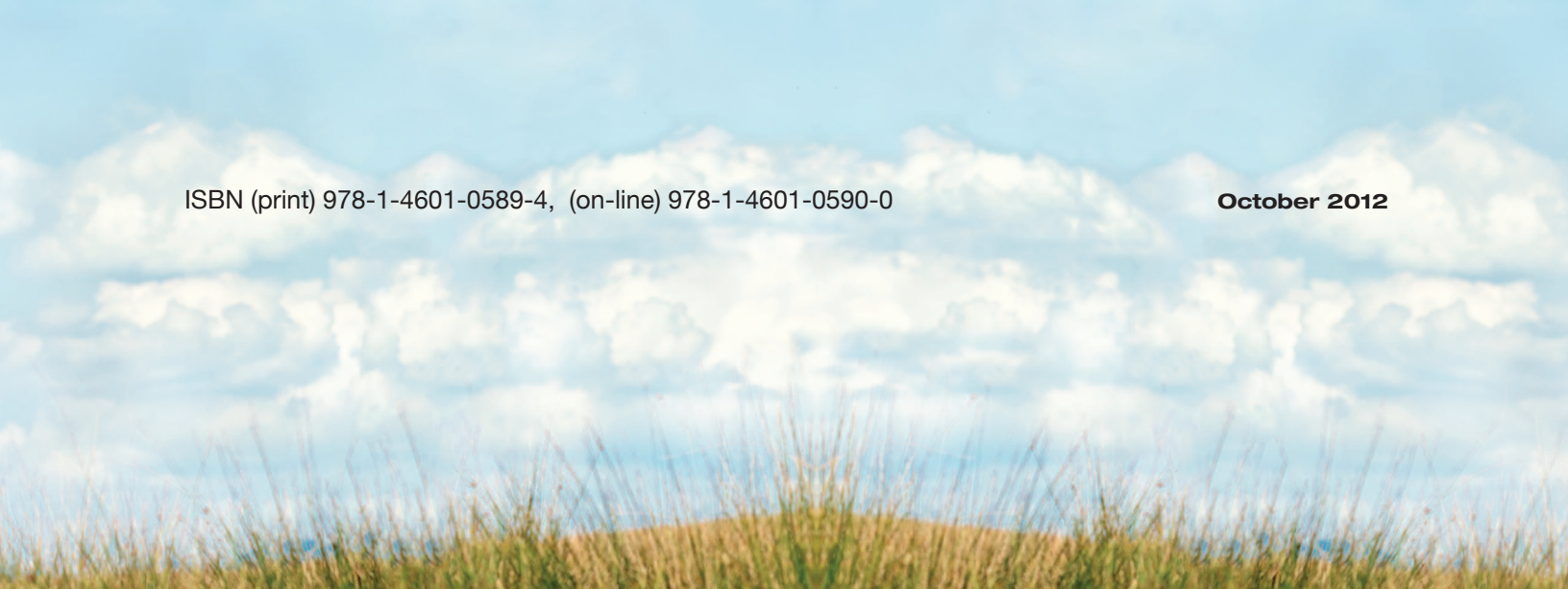
4.4 Improve knowledge of emissions sources through emissions inventories

4.4.1 Develop, maintain and continuously improve comprehensive air emissions inventories and emissions projections for significant point and non-point sources.

Enhance Alberta Environment and Sustainable Resource Development's emissions inventory.

Enhance the completeness of emissions factors and activity data for the emissions inventory estimation for Confined Feeding Operations.

Review Clean Air Strategic Alliance's Confined Feeding Operations strategic plan emission inventory report.