

In the Matter of

Request for Review of the Lower Athabasca Regional Plan  
Pursuant to s. 19.2 of the *Alberta Land Stewardship Act*  
Submitted by the **Fort McKay First Nation and the Fort McKay Metis Community Association**

June 25, 2014

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**Response Submissions  
of the Government of Alberta**

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## Table of Contents

INTRODUCTION .....	1
EXECUTIVE SUMMARY.....	1
REGULATORY CONTEXT OF LARP .....	2
LARP Balances Interests .....	2
LARP Does not Take Away From the Existing Regulatory Regimes.....	4
LARP Does Not Take Away From the Crown’s Duty and Policy Commitments to Consult .....	6
ROLE OF REVIEW PANEL.....	6
Panel is Limited to Determinations of Direct and Adverse Effect Related to the Content of LARP.....	6
“Directly and Adversely Affected” – General Causation Principles Apply.....	8
CONCERNS OF THE APPLICANT .....	9
ISSUES OUTSIDE THE PANEL’S JURISDICTION.....	10
Panel has no Jurisdiction to Determine Questions of Constitutional Law .....	10
Panel has no Jurisdiction to Consider Matters Related to LARP Creation .....	11
Panel has no Jurisdiction over Alleged Harms from Activities Which Pre-date LARP .....	12
Panel has no Jurisdiction to Consider Applicant’s Allegations of Harms Related to Potential Future Development Activities .....	14
Panel has no Jurisdiction to Consider Allegations of Harms Related to the Implementation of LARP ..	15
Panel has no Jurisdiction in Relation to Alleged Omissions from LARP .....	16
ISSUES WITHIN THE PANEL’S JURISDICTION .....	19
LARP does not Authorize or Prioritize Development .....	19
CONCLUSION .....	20



## INTRODUCTION

1. The Fort McKay First Nation and the Fort McKay Métis Community Association (collectively the Applicant) have requested a review of specific provisions of the Lower Athabasca Regional Plan (LARP) as included in Part II of their submissions, and certain specific amendments, as outlined in Part IV of their submissions, under section 19.2 of the *Alberta Land Stewardship Act* (ALSA).
2. Pursuant to ALSA, the Stewardship Minister has found the application to be complete in form and has forwarded the application to the Review Panel.
3. The Government of Alberta (Alberta or Crown) submits the following in response to the Applicant's review request.

## EXECUTIVE SUMMARY

4. Alberta submits that the majority of the concerns expressed by the Applicant are outside the jurisdiction of the Panel as the concerns are not with the content of LARP but relate to:
  - The creation process of LARP;
  - Allegations of harms related to pre-existing development activities;
  - Allegations of harms related to potential future development activities;
  - Allegations of harms related to the implementation of LARP; and
  - Items or features alleged to be missing from the content of LARP.
5. Some of the Applicant's concerns are within the jurisdiction of the Panel as they relate to the content of LARP. However, the provisions of LARP pointed to by the Applicant do not cause any harm to the Applicant; instead, the LARP content enhances the existing regulatory regimes and does not take away from any existing rights and uses.
6. The Applicant's dissatisfaction with the overall balancing of the competing interests in LARP is not sufficient to trigger the Panel's role in recommending specific amendments to the Minister.
7. Alberta does not necessarily agree with any or all of the Applicant's characterization of its members' rights, activities and land use. For the purposes of this response, whatever that characterization may be, Alberta submits that the Applicant has not shown that there is any existing or future harm to income, property, health or quiet enjoyment of property caused by a provision of LARP so as to trigger the Panel's power to provide recommendations for amendment to the Minister.
8. Therefore, Alberta requests that the Panel report to the Minister, pursuant to Rules 36-37,<sup>1</sup> that the Applicant is not directly and adversely affected.

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<sup>1</sup> Alberta Land Stewardship Act – Rules of Practice for Conducting Reviews of Regional Plans (March 2014) [Panel Rules], Rule 36-37 – **Authorities Tab 1**

## REGULATORY CONTEXT OF LARP

### LARP Balances Interests

9. ALSA's purpose is:
- (a) to provide a means by which the Government can give direction and provide leadership in identifying the objectives of the Province of Alberta, including economic, environmental and social objectives;
  - (b) to provide a means to plan for the future, recognizing the need to manage activity to meet the reasonably foreseeable needs of current and future generations of Albertans, including aboriginal peoples;
  - (c) to provide for the co-ordination of decisions by decision-makers concerning land, species, human settlement, natural resources and the environment;
  - (d) to create legislation and policy that enable sustainable development by taking account of and responding to the cumulative effect of human endeavour and other events.<sup>2</sup>
10. ALSA authorizes the Lieutenant Governor in Council to establish integrated planning regions, such as the Lower Athabasca Region, and a regional plan for the region following public consultation.<sup>3</sup> The regional plan must describe the vision and objectives for the region and may, amongst other things, include policies, set thresholds, specify indicators, describe monitoring, and describe the measures to be taken to achieve the objectives and policies.<sup>4</sup>
11. The Lower Athabasca Regional Plan (LARP) is a regional plan established by the Lieutenant Governor in Council pursuant to ALSA.
12. In keeping with ALSA's overarching purpose and its requirements for regional plans, LARP establishes a framework in which to balance competing interests on the landscape of economic opportunities, social considerations, and environmental considerations within the Lower Athabasca Region.<sup>5</sup> More specifically, LARP:
- Establishes a long-term vision for the region;
  - Aligns provincial policies at the regional level to balance Alberta's economic, environmental and social goals;
  - Reflects ongoing commitment to engage Albertans, including aboriginal peoples, and land-use planning;
  - Uses a cumulative effects management approach to balance economic development opportunities and social and environmental considerations;
  - Set desired economic, environmental and social outcomes and objectives for the region;

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<sup>2</sup> *Alberta Land Stewardship Act*, S.A. 2009, c. A-26.8, s. 1(2) – **Authorities Tab 2**

<sup>3</sup> ALSA, ss. 3(1), 4(1) and 5

<sup>4</sup> ALSA, ss. 8(1) and 8(2)

<sup>5</sup> Lower Athabasca Regional Plan 2012-2022, OC 268/2012, (2012) Alberta Gazette 2012, Part I, pg. 1049 (ISBN No. 978-1-4601-053705 (Printed version) and ISBN No. 978-1-4601-0538-2 (Online version)) [LARP], pg. 2 – Purpose

- Describes strategies, actions, approaches and tools required to achieve the desired outcomes and objectives;
  - Establishes monitoring, evaluation and reporting commitments to assess progress; and
  - Provides guidance to provincial and local decision-makers regarding land-use management for the region.<sup>6</sup>
13. LARP does not give priority to any one of economic, environmental or social considerations.
  14. LARP itself has four main parts:
    - Introduction – which includes the overall purpose of LARP and how LARP is intended to inform land-use decisions;
    - Strategic Plan – which sets out the vision for the future of the Lower Athabasca Region and outlines a set of strategic directions which will assist in realizing the vision and desired outcomes;
    - Implementation Plan – which includes more specific regional objectives, strategies and actions to support realization of the regional vision, and includes indicators so that progress towards this vision can be measured and evaluated;
    - Regulatory Details Plan- which introduces regulatory requirements to enable the achievement of the strategic direction and associated actions.
  15. LARP also establishes a number of Management Frameworks for the Lower Athabasca Region for important environmental considerations including air quality and surface water quality. LARP and the Management Frameworks identify indicators and triggers and limits for those indicators.<sup>7</sup>
  16. LARP also expressly contemplates the creation of additional frameworks, including those relating to groundwater management, surface water quantity, and biodiversity management. These additional frameworks and other initiatives to fully implement the terms of LARP continue to be developed.
  17. LARP is the culmination of years of work by the Government of Alberta as well as specific consultation and engagement with a Regional Advisory Council, First Nations and Metis organizations, municipalities, environmental groups, industry stakeholders and members of the public.<sup>8</sup>

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<sup>6</sup> LARP, pg. 2

<sup>7</sup> LARP, pgs.73-76; Lower Athabasca Region Air Quality Management Framework for Nitrogen Dioxide (NO<sub>2</sub>) and Sulphur Dioxide (SO<sub>2</sub>), printed August 2012, ISBN978-1-4601-0532-0 (Online Version), available on the website [http://environment.alberta.ca/documents/LARP\\_Framework\\_AirQuality\\_FINAL.pdf](http://environment.alberta.ca/documents/LARP_Framework_AirQuality_FINAL.pdf) [Air Quality Management Framework], pgs. 19 and 26 – **Authorities Tab 3**; and Lower Athabasca Region Surface Water Quality Management Framework for the Lower Athabasca River, August 2012, ISBN No. 978-1-4601-0530-6 (Online Version), available on the website, [http://environment.alberta.ca/documents/LARP\\_Framework\\_SurfaceWaterQuality\\_FINAL.pdf](http://environment.alberta.ca/documents/LARP_Framework_SurfaceWaterQuality_FINAL.pdf) [Surface Water Quality Management Framework] pg. 17 – **Authorities Tab 4**

<sup>8</sup> LARP, pg. 2

### **LARP Does not Take Away From the Existing Regulatory Regimes**

18. LARP does not replace or take away from the existing regulatory regimes. For any activity on the landscape within the Lower Athabasca Region, LARP simply adds a layer to the existing regulatory structure.
19. LARP does not authorize any particular development or activity.
20. A proponent for any activity is still required to go through the provincial regulatory process, including receiving the necessary regulatory authorizations under legislation, prior to commencing any activity. This legislation includes, but is not limited to, the *Environmental Protection and Enhancement Act* (EPEA), the *Water Act*, the *Public Lands Act*, the *Historical Resources Act* and the *Forests Act*.
21. As an example, under EPEA, a proponent for a proposed activity may have to conduct an environmental assessment and prepare an environmental impact assessment report if the activity is listed as a mandatory activity in regulation or is otherwise referred to the assessment process.<sup>9</sup> The environmental impact assessment report must contain the information outlined in the terms of reference issued for the particular report and must also include:
  - (a) a description of the proposed activity and an analysis of the need for the activity;
  - (b) an analysis of the site selection procedure for the proposed activity, including a statement of the reasons why the proposed site was chosen and a consideration of alternative sites;
  - (c) an identification of existing baseline environmental conditions and areas of major concern that should be considered;
  - (d) a description of potential positive and negative environmental, social, economic and cultural impacts of the proposed activity, including cumulative, regional, temporal and spatial considerations;
  - (e) an analysis of the significance of the potential impacts identified under clause (d);
  - (f) the plans that have been or will be developed to mitigate the potential negative impacts identified under clause (d);
  - (g) an identification of issues related to human health that should be considered;
  - (h) a consideration of the alternatives to the proposed activity, including the alternative of not proceeding with the proposed activity;
  - (i) the plans that have been or will be developed to monitor environmental impacts that are predicted to occur and the plans that have been or will be developed to monitor proposed mitigation measures;

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<sup>9</sup> *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12 [EPEA], ss. 44-45 – **Authorities Tab 5**

(j) the contingency plans that have been or will be developed in order to respond to unpredicted negative impacts;

(k) the plans that have been or will be developed for waste minimization and recycling;

(l) the manner in which the proponent intends to implement a program of public consultation in respect of the undertaking of the proposed activity and to present the results of that program;

(m) the plans that have been or will be developed to minimize the production or the release into the environment of substances that may have an adverse effect;

(n) the final terms of reference; and

(o) any other information that the Director considers necessary to assess the proposed activity.<sup>10</sup>

22. This report must be published and made publicly available.<sup>11</sup>
23. Once the Director determines that the environmental impact assessment report is complete, depending on the activity, the Director advises the Alberta Energy Regulator (AER), the Natural Resources Conservation Board (NRCB), the Alberta Utilities Commission (AUC) or the Minister (Minister of Environment and Sustainable Resource Development)(ESRD) that the report is complete.<sup>12</sup>
24. The proponent will then be in a position to apply for the specific authorizations required for the activity in question from the AER, NRCB, AUC or ESRD (or some combination of these entities) as necessary.
25. Each of these entities has an application process and a review process which requires the proponent to submit additional information specific to the regulatory process and the activity in question which the decision-maker must consider. Each of these processes allows for some form of public participation in the review process. Forms of public participation include statements of concern by affected members of the public, appeal rights, or a public hearing.
26. Once one of these entities issues an authorization under the applicable legislation, the holder of the authorization, such as the holder of an approval issued under EPEA, must continue to comply with the terms and conditions of the authorization. These requirements are not replaced by LARP.
27. LARP then is an additional consideration which must be taken into account by the decision-maker in determining whether to authorize the applied for activity. In other words, after assessing all the other information provided by the public and by the proponent, the decision-maker must also assess whether the activity is consistent with LARP before deciding whether to

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<sup>10</sup> EPEA (Tab 5), s. 49

<sup>11</sup> EPEA (Tab 5), s. 50

<sup>12</sup> EPEA (Tab 5), s. 53

allow the activity. LARP also adds the requirement for Alberta to initiate management responses in accordance with the management frameworks should a trigger or limit be exceeded.<sup>13</sup>

#### **LARP Does Not Take Away From the Crown's Duty and Policy Commitments to Consult**

28. LARP does not take away the Crown's existing duty and policy commitment to consult with aboriginal peoples when government decisions may adversely affect their exercise of constitutionally protected rights.<sup>14</sup>
29. In addition to the regulatory application process, the Crown continues to meet any applicable duty or policy commitment to consult with aboriginal peoples (such as First Nations), including those arising from section 35 of the *Constitution Act, 1982*.
30. LARP cannot and does not change Canada's Constitution. Treaty rights and their constitutional protection exist regardless of what Alberta legislates.
31. Further, all regulatory decision-makers must ensure that their decision-making complies with Canada's Constitution, which includes recognition of treaty rights. Under LARP, the Applicant's ability to raise concerns with project-specific regulatory decision-makers about the impacts of specific projects on treaty rights remains intact.

#### **ROLE OF REVIEW PANEL**

##### **Panel is Limited to Determinations of Direct and Adverse Effect Related to the Content of LARP**

32. The Panel is created by statute and therefore is limited in its jurisdiction to the powers granted to it under its enabling legislation.
33. Section 19.2 of ALSA provides:
  - (1) A person who is directly and adversely affected by a regional plan or an amendment to a regional plan may, within 12 months from the date the regional plan or amendment affecting the person comes into force, request a review of the regional plan or amendment affecting the person in accordance with the regulations.
  - (2) On receiving a request under subsection (1), the Stewardship Minister must establish a panel to conduct a review of the regional plan or amendment and report the results of the review and any recommendations to the Stewardship Minister.<sup>15</sup>
34. Section 5(1)(c) of the *Alberta Land Stewardship Regulation* defines "directly and adversely affected" in respect of a person with regard to a regional plan, as meaning "that there is a reasonable probability that a person's health, property, income or quiet enjoyment of property, or some combination of them, is being or will be more than minimally harmed by the regional plan".<sup>16</sup>

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<sup>13</sup> LARP, Regulatory Details, ss. 26 and 33

<sup>14</sup> LARP, pgs. 5, 34, 40, 63, 69

<sup>15</sup> ALSA (Tab 2), s. 19.2(1) and (2)

<sup>16</sup> *Alberta Land Stewardship Regulation*, AR 179/2011 [ALS Reg.], s. 5(1)(c) – Authorities Tab 6

35. Section 7(1) of the Regulation indicates the required contents of an application for review which includes:
- Identification of specific provisions of the regional plan which the applicant believes is or will directly and adversely affect the applicant;<sup>17</sup>
  - An explanation of how each of the above indicated specific provisions is or will directly and adversely affect the applicant;<sup>18</sup>
  - An explanation of the adverse effects suffered or expected to be suffered as a result of the above indicated specific provisions;<sup>19</sup> and
  - The relief requested which may include an amendment to the above indicated specific provisions that the applicant proposes to diminish or eliminate the adverse effects.<sup>20</sup>
36. Rule 36 of the Rules of Practice for Conducting Reviews of Regional Plans provides that the Panel must provide advice on whether the applicant is directly and adversely affected by "a specific provision or provisions in a regional plan".<sup>21</sup>
37. If the Panel's advice is that the applicant is directly and adversely affected, the Panel must in its report to the Minister:
- a) Identify and explain how the specific provision or provisions in the regional plan or in an amendment to a regional plan directly and adversely affects the applicant, and
  - b) Explain the adverse effects with respect to health, property, income or quiet enjoyment of property, or some combination of them, that the applicant is suffering or expects to suffer as a result of the specific provision(s) identified.<sup>22</sup>
38. The effect of these provisions is that the Panel is limited in its jurisdiction to reporting to the Minister as to existing or future harms to health, property, income or quiet enjoyment of property, caused by the content of specific, identified provisions of LARP. The Panel does not have the jurisdiction to conduct a review of LARP in its entirety. The role of the Panel is not to again balance the competing economic, social and environmental considerations in the entire Lower Athabasca Region.
39. The Panel does not then have the jurisdiction to consider matters such as:
- The creation process of LARP;
  - Allegations of harms related to pre-existing development activities;
  - Allegations of harms related to potential future development activities;
  - Concerns related to the implementation of LARP; and

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<sup>17</sup> ALS Reg. (Tab 6), s. 7(1)(d)

<sup>18</sup> ALS Reg. (Tab 6), s. 7(1)(e)

<sup>19</sup> ALS Reg. (Tab 6), s. 7(1)(f)

<sup>20</sup> ALS Reg. (Tab 6), s. 7(1)(g)

<sup>21</sup> Panel Rules (Tab 1), Rule 36 a)

<sup>22</sup> Panel Rules (Tab 1), Rule 38.

- Items or features alleged to be missing from the content of LARP.
40. The Panel also does not have jurisdiction to consider any questions of constitutional law, which would include alleged infringements of aboriginal or treaty rights, or alleged breaches of section 35 of the *Constitution Act, 1982*.<sup>23</sup>

**“Directly and Adversely Affected” – General Causation Principles Apply**

41. As set out above, the Panel’s role is confined to identifying specific provisions of LARP, if any, that directly and adversely affect the Applicant. There must be a direct causative link between LARP content and the harm alleged.
42. The Supreme Court of Canada recently discussed causation of adverse impacts on aboriginal or treaty rights in *Rio Tinto Alcan v. Carrier Sekani Tribal Council (Carrier Sekani)*.<sup>24</sup> The alleged harm must be caused by the government action complained of. In particular, past harms cannot be said to be caused by the current government action. Furthermore, the harm must be more than speculative to count as an adverse effect. The Court stated:
- ... The claimant must show a causal relationship between the proposed government conduct or decision and a potential for adverse impacts on pending Aboriginal claims or rights. Past wrongs, including previous breaches of the duty to consult, do not suffice.
- ... Mere speculative impacts, however, will not suffice. ..., there must an “appreciable adverse effect on the First Nations’ ability to exercise their aboriginal right”. The adverse effect must be on the future exercise of the right itself; ...<sup>25</sup>
43. While *Carrier Sekani* was about the Crown’s duty to consult regarding potential adverse impacts on aboriginal rights in the absence of a treaty, the general principles of causation are relevant to the issue of whether the Applicant is or will be harmed by LARP content.
44. The Applicant’s dissatisfaction with LARP content, and a desire for revisions and additions, is not a sufficient trigger for the Panel’s power to recommend relief. Just because LARP might not include what the Applicant would like LARP to have included does not mean that LARP harms or will harm the Applicant.
45. The Applicant may suggest that the definition of “directly and adversely affected” set out in the *Alberta Land Stewardship Regulation* should be given a special interpretation on the basis that the Applicant’s members are an aboriginal people. However, that suggestion is contrary to case law. While there is a principle suggesting that “statutes relating to Indians should be liberally construed”, this principle applies only to interpreting Indian-specific federal legislation, and does not apply to provincial legislation of general application.<sup>26</sup> ALSA and the associated Regulation

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<sup>23</sup> *Constitution Act, 1982*, R.S.C. 1985, App. II, No. 44, Sched. B, Pt. II, s. 35 – **Authorities Tab 7**; *Administrative Procedures and Jurisdiction Act*, R.S.A. 2000, c. A-3 [APJA], ss. 10, 11 and 16 – **Authorities Tab 8**.

<sup>24</sup> *Rio Tinto Alcan Inc. v. Carrier Sekani Tribal Council*, 2010 SCC 43 [*Carrier Sekani*] – **Authorities Tab 9**

<sup>25</sup> *Carrier Sekani* (Tab 9) at paras. 45 and 46

<sup>26</sup> *Wasauksing First Nation v. Wasausink Lands Inc.*, 2004 CarswellOnt 936 (Ont. C.A.) at paras. 92-94 – **Authorities Tab 10**



are provincial legislation of general application. Therefore, an ordinary and factual-based interpretation of “directly and adversely affected” is appropriate.

## **CONCERNS OF THE APPLICANT**

46. Broadly, the concerns expressed by the Applicant are as follows:

- LARP prioritizes oil sands development at the expense of the Applicant’s rights;
- The majority of the land management strategies and implementation under LARP are not yet developed or in place; and
- LARP does not contain any outcomes, thresholds, frameworks or management plans for managing adverse impacts to the Applicant’s lands or for adverse effects on opportunities to exercise treaty and aboriginal rights and traditional land uses.

47. The Applicant requests the following amendments to LARP:

- a) The effective date of LARP be amended to December 2015 or completion of certain management frameworks and tools and a traditional land use framework, whichever is earlier;
- b) Buffer areas in which resource development is not permitted be designated in the following areas: surrounding the Hamlet of Fort McKay and adjacent unidentified lands stated to be owned by the Applicant, and surrounding Reserves 174A and 174B;
- c) Creation of additional conservation areas contiguous to the Birch Mountain Wildland Park and the north, south and east of Reserves 174A and 174B sufficient to support reasonable and meaningful opportunities to exercise what the Applicant considers to be its members’ treaty and aboriginal rights;
- d) The inclusion of a requirement to develop and implement a management framework by 2015 for traditional land use, with thresholds for preserving sufficient animal and traditional plants and fish to support reasonable opportunities for what the Applicant considers to be the exercise of its members’ treaty and aboriginal rights;
- e) Designation of areas preserved for traditional land use purposes within reasonable proximity to Fort McKay communities;
- f) An amendment to include outcomes, and objectives for the preservation of reasonable opportunities for the exercise of what the Applicant considers to be treaty and aboriginal rights;
- g) The inclusion of a requirement to complete a framework for protection of water levels and water quality in all Rivers and Namur and Gardiner Lake;
- h) An amendment to require the expansion of the air management framework to include all criteria air contaminants and reduced sulphur compounds, acrolein, and other substances with thresholds necessary to protect human health;

- i) Clarification that predicted exceedances in regional thresholds are to be considered by decision-makers and preventative measures taken before issuing approvals; and
- j) An amendment to require consultation of Metis communities in the development of the biodiversity framework and the requested traditional land use framework.

## ISSUES OUTSIDE THE PANEL'S JURISDICTION

48. Alberta submits that the Panel does not have the jurisdiction to consider the majority of the issues raised by the Applicant because:

- the harms alleged raise questions of constitutional law;
- the harms alleged relate to the creation process of LARP, not to the content of LARP;
- the harms alleged relate to pre-existing activities;
- the harms alleged relate to potential future activities;
- the harms alleged relate to implementation of LARP, not its content; and
- the harms alleged relate to purported omissions from LARP, not the content of LARP.

### Panel has no Jurisdiction to Determine Questions of Constitutional Law

49. The *Administrative Procedures and Jurisdiction Act* (APJA) indicates that no decision-maker has jurisdiction to determine a question of constitutional law (which includes a determination of any right under the Constitution) unless conferred such jurisdiction by regulation.<sup>27</sup> The Panel is a "decision-maker" to which the APJA applies. While the Panel's role pursuant to ALSA is to provide a report and recommendations to the Stewardship Minister, rather than the Panel itself rendering changes to the regional plan,<sup>28</sup> other panels who provide recommendations have been found to be "decision-makers" pursuant to APJA.<sup>29</sup>
50. As a decision-maker, the Panel has not been granted jurisdiction to determine questions of constitutional law. The *Designation of Constitutional Decision Makers Regulation*, which confers jurisdiction in relation to questions of constitutional law to certain decision-makers, does not include a Panel under ALSA.<sup>30</sup>
51. As the Alberta Court of Appeal noted, "the Alberta statute reflects a policy decision that the citizens of Alberta are ultimately entitled to have their constitutional rights determined by a superior court".<sup>31</sup>

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<sup>27</sup> APJA (Tab 8), ss. 10, 11 and 16.

<sup>28</sup> ALSA (Tab 2), s. 19.2

<sup>29</sup> *Siksika First Nation v. Alberta (Director, Southern Region, Environment)*, 2007 ABCA 402, para. 10 – Authorities Tab 11

<sup>30</sup> *Designation of Constitutional Decision Makers Regulation*, Alta. Reg. 69/2006 – Authorities Tab 12

<sup>31</sup> *UFCW, Local 401 v. Alberta (Information and Privacy Commissioner)*, 2012 ABCA 130, para. 43 – Authorities Tab 13

52. Therefore, the Panel cannot determine any question of constitutional law.
53. As a finding that LARP somehow infringes the Applicant's members' treaty rights or aboriginal rights would necessarily involve determining rights by applying s. 35 of the *Constitution Act, 1982* to LARP, this would be a "question of constitutional law" and therefore, outside the scope of the Panel's jurisdiction.
54. In any event, Alberta would note treaty and aboriginal rights are protected by s. 35 of the *Constitution Act, 1982*, irrespective of whether it is specifically enshrined within LARP. LARP cannot and does not purport to change Canada's *Constitution*.

**Panel has no Jurisdiction to Consider Matters Related to LARP Creation**

55. As noted above under the heading Role of Review Panel, the combined effect of ALSA, the Regulation and the Rules is that the Panel is limited in its jurisdiction to reporting to the Minister as to existing or future harms caused by the content of LARP. Therefore, it is outside of the jurisdiction of the Panel to consider other matters related to LARP creation process as they do not relate to the content of LARP.
56. This means that the Panel cannot consider the Applicant's concerns that the LARP does not meet the Terms of Reference including:
- the term that "it will be important that continued opportunities exist for Aboriginal traditional uses to be in close proximity to First Nations and Metis communities", as referenced at paragraphs 35, and 67 of the Applicant's submissions;
  - the term that "land use must be managed to include Aboriginal traditional land use", as referenced at paragraph 36 of the Applicant's submissions;
  - the term that the criteria for establishing conservation areas included "areas that support aboriginal traditional uses", also referenced in paragraph 36 of the Applicant's submissions; and
  - the term that LARP was to consider how lands under federal jurisdiction, such as First Nation lands, will be impacted, as contained at paragraph 38 of the Applicant's submissions.
57. Similarly, there is no authority for the Panel to review the date on which LARP came into force, as suggested by the Applicant in Part II, B and at paragraph 113 a) of its submissions. It is the coming into force of LARP in the past which enables the Applicant to make a review request and the Panel to review the content of LARP, as enacted, under section 19.2 of ALSA, and section 7 (1) of the Regulation.
58. In any event, Alberta submits that LARP did fulfill the above noted Terms of Reference.
59. While there are indeed no new conservation areas contemplated in LARP in close proximity to the Hamlet of Fort McKay, the Birch Mountains Wildland Provincial Park (expansion) and adjacent Birch River Conservation Area were included in LARP adjacent to the Applicant's

Reserves 174A and 174B.<sup>32</sup> Alberta submits that the inclusion of these areas within LARP recognizes the importance of continued opportunities for aboriginal traditional uses as is stated in the Terms of Reference.

60. In relation to the Terms of Reference regarding the consideration of lands under federal jurisdiction, Alberta submits that such lands were considered but under the federal-provincial division of powers, Alberta's regulatory authority over such lands is limited.<sup>33</sup> This was specifically recognized by the Terms of Reference.<sup>34</sup> These lands are also specifically acknowledged within LARP: LARP acknowledges that approximately 10% of the region includes the Cold Lake Air Weapons Range, First Nations Reserves, Métis Settlements and Lake Athabasca.<sup>35</sup>
61. In summary, Alberta submits that the Panel does not have the jurisdiction to address the issues raised by the Applicant concerning the effective date of LARP and the fulfillment of the LARP Terms of Reference. Alberta also submits that, in any event, LARP does meet its Terms of Reference as outlined above.

**Panel has no Jurisdiction over Alleged Harms from Activities Which Pre-date LARP**

62. As noted above, the Panel has jurisdiction only with respect to harms alleged to be caused by the content of LARP. Harms which are alleged to have occurred due to activities which were carried on or approved prior to LARP cannot be caused by LARP and are therefore outside of the Panel's jurisdiction.
63. Alberta submits that this includes the following concerns:
- The Applicant is already adversely affected by the proximity of oil sands development and the intensity and scale of development with 98% of trapping areas and 70% of the area the Applicant considers to be its traditional territory previously leased to oil sands developers, as noted in paragraph 57-60 of the Applicant's submissions;
  - Adverse impacts experienced to date include air pollution, including odours, degradation of air quality, noise, light pollution, the shaking of houses, blocked or delayed access to the Hamlet, cabins and reserves, noise cannons on tailings ponds, back up beepers on trucks, traffic on the CNRL and TOTAL access roads, blasting from a quarry, emissions from upgraders, high levels of traffic on highway 63, large mine sites blocking traditional trails, explosions, fires and releases of toxic substances, as noted in paragraphs 61-64 of the Applicant's submissions;
  - Existing development is causing adverse effects to wildlife populations, as noted in paragraphs 68-72 of the Applicant's submissions;

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<sup>32</sup> LARP, pg. 93

<sup>33</sup> *Constitution Act, 1867*, R.S.C. 1985, App. II, No. 5, ss.91 and 92 – **Authorities Tab 17**

<sup>34</sup> *Terms of Reference for Developing the Lower Athabasca Regional Plan*, 2009, available on the Land Use Secretariat website at

<https://landuse.alberta.ca/LandUse%20Documents/Terms%20of%20Reference%20for%20Developing%20the%20Lower%20Athabasca%20Regional%20Plan%20-%202009-07.pdf> at pg. 3 – **Authorities Tab 14**

<sup>35</sup> LARP, pg. 88

- Existing impacts to the Applicant's members' trapping areas include loss of substantial areas for use, blocked access, decreased wildlife, and increased risk of personal injury due to heavy equipment being operated on traditional trails and access routes, as noted in paragraph 74 of the Applicant's submissions;
  - The concern that current and planned development are exceeding thresholds for biodiversity and wildlife population survival, as noted in paragraph 76 of the Applicant's submissions;
  - Adverse effects which have already occurred to the Applicant's cultural heritage as a result of existing oil sands and related development, as noted in paragraph 93-95 of the Applicant's submissions; and
  - The reduction in the availability of traditional food (moose) caused by existing and approved development, as noted in paragraph 98 of the Applicant's submissions.
64. In any event, Alberta submits that LARP takes into account existing development impacts and works towards ameliorating continued effects of such development. Most notably, LARP sets aside approximately 1.5 million more hectares of land as conservation areas.<sup>36</sup> The reduction in land disturbance by the creation of conservation areas is expected to enhance opportunities for the exercise of treaty rights and traditional land uses.
65. For example, in relation to the consideration of existing land and other disturbances, LARP recognizes the need for a biodiversity framework and a landscape management plan, with input from First Nations, to consider how the exercise of the constitutionally protected rights to hunt, fish and trap can continue to occur.<sup>37</sup>
66. In regards to the Applicant's concerns about the effects of existing developments, LARP establishes a new monitoring and evaluation system for air, water and biodiversity.<sup>38</sup> LARP also addresses land fragmentation through its commitment to create a landscape management plan.<sup>39</sup> This systemic approach to managing regional biodiversity, which did not previously exist, is anticipated to provide better sustainability for the landscapes that support the exercise of treaty rights and traditional use. The biodiversity management framework, land disturbance planning and access planning under LARP will assist to conserve lands and protect wildlife habitat and populations important to the Applicant (and other aboriginal communities) for hunting, trapping and fishing. The surface water quality framework will sustain water quality which, by extension, will sustain fisheries habitat and support the exercise of the treaty right to fish.
67. In summary, Alberta submits that the above noted harms alleged by the Applicant are said to have occurred due to activities which pre-date LARP and are therefore outside of the Panel's jurisdiction.

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<sup>36</sup> LARP, pg. 84

<sup>37</sup> LARP, pg. 29

<sup>38</sup> LARP, pg. 27-29, 42, 45-59

<sup>39</sup> LARP, pgs. 45-46

68. In any event, Alberta also submits that LARP does consider existing development and works towards reducing continued effects of all development at a regional level.

**Panel has no Jurisdiction to Consider Applicant's Allegations of Harms Related to Potential Future Development Activities**

69. As noted above in the explanation of LARP's place in the overall regulatory structure, LARP does not authorize any particular activity or development. All future development activities remain subject to the existing regulatory process. Therefore, alleged harms related to potential future activities are not caused by LARP and are outside of the Panel's jurisdiction.
70. Alberta submits that the following concerns of the Applicant fall within this category:
- The impacts of development will increase as more approved projects begin operating and more projects are approved, as noted in paragraph 59 of the Applicant's submissions;
  - Air quality limits may be exceeded once approved oil sands facilities are built, as noted in paragraph 103 to 105 of the Applicant's submissions;
  - Future development encroaching on Reserves and conservation areas will change the ecology of the land and adversely affect the land's ability to support biodiversity, as noted in paragraph 65, 70-72 and 77; and
  - The future potential for escalation of cumulative effects, as noted in paragraph 80 and 83 of the Applicant's submissions.
71. In any event, Alberta submits that LARP either (a) reduces the likelihood of the prospective future harm which the Applicant is concerned with or (b) has no effect on such harms. LARP overall does not increase the possibility of such potential future harms.
72. The Applicant notes in its submissions, at paragraphs 104 and 105, a concern that LARP does not require actions to address air quality issues until limits are exceeded, which limits, the Applicant suggests, may be exceeded once approved oil sands facilities become operational.
73. LARP's Outcome #4 is "Air and water are managed to support human and ecosystem needs"<sup>40</sup>. For air quality, LARP identifies two indicators, NO<sub>2</sub> and SO<sub>2</sub>, and sets limits and triggers for each. The limits are based on the Alberta Ambient Air Quality Objectives (AAAQO), established under the Alberta *Environmental Protection and Enhancement Act* prior to the introduction of LARP. The AAAQO are used, and were used prior to the introduction of LARP, "to establish approval conditions for regulated industrial facilities; to evaluate proposals for constructing facilities; ... and to assess compliance near major industrial air emission sources"<sup>41</sup>. Facility specific maximums are contained generally in approvals issued under the *Environmental Protection and Enhancement Act*. LARP does not change the existing limit at any specific facility. However, LARP now requires that those same limits be applied on a regional basis. LARP also sets a system of

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<sup>40</sup> LARP, pg. 46

<sup>41</sup> "Ambient Air Quality Objective", Alberta Environment and Sustainable Resource Development website: <http://esrd.alberta.ca/air/objectives-directives-policies-and-standards/ambient-air-quality-objectives.aspx> - Authorities Tab 19

triggers which initiate a management response by ESRD well before the limit is exceeded.<sup>42</sup> This early warning system for air quality on a cumulative basis did not exist prior to LARP.

74. Similarly, the concerns expressed by the Applicant related to encroaching development on Reserves and conservation areas changing the ecology of the land, thereby decreasing the natural range of variation and populations of certain wildlife species (as contained in paragraphs 65, 70-72 and 77 of the Applicant's submissions) are ameliorated by the environmental frameworks limits contemplated by LARP<sup>43</sup> and the designation of new conservation areas. LARP designates an additional 1,521,402 hectares, at 16.32%<sup>44</sup> of the Lower Athabasca Region, as new conservation areas. Indeed, the Applicant acknowledges at paragraph 72 of its submissions that the modeling showing the expanded protected areas under LARP demonstrates that LARP improves future predicted declines of wildlife populations.
75. These concerns, and the Applicant's concerns regarding cumulative effects, are in no way exacerbated by LARP. Prior to LARP, the ability for Alberta to initiate management responses at the regional level was limited. LARP provides Alberta with the tools to respond on a regional basis, in addition to project-specific regulation. LARP adds an additional, regional layer to the existing regulatory framework so as to understand and manage effects on a broader, cumulative level.
76. In summary, Alberta submits that the above alleged harms relate to potential future activities and are outside of the Panel's jurisdiction.
77. In any event, Alberta also submits that LARP does not increase the potential for any of these alleged harms, but rather, reduces the likelihood that these harms will occur.

**Panel has no Jurisdiction to Consider Allegations of Harms Related to the Implementation of LARP**

78. As noted above, the Panel must consider only the harm caused by the content of LARP. Alleged harms caused by how LARP is or may be applied or interpreted by industry or regulatory decision-makers are outside the Panel's jurisdiction and cannot be considered.
79. Alberta submits that the following concerns of the Applicant are therefore outside of the Panel's jurisdiction:
  - The AER's consideration of LARP, as noted in paragraphs 85 – 88 of the Applicant's submissions.
80. In any event, Alberta notes the general principle that all decision-making must comply with the requirements of legislation, including Canada's Constitution with its express recognition of aboriginal peoples' rights. In *Quebec (Attorney General) v. Canada (National Energy Board)*, the Supreme Court of Canada stated "it is obvious that the Board must exercise its decision-making

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<sup>42</sup> LARP, pg. 73; Air Quality Management Framework (Tab 3), pg. 19-35

<sup>43</sup> LARP, pg. 27

<sup>44</sup> LARP, pg. 84

function, including the interpretation and application of its governing legislation, in accordance with the dictates of the Constitution, including s. 35(1) of the *Constitution Act, 1982*.<sup>45</sup>

81. LARP does not take away from the Applicant's ability to raise its concerns with these project-specific decision-makers about the impacts of projects on such constitutionally recognized rights. Concerns regarding the alleged failure of regulatory decision-makers to comply with the constitutional recognition of these rights can still be raised in the appropriate forum, which may be through the appeal or judicial review mechanism for that specific decision-maker. LARP leaves this ability intact.

**Panel has no Jurisdiction in Relation to Alleged Omissions from LARP**

82. As noted above, the Panel has jurisdiction only with respect to harms alleged to be caused by specific provisions of LARP. The Panel then has no ability to consider measures alleged to be missing from LARP.
83. Where LARP is silent on a particular topic, no taking away from existing rights occurs; rather, the current regulatory regime remains unchanged.<sup>46</sup> The Alberta Court of Appeal has indicated that maintenance of the status quo with respect to a First Nation's concerns is not an adverse impact.<sup>47</sup> In other words, LARP causes no harm by omitting to add a layer to the present regulatory regime with respect to certain matters.
84. Alberta submits that the Panel has no jurisdiction to consider the following concerns raised by the Applicant:
- LARP does not contain objectives for biodiversity or land disturbance or sufficient conserved areas, as noted in paragraph 5 of the Applicant's submissions;
  - LARP does not contain, outcomes, objectives, thresholds, frameworks or management plans for managing adverse impacts to the Applicant's reserve lands or for adverse effects on opportunities to exercise what the Applicant considers to be its members' treaty and aboriginal rights or for traditional land use, as noted in paragraphs 33 and 37 of the Applicant's submissions;
  - LARP indicates that "cumulative effects management focuses on outcomes" but no outcomes and objectives have been established in several areas, as noted in paragraph 34 of the Applicant's submissions;
  - LARP does not include what the Applicant believes are sufficient traditional land sites of the Applicant within the conservation areas, as noted at paragraph 36 of the Applicant's submissions;

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<sup>45</sup> *Quebec (Attorney General) v. Canada (National Energy Board)*, [1994] 1 S.C.R. 159 at para. 44 – **Authorities Tab 15**

<sup>46</sup> LARP, pg. 27

<sup>47</sup> *Tsuu T'ina Nation v. Alberta (Environment)*, 2010 ABCA 137, at para. 89 – **Authorities Tab 16**



- LARP does not contain or contemplate objectives or a management framework for water quality or quantity for any water bodies other than the Athabasca River, as noted in paragraph 40 of the Applicant's submissions; and
  - There are no odour objectives or thresholds in LARP and no limits for any substances that adversely affect human health other than NO<sub>2</sub> and SO<sub>2</sub>, as noted in paragraph 41 of the Applicant's submissions.
85. In any event, in relation to the concern that LARP does not explicitly include mechanisms for managing traditional land use or access for the exercise of treaty rights or adverse impacts to reserve lands, Alberta submits that it must also respect its jurisdictional limits as included in the federal-provincial division of powers within sections 91 and 92 of the *Constitution Act, 1867*. Under this division of powers, Canada has exclusive legislative power over "Indians" and "Lands reserved for the Indians".<sup>48</sup> While provincial enactments of general application (such as LARP) apply of their own force to "Indians" and on reserves, this is subject to exceptions arising from the division of powers. The key exceptions are that LARP and other provincial enactments cannot legislate about Indian rights, the status or capacities of Indians as Indians or the Indian interest in land. Nor can such provincial enactments single out "Indians" for special treatment.<sup>49</sup> Therefore, in legislating access to provincial Crown land, Alberta could not expressly define somebody as being or not being an "Indian" or lands as those to which "Indians" have a right of access to exercise treaty rights. To the extent that the Applicant suggests that LARP should be amended to do such things, such amendments may be unconstitutional.
86. With respect to the designation of conservation areas, Alberta submits that one of the key criteria for establishment of conservation areas were that the area support aboriginal traditional uses.<sup>50</sup> These uses were considered, along with the other criteria, such as little to no industrial activity and areas that are representative of the biological diversity, in establishing the location of conservation areas.
87. More generally, LARP states that the biodiversity management framework and landscape management plan are to have several measures that will support systematic, regional management of wildlife habitat and populations and should, in turn, support the exercise of treaty rights and traditional land use.<sup>51</sup> LARP also expressly indicates that Alberta will work with First Nations in developing the biodiversity management framework, the landscape management plan, and the Lower Athabasca Regional Trail System Plan.<sup>52</sup>
88. Further, as noted above, LARP does not take away from the Crown's duty to consult or other policy commitments to consult with aboriginal peoples (such as First Nations) when government decisions may adversely affect the exercise of constitutionally protected rights.
89. In relation to the Applicant's concern that sufficient traditional use sites were not included within the conservation areas under LARP, Alberta would note that the Birch River Conservation Area and the Birch Mountains Provincial Wildland Park added approximately 334,536 hectares

<sup>48</sup> *Constitution Act, 1867* (Tab 17)

<sup>49</sup> *R. v. Sutherland*, [1980] 2 S.C.R. 451, para. 5 – **Authorities Tab 18**

<sup>50</sup> LARP, pg. 30

<sup>51</sup> LARP, pgs. 45-46

<sup>52</sup> LARP, pgs. 63-65

to the existing Birch Mountain Wildland Park (144,505 hectares) which are contiguous with the Applicant's Reserves 174 A and 174B.<sup>53</sup>

90. With respect to the Air Quality Management Framework, Alberta notes that the triggers and limits within the framework are based on the Alberta Ambient Air Quality Objectives (AAAQO). The AAAQO were developed and implemented under the *Environmental Protection and Enhancement Act* (EPEA) to protect the environment and human health, while recognizing principles of sustainability that include environmental as well as technical, social and economic considerations.<sup>54</sup> An AAAQO is "a numerical compensation, value or narrative statement which is intended to provide protection of the environment and human health to the extent that is technically and economically feasible, and the socially and politically acceptable".<sup>55</sup>
91. For the specific AAAQOs used in the LARP Air Quality Management Framework<sup>56</sup>:
- The 1-hour average Alberta Ambient Air Quality Objective for nitrogen dioxide is 300 µg m-3 (159 ppb) based on respiratory effects.
  - The annual average Alberta Ambient Air Quality Objective for nitrogen dioxide is 45 µg m-3 (24 ppb) based on vegetation.
  - The 1-hour average Alberta Ambient Air Quality Objective for sulphur dioxide is 450 µg m-3 (172 ppb) based on pulmonary effects.
  - The annual average Alberta Ambient Air Quality Objective for sulphur dioxide is 20 µg m-3 (8.0 ppb) adopted from the European Union, which based its objective on the protection of ecosystems.
92. Further, LARP enhances the use of AAAQOs by establishing triggers that are below the limit for each indicator (the LARP air quality limits are the AAAQO). This allows sufficient time to plan and react to manage air quality so as to avoid reaching that limit. LARP also addresses cumulative effects by ensuring releases from various sources and at various scales are managed so that they do not collectively result in unacceptable air quality. It also contemplates the use of both regulatory and non-regulatory tools in addressing air quality concerns.<sup>57</sup>
93. In summary, Alberta submits that items or measures alleged to be missing from LARP cannot be harm caused by LARP and are outside of the Panel's jurisdiction.
94. In any event, the existing regulatory structure will continue to apply where LARP is silent with respect to a particular topic, maintaining the status quo. Alberta submits that maintenance of the status quo is not an adverse effect caused by LARP.

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<sup>53</sup> LARP, pgs. 83, 84 and 93

<sup>54</sup> LARP, pg. 73 and the Air Quality Management Framework (Tab 3) pg. 12

<sup>55</sup> Air Quality Management Framework pg. 12

<sup>56</sup> Air Quality Management Framework pg. 12

<sup>57</sup> Air Quality Management Framework

## ISSUES WITHIN THE PANEL'S JURISDICTION

95. The following concerns raised by the Applicant relate to the content of LARP:
- LARP authorizes and prioritizes development, as noted at paragraphs 4, 6, 21, 24, 57, 58, 64 and 85 of the Applicant's submissions.
96. However, Alberta submits that the content of LARP does not, in fact, cause the harm alleged by the Applicant.

### **LARP does not Authorize or Prioritize Development**

97. The Applicant suggests that LARP authorizes and prioritizes development (paragraphs 4, 6, 21, 24, 57, 58, 64, 85).
98. This assertion is not accurate.
99. LARP does not authorize development. Rather, it creates a framework that is intended to guide decision-makers in the exercise of their powers and duties.
100. As indicated above, applications for proposed future development activities will continue to be processed and decided upon by statutory decision-makers under their enabling legislation such as *EPEA* or the *Water Act*. These statutory consents must comply with LARP; however LARP does not give life to them. LARP is but one of the considerations a decision-maker must look at before determining if an activity should be allowed within the Lower Athabasca Region.
101. The Applicant's argument confuses LARP not prohibiting certain activities in certain areas with authorization. The existing regulatory regime will continue to apply to proposed development activities and this regime contains checks and balances to ensure that statutory consents are subject to due process, rights of appeal, opportunities for public involvement, and consultation, where appropriate. LARP does not displace these checks and balances; it adds an additional layer of scrutiny to ensure that decisions are consistent with the goals and objectives of the regional plan.
102. Nor does LARP prioritize development. LARP "aligns provincial policies at the regional level to balance Alberta's economic, environmental and social goals".<sup>58</sup> LARP's vision describes "a desired future state for the Lower Athabasca in which the region's diverse economic opportunities are balanced with social and environmental considerations using a cumulative effects management approach".<sup>59</sup>
103. The Applicant points out (at paragraph 24 of its submissions) that of LARP's seven regional outcomes, the first one listed is optimizing the economic potential of the oil sands. This does not mean that development is prioritized. LARP does not rank the regional outcomes. Other outcomes, which are to be weighed equally, are managing landscapes to maintain ecosystem

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<sup>58</sup> LARP, pg. 2

<sup>59</sup> LARP, pg. 23

function and biodiversity, managing air and water to support human and ecosystem needs, and inclusion of aboriginal peoples in land use planning.<sup>60</sup>

104. The Applicant also points to the fact that the Crown has not yet completed various management tools that would support the exercise of treaty rights to argue that LARP prioritizes development. The Applicant also repeats its argument about the lack of management frameworks. Alberta submits that, contrary to the Applicant's suggestion, the continued development of management tools demonstrates the commitment under LARP to balance environmental, social and economic interests. Through LARP, Alberta developed and committed to implement the Air Quality Management Framework and the Surface Water Quality Framework, as well as further commitments to develop a biodiversity framework, a landscape management plan, a tailings management framework, a Groundwater Management Framework, and to complete an updated surface water quantity management framework.<sup>61</sup> These measures are protective of ecosystem function and human health and will support the exercise of treaty rights and traditional land uses.
105. The Applicant also raises concern that the conservation areas have not yet been created, either as wildland provincial parks under the *Provincial Parks Act* or as a public land use zone under the *Public Lands Act*, as noted on pages 6-9 of the Applicant's submissions. The Applicant points to s. 7(3) of the Regulatory Details of LARP which provides that a decision-maker "must not adjourn, defer, deny, refuse, or reject any application, proceeding or decision making process before it by reason only of ... b) the incompleteness by the Crown or anybody of any direction or commitment made in a provision of either the LARP Strategic Plan or LARP Implementation Plan" (emphasis added). The Applicant then repeats its argument that LARP authorizes resource development.
106. Section 7(3) of the Regulatory Details does not mean that applications for statutory consents must or will be approved in conservation areas prior to their creation under the applicable legislation. In making a decision, a statutory decision-maker must still consider the management intent indicated by LARP for the conservation area.
107. The purpose of s. 7(3) of the Regulatory Details is simply to indicate that decision-makers must continue to process, and decide upon, all applications received. In other words, the decision-maker cannot hold the application in abeyance pending the implementation of any direction or commitment under LARP. Under this section, the decision-maker is left the option to refuse the application because of its inconsistency with the intent of the planned conservation area.
108. In summary, LARP does not prioritize development for the Lower Athabasca Region. Rather, it strives to strike a balance between social, environmental and economic outcomes, taking into account the current state of the region.

## CONCLUSION

109. Alberta submits that the majority of the concerns raised by the Applicant are not related to the content of LARP and are therefore outside of the Panel's jurisdiction and must not be considered.

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<sup>60</sup> LARP, pg. 37

<sup>61</sup> LARP, pg. 71

110. For the concerns noted above which are within the Panel's jurisdiction, as they relate to the current content of LARP, Alberta submits that no harm to the Applicant, as alleged, or at all, arises from the content of LARP complained of.
111. Alberta submits that the Applicant has not shown that there is any existing or future harm caused by a provision of LARP so as to trigger the Panel's power to provide recommendations for amendment to the Minister.
112. Consequently, Alberta requests that the Panel report to the Minister, pursuant to Rule 37, that the Applicant is not directly and adversely affected in accordance with Rule 36.

All of which is respectfully submitted June 25, 2014.

ALBERTA JUSTICE AND SOLICITOR GENERAL



Per: Lisa Semenchuk, Wendy Thiessen, and Witek Gierulski  
Counsel for the Government of Alberta

### Table of Authorities

Tab	
1.	Alberta Land Stewardship Act – Rules of Practice for Conducting Reviews of Regional Plans (March 2014)
2.	<i>Alberta Land Stewardship Act</i> , S.A. 2009, c. A-26.8
3.	Lower Athabasca Region Air Quality Management Framework for Nitrogen Dioxide (NO <sub>2</sub> ) and Sulphur Dioxide (SO <sub>2</sub> )
4.	Lower Athabasca Region Surface Water Quality Management Framework for the Lower Athabasca River
5.	<i>Environmental Protection and Enhancement Act</i> , R.S.A. 2000, c. E-12
6.	<i>Alberta Land Stewardship Regulation</i> , AR 179/2011
7.	<i>Constitution Act, 1982</i> , R.S.C. 1985, App. II, No. 44, Sched. B, Pt. II
8.	<i>Administrative Procedures and Jurisdiction Act</i> , R.S.A. 2000, c. A-3
9.	<i>Rio Tinto Alcan Inc. v. Carrier Sekani Tribal Council</i> , 2010 SCC 43
10.	<i>Wasauksing First Nation v. Wasausink Lands Inc.</i> , 2004 CarswellOnt 936 (Ont. C.A.)
11.	<i>Siksika First Nation v. Alberta (Director, Southern Region, Environment)</i> , 2007 ABCA 402
12.	<i>Designation of Constitutional Decision Makers Regulation</i> , Alta. Reg. 69/2006
13.	<i>UFCW, Local 401 v. Alberta (Information and Privacy Commissioner)</i> , 2012 ABCA 130
14.	<i>Terms of Reference for Developing the Lower Athabasca Regional Plan</i> , 2009
15.	<i>Quebec (Attorney General) v. Canada (National Energy Board)</i> , [1994] 1 S.C.R. 159
16.	<i>Tsuu T'ina Nation v. Alberta (Environment)</i> , 2010 ABCA 137
17.	<i>Constitution Act, 1867</i> , R.S.C. 1985, App. II, No. 5
18.	<i>R. v. Sutherland</i> , [1980] 2 S.C.R. 451
19.	"Ambient Air Quality Objective", Alberta Environment and Sustainable Resource Development Website



# **Alberta Land Stewardship Act**

## **Rules of Practice for Conducting Reviews of Regional Plans**

**March 2014**

Section 19.2 of the *Alberta Land Stewardship Act*, SA 2009, A-26.8, as amended, and sections 5-11 of the *Alberta Land Stewardship Regulation*, AR 179/2011, establish the statutory requirements for requesting and conducting a review of a regional plan. The review of a regional plan must be conducted by a Panel. Section 10(1) of the *Alberta Land Stewardship Regulation* permits the Stewardship Minister to establish rules respecting the conduct of a review by a Panel.

### **Definitions**

1. In these Rules,

- a) "Act" means the *Alberta Land Stewardship Act*, SA 2009, A-26.8, as amended;
- b) "administrative body" means the Secretariat or another body that provides administrative support to the Panel;
- c) "applicant" has the same meaning as in section 5(1)(a) of the Regulation;
- d) "application" has the same meaning as in section 5(1)(b) of the Regulation;
- e) "application form" means the application form for a request for review as posted on the Secretariat's website;
- f) "Chair" means the Panel member who is designated as the Chair in accordance with section 16 of the Rules;
- g) "Code of Conduct" means a code of conduct for members of a Panel;
- h) "Crown" means the Crown in right of Alberta;
- i) "directly and adversely affected" has the same meaning as in section 5(1)(c) of the Regulation;

- j) “electronic” has the same meaning as in the *Electronic Transactions Act*, SA 2001, c E-5.5, as amended;
- k) “electronic agent” has the same meaning as in the *Electronic Transactions Act*, SA 2001, c E-5.5, as amended;
- l) “information request” has the same meaning as those questions set out in section 29 of the Rules;
- m) “Minister” means Stewardship Minister as defined in section 2(1)(cc) of the Act;
- n) “party” means the applicant or the Crown;
- o) “Panel” has the same meaning as in section 5(1)(d) of the Regulation;
- p) “recorded mail” means a form of document delivery by mail or courier in which receipt of the document must be acknowledged in writing;
- q) “Regulation” means *Alberta Land Stewardship Regulation*, AR 179/2011, as amended;
- r) “review” means a review pursuant to section 19.2 of the Act;
- s) “Rules” means these rules respecting the conduct of a review by a Panel;
- t) “Secretariat” has the same meaning as in section 2(1)(x) of the Act; and
- u) “written submissions” means those documents referred to in section 24 of the Rules.


#### **Dispensing with or varying the Rules**

2. At any time where considerations of fairness so require, the Minister may supplement, dispense with or vary these Rules or any part thereof. Where the Minister supplements, dispenses with or varies the Rules, the Minister must issue directions in respect of the appropriate procedure or new timelines.

#### **Computation of Time**

3. Unless otherwise specified, where reference is made to a number of days, it means calendar days.



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4. Where a time fixed for taking action expires or falls on a day that is not a business day, the action may be taken on the next business day.
  5. When counting to or from an event or activity in days, the date on which the event or activity occurs is not counted.

#### **Service of Documents**

6. A document may be served by electronic method on the administrative body or on a party who has specifically provided an address to which information or data in respect of a review may be transmitted, if the document is sent to the administrative body or party at the specified address, and
  - a) the electronic agent receiving the document at that address receives the document in a form that is usable for subsequent reference, and
  - b) the sending electronic agent obtains or receives a confirmation that the transmission to the address of the administrative body or the party to be served was successfully completed.
7. Service is effected under section 6 when the sending electronic agent obtains or receives confirmation of the successfully completed transmission.
8. A document may be served on the administrative body or on a party by being sent by recorded mail, addressed to the administrative body or the party at the address for service provided to the administrative body for the purposes of a review.
9. Service is effected under section 8 on the earlier of
  - a) the date acknowledgment of receipt is signed, or
  - b) 7 days after the date on which the recorded mail is sent.

#### **Complete applications**

10. An application is not deemed complete until all the applicable information required under section 7(1) of the Regulation and the application form has been provided to the satisfaction of the Minister.

11. Subject to section 22, the Minister must serve notice to each party once an application is deemed complete, and must forward the application to the Panel once the Panel has been established.
12. The Minister may require an applicant to submit any additional information he considers necessary for the application to be deemed complete within a specified time period.
13. If an applicant fails to submit the information required under section 12 within the specified time period, the Minister may deem the application to be incomplete and must not forward the incomplete application to the Panel. The Minister must serve notice to the applicant that the application has been deemed incomplete and will not be forwarded to the Panel.

#### **Establishing a Panel**

14. The Minister must establish a Panel to conduct a review after determining that the application is complete in accordance with section 7(1) of the Regulation.
15. In establishing a Panel in accordance with section 6(1) of the Regulation, the Minister must
  - a) with respect to section 6(1)(a), appoint Panel members from a roster of individuals selected through a competition conducted by the Secretariat,
  - b) with respect to section 6(1)(b), appoint Panel members from members of the board or other body to which the Minister referred the request for review,
  - c) appoint one or three Panel members, and
  - d) set the remuneration of the Panel members which will be paid by the Secretariat.
16. If three Panel members are appointed, the Minister must designate one of the Panel members as the Chair of the Panel.
17. The Chair's duties may include
  - a) calling or arranging meetings of the Panel members,
  - b) requesting administrative or legal support for the Panel in conducting the review,

- c) permitting a party to correct typographical errors or similar clerical errors in a written submission,
- d) issuing information requests and receiving responses to information requests,
- e) ensuring the review is conducted in a timely manner, and
- f) submitting the Panel's report and any recommendations to the Minister.

18. If one Panel member is appointed, that Panel member must perform the duties of the Chair in sections 17(b), (c), (d), (e) and (f) of the Rules.

#### **Code of Conduct**

19. Each Panel member must review and adhere to the Code of Conduct when conducting a review.
20. The Minister may repeal the appointment of any Panel member who does not comply with the Code of Conduct or any of these Rules. The Minister must appoint a new Panel member to replace a removed Panel member.

#### **Combining applications**

21. In accordance with section 9(2) of the Regulation, the Minister may appoint one Panel to conduct a review of more than one application.
22. If the Minister combines applications in accordance with section 21, the Minister may serve notice to all applicants once all the applications to be heard by one Panel are deemed complete, and may forward all completed applications being combined to the Panel together.
23. If a Panel conducts a review of more than one application, the Panel must prepare and submit a separate report and any recommendations for each application.

#### **Written submissions**

24. Subject to section 28, the Panel must conduct the review based only on the written submissions of each party, specifically
- a) the applicant's application,

- b) a written response by the Crown, and
- c) a written reply by the applicant, if submitted.

25. The Crown must serve its written response on the administrative body and the applicant within 90 days of receiving notice from the Minister that the application has been deemed complete under section 11 of these Rules.

26. If the applicant decides to provide a written reply, the applicant must serve its written reply on the administrative body and the Crown within 60 days of being served with the Crown's written response. If the applicant submits a written reply, the reply must be limited to addressing only matters raised by the Crown in its written response.

27. Once the timelines in sections 25 and 26 have lapsed or if a party serves notice on the administrative body that it will not be providing a written submission, the Panel must, subject to section 28, proceed with the review based on the written submissions before it.


#### **Information Request**

28. After the Panel has received and reviewed the written submissions, the Panel may request that a party provide further information necessary to permit a full and satisfactory understanding of the matters in the review.


29. An information request by a Panel under section 28 must

- a) be in writing,
- b) be directed to the party from whom a response is sought,
- c) contain specific questions for clarification about the party's evidence, documents or other material that may be in the possession of the party and relevant to the proceeding, and
- d) set out the date on which a response is required.

30. The administrative body must serve the information request on the party from whom a response is sought, and provide a copy of the information request to the other party.

- 
31. The party receiving the information request must respond in writing with a full and adequate written response to each information request, or provide reasons why the information cannot be provided. The response must be limited only to the issues in the information request and must not raise new issues. The response must be served on the administrative body and the other party.
32. The other party may respond to the information request submitted under section 31 within the period of time set by the Panel.

### **Conducting the review**

33. The Panel must conduct the review based only on the written submissions and responses to information requests, if applicable, of each party.
34. For additional clarity, the Panel must not consider any submissions from any person or entity other than a party in conducting a review.
35. The Panel has no authority to retain its own experts or to seek additional information from any party except in accordance with sections 17(b), (c) and (d), 18, 28 and 29 of the Rules.
- 
36. In conducting a review, the Panel must provide advice on whether the applicant is directly and adversely affected by either
- a) a specific provision or provisions in a regional plan, or
  - b) a specific provision or provisions in an amendment to a regional plan.
37. If the Panel's advice is that the applicant is not directly and adversely affected in accordance with either sections 36(a) or (b) of the Rules, the Panel must issue its report to the Minister with its advice on this issue alone.
38. If the Panel's advice is that the applicant is directly and adversely affected in accordance with either sections 36(a) or (b) of the Rules, the Panel must, in its report to the Minister
- a) identify and explain how the specific provision or provisions in the regional plan or in an amendment to a regional plan directly and adversely affects the applicant, and

- b) explain the adverse effects with respect to health, property, income or quiet enjoyment of property, or some combination of them, that the applicant is suffering or expects to suffer as a result of the specific provision(s) identified.

39. The Panel may, in its report to the Minister, include recommendations specific to the provision(s) identified in section 38(a) of the Rules that may mitigate the adverse effects identified in section 38(b) of the Rules. Any recommendations made by the Panel must have regard to the purposes of the Act.

40. The Panel must submit its report and any recommendations to the Minister within one year less one day from being appointed or on a shorter timeline as directed by the Minister.

41. The Panel's report and any recommendations must reflect a consensus of the Panel members.

#### **Communicating with the Panel**

42. No party must contact the Panel or any Panel members directly. All communications to the Panel must be through the administrative body.

#### **Costs**

43. The Panel has no authority to consider or award costs in relation to a review.

#### **Term of Panel Appointment**

44. The appointment of a Panel member expires

- a) one year less one day from the date of initial appointment, or
  - b) upon the Panel submitting its report to the Minister,
- whichever date occurs first.

#### **Public Record**

45. Subject to section 46, the Secretariat must post the following documents on its website

- a) all written submissions,
- b) information requests and responses to information requests, and

c) the Panel's report and any recommendations.

46. A party may request in writing that the Panel keep a document or a portion of a document confidential. The Panel may grant such a request if, in the opinion of the Panel, the document or portion of document contains information contains sensitive business or personal information.

47. The other party may view a document kept confidential under section 46 by filing an undertaking with the administrative body that the opposing party will hold in confidence any evidence disclosed in a confidential document.

#### **Records**

48. Notwithstanding the involvement of an administrative body, the Secretariat must retain a copy of all written submissions, correspondence involving a party and the administrative body related to a review, and any Panel reports and recommendations.

#### **General**

49. In the event of any conflict or ambiguity between these Rules and the Act or Regulations, the Act or Regulations prevail over these Rules. For additional clarity, the Act prevails over the Regulations.

50. Words importing male persons including female persons, words importing female persons include male persons.

51. The headings preceding each section of these Rules are included for convenience only and do not form part of the Rules.

# **ALBERTA LAND STEWARDSHIP ACT**

## **Chapter A-26.8**

### *Table of Contents*

<b>1</b>	<b>Purposes of Act</b>
<b>2</b>	<b>Definitions Part 1</b>
	<b>Regional Plans</b>
	<b>Division 1</b>
	<b>Making, Amending and Reviewing</b>
	<b>Regional Plans</b>
<b>3</b>	<b>Integrated planning regions</b>
<b>4</b>	<b>How regional plans are made and amended</b>
<b>5</b>	<b>Consultation required</b>
<b>6</b>	<b>Review of regional plans</b>
	<b>Division 2</b>
	<b>Contents of Regional Plans</b>
<b>7</b>	<b>State of the planning region statements</b>
<b>8</b>	<b>Elements of a regional plan</b>
<b>9</b>	<b>Implementing regional plans</b>
<b>10</b>	<b>Subregional plans, issue-specific plans and other arrangements</b>
<b>11</b>	<b>Statutory consents may be affected</b>
	<b>Part 2</b>
	<b>Nature and Effect of Regional</b>
	<b>Plans and Compliance Declarations</b>
	<b>Division 1</b>
	<b>Nature and Effect of Regional Plans</b>
<b>13</b>	<b>Legal nature of regional plans</b>
<b>14</b>	<b>Application of the Regulations Act</b>
<b>15</b>	<b>Binding nature of regional plans</b>
<b>15.1</b>	<b>Variance</b>
<b>16</b>	<b>Public health, safety, property protection and emergencies</b>
<b>17</b>	<b>Resolution of conflicting provisions</b>
	<b>Division 2</b>
	<b>The Court, Compensation and Review</b>
<b>18</b>	<b>Court orders</b>



**67 Incentives and programs****Part 5  
Transitional Provisions, Related  
Amendments and Coming into Force****68 Conservation easement transition****69-95 Related amendments****96 Coming into force**

HER MAJESTY, by and with the advice and consent of the  
Legislative Assembly of Alberta, enacts as follows:

**Purposes of Act**

**1(1)** In carrying out the purposes of this Act as specified in subsection (2), the Government must respect the property and other rights of individuals and must not infringe on those rights except with due process of law and to the extent necessary for the overall greater public interest.

**(2)** The purposes of this Act are

- (a) to provide a means by which the Government can give direction and provide leadership in identifying the objectives of the Province of Alberta, including economic, environmental and social objectives;
- (b) to provide a means to plan for the future, recognizing the need to manage activity to meet the reasonably foreseeable needs of current and future generations of Albertans, including aboriginal peoples;
- (c) to provide for the co-ordination of decisions by decision-makers concerning land, species, human settlement, natural resources and the environment;
- (d) to create legislation and policy that enable sustainable development by taking account of and responding to the cumulative effect of human endeavour and other events.

2009 cA-26.8 s1;2011 c9 s2

**Definitions**

**2(1)** In this Act,

- (a) “activity” means
  - (i) anything that requires a statutory consent, and
  - (ii) anything that, under an enactment, must comply with a rule, code of practice, guideline, directive or instrument;

(9) Nothing in this section gives a person a right to compensation

- (a) for anything done by a decision-maker under Part 17 of the *Municipal Government Act*, or
- (b) as a result of the operation or application of any provisions of that Part.

(10) The Lieutenant Governor in Council may make regulations

- (a) respecting the form and manner of making applications to the Crown, the Compensation Board or the Court of Queen's Bench under this section;
- (b) respecting the application or modification of Part 3, Division 3, and the regulations made under that Division, in respect of applications to the Compensation Board or the Court of Queen's Bench under this section.

2011 c9 s14

**Request for review of regional plan**

**19.2(1)** A person who is directly and adversely affected by a regional plan or an amendment to a regional plan may, within 12 months from the date the regional plan or amendment affecting the person comes into force, request a review of the regional plan or amendment affecting the person in accordance with the regulations.

(2) On receiving a request under subsection (1), the Stewardship Minister must establish a panel to conduct a review of the regional plan or amendment and report the results of the review and any recommendations to the Stewardship Minister.

(3) On receiving a report and any recommendations under subsection (2), the Stewardship Minister must present the report and recommendations to the Executive Council.

(4) Any request for a review and any report and recommendations under this section must be made publicly available in their entirety by the secretariat in accordance with the regulations.

(5) The Lieutenant Governor in Council may make regulations

- (a) respecting requests for a review under subsection (1);
- (b) respecting the establishment of panels under subsection (2), including, without limitation, regulations respecting the appointment, powers, duties and remuneration of panel members;

- (c) respecting the form and manner in which reports and recommendations of a panel must be provided to the Stewardship Minister;
- (d) respecting the manner in which requests for a review and reports and recommendations under this section are to be made publicly available.

2011 c9 s14

### **Division 3 Compliance Declarations**

#### **Local government bodies**

**20(1)** When a regional plan is made, every local government body affected by the regional plan must

- (a) review its regulatory instruments, and
- (b) decide what, if any, new regulatory instruments or changes to regulatory instruments are required for compliance with the regional plan.

**(2)** Every local government body affected by the regional plan must, within the time set in or under, or in accordance with, the regional plan,

- (a) make any necessary changes or implement new initiatives to comply with the regional plan, and
- (b) file a statutory declaration with the secretariat that the review required by this section is complete and that the local government body is in compliance with the regional plan.

#### **Decision-making bodies**

**21(1)** When a regional plan is made, every decision-making body affected by the regional plan must

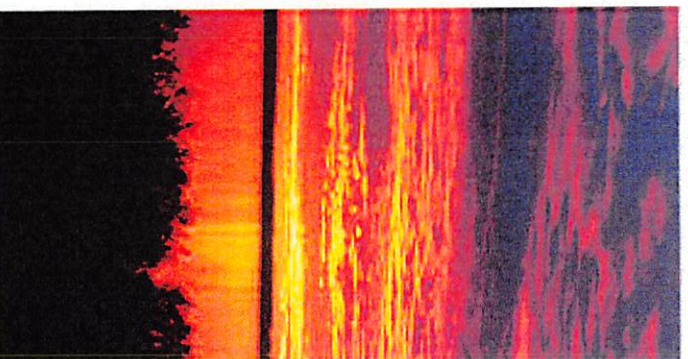
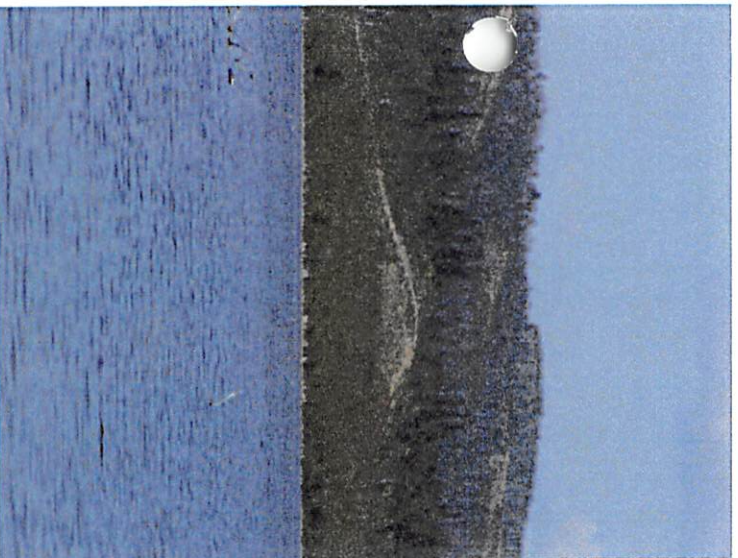
- (a) review its regulatory instruments, and
- (b) decide what, if any, new regulatory instruments or changes to regulatory instruments are required for compliance with the regional plan.

**(2)** Every decision-making body affected by the regional plan must, within the time set in or under, or in accordance with, the regional plan,

- (a) make any necessary changes or implement new initiatives to comply with the regional plan, and



# Lower Athabasca Region Air Quality Management Framework For Nitrogen Dioxide (NO<sub>2</sub>) and Sulphur Dioxide (SO<sub>2</sub>)



Alberta  
Government

ISBN: 978-1-4601-0531-3 (Printed Version)  
978-1-4601-0532-0 (Online Version)  
Printed August 2012



# Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>3</b>
<b>2.0</b>	<b>Purpose .....</b>	<b>4</b>
2.1	The Lower Athabasca Region .....	5
2.2	Framework Development.....	7
<b>3.0</b>	<b>Key Concepts and Principles.....</b>	<b>8</b>
3.1	Provincial Policy Direction.....	8
3.2	Cumulative Effects Management and Management Frameworks.....	8
3.3	Key Principles .....	9
3.3.1	Maintains Acceptable Air Quality .....	9
3.3.2	Applies a Regional Perspective .....	9
3.3.3	Builds on Existing Legislation, Regulations and Policies .....	10
3.3.4	Incorporates Flexibility and Adaptability .....	10
3.3.5	Clearly Communicates.....	10
3.3.6	Involves Partnerships.....	10
<b>4.0</b>	<b>The Current Management System .....</b>	<b>11</b>
4.1	Regulatory Context.....	11
4.2	Current Alberta Ambient Air Quality Objectives for NO <sub>2</sub> and SO <sub>2</sub> .....	12
4.3	Understanding Ambient Air Quality within the Region .....	13
4.4	Current Airshed Monitoring in the Region .....	14
4.5	Types of Stations in the Region .....	16
4.5.1	Continuous Stations .....	16
4.5.2	Passive Stations .....	17
4.6	Managing Local Exceedances .....	18
<b>5.0</b>	<b>Regional Objectives .....</b>	<b>19</b>
5.1	Indicators, Triggers and Limits.....	19
5.1.1	Identifying Key Indicators .....	19
<b>6.0</b>	<b>The Management System.....</b>	<b>21</b>
6.1	Assignment of Ambient Air Quality Levels .....	22
6.2	What the Current Data Shows.....	22
6.3	Management Response.....	23
6.3.1	Verification .....	25
6.3.2	Preliminary Assessment .....	27
6.3.3	Investigation .....	28
6.3.4	Mitigative Management Actions.....	29
6.3.5	Oversight/Delivery of Management Actions .....	33
6.3.6	Evaluation .....	35
6.3.7	Communication .....	35

<b>7.0</b>	<b>Implementation .....</b>	<b>36</b>
7.1	Roles and Responsibilities .....	36
7.1.1	Alberta Environment and Sustainable Resource Development.....	36
7.1.2	Environmental Monitoring Associations.....	37
7.1.3	Emitters and Proponents.....	37
<b>8.0</b>	<b>Integration .....</b>	<b>38</b>
8.1	Identification of Substances to Manage .....	38
<b>9.0</b>	<b>Abbreviations and Acronyms .....</b>	<b>39</b>
<b>10.0</b>	<b>Terminology .....</b>	<b>40</b>
<b>11.0</b>	<b>References .....</b>	<b>42</b>
<b>12.0</b>	<b>Appendices.....</b>	<b>44</b>
Appendix A:	Calculation of Ambient Air Quality Triggers for the Lower Athabasca Region.....	44
Appendix B:	Calculation of NO <sub>2</sub> and SO <sub>2</sub> Metrics .....	48
Appendix C:	Investigation and Data Analysis .....	49

## List of Tables

Table 1.	Regulatory and Non-regulatory Management of Air Emissions and Effects in the Lower Athabasca Region.....	11
Table 2.	AAAQOs for NO <sub>2</sub> and SO <sub>2</sub> .....	12
Table 3.	Air Monitoring Station Summary.....	17
Table 4.	Annual Ambient Air Quality Level Descriptions.....	21
Table 5.	Annual Ambient Air Quality Triggers and Limits for NO <sub>2</sub> and SO <sub>2</sub> .....	26
Table 6.	Ambient Air Quality Triggers Based on 99 <sup>th</sup> Percentile of the Hourly .....	27
Table 7.	Mitigative Management Actions for Each Ambient Air Quality Level .....	31
Table 8.	List of Potential Measures and Tools for Air Quality Management.....	32
Table 9.	Use of Modelling Results for Assessment and Planning.....	34



# 1.0

## Introduction

Alberta Environment and Sustainable Resource Development's three Lower Athabasca Region management frameworks were developed using input from different stakeholders within the Lower Athabasca Region including industry, First Nations and Métis peoples, and non-governmental organizations. As part of a series developed by the department for the Government of Alberta's *Lower Athabasca Regional Plan*, these frameworks are designed to maintain flexibility and to proactively manage cumulative effects to air quality, surface water quality and groundwater quality and quantity within the Lower Athabasca Region. The frameworks provide context for development and related regulatory processes and facilitate sustainable resource management. They are intended to add to and complement, not replace, existing policies, legislation, regulations and management tools.

The frameworks are policy documents that will be implemented and given legal authority as specified in the regional plan, and through Alberta Environment and Sustainable Resource Development's and potentially other departments' mandates and legislation.

The **Air Quality Management Framework** provides an additional component for the region in the overall air quality management system. This includes setting ambient air quality triggers and limits for nitrogen dioxide (NO<sub>2</sub>) and sulphur dioxide (SO<sub>2</sub>) with guidance for long-term decision making and management.

The **Surface Water Quality Management Framework** focuses on the Lower Athabasca River downstream of the Grand Rapids to the Athabasca River Delta. It sets surface water quality triggers and limits for 39 indicators measured at the Old Fort monitoring station.

The goal of the **Groundwater Management Framework** is to enhance the existing system to manage non-saline groundwater resources across the Lower Athabasca Region including management of potential cumulative effects on these resources. It establishes indicators of groundwater quality and quantity and the method for developing triggers and limits. This document forms the basis for more technical, detailed documents that have been prepared for each of the groundwater management areas in the region. These are *Groundwater Management Framework* supporting documents for the:

- North Athabasca Oil Sands (NAOS) Area
- South Athabasca Oil Sands (SAOS) Area
- Cold Lake - Beaver River (CLBR) Area

*Please note that in May 2012, the Government of Alberta brought together the ministries of Environment and Water and Sustainable Resource Development to create one ministry called Alberta Environment and Sustainable Resource Development.*



The framework described in this document is part of the shift to cumulative effects management. It seeks to balance anticipated development with environmental protection. The use of indicators of air quality with triggers and limits helps to clearly define the management of cumulative effects of development and contributes to the achievement of desired regional objectives for air quality.

This *Air Quality Management Framework* was prepared by Alberta Environment and Sustainable Resource Development for the *Lower Athabasca Regional Plan*, one of seven regional plans being advanced under the *Alberta Land Stewardship Act* and the *Land-use Framework*.

The Lower Athabasca Region is the focus of major industrial development that is driving Alberta's and Canada's economy. Increasing population and industrial expansion is expected to continue in the coming years making management frameworks important components of the regional plan.

The *Terms of Reference for the Lower Athabasca Regional Plan* state that the proposed regional air management approach is to set regional industrial emissions caps for oxides of nitrogen ( $\text{NO}_x$ ) and sulphur dioxide ( $\text{SO}_2$ ). This management framework addresses this requirement by confirming that the province will continue to require industrial sources of these substances to employ pollution prevention and emission minimization principles as outlined in provincial policy. In addition, the framework sets ambient air quality triggers and limits for the indicators nitrogen dioxide ( $\text{NO}_2$ ) and  $\text{SO}_2$ . It includes guidance on the management response if air quality triggers or limits are exceeded.

$\text{NO}_x$  which includes nitrogen oxide ( $\text{NO}$ ) and  $\text{NO}_2$  are released as a product of combustion from industrial, transportation or home heating sources. The most stable and abundant oxide of nitrogen is nitrogen dioxide or  $\text{NO}_2$ . Alberta Ambient Air Quality Objectives (AAAQOs) are established for  $\text{NO}_2$  and it is reported from most air monitoring stations in the region. This framework focuses on monitoring and responding to ambient concentrations of  $\text{NO}_2$  as a way of managing releases of  $\text{NO}_x$ . Emissions management includes not only industrial emissions, but also other sources such as transportation and municipalities.

The main sources of  $\text{SO}_2$  releases in the Lower Athabasca Region are from point sources at industrial facilities such as upgrading and other oil sands processing facilities. To a lesser extent,  $\text{SO}_2$  is released through the combustion of fossil fuels.

### Goals of the Framework

- Adopt cumulative effects management at the regional level to proactively maintain ambient air quality below the limits for  $\text{NO}_2$  and  $\text{SO}_2$ .
- Develop triggers and limits for  $\text{NO}_2$  and  $\text{SO}_2$  and use monitoring data to determine ambient air quality in relation to those triggers and limits.

- Evaluate current management approaches for opportunities and solutions to improve air quality management, including broadening the understanding of contributing sources and seeking better technological solutions.
- Support and supplement the current pollution prevention and emission minimization principles as part of air quality and substance release management.
- Provide effective and efficient management that support the flexibility needed to address local ambient air quality within the region. Reduce prescriptive approaches in general, while assuring escalation to more prescriptive or regulatory approaches if the ambient concentrations increase.

The framework's proactive approach to managing ambient air quality will help to inform regulatory needs to ensure that development can continue while still maintaining air quality that supports a healthy human population and environment.

## 2.1 The Lower Athabasca Region

The Lower Athabasca Region covers a large area (93,216 square kilometres) of northeastern Alberta and encompasses agricultural lands, boreal forest and wetlands, including the Peace-Athabasca Delta, one of the largest freshwater deltas in the world. The region contains three municipal areas: the Regional Municipality of Wood Buffalo, including the city of Fort McMurray; the Municipal District of Bonnyville, including the city of Cold Lake; and Lac La Biche County. The Lower Athabasca Region is also home to a number of First Nations reserves, and Métis Settlements and communities. Please see the map on the following page for the locations of the municipal areas within the region.

The region has extensive natural resource development potential in the oil sands, natural gas and forestry sectors. Industrial development in the Lower Athabasca Region is an economic driver for Alberta and Canada and is expected to continue to increase in the coming years. As more people move to the region to develop the resources, the cumulative effects of human activity on the environment may also increase. Residents have expressed concerns about the impacts of industrial air emissions on health, the environment and overall quality of life.

Releases in the region come from oil, gas and oil sands operations; agriculture; forestry; and non-point sources such as vehicles and urban areas (e.g., home heating). Various substances in the air are associated with oil sands industrial processes and upstream oil and gas developments. These substances include oxides of nitrogen (such as NO<sub>2</sub>), SO<sub>2</sub>, hydrogen sulphide (H<sub>2</sub>S) and other sulphur-containing compounds, ammonia (NH<sub>3</sub>), hydrocarbons, fine particulate matter and ozone.

Ambient air concentrations of most substances are not uniform throughout the Lower Athabasca Region; rather they are influenced by the location, density and nature of developments in the area. The nature of certain developments, such as surface oil sands mining operations, means that the area influenced by cumulative emissions can also be large.



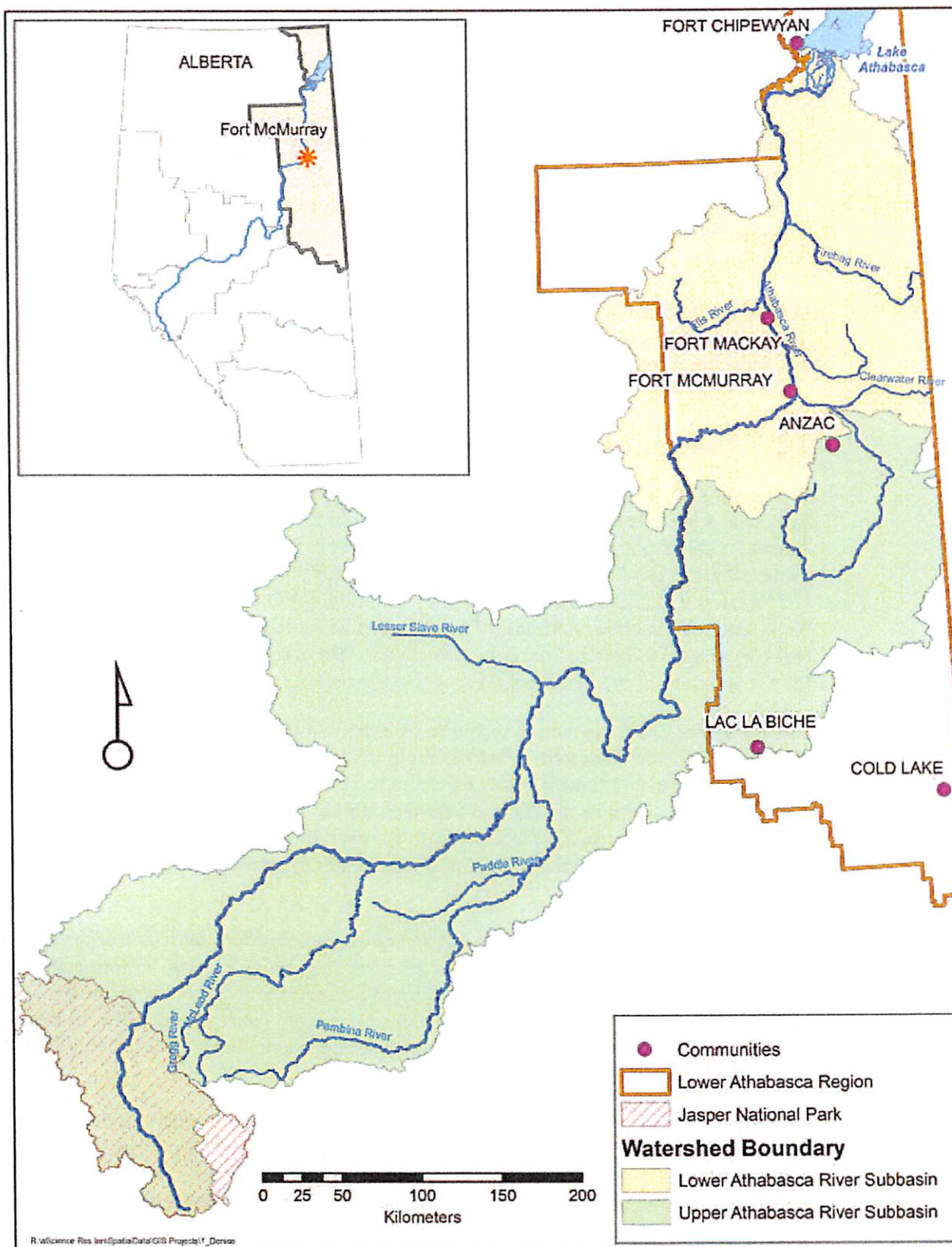


Figure 1  
Map of the Athabasca River Basin and Boundary of the Lower Athabasca Region

## 2.2 Framework Development

The initial drafting and detailed revision of this framework relied on technical and editorial input from federal regulators, industry, multi-stakeholder organizations, non-governmental groups and First Nations and Métis peoples. An engagement process led by Alberta Environment and Sustainable Resource Development involved targeted stakeholders as well as acceptance of written feedback about the framework. At the same time, the Land Use Secretariat led a consultation process about the *Lower Athabasca Regional Plan* that involved gathering feedback on key aspects of advice provided by the Regional Advisory Council, feedback on the draft *Lower Athabasca Regional Plan* and an opportunity to provide input on the management frameworks.

All input was considered as the framework was developed. Overall, the comments supported the framework as a beneficial tool for environmental management within the Lower Athabasca Region.

Managing air emissions through ambient air quality outcomes aligns with recommendations from the Clean Air Strategic Alliance (CASA, 2009a), with Alberta's renewed Clean Air Strategy now being developed (Government of Alberta) and with the initiatives described in the draft Comprehensive Air Management System or CAMS (CAMS Steering Committee, 2010) which has been renamed the national Air Quality Management System (AQMS currently under development).

- CASA recommended defining ambient air quality triggers based on ambient concentrations with associated management actions.
- The renewed Clean Air Strategy outlines that air quality continue to support human populations, ecosystems, as well as continued economic prosperity.
- The national AQMS (currently under development) air quality management approach calls for place-based air quality management using a similar trigger-based system, with management activities that address all contributing emissions sources.
- Adopting these approaches for the framework supports the concept of environmentally responsible clean energy production in Alberta.



## Key Concepts and Principles

There are two drivers that have guided this framework. The first is the need to build on provincial environmental protection and management policies and emission minimization practices. The second is the need to adopt a cumulative effects management system in the region.

### 3.1 Provincial Policy Direction

One of the purposes of regional plans is to translate provincial policy to the regional scale. The *Air Quality Management Framework for the Lower Athabasca Region* facilitates this by affirming the provincial environmental principles of:

- pollution prevention through employment of best available technology economically achievable
- emission minimization through best management and control practices, and
- continuous improvement and keeping clean areas clean.

Air quality is most frequently described in relation to objectives against which the ambient concentration of the substance can be compared. This framework outlines how to address air quality with respect to the current practice of established Alberta Ambient Air Quality Objectives (AAAQOs) for NO<sub>2</sub> and SO<sub>2</sub>.

### 3.2 Cumulative Effects Management and Management Frameworks

The Government of Alberta has made a commitment to cumulative effects management, which focuses on the achievement of outcomes, understanding the effects of multiple development pressures (existing and new), assessing risk, collaborative work with shared responsibility for action, and improved integration of economic, environmental and social considerations. It follows an adaptive management model where decision-makers learn from experience and new information and adapt to changing social expectations and demands. Performance management, along with pollution prevention principles, is essential to providing information on environmental conditions and identifying the need for any adjustments and changes on an ongoing basis. The development of management frameworks is an important addition to accomplish this shift to a cumulative effects management system. They will play an important role in long-term planning and decision making in accordance with the outcomes defined in the regional plan.

The management framework approach is depicted in Figure 2.

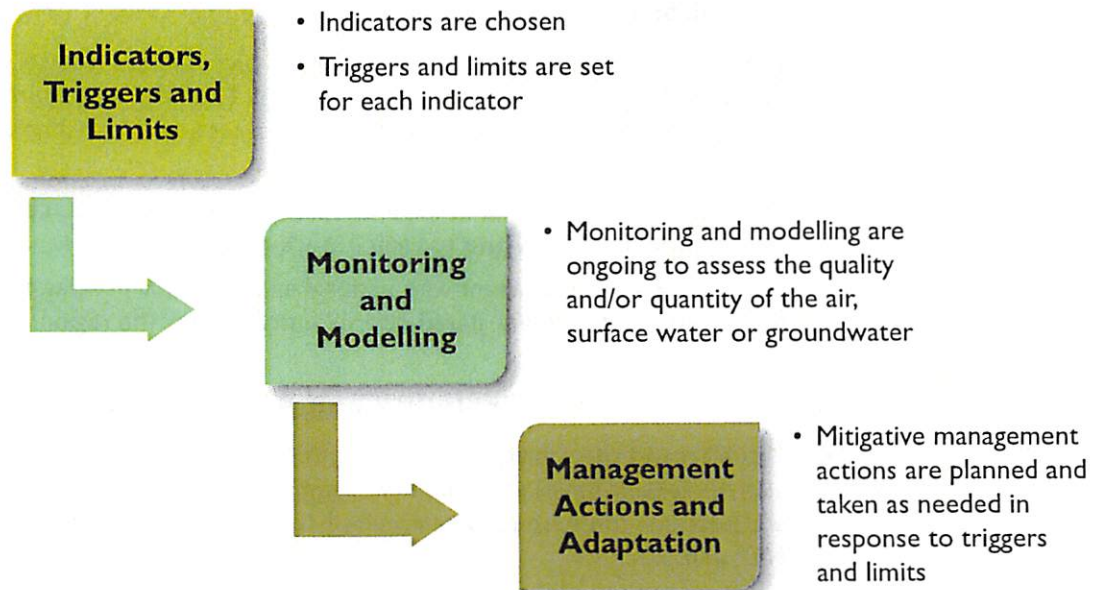


Figure 2.  
Management Framework Approach

### 3.3 Key Principles

The following are key concepts and principles that form a foundation for the management framework.

#### 3.3.1 Maintains Acceptable Air Quality

- The framework contributes to management of local air quality in the region by considering that:
  - ambient air concentrations of substances are influenced by the location, density and nature of developments in the area, and;
  - the nature of certain developments, such as surface oil sands mining operations, means that an area influenced by cumulative releases can be large.

#### 3.3.2 Applies a Regional Perspective

- The framework contributes to proactively managing air quality within the region with consideration of human population and ecosystem health.
- The framework assigns and applies ambient air quality triggers and limits to NO<sub>2</sub> and SO<sub>2</sub> consistently across the region.
- As development proceeds and releases grow over time, the use of ambient air quality triggers will ensure that releases from various sources and at various scales are managed so they do not, collectively, result in unacceptable air quality.
- The framework addresses potential adverse impacts on ambient air quality from air emissions in the Lower Athabasca Region that could arise, despite the requirement for continuous improvement, from cumulative regional emissions and/or local emissions.

---

### **3.3.3 Builds on Existing Legislation, Regulations and Policies**

- The framework is intended to add to and complement, not replace, existing management frameworks, policies, legislation and regulations. This includes requirements related to pollution prevention and incorporation of the best available technology economically achievable.
- Opportunities for continuous improvement will be considered in planning required management actions relative to capital stock turnover timelines.
- The framework is consistent with national and provincial policies, strategies and frameworks, and with the stated desired outcomes for the region.

### **3.3.4 Incorporates Flexibility and Adaptability**

- Flexibility and adaptability result when place-based management actions are tailored to address specific issues associated with ambient air quality triggers. A range of actions and potential tools are used, as required, to manage ambient air quality with respect to NO<sub>2</sub> and SO<sub>2</sub>.
- The framework recognizes that development plans, emission control technology and scientific understanding may change over time, and flexibility is needed to ensure that the desired environmental outcomes continue to be achieved.
- Alberta Environment and Sustainable Resource Development will review and update the framework to ensure alignment with other policies that are developed or revised at a regional, provincial or national level, or at a minimum 10-year interval to align with regional planning.

### **3.3.5 Clearly Communicates**

- The framework supports long-term certainty in Alberta's policy and regulatory process. It provides clarity for industry, early in their design cycle, about operating requirements for emissions management that may be necessary due to cumulative impacts.
- The system described in this framework and the expectations for emissions management are clearly defined and transparent.
- Public access to ambient air quality monitoring data from continuous air monitoring stations is available through the CASA Data Warehouse at [www.casadata.org](http://www.casadata.org). This data is used to determine air quality levels within the Lower Athabasca Region.

### **3.3.6 Involves Partnerships**

- Alberta Environment and Sustainable Resource Development involves stakeholders, First Nations and Métis peoples, and working groups who live and work in the area as the framework is implemented.
- Ambient air monitoring and data collection are conducted by environmental and community associations comprised of citizens, Aboriginal groups, and industry and government representatives who gather data at existing continuous air monitoring stations and store it on the CASA Data Warehouse.



# 4.0

## The Current Management System

### 4.1 Regulatory Context

Under the existing regulatory system, proponents of new activities assess the effects of cumulative emissions from natural, transboundary, non-point and industrial sources as part of Environmental Impact Assessments and applications for operating approvals or their renewal. Regulators use the mechanisms such as those listed in Table 1 along with applicable performance standards and modelling guidelines to identify appropriate mitigation and define allowable releases of NO<sub>2</sub> and SO<sub>2</sub> from each facility. These mechanisms along with the regulatory system will continue to be instrumental for the successful implementation of the additional components included within the *Air Quality Management Framework*.

Table 1. Regulatory and Non-regulatory Management of Air Emissions and Effects in the Lower Athabasca Region

Governance	Jurisdiction
<b>Provincial Acts</b>	
<i>Environmental Protection and Enhancement Act (EPEA)</i>	Provincial
<i>Alberta Land Stewardship Act (ALSA)</i>	Provincial / Regional
<b>Regulations</b>	
Approvals, monitoring and reporting requirements	Alberta (EPEA)
Compliance and enforcement	Alberta (EPEA)
Air Quality Management System (AQMS) in development	National
<b>Guidelines</b>	
Alberta Ambient Air Quality Objectives (Alberta Environment, 2009)	Alberta
<b>Policies and Frameworks</b>	
<i>Land-use Framework (LUF)</i>	Provincial / Regional
<i>Acid Deposition Management Framework (Alberta Environment, 2008)</i>	Alberta
<i>Industrial Release Limits Policy (Alberta Environment, 2000)</i>	Alberta
<i>CEMA Acid Deposition Management Framework (CEMA, 2004)</i>	Non-regulatory
<i>CEMA Ozone Management Framework (CEMA, 2006)</i>	Non-regulatory
<i>Particulate Matter and Ozone Management Framework (CASA, 2003)</i>	Alberta
<i>CEMA Interim Nitrogen (Eutrophication) Management Recommendations and Work Plan (CEMA, 2008)</i>	Non-regulatory



## Governance

## Jurisdiction

### Strategies

*Alberta's Clean Air Strategy* (in development)  
*Responsible Actions: A Plan for Alberta's Oil Sands*  
 (Government of Alberta, 2009b)

Alberta  
 Alberta

### Federal Acts

*Canadian Environmental Protection Act*

Canada

## 4.2 Current Alberta Ambient Air Quality Objectives for NO<sub>2</sub> and SO<sub>2</sub>

Current AAAQOs are developed and implemented under the *Alberta Environmental Protection and Enhancement Act* to protect the environment and human health while recognizing principles of sustainability that include environmental as well as technical, social and economic considerations.

AAAQOs are reviewed by Alberta Environment and Sustainable Resource Development's multi-stakeholder process, which involves consultation within government and among the scientific community, environmental organizations, industry and the general public. The multi-stakeholder group may recommend new AAAQOs or revisions to existing AAAQOs for Alberta Environment and Sustainable Resource Development to consider and implement.

Ambient concentrations of NO<sub>2</sub> and SO<sub>2</sub> can affect both human and ecosystem health. Because short-term elevated concentrations of NO<sub>2</sub> or SO<sub>2</sub> may affect health, Alberta Environment and Sustainable Resource Development sets hourly and 24-hour AAAQOs for both substances. To address longer-term concerns, annual AAAQOs were established.

Table 2 shows the current annual and hourly AAAQOs for NO<sub>2</sub> and SO<sub>2</sub>. For a complete list of current AAAQO values, Alberta Environment and Sustainable Resource Development's website should be referenced at [www.environment.alberta.ca/01005.html](http://www.environment.alberta.ca/01005.html).

Table 2. AAAQOs for NO<sub>2</sub> and SO<sub>2</sub>

Substance	Averaging Time	Current Alberta Ambient AAAQO	Basis for Objective Value
NO <sub>2</sub>	1 hour	300 µg/m <sup>3</sup> 159 ppb	odour perception
	annual	45 µg/m <sup>3</sup> 24 ppb	based on vegetation effects
SO <sub>2</sub>	1 hour	450 µg/m <sup>3</sup> 172 ppb	pulmonary function
	annual	20 µg/m <sup>3</sup> 8 ppb	natural forests, lichen, protection of ecosystems adopted from European Union

### 4.3 Understanding Ambient Air Quality within the Region

Measuring and managing ambient air quality at a local level recognizes the variability and diversity of air quality within the region's 93,216 square kilometres. Defining air quality locally within the region helps to focus efforts to manage air quality where the problems may be occurring. Responding to local measurements is necessary to prevent ambient air quality concerns from spreading.

Ambient air quality monitoring is foundational to the implementation of this framework. Continuous air monitoring data are used to assess air quality with respect to the ambient air quality triggers and limits for NO<sub>2</sub> and SO<sub>2</sub> as specified in this framework. To effectively manage air quality, the locations of the continuous air monitoring stations are taken into consideration when assessing ambient conditions, undertaking a management response and considering the need for management actions.

This framework uses air quality data from airshed monitoring to define the ambient air quality level. The flexibility of this approach allows Alberta Environment and Sustainable Resource Development to adapt the framework when air monitoring station types or locations are changed or added within an airshed.

Existing air monitoring was designed to monitor air quality for industrial compliance as well as to monitor air quality in communities within the region. Individual stations measure local air quality as influenced by nearby emission sources. To understand air quality within the region, air monitoring must be described with respect to what the stations were designed to monitor. For example:

- Some air monitoring stations are clustered near industrial facilities primarily to monitor compliance with respect to ambient concentrations; consequently data collected from these stations represents the air quality near those industrial facilities and not the air quality for the region as a whole. Stations located close to industrial sources provide valuable information into how the releases are dispersed locally from point sources. They supply data essential to effective management of industrial sources; therefore, they play an important role in successful implementation of this framework.
- Similarly, continuous air monitoring stations that are located in specific communities represent air quality only in those communities.
- Air monitoring stations located in more remote areas provide information about how both industrial and non-point sources (e.g. transportation) releases disperse within the region. They also provide data for understanding longer term effects of emissions within the region.

The air quality in the region cannot be described adequately by a single number. Monitoring and managing local ambient air quality as described in this framework ensures that the most effective tools are being used where they are needed. Comprehensive air quality monitoring in the region needs to monitor air quality around industrial sources as well as in communities to ensure that all sources are managed appropriately.

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## 4.4 Current Airshed Monitoring in the Region

The Lower Athabasca Region is Alberta's most heavily monitored region for air quality. Two airshed management zones operate in, and cover most of, the region. These are the Wood Buffalo Environmental Association (WBEA) and the Lakeland Industry and Community Association (LICA), the latter of which has an airshed boundary that extends south of the Lower Athabasca Region.

WBEA's airshed zone monitors close to 70,000 square kilometres in the northern part of the region and is currently using 15 continuous and 39 passive stations. The airshed includes Fort McMurray, Fort Chipewyan, Fort McKay and Anzac as well as a number of oil sands developments. LICA's 25 passive and 3 continuous stations monitor approximately 18,000 square kilometres in the east central part of the region. Together the stations in these two associations comprise the ambient air quality monitoring stations for the Lower Athabasca Region.

WBEA and LICA's airshed zone monitoring contributes to regional air quality management by providing reliable data, identifying concerns and monitoring substances within the airsheds. The WBEA and LICA regional monitoring has evolved to meet compliance and other stakeholder needs. WBEA and LICA will continue to adapt monitoring activities and initiatives based on changing land uses and changing stakeholder interests, although Alberta Environment and Sustainable Resource Development maintains the responsibility for approving monitoring station changes.

More information on WBEA and LICA as well as the ambient air concentrations they monitor is publicly available on their websites at [www.wbea.org](http://www.wbea.org) and [www.lica.ca](http://www.lica.ca), respectively. These two associations report annually on their monitoring results and summarize their activities and initiatives within the region. Alberta Environment and Sustainable Resource Development analyzes ambient data collected by the associations and reports on air quality through the State of the Environment reporting process, described online at [www.environment.alberta.ca/02488.html](http://www.environment.alberta.ca/02488.html).

The southeast corner of the Lower Athabasca Region is not covered by either airshed. This area is currently not regarded as being under pressure from an air quality perspective and will continue to be modeled as part of the assessment process for proposed development.



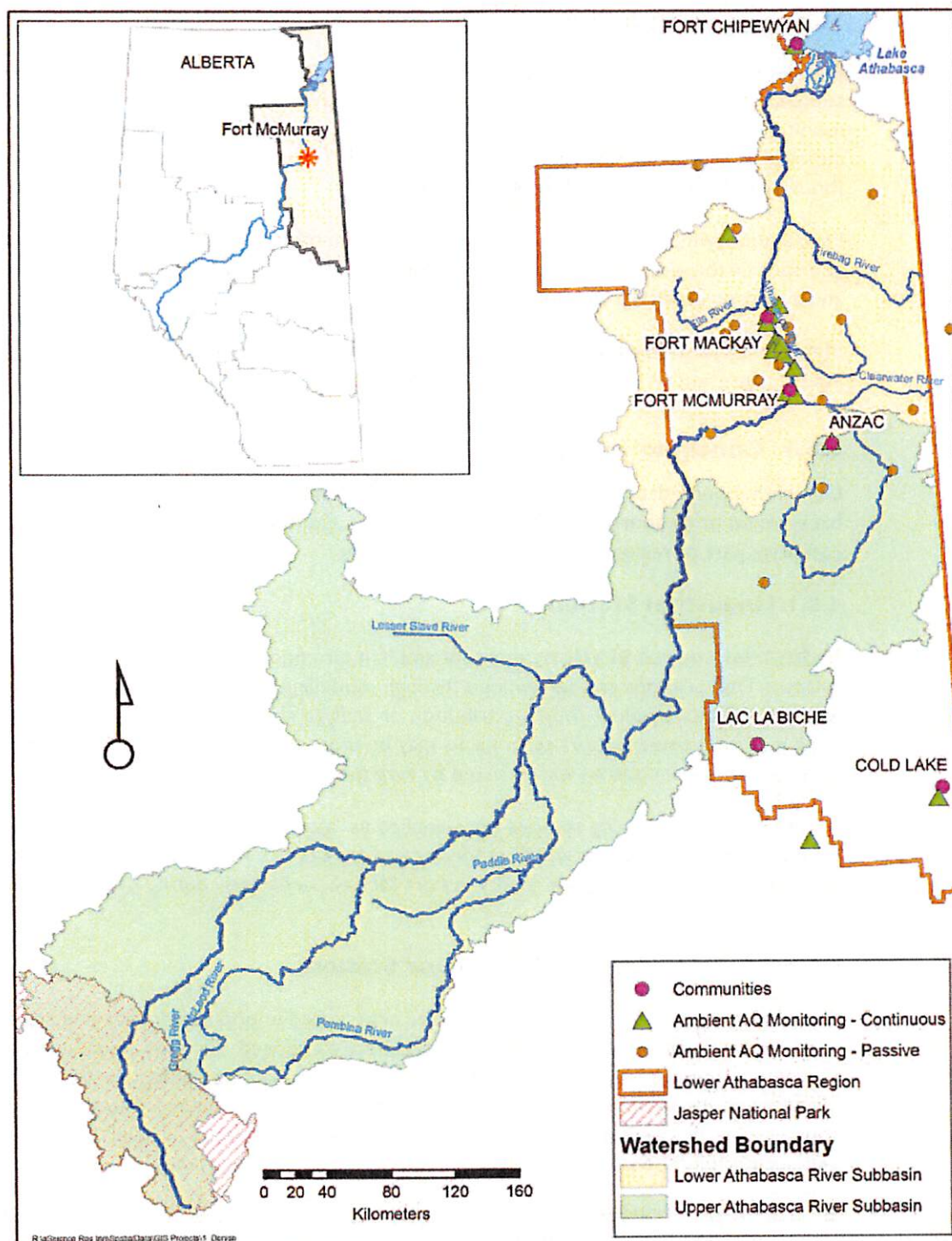


Figure 3:  
Map of the Athabasca River Basin and Boundary of the Lower Athabasca Region Showing  
Ambient Air Quality Monitoring – Continuous and Passive

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## 4.5 Types of Stations in the Region

Air monitoring stations operated by WBEA and LICA are situated to monitor some point sources, some populated areas and some background (undeveloped) areas. Additional monitoring to meet the needs of long-term ecological monitoring programs has also been included as required. Data collected for NO<sub>2</sub> and SO<sub>2</sub> monitoring includes continuous (hourly) and passive (monthly) measurements.

Each station, whether continuous or passive, is designed to sample and represent air quality at a specific location and for a specific purpose. Types of air monitoring stations, their intent and averaging times are shown in Table 3.

Meteorological monitoring is also important and the airsheds have a number of stations that collect representative sub-regional meteorological data.

### 4.5.1 Continuous Stations

Currently, hourly data collected for NO<sub>2</sub> and SO<sub>2</sub> come from industrial, community, background or meteorological monitoring stations. Continuous air monitoring stations comprise part of regional monitoring for air quality.

#### 4.5.1.1 Industrial Stations

**Industrial source stations** measure ambient air concentrations as a result of industrial releases. The locations are determined through modelling that is done to measure direct off-location impacts, conduct source attribution or analyze characteristics of air quality near a large industrial source. Short-term peaks may be more prevalent due to point source plume impingement, which can be exacerbated by rare meteorological events.

In WBEA, two monitoring stations are classified as “attribution” stations. These are located between industrial sources and Fort McKay and are used to help determine which industrial sources may be influencing air quality in Fort McKay, particularly during poor air quality events.

#### 4.5.1.2 Community and Background Stations

**Community air monitoring stations** are located in populated areas and are sited to measure the ambient air quality to which people are exposed. Air quality measured at most community stations is influenced by transportation emissions and emissions from local urban sources (e.g., home heating). Community stations may also be influenced by nearby industrial sources. Fort McKay is an example of a regional community where air quality is largely influenced by industrial as opposed to in-community emission sources.

**Background air monitoring stations** are sited to measure remote ambient air concentrations and/or to complement the monitoring of ecological effects. Their purpose is to measure the concentrations of pollutants in areas far removed from direct anthropogenic influences or to detect concentrations due to transboundary influences. As a result, short-term exceedances are less likely to be found in these areas.



## 4.5.2 Passive Stations

With passive monitoring, a reactive surface on the sampler is exposed to the air, and substances are transferred from the air to the sampler surface by diffusion. Samplers are typically exposed for one month and are useful for looking at long-term trends of air pollutants at specific locations. Since passive sampling is conducted over a longer period, short-term events (such as those occurring over an hour) may be “averaged out.” An advantage of a passive sampling system is that networks of samplers can be used over a large area to determine the spatial variation of ambient air concentrations. Samplers are located to enable the analysis of ecological effects and to assist with analysis of acid deposition, not to assess hourly trends in ambient concentrations or measure short-term exceedances.

Table 3. Air Monitoring Station Summary

Type	Location Design and Intention	Sampling / Averaging Time
Continuous	Industry stations: <ul style="list-style-type: none"> <li>• ensure release sources comply with AAAQOs</li> <li>• confirm proper operation of equipment (e.g., combustion, pollution abatement)</li> <li>• monitor for substances being released</li> <li>• are located between sources and local communities so that the specific operation responsible for an air quality event can be identified (attribution).</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous sampling</li> <li>• Hourly, annual averaging</li> </ul>
	Community stations: <ul style="list-style-type: none"> <li>• are located to measure potential exposure to humans</li> <li>• support human health risk assessment</li> <li>• provide comprehensive monitoring of substances and other air quality parameters.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous sampling</li> <li>• Hourly, annual averaging</li> </ul>
	Background stations: <ul style="list-style-type: none"> <li>• provide information on transboundary effects or information about air quality without anthropogenic influences</li> <li>• provide comprehensive monitoring of substances and other air quality parameters.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous sampling</li> <li>• Hourly, annual averaging</li> </ul>
Passive	Passive applications include: <ul style="list-style-type: none"> <li>• pattern recognition (spatially distributed across region)</li> <li>• ecological monitoring (as required to support program objectives)</li> <li>• background (remote from emission sources)</li> <li>• co-location with continuous monitors (for statistical comparisons).</li> </ul>	<ul style="list-style-type: none"> <li>• Monthly cumulative sampling</li> <li>• Annual averaging only</li> </ul>

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## 4.6 Managing Local Exceedances

Alberta Environment and Sustainable Resource Development will continue to respond to local exceedances of AAAQOs after they have occurred. This includes determining the cause of the exceedance, notifying the responsible sources and affected stakeholders as well as any affected First Nations and Métis communities, and determining any requirements to prevent a re-occurrence. Hourly or daily AAAQO exceedances at compliance air monitoring stations are most likely due to upset or abnormal operating conditions at point sources. If an AAAQO (hourly, daily or annual) is exceeded, the identified source or sources are required to submit details of management actions aimed at preventing the event from happening again. In some situations, remedial and preventative actions may be needed to reduce releases from anthropogenic sources.

# 5.0

## Regional Objectives

In support of desired regional outcomes, this management framework establishes the following regional objective for air:



Releases from various sources are managed so that they do not collectively result in unacceptable air quality.

In order to better describe what this objective means, indicators have been chosen as well as triggers and limits established for those indicators.

### 5.1 Indicators, Triggers and Limits

#### 5.1.1 Identifying Key Indicators

Indicators provide information about whether or not a regional objective is being met.

At this time, the framework focuses on managing ambient air quality with respect to ambient air concentrations of NO<sub>2</sub> and SO<sub>2</sub> because these substances:

- are two of the major substances being released in the region
- are actively monitored throughout the Lower Athabasca Region
- are predicted to increase with expanding development
- are being detected at increasing and/or elevated levels in some areas of the region
- are regulated under the *Environmental Protection and Enhancement Act*
- have established AAAQOs
- have monitoring data in areas of concern from an air quality perspective to allow assessment of local ambient air quality against the ambient air quality triggers and limits
- can be controlled through a range of options applied to the various sources.

NO<sub>2</sub> and SO<sub>2</sub> are also precursors to particulate matter and ozone. Acid and nitrogen deposition and their long-term acidification and eutrophication impacts are other potential environmental issues associated with NO<sub>2</sub> and SO<sub>2</sub> emissions. Ecosystem and environmental effects are monitored through regional programs, and effects are managed through regional and provincial management frameworks. Management actions may be initiated by other regional or provincial management frameworks. Such management actions will be considered when undertaking the management response included in this *Air Quality Management Framework*.



## Setting Triggers and Limits

Setting ambient air quality triggers and limits for key indicators is a proactive approach to managing air quality.

Provincially, ambient air is defined as outside air; any portion of the atmosphere not confined by walls and a roof, and to which the general public has access. For this management framework, ambient air quality **limits** are determined by the annual AAAQOs.

As defined by CASA, an AAAQO is a **numerical concentration, value or narrative statement which is intended to provide protection of the environment and human health to the extent that is technically and economically feasible, and is socially and politically acceptable** (CASA, 2009a)

An ambient air quality **limit** signals the need to undertake a management response to:

- assess the ambient air quality
- determine the spatial extent of the ambient air quality
- identify and ensure management actions are implemented.

Table 2 shows the current AAAQOs for NO<sub>2</sub> and SO<sub>2</sub> and information about the AAAQO is always available on Alberta Environment and Sustainable Resource Development's website.

Annual average ambient air quality **triggers** are ambient concentration values set lower than the ambient air quality **limit**. Ambient air quality values based on the 99<sup>th</sup> percentile of hourly data are all established as triggers in the management framework. **Triggers** signal the need to undertake a management response to:

- assess the ambient air quality
- determine if there is an issue
- identify and implement management actions if needed.

By setting the annual average ambient air quality triggers below the air quality limit, the framework allows sufficient time to plan and react to manage air quality so as to avoid reaching that limit.

If an ambient air quality limit or trigger is exceeded, a management response as described in this framework will be initiated. This may lead to identifying the need for management actions such as collecting more data to understand the ambient air quality, or reducing emissions to prevent ambient concentrations from reaching unacceptable concentrations. This framework focuses on ambient air quality and management approaches to maintain acceptable air quality. Other regional or provincial frameworks consider the longer-term effects on the environment (these regulatory and non-regulatory tools are described in Table 1).

# 6.0

## The Management System

What this framework brings to the existing system are the following:

- establishment of a regional objective for air quality
- identification of key indicators for that objective
- setting of triggers and limits for those indicators
- identification of a management response that will be initiated if triggers and limits are exceeded
- alignment with the proposed national Air Quality Management System's four levels
- description of roles and responsibilities for government, monitoring associations and emitters.

Elements from the framework will be included in the *Lower Athabasca Regional Plan* and will be implemented as part of that plan with legal force as provided by the *Alberta Land Stewardship Act*.

In the management framework the annual ambient air quality limits and triggers, and the 99<sup>th</sup> percentile triggers are expressed in terms of levels of air quality conditions. These ambient air quality levels are described in Table 4 using the annual triggers and limit as an example.

Table 4. Annual Ambient Air Quality Level Descriptions

Level	Description	Management Intent
Level 4	Ambient air quality exceeding air quality limits	Improve ambient air quality to below limits
Limit		
Level 3	Ambient air quality below but approaching air quality limits	Proactively maintain air quality below limits
Trigger		
Level 2	Ambient air quality below air quality limits	Improve knowledge and understanding, and plan
Trigger		
Level 1	Ambient air quality well below air quality limits	Apply standard regulatory and non-regulatory approaches

Note: The ambient air quality values based on the 99<sup>th</sup> Percentile of hourly data are all established as triggers in the management framework (see Section 6.4).

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Implementation of the management framework requires annual assessment and evaluation of the ambient air quality conditions. Alberta Environment and Sustainable Resource Development will use data from air monitoring stations reporting to the CASA Data Warehouse within the region to calculate ambient concentrations of NO<sub>2</sub> and SO<sub>2</sub> in relation to the ambient air quality levels. Because changes could occur within the region, the framework is sufficiently adaptable to respond to, and accommodate the need for, modifications that may arise through such initiatives as the *Ambient Air Monitoring Strategy* (CASA, 2009).

## 6.1 Assignment of Ambient Air Quality Levels

The purpose of assigning ambient air quality levels to monitoring stations under the framework is to identify where NO<sub>2</sub> and SO<sub>2</sub> ambient concentrations are in relation to the defined ambient air quality triggers and limit. The idea is to prevent ambient air concentrations from approaching or reaching Level 4 by proactively managing the sources or influences. Once ambient air quality levels are assigned, the main influences can be identified, and any required mitigative management actions can be chosen.

Ambient air quality levels are assigned to individual stations based on the NO<sub>2</sub> and SO<sub>2</sub> metrics. It is possible for an air monitoring station to be assigned an air quality level and need management actions one year, then fall below an ambient air quality trigger, and thus into a lower level, the next year. In this case, the management actions will still be carried out; however the actions may be modified accordingly, as determined by Alberta Environment and Sustainable Resource Development. Management actions are meant to be flexible, taking into consideration the concentration trends, the air monitoring station in question and the magnitude above the ambient air quality trigger.

## 6.2 What the Current Data Shows

NO<sub>2</sub> and SO<sub>2</sub> trends vary in the Lower Athabasca Region, depending on the location of the air monitoring station.

Annual average and 99<sup>th</sup> percentile of hourly data NO<sub>2</sub> concentrations have increased at some air monitoring stations in the Lower Athabasca Region, based on historical data going back to 1999.

Annual average SO<sub>2</sub> concentrations have remained quite consistent in the Lower Athabasca Region at industrial, community and background stations. Concentrations remain well below the annual AAAQO.

The upper range (represented by 99<sup>th</sup> percentile of the annual hourly data) of the ambient concentrations of NO<sub>2</sub> and SO<sub>2</sub> are indicative of the magnitude and frequency of peak concentrations. Increasing trends in peak SO<sub>2</sub> at some monitoring stations will require proactive management to maintain ambient air quality below level four as described by the 99<sup>th</sup> percentile trigger values.



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## 6.3 Management Response

The terms management response and management action have distinct meanings in the context of this management framework. The management response is a set of steps that will be undertaken (all or in part) if an ambient air quality trigger or limit is believed to have been exceeded. Part of the management response is determining the need for management actions. Management actions become more stringent at higher air quality levels.

The management response begins with assessing whether an ambient air quality trigger or limit has been exceeded. Depending on the findings of assessment and investigation, decisions are made about contributing parties and the need for management actions. At triggers, the emphasis is on reversing trends or avoiding reaching limits. If a limit is exceeded, there is a commitment that steps will be taken to return to conditions below the limit. To confirm that desired outcomes are met, Alberta Environment and Sustainable Resource Development provides oversight of management actions, evaluates the effects of implementation, and communicates progress toward meeting regional outcomes.

The system described below includes the Government of Alberta management response and describes the management tools from which regulators, in collaboration with stakeholders, First Nations and Métis peoples where applicable, can select appropriate place-based management actions to address specific circumstances.

It should be noted that this management response does not replace other responses that are taken as part of ensuring compliance under the environmental regulatory system.



Figure 4  
Management Response

### 6.3.1 Verification

The framework is flexible and recognizes there is no “one size fits all” management action that can effectively deal with the potential range of air quality issues. To accommodate this approach, an annual assessment of ambient air quality data gathered from ambient air monitoring stations throughout the region is conducted. The ambient air quality is described in terms of the ambient air quality levels for NO<sub>2</sub> and SO<sub>2</sub> as well as details regarding the purpose of the air monitoring station and what it is measuring.

Alberta Environment and Sustainable Resource Development analyzes the ambient NO<sub>2</sub> and SO<sub>2</sub> data collected from the airshed monitoring stations, calculates the annual average and 99<sup>th</sup> percentile of the hourly data metrics to determine how stations fall into the ambient air quality levels outlined in the framework. The quality controlled monitoring data is used to determine whether the corresponding ambient air quality triggers or limits were exceeded. Ambient air quality levels are assigned to individual monitoring stations following the annual assessment. This assessment is based on data retrieved from the CASA Data Warehouse ([www.casadata.org](http://www.casadata.org)).

Hourly NO<sub>2</sub> or SO<sub>2</sub> episodes that contribute to ambient air quality concentrations reaching an ambient air quality trigger or limit are analyzed individually to interpret the primary influence. A particular episode, or several episodes occurring over a certain period or area, may require modelling and emissions inventory data to demonstrate what the primary influence is (or influences are) to ambient air quality levels.

#### 6.3.1.1 Analyzing the Data

The ambient air quality data are analyzed with respect to the annual average. The data are also analyzed by assessing the peak values or the upper range of the hourly data. The upper range of the data is represented by the annual 99<sup>th</sup> percentile of the hourly data. By using the two types of data, management actions can be tailored to prevent reaching either the annual average or hourly air quality AAAQO's.

The ambient air quality triggers and limits are consistent across the region, but management actions and tools are place-based to deal with specific circumstances.

##### Annual Average

Analysis of the annual average ambient concentrations occurs after the yearly data have been gathered. To provide time to plan and implement management actions to prevent the ambient concentrations from reaching the limits, the ambient air quality triggers for Levels 2 and 3 are set at 1/3 and 2/3 of the annual ambient air quality limit, respectively. If AAAQOs are revised, the annual ambient air quality limit will become the revised AAAQO for the substances covered by the framework. The associated annual ambient air quality triggers will then be assessed to ensure they are appropriate and that there is sufficient time to respond with management actions.

The annual ambient air quality triggers and limits are shown in Table 5. The annual ambient air quality limits are based on the current AAAQOs for NO<sub>2</sub> and SO<sub>2</sub>.

Table 5. Annual Ambient Air Quality Triggers and Limits for NO<sub>2</sub> and SO<sub>2</sub>

Description	NO <sub>2</sub>	SO <sub>2</sub>
Limit <sup>1</sup>	45 µg/m <sup>3</sup> (24 ppb) <sup>1</sup>	20 µg/m <sup>3</sup> (8 ppb) <sup>1</sup>
Trigger for Level 3	30 µg/m <sup>3</sup> (16 ppb)	13 µg/m <sup>3</sup> (5 ppb)
Trigger for Level 2	15 µg/m <sup>3</sup> (8 ppb)	8 µg/m <sup>3</sup> (3 ppb)

Triggers and limits apply at continuous air monitoring stations as reported through the Clean Air Strategic Alliance Data Warehouse.

<sup>1</sup>Annual air quality limits are based upon Alberta Ambient Air Quality Objectives

#### 99<sup>th</sup> Percentile of the Hourly Data

Exceedances found based on monitoring data are currently, and will continue to be, addressed through the regulatory compliance system. Whenever the hourly AAAQO is exceeded, Alberta Environment and Sustainable Resource Development assesses the source and cause of the exceedance. Under the current regulatory system, if corrective action is required, Alberta Environment and Sustainable Resource Development ensures this compliance function takes place. This regulatory tool will continue to be used when the framework is in effect.

What the framework adds to the evaluation of hourly data is the use of the 99<sup>th</sup> percentile as a statistical measure that indicates the upper range or peak of the data. The framework analyzes the upper range of the hourly data to identify actions that can be taken to reduce the likelihood of reaching the hourly AAAQO.

The 99<sup>th</sup> percentile of hourly data is compared against the 99<sup>th</sup> percentile ambient air quality triggers for NO<sub>2</sub> and SO<sub>2</sub>. This analysis indicates the trend in the upper range of the hourly data as well as the frequency of peaks in the data, as opposed to the analysis of the annual average which “smoothes out” the data. The metric allows some of the peak values to be removed to account for rare operating and meteorological circumstances.

Increases in the annual 99<sup>th</sup> percentile of the hourly data beyond the 99<sup>th</sup> percentile ambient air quality triggers can provide early warning that exceedances of the hourly AAAQO are more likely to occur. This trend analysis can help in selecting management actions to prevent reaching the hourly AAAQOs.

If the hourly AAAQO is exceeded, the existing regulatory compliance mechanism will come into play as described above, but one hourly exceedance will not put an air monitoring station into Level 4.



The 99<sup>th</sup> percentile ambient air quality triggers were calculated in relation to the hourly AAAQO for NO<sub>2</sub> and SO<sub>2</sub> and the values are presented in Table 6 below. (See Appendix A for calculation details.) A relationship was determined between the maximum and 99<sup>th</sup> percentile of the hourly data for both NO<sub>2</sub> and SO<sub>2</sub> and this relationship was then used to calculate the 99<sup>th</sup> percentile ambient air quality trigger values.

Table 6. Ambient Air Quality Triggers Based on 99<sup>th</sup> Percentile of the Hourly Data Over a Year

Trigger	NO <sub>2</sub>	SO <sub>2</sub>
Trigger for Level 4	176 µg/m <sup>3</sup> (92 ppb)	94 µg/m <sup>3</sup> (36 ppb)
Trigger for Level 3	118 µg/m <sup>3</sup> (62 ppb)	63 µg/m <sup>3</sup> (24 ppb)
Trigger for Level 2	57 µg/m <sup>3</sup> (30 ppb)	31 µg/m <sup>3</sup> (12 ppb)

Triggers apply at continuous air monitoring stations as reported through the Clean Air Strategic Alliance Data Warehouse.

### 6.3.2 Preliminary Assessment

Once the ambient air monitoring data are verified, the annual average and 99<sup>th</sup> percentiles are assessed against the ambient air quality triggers and limits. This includes ensuring that rare events or natural circumstances that cannot be controlled through emissions management (e.g., forest fires) are understood as part of the annual assessment.

The assessment of NO<sub>2</sub> and SO<sub>2</sub> data in the Lower Athabasca Region will be performed by Alberta Environment and Sustainable Resource Development on an annual basis. Data are normally available from the CASA Data Warehouse in March of each year, for data from the previous year. The assessment is completed each year by the end of the calendar year.

The assessment procedure is based on the one described in the *CASA Particulate Matter and Ozone Management Framework*, which has been performed and refined by Alberta Environment and Sustainable Resource Development since 2004. Data completeness criteria and rounding conventions from the *Canada-Wide Standards for Particulate Matter and Ozone* and the *CASA Particulate Matter and Ozone Management Framework* have been adopted here.

Alberta Environment and Sustainable Resource Development determines and assigns the ambient air quality levels at ambient air monitoring stations. The ambient air quality levels are described in terms of the type of air monitoring station, and whether the level is based on the annual average triggers and limits or the 99<sup>th</sup> percentile of hourly data triggers. This is an important factor in selecting the appropriate management action, should it be required.



The framework specifies that if any station in the planning region exceeds an ambient air quality trigger or limit a management response will be initiated. The degree of investigation, analysis and action associated with the management response is tailored to:

- the type and location of air monitoring station
- the averaging time (hourly or annual)
- the ambient air quality trigger or limit
- trend analysis (rate of increase or variability of the parameter)
- the substance being detected.

### **6.3.3 Investigation**

The first part of the investigation is to review the ambient air quality levels with respect to expectations for the region. Development occurring within the region will contribute to ambient concentrations of NO<sub>2</sub> and SO<sub>2</sub>. The concentrations should be compared to predictions from modelling to understand whether the ambient concentrations are trending as predicted. This assessment helps to determine the extent of the investigation and whether plans and initiatives are having their anticipated effects on ambient concentrations. If ambient concentrations are increasing faster than expected, or in areas where increases were not predicted, these factors will assist in determining management actions.

Investigations of industry stations that exceed ambient air quality triggers (annual average or 99<sup>th</sup> percentile of hourly data) could involve the identified facilities and might involve forecasting trends and understanding future operational and development plans. Where such stations are on First Nations or Métis traditional lands, the appropriate communities would also be notified.

When community monitoring stations are influenced by industrial sources or if industrial stations are influenced by municipal or transboundary sources, attributing the contributions to ambient concentrations becomes more challenging. Some stations may be influenced by urban, transportation and industrial emissions. In such cases, all relevant stakeholders, and First Nations and Métis peoples would be involved. Siting of transboundary stations provides an indication of the ambient air quality entering and exiting (depending on wind direction) an airshed or, on a larger scale, entering and/or exiting the province.

Ambient air quality characterization and source attribution are more challenging at background stations, as these may be more influenced by transboundary concentrations or natural sources. Background stations reflect the ambient air quality in the area where the wind originates. In the Lower Athabasca Region, due to the extensive nature of development, some background stations may detect the cumulative impact of regional emissions. If longer-term trends lead to ambient air quality triggers being exceeded, a wide range of stakeholders, and First Nations and Métis peoples would likely be involved and regional initiatives would be needed to address the increasing ambient concentrations.

If sited correctly, background air monitoring stations should detect minimal increases in ambient concentrations resulting from regional anthropogenic sources.

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### **6.3.4 Mitigative Management Actions**

Once ambient air quality levels have been assigned and the primary sources and spatial extent have been defined, the need for management action is determined and appropriate management actions chosen by Alberta Environment and Sustainable Resource Development from Table 7 in this framework. Prior to determining the need for a management action, Alberta Environment and Sustainable Resource Development reviews whether other management frameworks or initiatives have already prompted management actions. Any already identified management actions are analyzed to understand their influences before additional actions are selected. Appropriate stakeholders may be invited to collaborate on implementing management actions. If upon analysis, the ambient air quality level has been attributed to natural events (such as wildfire) or transboundary transport, this will be taken into consideration when management actions are chosen. If natural sources are deemed to be the main influence of ambient concentrations at a particular station, no additional management action may be required.

The framework defines four ambient air quality levels, with Level 1 being the lowest and Level 4 the highest. Management actions associated with the lower levels are intended to provide time to address ambient concentrations to avoid reaching the ambient air quality limit. The stringency of management actions, compliance tools, and associated implementation timelines will increase if the ambient concentrations pass into a new level.

#### **6.3.4.1 Level 1**

- Continue to manage ambient air quality using existing management approaches, applying policies such as pollution prevention, continuous improvement and use of best available technology.
- Avoid or minimize degradation wherever reasonable or possible in accordance with the principles of emission minimization through employing appropriate technology.

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#### **6.3.4.2 Level 2**

- If management actions are deemed necessary, steps would be taken as outlined in Table 7. Alberta Environment and Sustainable Resource Development will define implementation timelines, tools and parties including First Nations and Métis peoples to be involved in management actions by considering the ambient air quality levels and magnitude of trends as well as the type, location and number of air monitoring stations measuring those trends.

#### 6.3.4.3 Level 3

- Within the response protocol, appropriate management actions for Level 3 are required to ensure that the annual average air quality limit is not exceeded, or that conditions do not move into Level 4 for the 99<sup>th</sup> percentile of the hourly data. Flexibility in the framework is achieved by providing an array of tools to address the situation after it has been assessed. Depending on the tool selected, stakeholder involvement and implementation will be identified by Alberta Environment and Sustainable Resource Development. Roles and responsibilities for Alberta Environment and Sustainable Resource Development and other parties are described in section 7.

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#### 6.3.4.4 Level 4

- In Level 4 for the annual ambient air quality triggers and limits, the acceptable ambient air quality limit has been exceeded, and mandatory actions are required so the air quality limit is no longer exceeded. There may be circumstances that do result in ambient air quality levels reaching Level 4 (e.g., adoption of lower AAAQOs).
- In Level 4 for the 99<sup>th</sup> percentile of the hourly data triggers and limits, the highest trigger has been exceeded. Appropriate management actions are required to reduce the likelihood that the hourly AAAQO is not exceeded.
- As described in Table 7, Alberta Environment and Sustainable Resource Development retains the responsibility to implement an emissions-reduction plan for the affected area. This will include identifying the parties including First Nations and Métis peoples to be involved in the plan as well as the timelines required to achieve the reductions necessary to get below the air quality limits. Potential tools for achieving the emissions reductions are listed in Table 8. Enforcement of the plans and communication of progress are required as part of implementation.

Table 8 includes a list of potential actions and tools that could be used to manage air quality as part of the management framework. The list is not exhaustive, but rather it can be used as a range of options for selection to manage air quality as appropriate. The table starts with the more restrictive tools that would typically be used at the higher air quality levels, but depending on the specific situation, Alberta Environment and Sustainable Resource Development and the parties involved may choose the tools that are deemed most effective. Management actions may require amendments to existing approvals. These amendments would be made in accordance with existing authority under the *Environmental Protection and Enhancement Act* including Director-initiated amendments to monitoring or reporting requirements, or amendments arising from unforeseeable effects.

Table 7. Mitigative Management Actions for Each Ambient Air Quality Level

Level	Potential Management Actions
4	<p>Emission Reduction Plan and other Measures</p> <ul style="list-style-type: none"> <li>- Identify parties including First Nations and Métis peoples roles in management action</li> <li>- Define timelines for achieving reductions</li> <li>- In this level, emissions reductions are required if the ambient air quality limit has been exceeded</li> </ul>
	<p>Enforce Plan</p> <p>Communicate progress to public, stakeholders, First Nations and Métis peoples</p>
3	<p>Identify Pressures and Measures Required to Prevent Reaching Air Quality Limits</p> <ul style="list-style-type: none"> <li>- Identify stakeholders, First Nations and Métis roles and inclusion</li> <li>- Identify urgency of and need for measures</li> <li>- Identify, if required, measures and appropriate tools for managing ambient air quality</li> <li>- Implement identified action</li> <li>- Communicate to the public, stakeholders, First Nations and Métis peoples</li> </ul>
2	<p>Surveillance</p> <ul style="list-style-type: none"> <li>- Determine need for and placement of additional monitoring</li> <li>- Analyze monitoring data for trends</li> <li>- Communicate with stakeholders, and First Nations and Métis peoples (e.g., status of action and forecasts)</li> </ul>
1	<p>Verify Ambient Air Monitoring</p> <ul style="list-style-type: none"> <li>- Track and trend available data</li> <li>- No management actions beyond base regulatory systems</li> <li>- Communicate with stakeholders, and First Nations and Métis peoples (e.g., status of action)</li> </ul>

Table 8. List of Potential Measures and Tools for Air Quality Management

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**Potential Measures and Tools to Enable Management Actions**

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- Restrictions on further emission sources
  - Emission reduction requirements to allow for new sources
  - Director-initiated approval amendments (in accordance with authority under EPEA)
  - More stringent performance standards or regulations
  - Emission caps including mechanisms for management
  - Regional planning regulated under ALSA: mechanisms for managing non-regulated sources
  - Approval conditions or restrictions
  - Enforcement Orders and fines
  - Environmental Protection Order
  - Remedy
  - Revise policies, performance standards for new or existing sources
  - Codes of practice
  - Economic instruments
  - Memorandum of understanding
  - Municipal bylaws, First Nations bylaws
  - Ambient air quality management plan
  - Air modelling
  - Approval conditions to participate in airsheds, regional initiatives
  - Additional regional monitoring is optional (assessed collaboratively by the environmental and community associations and Alberta Environment and Sustainable Resource Development)
  - Education and awareness
- 

**6.3.4.5 Range of Mitigative Management Actions Available**

Following the annual assessment, the main influences on ambient levels at each station are determined. This information will be used to identify the appropriate management actions and which parties would be most appropriate to engage.

Actions become more stringent as the ambient air quality level increases. Management actions include a range of measures and tools with varying degrees of rigour and are meant to be flexible to consider either more or less stringent action depending on the concentration trends and the magnitude above an ambient air quality trigger. If trends are downward, or the concentration level is just above an ambient air quality trigger, actions



taken may not need to be extensive; whereas if there are upward trends or the level is approaching the next ambient air quality trigger, actions taken may be more significant.

### **6.3.5 Oversight/Delivery of Management Actions**

As noted above, the appropriate parties to be involved in the development and implementation of management actions will be identified. There will be shared responsibility amongst these parties to make sure the actions are taken. Alberta Environment and Sustainable Resource Development will have two roles. This includes ensuring that any changes in regulatory or management changes that are needed are undertaken, and serving in an oversight role for actions being taken by other parties.

In addition to the measures described in Table 7 and 8, the framework recognizes that analysis of future plans for development is required to address the need for and urgency of management actions. A key tool for this type of analysis is air dispersion modelling. While monitoring data are used to compare ambient concentrations to ambient air quality triggers and limits, modelling can be used to understand the relative impact of future plans on, and trends in, ambient concentrations.

Monitoring data are used to determine the ambient levels of the substance managed within the framework. Monitoring data are also used for trend analysis, assessment and attribution of ambient concentrations.

#### **Modelling: A Tool for Assessment and Planning**

Dispersion modelling is undertaken by proponents and operators when conducting Environmental Impact Assessments to evaluate the effect of proposed facilities or modifications to existing facilities on ambient air concentrations. This modelling function will continue as part of the regulatory process and results will be considered by Alberta Environment and Sustainable Resource Development in the context of the framework to understand the relative impacts of proposed projects on ambient concentrations in the region and the need to manage releases. Assessment of the reliability of the model predictions and investigation of proactive measures that can be used to minimize impacts to air quality will remain part of the planning process by proponents and Alberta Environment and Sustainable Resource Development.

While the modelling results will not be used to determine into which ambient air quality level a given area or station falls, it will be used for investigation and planning. Table 9 outlines the uses for modelling.

Table 9. Use of Modelling Results for Assessment and Planning

Level	Use by Alberta Environment and Sustainable Resource Development	Use by Emitters or Proponents
4	<ul style="list-style-type: none"> <li>- Modelling to be used as planning tool as in Level 2, but also:</li> <li>- Understand relative influences for reduction plans and other measures.</li> </ul>	<ul style="list-style-type: none"> <li>- Provide emissions profiles and plans as requested by Alberta Environment and Sustainable Resource Development</li> </ul>
3	<ul style="list-style-type: none"> <li>- As in Level 2, but also:</li> <li>- Determine source attribution for increasing trend, forecast future trends</li> </ul>	<ul style="list-style-type: none"> <li>- Modelling required for proposed projects</li> <li>- Provide emissions profiles and plans as requested by Alberta Environment and Sustainable Resource Development</li> </ul>
2	<ul style="list-style-type: none"> <li>- Assess data and model for accuracy</li> <li>- Assess monitoring data, if available to validate model and baseline data</li> <li>- Refine emissions inventory for area, transboundary and point sources</li> <li>- Determine source attribution of increased ambient levels</li> <li>- Assemble forecast emission profiles (e.g., growth, decline or steady state) to determine monitoring needs</li> <li>- Plan for monitoring needs</li> <li>- Analyze trends to determine urgency of management actions</li> </ul>	<ul style="list-style-type: none"> <li>- Model new projects as required per existing regulations</li> <li>- Provide emissions profiles and plans as requested by Alberta Environment and Sustainable Resource Development</li> </ul>
1	<ul style="list-style-type: none"> <li>- Modelling (or update of existing models) initiated by Alberta Environment and Sustainable Resource Development</li> <li>- Report and track</li> </ul>	<ul style="list-style-type: none"> <li>- Model new projects as required per existing regulations</li> </ul>

### **6.3.6 Evaluation**

The current practice of annual reporting by WBEA and LICA will continue as will Alberta Environment and Sustainable Resource Development's analysis of ambient data collected through the airsheds' air monitoring stations. The results will continue to be available through the State of the Environment reporting process, described online at [www.environment.alberta.ca/02488.html](http://www.environment.alberta.ca/02488.html)

Alberta Environment and Sustainable Resource Development will also use the annual assessments under this framework and other means to assess over time if any management actions that have been required are achieving the results that were anticipated. This is described in more detail below.

### **6.3.7 Communication**

Communication is an important component of the framework. Although ambient air quality data present information about current ambient air quality, providing details of management actions taken in response to ambient air quality concentrations demonstrates to the public, stakeholders, and First Nations and Métis peoples that efforts are underway to effectively manage ambient air quality. Consultation with stakeholders, communities, and First Nations and Métis peoples on the appropriate follow-up management strategies will take place as required.

State of the Environment reporting will communicate the status of the ambient air quality and any management actions initiated under the framework or other initiatives or management frameworks. Communication will also include posting a report on the Government of Alberta's website.

Annual assessment results (i.e., ambient air quality levels assigned) as well as details on the influencing source(s) and which management actions have been chosen in response will be communicated regularly to the public, stakeholder, and First Nations and Métis peoples.

The preliminary assessment procedure outlined in step 2 will take place on an annual basis. A summary report of the assessment results will be completed annually.

This report will include episode analysis and assignment of ambient air quality levels to monitoring stations in the Lower Athabasca Region. Reporting will also include data from available continuous ambient monitors in the region that meet the data completeness criteria described in Appendix B. If management actions have been chosen by Alberta Environment and Sustainable Resource Development, these will also be described in the report; however, it is more likely that management actions will be chosen upon collaboration with relevant stakeholders and First Nations and Métis peoples.

Reports will be developed and issued with consideration for consistency with reporting done for other management frameworks within the region. The details of the contents and requirements are to be included in the implementation phase of the *Air Quality Management Framework*. Opportunities for integrated reporting on regional air quality and initiatives will be explored through the implementation of the frameworks.



Implementation details, including timelines and resource allocation, will be determined when Cabinet has approved the *Lower Athabasca Regional Plan* and this framework is considered final.

Implementation planning will include:

- An inventory of tasks to meet the requirements of the framework including, at a minimum, identification and development of system components such as monitoring, evaluation and reporting mechanisms; protocols for assessment of conditions relative to objectives; management response expectations; and reporting processes and communication plans for ambient air quality and management actions activated by the framework.
- Confirmation of roles and responsibilities of various groups (Alberta Environment and Sustainable Resource Development, stakeholders, First Nations and Métis peoples, and others) for implementation of the framework and an assessment of resources needed to fulfill the tasks and commitments of the framework, including human resources and any missing data requirements.
- Ongoing evaluation of the framework's alignment with other policies and initiatives (national programs, provincial policies, by-laws) to ensure consistency of management intent.
- A timeline for implementation including key milestones and target dates for completion.

## 7.1 Roles and Responsibilities

Alberta Environment and Sustainable Resource Development, environmental and community associations, and emitters and project proponents all have a number of responsibilities related to managing emissions and ambient air quality. These roles and responsibilities are described only briefly in the context of the framework, so should not be regarded as an exhaustive list.

### 7.1.1 Alberta Environment and Sustainable Resource Development

Alberta Environment and Sustainable Resource Development is responsible for ensuring the framework is implemented, but collaboration and engagement of stakeholders remain key to the overall management intent. Alberta Environment and Sustainable Resource Development also:

- is responsible for annual review and assessment of ambient air quality data to determine ambient air quality levels at each air monitoring station
- is responsible for initiating a management response when required based on the assessment of data and other approaches such as forecasting future development (e.g., spatial, temporal)

- 
- identifies stakeholders, First Nations and Métis roles for management planning and actions. If a multi-stakeholder process is required by the framework, the use of established multi-stakeholder groups (such as CEMA ) will be considered
  - assesses management actions implemented through other frameworks or initiatives to determine impacts on ambient air quality
  - defines timelines and selects or recommends management approaches and tools, if required, to manage ambient air quality
  - communicates to stakeholders the implementation status and selected management action.

### **7.1.2 Environmental Monitoring Associations**

The main role of the environmental monitoring associations, such as airshed groups, will be data gathering and management for input into the ambient air quality assessment. More specifically, this includes:

- data gathering and analysis
- quality assurance and control
- air monitoring station design, management and reporting of air quality data.

### **7.1.3 Emitters and Proponents**

Emitters and proponents include industrial sources and sources of emissions in communities and municipalities as well. As a result, there may be roles for all levels of government and government agencies within air quality management. Roles and responsibilities for emitters and proponents with respect to the framework include:

- participating in airshed groups and other regional initiatives for ambient air monitoring
- modelling and assessing how current and planned operations influence local ambient air quality
- providing emissions data to Alberta Environment and Sustainable Resource Development, as required
- participating in ambient air quality management actions, if identified (e.g., development of plans or implementation of reductions)
- reporting on progress of implementation of management actions, as required.



This management framework is part of a series of management frameworks developed by Alberta Environment and Sustainable Resource Development in support of the Government of Alberta's *Lower Athabasca Regional Plan*. As the regional plan is implemented, all of the outcomes and objectives in it, including those for air, surface water and groundwater, will be considered in planning and decision-making for the region by all provincial government departments and municipal governments. This will help to drive integration across environmental media.

## 8.1 Identification of Substances to Manage

While NO<sub>2</sub> and SO<sub>2</sub> provide a starting point for the development of the framework, other substances are also of concern from an ambient air quality perspective. A process is required to identify substances that require active management in the Lower Athabasca Region. The objectives of existing associations (WBEA and LICA), the Regional Municipality of Wood Buffalo (RMWB), and the Cumulative Environmental Management Association (CEMA) include identifying substances of concern for their areas. Alberta Environment and Sustainable Resource Development, working with the associations, will assess whether the substances identified could be incorporated into (or included in) the framework. This would work well for substances that have established AAAQOs and are monitored in the area.

Substances for which no AAAQOs have been established, or for which regional limits are considered desirable or appropriate, the process proposed through the *Air Contaminants Management Framework* (CEMA, 2009) is recommended to identify, prioritize and address these substances.

# 9.0

## Abbreviations and Acronyms

Abbreviation/Acronym	Description
AAAQO	Alberta Ambient Air Quality Objective
ALSA	<i>Alberta Land Stewardship Act</i>
CAMS	Comprehensive Air Management System
CASA	Clean Air Strategic Alliance
CEMA	Cumulative Environmental Management Association
EPEA	<i>Environmental Protection and Enhancement Act</i>
LICA	Lakeland Industrial Community Association
RMWB	Regional Municipality of Wood Buffalo
WBEA	Wood Buffalo Environmental Association
ppb	Parts per billion
$\mu\text{g}/\text{m}^3$	Micrograms per cubic metre



- Air Quality** ..... The composition of air, with respect to quantities of substances therein, and/or a measure of the health-related and visual characteristics of the air; used most frequently in connection with standards against which the contribution of the particular source can be compared.
- Airshed** ..... An airshed is a geographic area that, because of emissions, topography, climate and meteorology, typically experiences similar air quality. (CASA, 2009b)
- Airshed Zone** ..... Regional partnership associations that include government, industry, environmental organizations and the general public. These partnerships are responsible for air quality monitoring and in some cases air quality management for a specific region of Alberta. Alberta presently has nine airshed zones. (CASA, 2009b)
- Ambient Air** ..... Outside air; any portion of the atmosphere not confined by walls and a roof to which the general public has access.
- Nitrogen Dioxide (NO<sub>2</sub>)** ..... Toxic pungent reddish-brown gas formed by the reaction of atmospheric ozone with the nitric oxide produced from combustion.
- Nitrogen Oxides** ..... A general term pertaining to compounds of NO, NO<sub>2</sub>, and (Oxides of Nitrogen, NO<sub>x</sub>) other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition.
- Pattern Recognition** ..... A grid of passive samples can be used to get a comprehensive picture of ambient air quality across the province. Data gathered in this way can be used to create a monthly and annual spatial map of province-wide air pollutant levels, and could be used to address long-term trends in air quality. (CASA, 2009b)
- Source (of Emissions)** ..... There are many sources of emissions, but these have generally been grouped into two categories: emissions from point and non-point sources. A **point source** is a stationary location or fixed facility from which substances are discharged; e.g., a smokestack. A **non-point source** is a pollution source that is not recognized to have a single point of origin. Common non-point emission sources are agriculture, forestry, urban, mining, construction, and city streets. (CASA, 2009a)

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**Sulphur Dioxide (SO<sub>2</sub>)**.....A strong smelling, colourless gas that is formed by the combustion of fossil fuels containing sulphur. Sour gas processing plants, oil sands processing plants and coal-fired power generating plants are major sources of SO<sub>2</sub>.

**Transboundary**.....The long-range movement of emissions and pollutants across political or pre-determined spatial borders.  
(Transport) Transboundary pollution refers to substances that originate in one jurisdiction, but have adverse effects in another area/jurisdiction at such a distance that it is not generally possible to distinguish the contribution of individual emission sources or groups of sources. (CASA, 2009b)



Please note that in May 2012, the Government of Alberta brought together the ministries of Environment and Water and Sustainable Resource Development to create one ministry called Alberta Environment and Sustainable Resource Development.

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## Appendix A: Calculation of Ambient Air Quality Triggers for the Lower Athabasca Region

The 99<sup>th</sup> percentile is often used by scientists to represent the peak value in a dataset. For ambient air quality data, the annual 99<sup>th</sup> percentile one-hour value is the concentration that is higher than 99 per cent of the one-hour concentrations recorded throughout the year. In other words, only one per cent of the ambient hourly concentrations observed during the year fall above the 99<sup>th</sup> percentile concentration. Scientists often find the 99<sup>th</sup> percentile concentration more useful in tracking trends than the single, maximum value because the maximum hourly value often represents outlying conditions.

Ambient air quality triggers (both the annual average and the 99<sup>th</sup> percentile of the hourly data) are used to initiate a more detailed review of the sources and conditions that have contributed to the ambient concentrations. The ambient air quality triggers are designed so appropriate actions can be planned and implemented to prevent the annual ambient air quality limit or AAAQOs from being exceeded. The 99<sup>th</sup> percentile ambient air quality triggers, therefore, will be used to plan and implement actions to reduce the probability that the hourly AAAQO will be exceeded.

### Determining the 99<sup>th</sup> Percentile of the Hourly Data Ambient Air Quality Triggers

To determine the Level 4 ambient air quality trigger for the 99<sup>th</sup> percentile, a dataset with multiple hourly AAAQO exceedances could be used to understand the relationship between the AAAQO and the 99<sup>th</sup> percentile. Exceedances of the hourly AAAQO have not occurred at all of the Lower Athabasca Region's air monitoring stations.

The relationship between the 99<sup>th</sup> percentile ambient air concentration and the maximum hourly concentration will be characteristic of specific locations. This is due to the emission source type, magnitude and location relative to the air monitoring stations. The relationship between the 99<sup>th</sup> percentile and the maximum hourly concentration was assumed to be consistent.

The 99<sup>th</sup> percentile ambient air quality triggers were determined based on the relationship between historical 99<sup>th</sup> percentile ambient concentrations of NO<sub>2</sub> and SO<sub>2</sub> and the maximum hourly concentrations. This relationship was then used to calculate a Level 4 ambient air quality 99<sup>th</sup> percentile compared to the current hourly AAAQOs.

To be an effective planning tool, there should be no or very few exceedances of the hourly AAAQO at the 99<sup>th</sup> percentile air quality trigger for Level 3. If the ambient air quality trigger is exceeded for Level 4, exceedances of the hourly AAAQO are likely to have occurred. The specific circumstances of maximum hourly values will be reviewed during the annual assessment if Level 3 or 4 is triggered.

The first step was to determine the 99<sup>th</sup> percentile and maximum of the hourly concentrations for each of the continuous air monitoring stations in the Lower Athabasca Region. For each year from 2003-2009, annual 99<sup>th</sup> percentile was divided by the maximum value for that year to give the ratio of the 99<sup>th</sup> percentile to the maximum for the year. This fraction was plotted as a percentage for each year and for each air monitoring station in the Lower Athabasca Region.

The average fraction for all of the Lower Athabasca continuous monitoring stations for all of the years analyzed was determined for NO<sub>2</sub> and the average of community stations for all the years analyzed was determined for SO<sub>2</sub>. These percentages were then multiplied by the AAAQO to determine the ambient air quality triggers for the 99<sup>th</sup> percentile. The calculated values were compared to the historical data to ensure that the air quality triggers met the intent of the framework. In other words, if hourly exceedances were experienced at an air monitoring station, the data should indicate a Level 4 assessment. If there were no exceedances, but there were peaks nearing the AAAQO, the assessment should indicate Level 3.

For NO<sub>2</sub> the average fraction of the 99<sup>th</sup> percentile compared to the maximum concentrations was 58 per cent. Multiplying the current NO<sub>2</sub> hourly AAAQO of 159 ppb by 58 per cent equals 92 ppb, which was used to represent the Level 4 ambient air quality trigger. This method could be used to determine new ambient air quality triggers when the AAAQOs are revised. Levels 3 and 2 were then calculated as approximately 2/3 and 1/3 of the Level 4 trigger value, respectively. Level 2 ambient air quality trigger was 30 ppb and the trigger for Level 3 was 62 ppb. The graph showing the ratios is illustrated in Figure A.

The same methodology was used to derive the SO<sub>2</sub> 99<sup>th</sup> percentile ambient air quality triggers, but only the community stations were used. This change was made because the sources of SO<sub>2</sub> are point industrial sources and the intent of the framework is to be protective of human health. The average fraction of the community stations 99<sup>th</sup> percentile SO<sub>2</sub> values compared to the maximum concentrations was 21 per cent. Multiplying the hourly AAAQO (172ppb) by 21 per cent yielded a Level 4 ambient air quality trigger of 36 ppb. The 99<sup>th</sup> percentile of the ambient air quality trigger for Level 2 became 12 ppb, and for Level 3, it was 24 ppb. The graph showing the relationship between the 99<sup>th</sup> percentile and the maximum values is illustrated in Figure B.

Upon review of the trigger levels resulting from this method, stations seemed to fall logically into ambient trigger levels that made sense, based on the historical data. Where exceedances of the one-hour AAAQO were occurring (e.g., the Mannix station with SO<sub>2</sub>), the stations fell in Level 4; stations with hourly concentration well below the AAAQO fell in Level 2 or Level 1. At the Mannix station, SO<sub>2</sub> exceedances were recorded in most years, but none were recorded in 2009.

### 99<sup>th</sup> Percentile Fraction of Max Hourly NO<sub>2</sub>

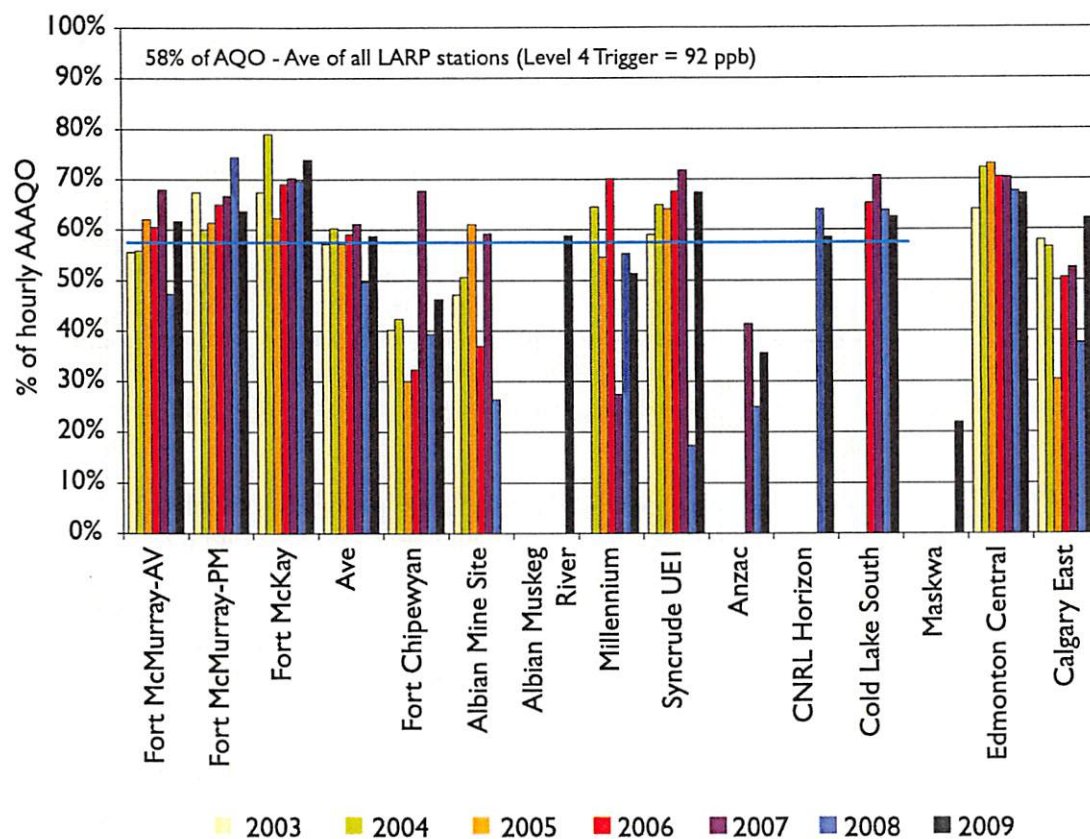


Figure A  
99<sup>th</sup> Percentile of NO<sub>2</sub> Compared to the Maximum Hourly NO<sub>2</sub> Concentrations



## 99<sup>th</sup> Percentile Fraction of Max Hourly SO<sub>2</sub>

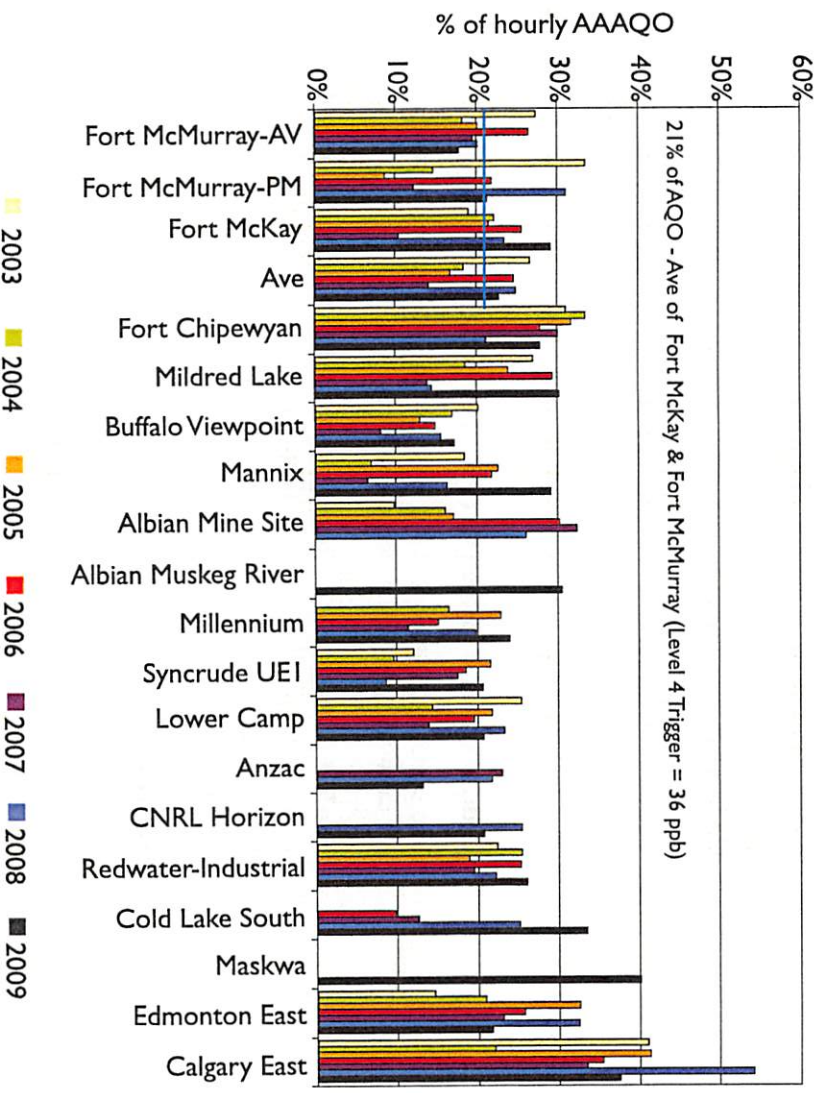


Figure B  
99<sup>th</sup> Percentile of SO<sub>2</sub> Compared to the Maximum Hourly SO<sub>2</sub> Concentrations



---

## Appendix B: Calculation of NO<sub>2</sub> and SO<sub>2</sub> Metrics

### Calculation of Annual Metrics

The annual metrics are calculated by first downloading hourly NO<sub>2</sub> and SO<sub>2</sub> data from the CASA Data Warehouse at [www.casadata.org](http://www.casadata.org). Data is downloaded using the “Download Data” report link and by requesting data from all continuous stations at once. One year is downloaded at a time and the stations within the Lower Athabasca Region can be selected. The arithmetic mean is then taken for all hourly values for the year, for each station.

The annual average is then compared to the annual ambient air quality triggers and limits.

### Calculation of Hourly (99<sup>th</sup> Percentile) Metrics

The same hourly NO<sub>2</sub> and SO<sub>2</sub> data that are used for calculating the annual metrics are used for calculating the 99<sup>th</sup> percentile metrics.

The 99<sup>th</sup> percentile of the hourly concentrations is calculated for each station and compared to the 99<sup>th</sup> percentile ambient air quality triggers. The results are then tabulated and graphed for viewing trends over time. The table and graphs will be updated each year to add on the new year's data.

### Notes on Data Handling

The hourly NO<sub>2</sub> and SO<sub>2</sub> data are checked for data completeness on an annual basis. The completeness criteria are modified from Alberta's *Particulate Matter and Ozone Management Framework*. At least 75 per cent data completeness is required for each year (75 per cent of hours in one year have data available). Datasets from air monitoring stations not meeting the data-completeness criteria are not included in the assessment of triggers and limits.

Rounding conventions for the NO<sub>2</sub> and SO<sub>2</sub> metrics also mirror the Canada-Wide Standards for Particulate Matter and Ozone and Alberta's *Particulate Matter and Ozone Management Framework*. The NO<sub>2</sub> and SO<sub>2</sub> levels are presented in rounded whole numbers, or to one part per billion. The assignment of an ambient air quality level to a station under the framework will also be based on whole numbers. This is done to be clear about assigning an action level to a station.

For example, the annual air quality limit for NO<sub>2</sub> is 24 ppb. In order to exceed this limit, a station must have an annual average of 24 ppb or greater. Any value above this limit would be assigned to Level 4 (see Table 5) and anything at or below the limit would be assigned to Level 3. As such, a value of 24 ppb would be below the Level 4 trigger, while a value of 25 ppb would be above.

Monitoring stations can be added and removed from year to year. As new stations are added, and data completeness criteria are met, they will be included in the assessment process.

## Appendix C: Investigation and Data Analysis

### Episode Analysis and Demonstrating the Influence

The episode analysis procedure will follow the analysis structure from the *Particulate Matter and Ozone Management Framework*. Alberta Environment and Sustainable Resource Development will analyze individual NO<sub>2</sub> and SO<sub>2</sub> episodes on an annual basis and try to discern the source or influence of each episode. If it can be demonstrated that an ambient air quality trigger is exceeded as a result of natural or transboundary influences, management actions will be adjusted accordingly or could be deemed unnecessary.

In this document, the term **exceedance** refers to an exceedance of an ambient air quality limit or trigger; either annual or 99<sup>th</sup> percentile, as described above. An example of an exceedance would be an annual average NO<sub>2</sub> concentration greater than 24 ppb (Level 4 exceedance), or 99<sup>th</sup> percentile NO<sub>2</sub> concentration of greater than 92 ppb after rounding (Level 4 exceedance). In the same way, there can be exceedances of the Level 3 and Level 2 ambient air quality triggers, which then require analysis.

The term **episode** is used to describe elevated one-hour concentrations or events that contribute to an ambient air quality trigger exceedance. These can occur over a defined time frame and area. An example of an episode could be one-hour NO<sub>2</sub> concentration greater than 92 ppb (in a year that exceeds the 99<sup>th</sup> percentile Level 4 trigger). Episodes can occur at one or more stations over the course of a day or over consecutive days, and can include several adjacent hours. Grouping episodes (spatially or temporally as is reasonable) is a convenient way to describe NO<sub>2</sub> or SO<sub>2</sub> events that occur during the same time frame and are triggered by the same mechanism(s).

The suite of management actions outlined in Table 7 of the framework become increasingly more stringent as you move from Level 2 to Level 4, with Level 4 actions including mandatory emissions reductions. Management actions in Level 2 focus more on education and awareness, surveillance and possible forecasting into the future. Following the progression of management actions in Table 7, the analysis procedure for NO<sub>2</sub> and SO<sub>2</sub> episodes will be more rigorous for stations in Level 3 and 4 and less rigorous for stations in Level 2.

In order to demonstrate what influenced an ambient air quality trigger exceedance (be it anthropogenic emissions, a natural event or transboundary flow), hourly NO<sub>2</sub> or SO<sub>2</sub> concentrations contributing to the exceedance will be scrutinized. The *CASA Particulate Matter and Ozone Management Framework Guidance Document* provides the following definitions for transboundary, background and natural influences:

**Background or natural influence** – concentrations observed in remote areas that are relatively unaffected by local pollution sources, or those resulting from natural events (e.g., forest fires).

**Transboundary influence** – evidence of air flow from a transboundary source region, so that the pollutant concentration of the transboundary air parcel, as measured at a designated upwind monitor, is within 10 per cent of, or higher than, the ambient air quality trigger.

## Analysis Procedure

The episodes contributing to the 99<sup>th</sup> percentile ambient air quality trigger exceedance are identified and analyzed to determine the source. If an individual year exceeds the ambient air quality trigger in question, then episodes within that year would be analyzed according to the procedure below. Years where the ambient air quality trigger in question is not exceeded are not further scrutinized.

Ambient air quality levels are assigned to individual monitoring stations. Once this is done, one station would be analyzed according to the ambient air quality level to which it is assigned. For example, if a station is assigned to Level 3, episodes would be analyzed against the Level 3 ambient air quality trigger, starting with reviewing the annual 99<sup>th</sup> percentile value for that station.

The same procedure is followed for exceedances of the annual metric. Alberta Environment and Sustainable Resource Development will make the decision on how many of the top one-hour concentrations will be analyzed to determine the main influence on ambient concentrations.

The detailed episode analysis procedure includes the following steps:

- a) Identify hourly episodes and gather background (meteorological) data.
  - For an annual average or 99<sup>th</sup> percentile exceedance, arrange the daily maximums (one-hour NO<sub>2</sub> or SO<sub>2</sub> concentrations) from highest to lowest and identify hourly episodes to analyze.
  - Beginning with the highest concentration, each one-hour value in exceedance of the 99<sup>th</sup> percentile ambient air quality trigger (e.g., 92 ppb for Level 4) is analyzed to determine the source and what the main influence is (anthropogenic, natural or transboundary). For annual ambient air quality trigger exceedances, Alberta Environment and Sustainable Resource Development will decide how many hourly values will be analyzed.
- b) Analyze the data based on the following considerations (choosing which are appropriate):
  - time of year exceedance takes place
  - spatial and temporal extent
  - diurnal variation of pollutants
  - correlation with other pollutants
  - meteorology (temperature, insolation, wind speed and direction, weather maps)
  - back trajectories
  - forest fires.
- c) Seek out auxiliary data if appropriate (modelling output, emissions data, incident reports, facility operations information).
- d) Form a conclusion as to the cause of the episode.

For the 99<sup>th</sup> percentile ambient air quality triggers, this episode analysis procedure continues until a one-hour average NO<sub>2</sub> or SO<sub>2</sub> concentration falls below the trigger value in question.

As mentioned, for the annual ambient air quality triggers, Alberta Environment and Sustainable Resource Development will decide how many of the top one-hour concentrations will be analyzed to determine the main influence on ambient concentrations for that year.

### **Simplifying the Process**

In order to simplify the analysis procedure, it is helpful to organize the daily maximum exceedances into episodes. This involves analyzing exceedances together as a unit when they occur over common time periods (consecutive days), in the same general area (airshed zone or adjacent airshed zones) and under the same atmospheric conditions. This may not always be appropriate, depending on the episode in question, so this would be done with discretion. A good example of where this might be appropriate is during a forest fire event that spans a few days.

Alberta Environment and Sustainable Resource Development has developed an automated tool, using Microsoft Excel, to help analyze particulate matter and ozone episodes for the *Particulate Matter and Ozone Management Framework*. This tool, called the “simplified procedure” is populated with pollutant and meteorological data for all Alberta stations each year. A date and station can be chosen by pressing a button and completing a dialogue box. Graphs of pollutant concentration and meteorology are automatically plotted for the date chosen, and wind roses are also displayed. This program already includes NO<sub>2</sub> and SO<sub>2</sub> data, so therefore can be used for the framework assessments.

The analysis of NO<sub>2</sub> and SO<sub>2</sub> concentrations falling within Level 2 should not require as detailed analysis as concentrations within Level 3 and 4. The simplified procedure tool can also be used to infer the source of episodes falling in Level 2, but likely back trajectories, modelling and emissions data will not be necessary at this level. However, these tools are available to use whenever warranted.

### **Data Requirements**

To analyze either an NO<sub>2</sub> or SO<sub>2</sub> episode according to the detailed analysis procedure outlined above, the following information should be obtained.

- Back trajectories for the site and date in question (obtained from Environment Canada as per particulate matter and ozone assessment protocol).
- Forest fire data, which is gathered from either satellite images (from the Canada Forest Service) or from provincial websites (Alberta and B.C.). A Microsoft Excel macro has been created by Alberta Environment and Sustainable Resource Development to plot the trajectory and forest fire information on maps of Alberta and North America for visual analysis.

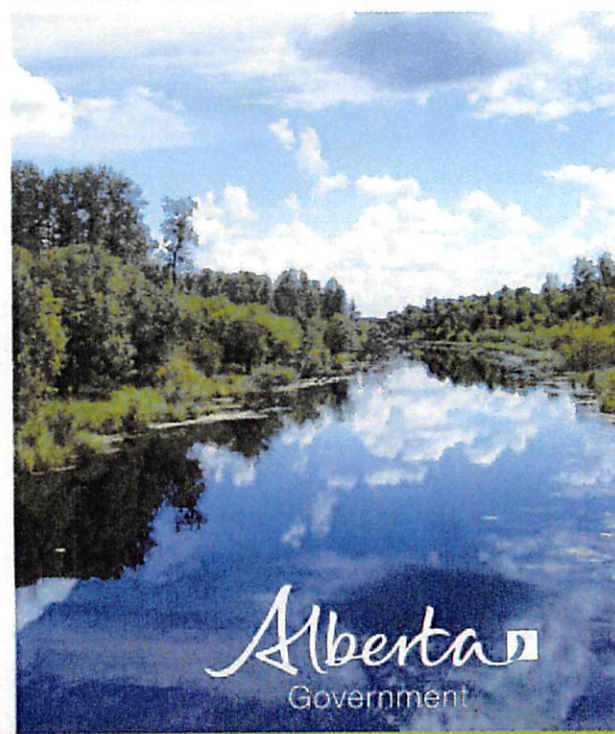
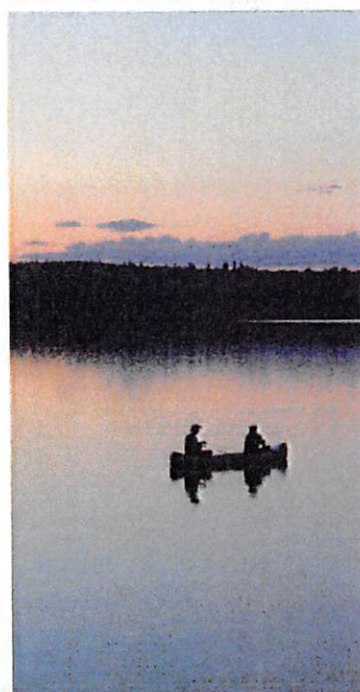
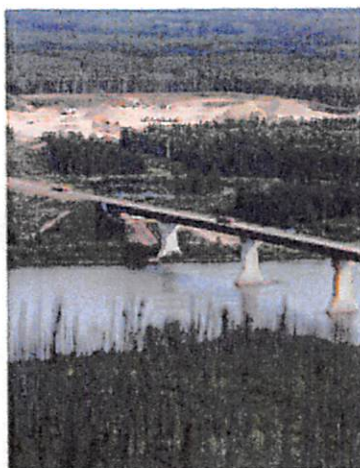
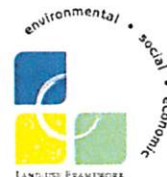
- Meteorological data, including hourly temperature, relative humidity, wind speed, wind direction and insolation. Not all parameters are available for all sites. Temperature, relative humidity and insolation are graphed by station on an hourly basis. Wind speed and direction are displayed using wind roses. Macros have been developed by Alberta Environment and Sustainable Resource Development to more swiftly compile and present these data as part of the “simplified procedure” tool.
- Additional information which may be of use could include concentrations of other pollutants (NO, CO, O<sub>3</sub>, and PM<sub>2.5</sub>). Graphs of hourly data are produced to compare the relative concentrations of these pollutants.

Conclusions on the source of each episode will be based on review and analysis of this data, experience with Alberta data and conditions, and evidence from the specific circumstances surrounding each episode (including any facility operation information). Ultimately, it is up to the analyst(s) to use the evidence and circumstances surrounding the episode, along with their judgment, to ascertain the most probable source of the episode. This may or may not require the gathering and request of additional data (which potentially includes modelling).



# Lower Athabasca Region

## Surface Water Quality Management Framework for the Lower Athabasca River



ISBN: 978-1-4601-0529-0 (Printed Version)  
978-1-4601-0530-6 (Online Version)  
Printed August 2012

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# Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>4</b>
<b>2.0</b>	<b>Purpose .....</b>	<b>5</b>
2.1	Regional Context .....	5
2.2	Framework Development .....	7
<b>3.0</b>	<b>Key Concepts and Principles .....</b>	<b>8</b>
3.1	Provincial Policy Direction .....	8
3.2	Cumulative Effects Management and Management Frameworks .....	8
3.3	Key Principles .....	9
3.3.1	Surface Water Quality Management .....	9
3.3.2	Builds on Existing Legislation, Regulations and Policies .....	9
3.3.3	Applies a Regional Perspective .....	10
3.3.4	Incorporates Flexibility and Adaptability .....	10
3.3.5	Clearly Communicates .....	10
3.3.6	Involves Partnerships .....	10
<b>4.0</b>	<b>The Current Management System .....</b>	<b>11</b>
4.1	Regulatory and Policy Context .....	11
4.2	Transboundary Considerations .....	11
4.3	Characterization of Surface Water Quality within the Region .....	13
4.4	Current Surface Water Quality Monitoring in the Region .....	13
4.4.1	Long-term River Network .....	15
4.4.2	Alberta River Water Quality Index .....	15
4.4.3	Comprehensive Contaminant Load Study .....	16
4.4.4	Regional Aquatics Monitoring Program .....	16
4.4.5	Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring .....	16
<b>5.0</b>	<b>Regional Objective .....</b>	<b>17</b>
5.1	Indicators .....	17
5.2	Triggers and Limits .....	18
5.3	Setting Water Quality Triggers (WQTs) .....	19
5.4	Setting Water Quality Limits (WQLs) .....	20
5.4.1	Triggers and Limits for General Indicators .....	22
5.4.2	Triggers and Limits for Metal Indicators .....	23
<b>6.0</b>	<b>The Management System .....</b>	<b>25</b>
6.1	Assignment of Surface Water Quality Levels .....	26
6.2	Working with the Current Data .....	28
6.3	Management Response .....	30
6.3.1	Verification .....	32
6.3.2	Preliminary Assessment .....	33

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6.3.3	Investigation .....	33
6.3.4	Mitigative Management Actions .....	33
6.3.5	Evaluation and Communication .....	35
<b>7.0</b>	<b>Implementation.....</b>	<b>36</b>
7.1	Roles and Responsibilities .....	36
7.1.1	Alberta Environment and Sustainable Resource Development .....	37
7.1.2	Regulated Parties and Proponents .....	37
<b>8.0</b>	<b>Integration .....</b>	<b>38</b>
<b>9.0</b>	<b>Terminology .....</b>	<b>39</b>
9.1	Acronyms and Abbreviations .....	39
9.2	Glossary .....	40
<b>10.0</b>	<b>References.....</b>	<b>42</b>
<b>11.0</b>	<b>Appendices.....</b>	<b>43</b>
	APPENDIX A.....	43
	APPENDIX B.....	47

## List of Figures

Figure 1:	Map of the Athabasca River Basin and Boundary of the Lower Athabasca Region .....	6
Figure 2:	The Management Framework Approach.....	9
Figure 3:	Map of the Athabasca River Basin Showing Select Alberta Environment and Sustainable Resource Development Surface Water Quality Monitoring Stations .....	14
Figure 4:	The Steps to Establish Surface Water Quality Triggers and Limits .....	19
Figure 5:	The Management Response.....	31

## List of Tables

Table 1:	Key Legislation and Policy for Managing Surface Water Quality in the Lower Athabasca Region .....	12
Table 2:	Ambient Surface Water Quality Triggers and Limits for the Athabasca River at Old Fort – General Indicators .....	22
Table 3:	Ambient Surface Water Quality Triggers and Limits for the Athabasca River at Old Fort – Metal Indicators .....	23
Table 4:	Description of Ambient Surface Water Quality Levels.....	27
Table 5:	Surface Water Quality Indicators with Historical Conditions at the Athabasca River at Old Fort Station that Exceed Water Quality Guidelines .....	29
Table A1:	Summary Statistics for Surface Water Quality Triggers for the Athabasca River at Old Fort – General Indicators .....	43
Table A2:	Summary Statistics for Surface Water Quality Triggers for the Athabasca River at Old Fort – Metals .....	44
Table A3:	Temperature and pH-dependent Values of the CCC (Chronic Criterion) for Ammonia for Fish Early Life Stages Present .....	46
Table A4:	Summary Statistics for Toxicity Modifying Factors from the Athabasca River at Old Fort Monitoring Station .....	47



Alberta Environment and Sustainable Resource Development's three Lower Athabasca Region management frameworks were developed using input from different stakeholders within the Lower Athabasca Region including industry, First Nations and Métis peoples, and non-governmental organizations. As part of a series developed by the department for the Government of Alberta's *Lower Athabasca Regional Plan*, these frameworks are designed to maintain flexibility and to proactively manage cumulative effects to air quality, surface water quality and groundwater quality and quantity within the Lower Athabasca Region. The frameworks provide context for development and related regulatory processes and facilitate sustainable resource management. They are intended to add to and complement, not replace existing policies, legislation, regulations and management tools.

The frameworks are policy documents that will be implemented and given legal authority as specified in the regional plan, and through Alberta Environment and Sustainable Resource Development's and potentially other departments' mandates and legislation.

The **Air Quality Management Framework** provides an additional component for the region in the overall air quality management system. This includes the setting of ambient air quality triggers and limits for nitrogen dioxide (NO<sub>2</sub>) and sulphur dioxide (SO<sub>2</sub>) with guidance for long-term decision-making and management.

The **Surface Water Quality Management Framework** focuses on the lower Athabasca River downstream of the Grand Rapids to the Athabasca River Delta. It sets surface water quality triggers and limits for 38 indicators measured at the Old Fort monitoring station.

The goal of the **Groundwater Management Framework** is to enhance the existing system to manage non-saline groundwater resources across the Lower Athabasca Region including management of potential cumulative effects on these resources. It establishes indicators of groundwater quality and quantity and the method for developing triggers and limits. This document forms the basis for more technical, detailed documents that have been prepared for each of the groundwater management areas in the region. These are *Groundwater Management Framework* supporting documents for the:

- North Athabasca Oil Sands Area
- South Athabasca Oil Sands Area
- Cold Lake – Beaver River Area



Please note that in May 2012, the Government of Alberta brought together the ministries of Environment and Water and Sustainable Resource Development to create one ministry called Alberta Environment and Sustainable Resource Development.



# 2.0

## Purpose

The framework described in this document is part of the shift to cumulative effects management. It seeks to balance anticipated development with environmental protection. The use of indicators of surface water quality and corresponding triggers and limits helps to clearly define the management of cumulative effects of development and contributes to the achievement of the desired regional objective for surface water quality.

This *Surface Water Quality Management Framework for the Lower Athabasca River* was prepared by Alberta Environment and Sustainable Resource Development for the *Lower Athabasca Regional Plan*, one of seven regional plans being advanced under the *Alberta Land Stewardship Act* and the *Land-use Framework*.

The Lower Athabasca Region is the focus of major industrial development that is driving Alberta's and Canada's economy. Increasing population and industrial expansion is expected to continue in the coming years making management frameworks important components of the regional plan.

This framework builds on, but does not replace, existing provincial legislation and policy on water quality, wastewater and the aquatic environment. It will not replace existing management systems such as spill reporting or drinking water surveillance. It will, however, fill a key gap by providing a framework in which to monitor and manage long-term, cumulative changes in water quality within the lower Athabasca River.

### Goals of the Surface Water Quality Management Framework

- Identify ambient surface water quality triggers (WQTs) and ambient surface water quality limits (WQLs) to protect surface water quality, clarify Government of Alberta expectations, address cumulative effects, and support pollution prevention and proactive management strategies.
- Enhance transparency and assurance through regular monitoring, evaluation and reporting on ambient surface water quality conditions within the lower Athabasca River from downstream of the Grand Rapids to the Athabasca River Delta.

## 2.1 Regional Context

The Lower Athabasca Region spans the boundaries of three major river basins – the Athabasca River basin, the Beaver River basin and the Peace/Slave River basin. The region has extensive natural resource development potential in the oil sands, natural gas and forestry sectors. Residents have expressed concerns about development within the region and its impact on water quality, particularly within the Athabasca River downstream of the oil sands.

The Athabasca River flows northeast approximately 1,400 kilometres from the Athabasca Glacier in the Columbia Icefields to where it drains into the Athabasca River Delta near Lake Athabasca. From there, the water flows north as the Slave River into Great Slave Lake and ultimately drains into the Arctic Ocean, by way of the Mackenzie River.

This framework applies to the lower section of the Athabasca River from just downstream of the Grand Rapids (approximately 135 kilometres upstream of Fort McMurray) to the Athabasca River Delta (Figure 1).

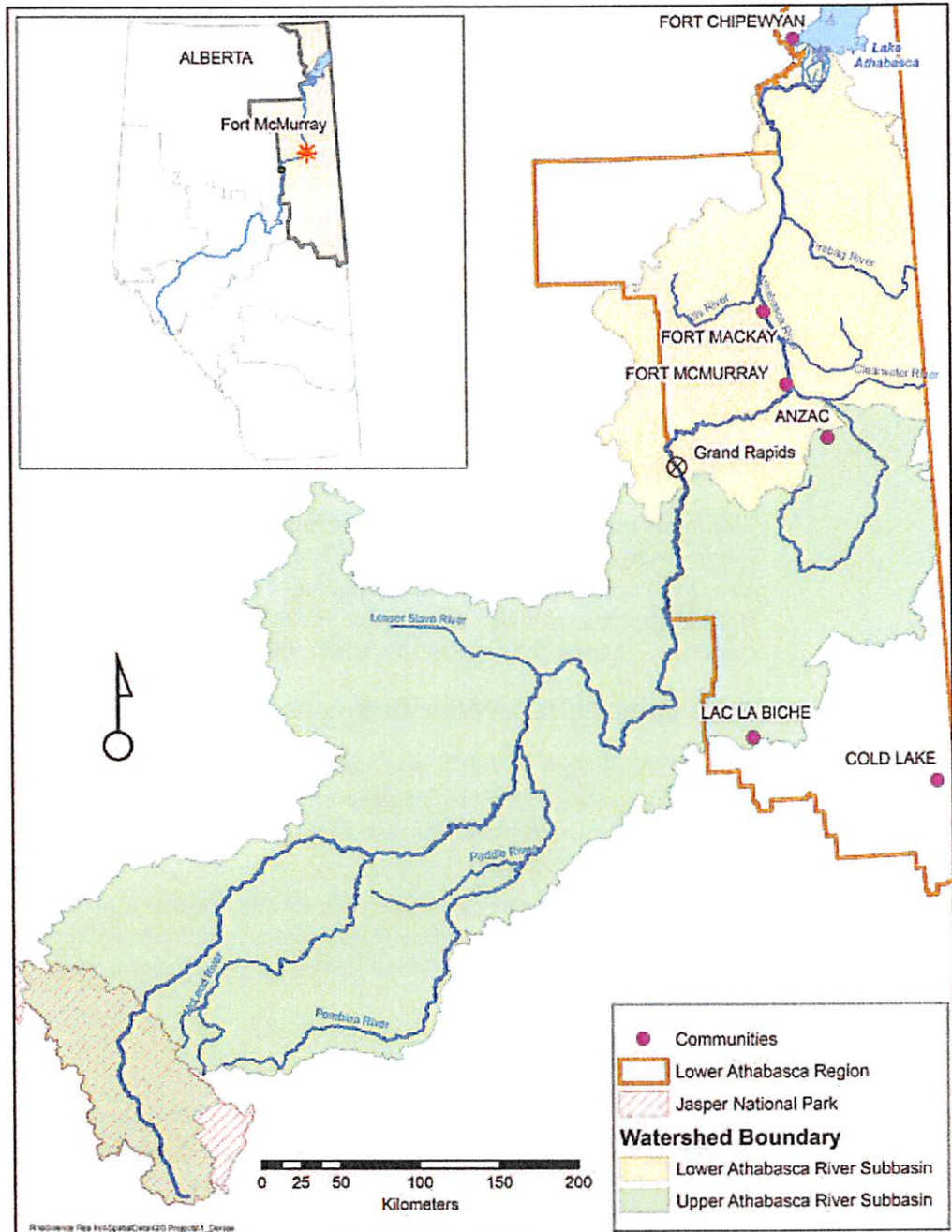


Figure 1  
Map of the Athabasca River Basin and Boundary of the Lower Athabasca Region

Note: The Surface Water Quality Management Framework for Lower Athabasca Region focuses on the lower Athabasca River downstream of the Grand Rapids to the Athabasca River Delta.



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## 2.2 Framework Development

The *Lower Athabasca Regional Plan* is one of seven regional plans being developed under the *Land-use Framework* (2008) to acknowledge the diversity of Alberta's regions, while coordinating provincial decisions about Crown lands and local land-use decisions.

In 2010, the Government of Alberta led a consultation process about the *Lower Athabasca Regional Plan* that involved gathering feedback on key aspects of advice provided by the Regional Advisory Council and on the management frameworks. To develop this framework as part of that regional planning process, work was gathered from the Cumulative Environmental Management Association's (CEMA) Surface Water Working Group (WRS 2003, Golder 2007). The initial drafting and detailed revision of this framework relied on technical and editorial input from federal regulators, industry, multi-stakeholder organizations, non-governmental groups and First Nations and Métis peoples. An engagement process led by Alberta Environment and Sustainable Resource Development (AESRD) involved targeted stakeholders as well as acceptance of written feedback about the framework.

All technical and editorial input from consultation and engagement was considered as the framework was developed. Overall, the comments received during the engagement and consultation processes supported the framework as a beneficial tool for environmental management within the Lower Athabasca Region.



## Key Concepts and Principles

Two drivers have guided this framework. The first is the need to build on provincial environmental protection and management policies and principles. The second is the need to adopt a cumulative effects management system in the region.

### 3.1 Provincial Policy Direction

One of the purposes of regional plans is to translate provincial policy to the regional scale. The *Surface Water Quality Management Framework for the Lower Athabasca River* helps to do that.

By reflecting the ongoing desire to balance environmental, economic and social considerations, this framework aligns with the goals of Alberta's *Land-use Framework* and other key policies including *Water for Life* and the *Regional Sustainable Development Strategy for the Athabasca Oil Sands Area* (1999a).

In addition, the need for integration is central to the provincial *Strategy for the Protection of the Aquatic Environment* found in the *Framework for Water Management Planning*. Comprehensive management of the region's surface water resources will require careful and integrated management of three linked ecosystem components: water quality, water quantity and the aquatic environment. Although the current focus of the *Surface Water Quality Management Framework for the Lower Athabasca River* is on managing surface water quality within a specific reach of the Athabasca River, continuing work in the region will contribute to the direction for integration.

### 3.2 Cumulative Effects Management and Management Frameworks

The Government of Alberta has made a commitment to cumulative effects management that focuses on achievement of outcomes, understanding the effects of multiple development pressures (existing and new), assessing risk, collaborative work with shared responsibility for action, and improved integration of economic, environmental and social considerations. It also follows an adaptive management model; which means decision makers learn from experience and new information and adapt to changing social expectations and demands. Performance management is an essential element providing information on environmental conditions and identifying the need for any adjustments and changes on an ongoing basis. The development of management frameworks is an important approach being used to accomplish the shift to a cumulative effects management system. They will play an important role in long-term planning and decision-making in accordance with the outcomes defined in the regional plan.

The management framework approach is depicted in Figure 2.

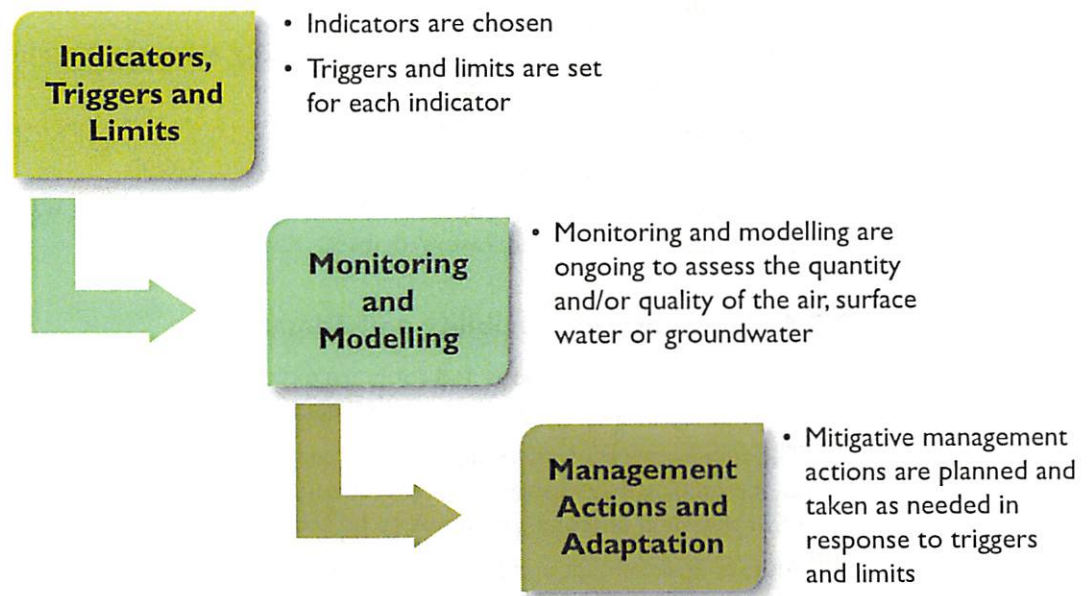


Figure 2  
The Management Framework Approach

### 3.3 Key Principles

The following are key concepts and principles that form a foundation for the management framework.

#### 3.3.1 Surface Water Quality Management

- New activities and pressures on the lower Athabasca River will be monitored and evaluated relative to a more conservative benchmark than before, namely historical conditions. That does not mean that departures from historical water quality conditions will not be allowed, but rather that the cumulative environmental risks of future departures need to be comprehensively assessed and mitigated before they will be allowed.
- Pollution prevention and continuous improvement as outlined in Alberta Environment's Industrial Release Limits Policy (2000) will remain key management principles, although departures from historical water quality conditions may be allowed.

#### 3.3.2 Builds on Existing Legislation, Regulations and Policies

- The framework is intended to add to and complement, not replace, existing policies, legislation and regulations.
- The framework is consistent with provincial policies, strategies and frameworks, and with the stated desired outcomes for the region.

### **3.3.3 Applies a Regional Perspective**

- The framework proactively manages water quality within the region with consideration of human population and ecosystem health.
- The framework assigns and applies ambient water quality triggers and limits to identified substances as measured at the Old Fort monitoring station.
- The framework addresses potential adverse impacts on ambient water quality from human activities along the lower Athabasca River.

### **3.3.4 Incorporates Flexibility and Adaptability**

- A range of potential actions and tools are expected to be used, as required, to manage ambient water quality with respect to identified indicators.
- The framework recognizes that development plans, technology and scientific understanding may change over time, and flexibility is needed to ensure that the desired environmental outcomes continue to be achieved.
- Alberta Environment and Sustainable Resource Development will review and update the framework to reflect changes in information, knowledge and continuing work on water quality indicators.

### **3.3.5 Clearly Communicates**

- The framework supports long-term certainty in Alberta's policy and regulatory process. It provides clarity for industry, early in the design cycle, about restrictions on wastewater releases that may be needed to avoid cumulative impacts on the receiving water environment.
- The system described in this framework and the expectations for surface water quality management are clearly defined and transparent.

### **3.3.6 Involves Partnerships**

- Citizens, communities, industry and government must share the responsibility for water management. As with framework development, Alberta Environment and Sustainable Resource Development will continue to involve stakeholders, First Nations and Métis peoples, and working groups who live and work in the area as the framework is implemented.



# 4.0

## The Current Management System

### 4.1 Regulatory and Policy Context

A stringent regulatory system governs municipal and industrial releases into rivers in Alberta. At present, notable releases to the lower Athabasca River are limited to wastewater from the city of Fort McMurray and one industrial release from oil sands operations. Any proposed new municipal or industrial releases would require the proponent to assess the potential effects as part of environmental impact assessments and/or applications for operating approvals under the *Environmental Protection and Enhancement Act*. Water resources are also managed under the provincial *Water Act*. A licence under this act is needed to use water. Impacts to water quality can be considered when applications for licences are being reviewed. The *Water Act* also includes provisions to address activities that can affect watercourses.

There are also major policies that guide management and planning for the protection and maintenance of surface water quality. This includes *Water for Life* and the *Framework for Water Management Planning*. Additional policy context for the framework is provided by the *Regional Sustainable Development Strategy for the Athabasca Oil Sands Area* (1999a) and *Responsible Actions: A Plan for Alberta's Oil Sands* (2009). Table 1 summarizes the key legislation and policies, strategies and agreements currently governing surface water quality including transboundary considerations.

### 4.2 Transboundary Considerations

When rivers flow from one province or territory to the next, there are transboundary agreements in place to ensure that adequate water quality and quantity are maintained. The Athabasca River (along with the north-flowing waters of the Clearwater and Slave rivers) is part of the *Mackenzie River Basin Transboundary Waters Master Agreement*. This agreement has been in effect since 1997 when it was signed by the governments of Canada, British Columbia, Alberta, Saskatchewan, Northwest Territories and Yukon.

The agreement established common principles for cooperative water management and the Mackenzie River Basin Board to facilitate application of these principles. The *Master Agreement* also commits jurisdictions to the development of bilateral water management agreements that will establish specific water quality and quantity objectives. Alberta and the Northwest Territories have established a target of having a bilateral agreement in place by 2012. Both jurisdictions are actively collecting and sharing all relevant information that will inform the negotiations.



Table 1: Key Legislation and Policy for Managing Surface Water Quality in the Lower Athabasca Region

<b>Governance</b>	<b>Jurisdiction</b>
<b>Provincial Acts, Regulations and Authorizations</b>	
<i>Alberta Land Stewardship Act (ALSA)</i>	Provincial / Regional
<i>Environmental Protection and Enhancement Act (EPEA)</i>	Alberta
<i>Water Act</i>	Alberta ( <i>Water Act</i> )
Approvals, monitoring and reporting requirements	Alberta (EPEA)
Compliance and enforcement	Alberta (EPEA)
Licences, approvals, monitoring and reporting requirements	Alberta ( <i>Water Act</i> )
Compliance and enforcement	Alberta ( <i>Water Act</i> )
<b>Guidelines</b>	
<i>Surface Water Quality Guidelines for Use in Alberta</i>	Alberta
<i>Canadian Environmental Quality Guidelines</i>	Canadian Council of Ministers of the Environment (CCME)
<i>Guidelines for Canadian Drinking Water Quality</i>	Health Canada
<i>Guidelines for Canadian Recreational Water Quality</i>	Health Canada
<b>Policies</b>	
<i>Framework for Water Management Planning</i>	Alberta
<i>Industrial Release Limits Policy</i>	Alberta
<i>Water Quality Based Effluent Limits Procedures Manual</i>	Alberta
<b>Strategies</b>	
<i>Regional Sustainable Development Strategy for the Athabasca Oil Sands Area</i>	Alberta
<i>Responsible Actions: A Plan for Alberta's Oil Sands</i>	Alberta
<i>Strategy for the Protection of the Aquatic Environment</i>	Alberta
<i>Water for Life</i>	Alberta
<i>Land-use Framework</i>	Provincial / Regional
<b>Agreements</b>	
<i>Mackenzie River Basin Transboundary Waters Master Agreement</i>	Federal-Provincial-Territorial
<b>Federal Acts</b>	
<i>Canadian Environmental Protection Act</i>	Canada
<i>Fisheries Act</i>	Canada

### 4.3 Characterization of Surface Water Quality within the Region

Water quality varies considerably along the length of the Athabasca River. It is influenced by natural factors (e.g., geology and soils), as well as point- and non-point source inputs from human development (e.g., industrial wastewater and urban runoff). The Athabasca River receives continuous releases from five pulp mills and four municipal wastewater treatment plants upstream of the Grand Rapids. As mentioned earlier, notable wastewater loadings to the lower Athabasca River are limited to treated municipal wastewater from the city of Fort McMurray and one industrial release from an oil sands operation.

Spring runoff naturally results in seasonal increases in total suspended solids (TSS) and turbidity within the Athabasca River. Both nutrients and total metals are associated with the particles suspended in the runoff, and these indicators also increase during high flows. As a result, seasonal exceedances of water quality guidelines are relatively common.

The water quality at the Long-term River Network (LTRN) monitoring sites upstream of Fort McMurray and at Old Fort have consistently demonstrated Alberta River Water Quality Index (ARWQI) ratings in the “good” to “excellent” range. Both sites have had occasional guideline exceedances for nutrients and metals. Pesticides such as 2,4-D and MCPA have also been detected at the Old Fort site, but at concentrations below guidelines. Section 4.4 expands on the descriptions of the LTRN and other monitoring programs.

Total phosphorus and other nutrients increase along the length of the Athabasca River. This spatial pattern is thought to be due to a combination of point sources (i.e., pulp mills and municipal wastewater) non-point sources (e.g., agriculture and road and pipeline networks) and tributary inputs (North-South 2007).

Several hydrocarbons (including total phenolics, naphthenic acids (NAs) and polycyclic aromatic hydrocarbons (PAHs) are present at low concentrations in the lower Athabasca River. This is thought to be largely due to the region’s natural bitumen deposits (North-South 2007). However, industrial sources of these contaminants do exist, and have the potential to increase loading to aquatic systems within the region through a variety of pathways (Hatfield Consultants et. al. 2009) if not managed carefully.

Climatic conditions may also impact water quality in the lower Athabasca River. Significant increasing trends were found for several indicators sampled at the Old Fort station between 1987 and 2007 (Hebben 2009). These increasing trends include pH, turbidity and non-filterable residue, as well as several nutrients and metals. Although many of these variables can be closely related to sediment loads within a river, these trends could also be related to decreasing stream flows in the lower Athabasca River or other causes (Hebben 2009).

### 4.4 Current Surface Water Quality Monitoring in the Region

Alberta Environment and Sustainable Resource Development’s monitoring, evaluating and reporting of surface water quality includes the Long-term River Network (LTRN), which supports the ARWQI and periodic trend assessments (e.g., Hebben 2009). The department also leads and supports various water quality research initiatives in the area including the comprehensive contaminant load study described below. Other water quality monitoring in

the region includes the Regional Aquatics Monitoring Program (RAMP), facility-specific monitoring (industrial and municipal approval and licence holders), and various federal government monitoring and research initiatives. Please see Figure 3 for locations of select Alberta Environment and Sustainable Resource Development water quality monitoring stations.

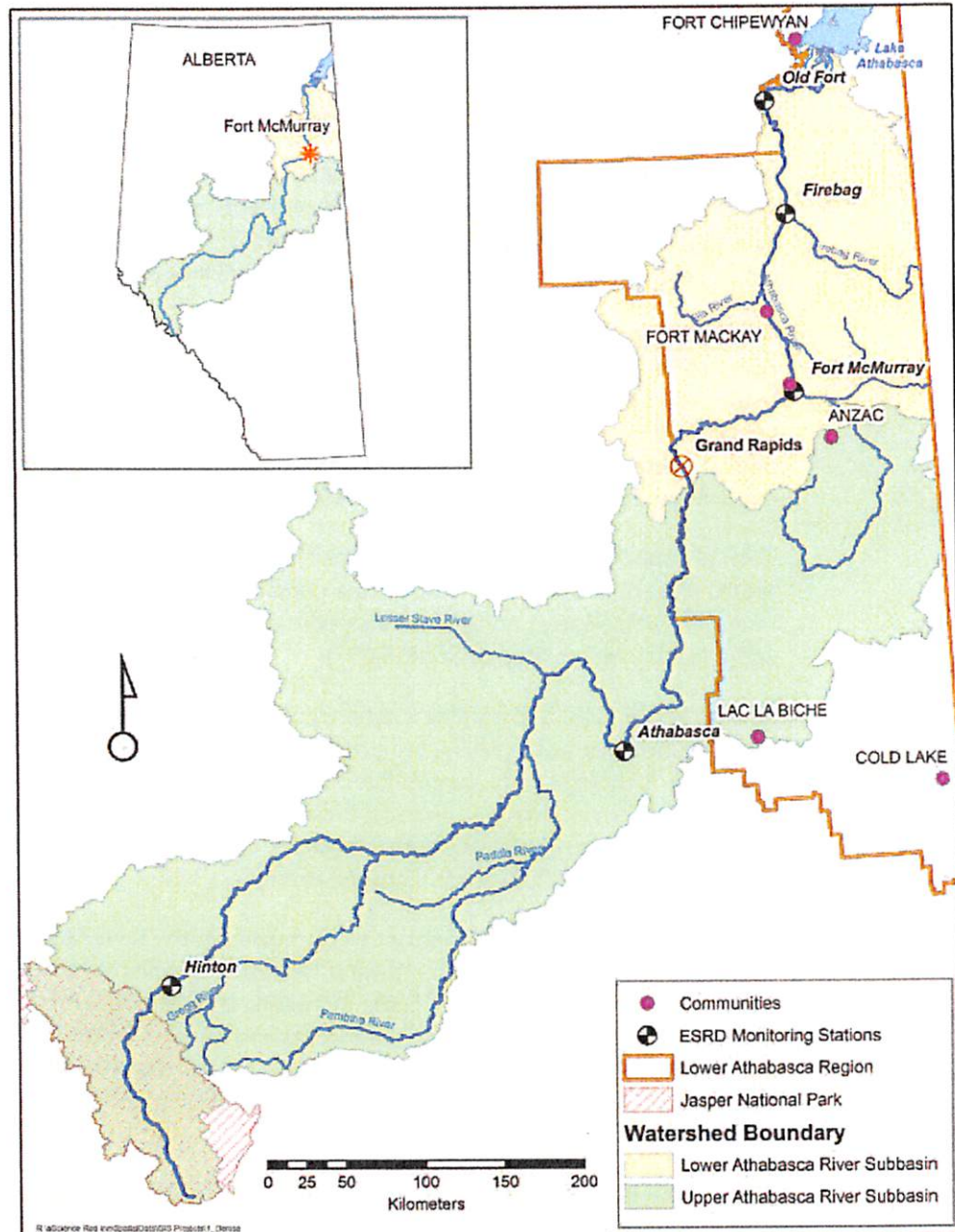


Figure 3  
Map of the Athabasca River Basin Showing Select Alberta Environment and Sustainable Resource Development Surface Water Quality Monitoring Stations



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#### 4.4.1 Long-term River Network

The LTRN program focuses on known problem areas and sources of pollution within larger rivers. Existing network sites were selected because: (1) they are accessible; and (2) river waters are well-mixed with respect to tributary and point source inputs. Network sites are generally located upstream and downstream of municipal and industrial development, or otherwise spaced at important locations on river systems.

Alberta Environment and Sustainable Resource Development has four LTRN sites on the Athabasca River – two of which are on the lower Athabasca River: the Athabasca River upstream of Fort McMurray and the Athabasca River at Old Fort (Figure 3). A suite of water quality indicators are sampled at these sites on a regular basis. The Old Fort site has been monitored since 1977, while the site upstream of Fort McMurray has been in operation since 2002. The department has also been monitoring other sites in the area regularly since 2008, including one on the mainstem – the Athabasca River upstream of the Firebag River – and co-ordinates the monitoring of seven sites on the Muskeg River, a major tributary to the lower Athabasca River with significant oil sands activity within its basin.

#### 4.4.2 Alberta River Water Quality Index

The ARWQI summarizes complex data into a simple descriptor of water quality and provides a snapshot of annual water quality conditions. Data is collected for 22 metals, 17 pesticides, six nutrients and two bacteria indicators through the province's LTRN. These data are then compared to water quality guidelines and calculated into an average index rating, as follows:

**Excellent:** Guidelines are almost always met. This is considered the “best” water quality.

**Good:** Guidelines are occasionally exceeded, but usually by small amounts. Threat to quality is minimal.

**Fair:** Guidelines are sometimes exceeded by moderate amounts. Quality occasionally departs from desirable levels.

**Marginal:** Guidelines are often exceeded, sometimes by large amounts. Quality is threatened and often departs from desirable levels.

**Poor:** Guidelines are almost always exceeded by large amounts. Quality is significantly impaired and is well below desirable levels. This is considered the “worst” water quality.

Water quality at the Old Fort site has been assessed annually since 1996 through the ARWQI. The ARWQI is included as a provincial performance indicator in the Alberta government's *Measuring Up Annual Report*. More information on the ARWQI is available through Alberta Environment and Sustainable Resource Development's website at [www.environment.alberta.ca](http://www.environment.alberta.ca).



#### **4.4.3 Comprehensive Contaminant Load Study**

In 2009, the department initiated a comprehensive contaminant load study to assess contaminants in environmental media (e.g., water, air and soil) within the lower Athabasca River basin in the mineable oil sands region. The study is investigating metals including arsenic and mercury as well as hydrocarbons such as PAHs and NAs. The overall goal is to address a number of questions related to the potential impacts of oil sands operations on the transport and accumulation of contaminants along the Athabasca River into the Peace-Athabasca Delta and western Lake Athabasca, and the implications of this to ecosystem and human health.

The water quality component of the study consists of monthly bulk water sampling and the deployment of passive sampling devices (semi-permeable membrane devices for PAHs, polar organic chemical integrative samplers for NAs, and diffusive gradients in thin films for metals) at 11 sites within the region. Six of these sites are located on the lower Athabasca River main stem (two are LTRN sites) and five on larger tributaries. The study is expected to be completed in 2012.

#### **4.4.4 Regional Aquatics Monitoring Program**

The Regional Aquatics Monitoring Program (RAMP) is a multi-stakeholder aquatic monitoring program that “strives to achieve a holistic understanding of potential effects of oil sands development on aquatic systems, as well as address specific issues important to communities of the region” (Hatfield et. al. 2009). The program devotes effort to a broad geographic scale that includes the Athabasca River mainstem and tributaries, the Peace-Athabasca Delta and small lakes throughout the oil sands region. The program includes long-term monitoring of the physical, chemical and biological environment. The core elements of RAMP and the approach have remained relatively consistent over time, but the design of the program continues to be refined in response to new information, stakeholder input and technical peer reviews. Results of the RAMP program, including the complete database, are available to the public through a dedicated website at [www.ramp-alberta.org/RAMP.aspx](http://www.ramp-alberta.org/RAMP.aspx).

#### **4.4.5 Joint Canada-Alberta Implementation Plan for Oil Sands Monitoring**

Under the joint implementation plan, the Governments of Alberta and Canada are working together to implement a world class monitoring program for the oil sands that integrates all environmental components—air quality, water quality, water quantity, aquatic ecosystems, terrestrial biodiversity and habitat. Implementation of the plan will result in improved knowledge of the state of the environment in the oil sands area and an enhanced understanding of cumulative effects. The expanded water monitoring program will increase the amount of site-specific, reach-specific and regional scale information, including spatial and temporal status and trends in contaminant loadings. More information on the joint monitoring plan for oil sands is available through Alberta Environment and Sustainable Resource Development’s website at [www.environment.alberta.ca](http://www.environment.alberta.ca).

# 5.0

## Regional Objective

In support of the outcomes of the *Lower Athabasca Regional Plan*, this management framework establishes the following regional objective for surface water quality:



Water quality in the lower Athabasca River is managed so current and future water uses are protected.

For the purposes of this framework, water uses include: protection of aquatic life, drinking water, recreation and aesthetics, agricultural and industrial. To better describe the water quality objective, indicators have been chosen and triggers and limits established for those indicators.

### 5.1 Indicators

Indicators provide information about whether or not a regional objective is being met.

Since long-term water quality data are available for the Old Fort monitoring station, and it is located downstream of oil sands development, indicators for the lower Athabasca River were chosen from among the parameters being measured at Old Fort. Ambient water quality triggers and water quality limits were then developed for those indicators. As soon as possible, triggers and limits will also be developed for Alberta Environment and Sustainable Resource Development's monitoring station on the Athabasca River upstream of the Firebag River, since that site is closer to current oil sands development.

Long-term data are used to establish historical conditions for the indicators included in this framework. In addition, the indicators chosen for the framework were selected because they:

- have known concentrations in existing or potential wastewater releases that exceed concentrations in the Athabasca River by two-fold or more.
- exhibit a downstream increase (and therefore loading) to the lower Athabasca River between the upstream of Fort McMurray and Old Fort LTRN monitoring stations.

Thirty-eight indicators met the selection criteria and were not overly affected by censored data (missing observations or values below method detection limits). The indicators selected include a variety of toxic and non-toxic water quality substances and of these, 11 are classified as general indicators and 27 as metal indicators.

- **11 General Indicators:** calcium, chloride, magnesium, potassium, sodium, sulphate, total dissolved phosphorus, total phosphorus, nitrate, total ammonia, total nitrogen.
- **27 Metal Indicators:** (total and dissolved except where noted) aluminum, antimony, arsenic, barium, beryllium (total only), bismuth (total only), boron, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury (total only), molybdenum, nickel, selenium, silver (total only), strontium, thallium, thorium, titanium, uranium, vanadium and zinc.



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Polycyclic aromatic hydrocarbons and NAs are also important indicators of concern given their toxicity and potential for natural and industrial loading to the lower Athabasca River. Nevertheless, these substances are not currently on the indicator list, as important science gaps exist around the identification, quantification, and toxicity of NAs. Moreover, reliable approaches to quantify PAHs at the low concentrations found in water, as well as our understanding of their toxicity in aquatic environments, are still evolving. Challenges in identifying and measuring NAs and PAHs have limited the collection and availability of data for these indicators within the lower Athabasca River.

Despite these challenges, Alberta Environment and Sustainable Resource Development has begun monthly sampling for NAs using the best available methods, at all three AESRD stations on the lower Athabasca River. Moreover, monthly sampling for PAHs has also recently been implemented at all three stations, and complementary approaches such as the use of semi-permeable membrane devices are currently being explored to address the frequent non-detects for these indicators. Once a reliable dataset has been compiled for the Athabasca River stations at Old Fort and upstream of the Firebag, triggers will be developed. In the meantime, AESRD will continue to evaluate the incoming PAH and NA data and will work to fill the science and data gaps that currently limit the inclusion of these parameters in this framework.

The indicator list presented in this framework is expected to change over time in response to new information including additional monitoring data, new contaminants of concern, or as we gain a greater understanding of the behaviour and fate of contaminants within the lower Athabasca River. The department will continue to monitor and report on a variety of other water quality parameters not identified through this indicator selection process, through its monitoring and reporting on other stations on the lower Athabasca River.

## 5.2 Triggers and Limits

Ambient water quality triggers (WQT), calculated from historical monthly or quarterly samples from the Old Fort monitoring station, are an “early warning system” that signal potential change in ambient environmental conditions in the lower Athabasca River. They are set very conservatively at values that have historically been observed at the Old Fort monitoring station, therefore not all trigger exceedances signal real or meaningful change. Nevertheless, trigger exceedances provide an early opportunity to examine an indicator to determine whether or not change is occurring. Triggers are based on the premise that deviations from existing water quality are acceptable, provided they are closely monitored and managed.

Water quality limits (WQL) derived from provincially-accepted water quality guidelines represent conditions where the risk of adverse effects is heightened. Exceedance of the WQT indicates that a statistically significant change from historical conditions may have occurred, while exceedance of the WQL indicates that designated water uses may not be protected.

The steps involved in setting the WQTs and WQLs are linked to the selected water quality indicators, as depicted in Figure 4.

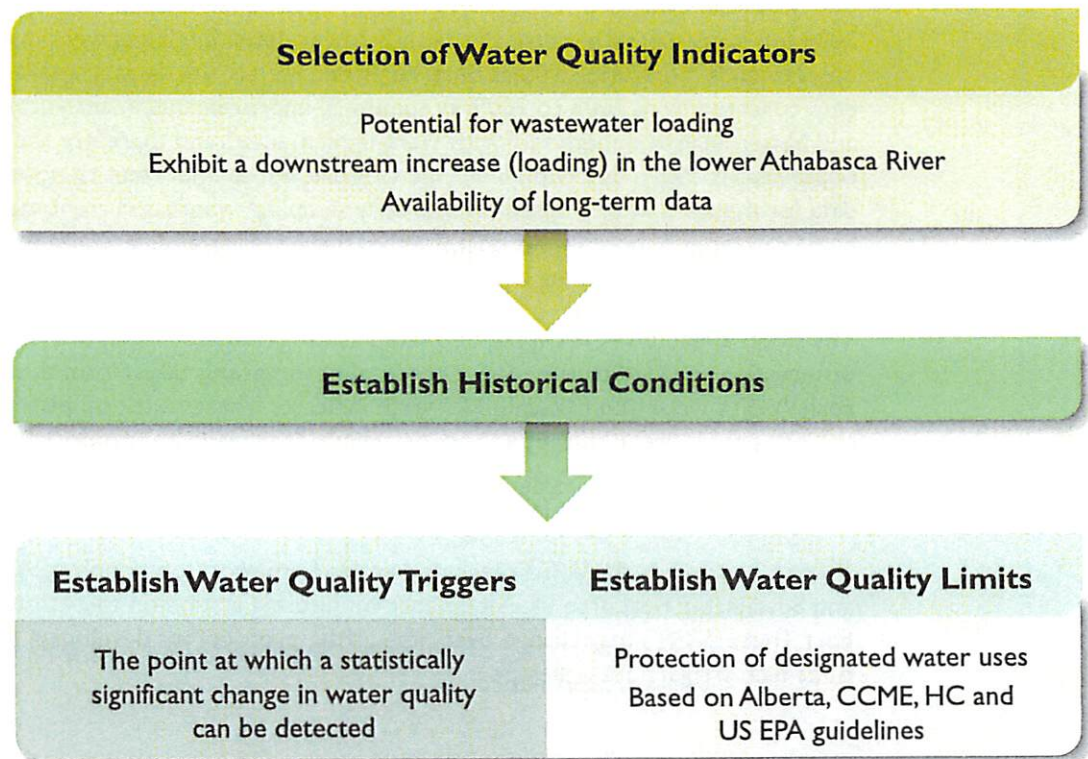


Figure 4  
The Steps to Establish Surface Water Quality Triggers and Limits

### 5.3 Setting Water Quality Triggers (WQTs)

To determine the historical range of water quality within the lower Athabasca River, the available historical data were compiled for each indicator. Data collected at the Old Fort monitoring station from 1988 to 2009 were used to establish historical conditions for the general indicators. There were several reasons for limiting the dataset to these dates:

- Samples collected before 1988 were often analysed by different analytical techniques with less sensitive detection limits.
- Data collected before 1988 were often incomplete and did not have 12 full months represented. As several indicators exhibit significant seasonal differences, the missing samples, especially from the winter months, would bias the long-term statistical distribution of the indicator.
- In 1987, the monitoring sites were transferred from Environment Canada to Alberta Environment. Distinct differences (step trends) were evident in several indicators between those samples collected prior to and after 1988 (Hebben 2009). Potential biases in the long-term statistics were avoided by using the data collected after 1987.



The historical dataset for metals was further constrained to data collected from 1999 to 2009 for many metals because significantly lower detection limits were instituted in the department's monitoring at that time. For some metals, the dataset was largely restricted to data collected from 2003 to 2009, as additional improvements in analytical detection levels and better analytical methodologies were implemented, and therefore the number of observations above detection limits increased. It is also important to note that the historical data for metals is largely based on quarterly sampling, whereas current metal sampling is being carried out monthly. As noted above, these temporal differences may require special attention when interpreting differences between historical and current conditions.

The mean ambient WQTs were calculated as the arithmetic mean (i.e., sum of all the observations divided by the total number of observations taken from the historical datasets). Peak WQTs were also calculated for each indicator. These historical peaks were defined as the 95<sup>th</sup> percentiles (i.e., captured 95 per cent of the historical dataset). Tables showing the summary statistics for the data used to generate general and metal indicator triggers are presented in Appendix A (Tables A1 and A2).

**Please note that** the WQTs included in this framework only apply to Alberta Environment and Sustainable Resource Development's monitoring station on the Athabasca River at Old Fort. These WQTs may change over time as the protocol for developing triggers is finalized or as new triggers are developed.

## 5.4 Setting Water Quality Limits (WQLs)

In addition to their current use in the regulatory system, water quality guidelines were used to define ambient WQLs for each surface water quality indicator in this framework. A surface water quality guideline, according to the Canadian Council of Ministers of the Environment (CCME), "is a numerical concentration or narrative statement recommended to support and maintain a designated use".

The guidelines chosen as WQLs for the Old Fort monitoring station followed an order of priority. Depending on availability, guidelines for each indicator were selected first from the Alberta Water Quality Guidelines for the Protection of Aquatic Life (AENV 1999) and then from the most stringent of the following guidelines:

- CCME Water Quality Guidelines for the Protection of Aquatic Life ([www.st-ts.ccme.ca](http://www.st-ts.ccme.ca))
- CCME Water Quality Guidelines for the Protection of Agricultural Water Uses ([www.st-ts.ccme.ca](http://www.st-ts.ccme.ca))
- Guidelines for Canadian Drinking Water Quality (Health Canada 2010)
- Guidelines for Canadian Recreational Water Quality (Health and Welfare Canada 1992)
- United States Environmental Protection Agency's (U.S. EPA) Aquatic Life Criteria (U.S. EPA 2009).

Only chronic guidelines were considered when examining protection of aquatic life guidelines.

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Generic provincial guidelines were not used to set WQLs when the following situations applied:

- guidelines were lower than historical concentrations and/or WQTs
- no provincially acceptable guidelines were available.

Of the 38 water quality indicators currently included in this framework, 10 had guidelines that were lower than historical concentrations at the Athabasca River monitoring station at Old Fort, and seven did not have an existing guideline value.

The WQLs for the lower Athabasca River should be expected to change over time as existing guidelines are updated and new guidelines are developed.

**Please note that** the WQLs included in this framework only apply to Alberta Environment and Sustainable Resource Development's monitoring station on the Athabasca River at Old Fort.

### 5.4.1 Triggers and Limits for General Indicators

The general water quality indicators include several major ions and nutrients. These substances are ubiquitous in natural waters and can occur at concentrations that negatively impact the aquatic ecosystem and other water uses. Table 2 provides the WQTs and WQLs established for general water quality indicators within the lower Athabasca River as measured at the Old Fort monitoring station.

Table 2: Ambient Surface Water Quality Triggers and Limits for the Athabasca River at Old Fort – General Indicators

Note: All values are in mg/L.

General Indicator	Surface Water Quality Triggers		Surface Water Quality Limit
	Mean	Peak	
Calcium ( $\text{Ca}^{2+}$ )	34.7	48.9	1,000 <sup>b</sup>
Chloride ( $\text{Cl}^-$ )	20.2	45.0	100 <sup>b</sup>
Magnesium ( $\text{Mg}^{2+}$ )	9.5	13.7	-
Potassium ( $\text{K}^+$ )	1.4	2.1	-
Sodium ( $\text{Na}^+$ )	21.5	43.7	200 <sup>c</sup>
Sulphate ( $\text{SO}_4^{2-}$ )	26.7	41.4	500 <sup>c</sup>
Total Dissolved Phosphorus (TDP)	0.016	0.032	-
Total Phosphorus (TP)	0.074	0.261	-
Nitrate ( $\text{NO}_3\text{-N}$ )	0.092	0.264	2.935 <sup>a</sup>
Total Ammonia ( $\text{NH}_{3+4}\text{-N}$ )	0.05	0.12	Varies with pH and temperature <sup>d,1</sup>
Total Nitrogen (TN)	0.597	1.041	-

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses

c The Guidelines for Canadian Drinking Water Quality

d US EPA Aquatic Life Criteria

1 Fish early life stages present: chronic criterion =  $((0.0577/(1 + 10^{7.688-\text{pH}})) + (2.487/(1 + 10^{\text{pH}-7.688}))) \times \text{MIN}(2.85, 1.45 \cdot 10^{0.028(25-T)})$ . See Table A3 for computed temperature and pH-dependent total ammonia values and Table A4 for temperature and pH values from the Old Fort monitoring station.

### 5.4.2 Triggers and Limits for Metal Indicators

The metal indicators in this framework include a wide variety of elements. Some are essential for aquatic life (e.g., zinc), but excessive or deficient concentrations can be problematic. Metals can enter surface waters through natural processes, but are also present in industrial and municipal wastewater releases. Table 3 provides the WQTs and WQLs established for metal indicators within the lower Athabasca River. Although triggers have been developed for both dissolved and total metals, WQLs only apply to the total metals.

Table 3: Ambient Surface Water Quality Triggers and Limits for the Athabasca River at Old Fort – Metal Indicators

Note: All values are µg/L; D=dissolved, T=total.

Metal Indicator	Surface Water Quality Triggers		Surface Water Quality Limit
	Mean	Peak	
Aluminum D	16	49	-
Aluminum T	1533	6454	-
Antimony D	0.107	0.202	-
Antimony T	0.148	0.388	6 <sup>c,1,2</sup>
Arsenic D	0.5	0.7	-
Arsenic T	1.1	2.5	5 <sup>a</sup>
Barium D	52.6	73.7	-
Barium T	79.3	147.6	1,000 <sup>c</sup>
Beryllium T	0.077	0.269	100 <sup>b,3</sup>
Bismuth T	0.0172	0.0564	-
Boron D	26	40	-
Boron T	48	69	500 <sup>b</sup>
Cadmium D	0.0997	0.5150	-
Cadmium T	0.3	1.2	-
Chromium D	0.41	0.65	-
Chromium T	3	8	50 <sup>c</sup>
Cobalt D	0.07	0.11	-
Cobalt T	0.8	2.2	50 <sup>b</sup>
Copper D	1.6	3.6	-
Copper T	3.1	7.2	-
Iron D	185	372	-
Iron T	1899	5821	-
Lead D	0.56	0.56	-
Lead T	3.3	7.0	-
Lithium D	6	9	-



Metal Indicator	Surface Water Quality Triggers		Surface Water Quality Limit
	Mean	Peak	
Lithium T	9	12	2,500 <sup>b</sup>
Manganese D	12	36	-
Manganese T	65	141	-
Mercury T	0.0051	0.0159	-
Molybdenum D	0.7	1.2	-
Molybdenum T	0.9	1.6	10 <sup>b</sup>
Nickel D	1.6	4.7	-
Nickel T	3.4	8.2	Varies with hardness <sup>d,4</sup>
Selenium D	0.229	0.409	-
Selenium T	0.333	0.581	1 <sup>a</sup>
Silver T	0.0243	0.0677	0.1 <sup>a</sup>
Strontium D	215	361	-
Strontium T	225	361	-
Thallium D	0.0238	0.1137	-
Thallium T	0.0546	0.1751	0.8 <sup>a</sup>
Thorium D	0.0284	0.0942	-
Thorium T	0.35	1.44	-
Titanium D	2	7	-
Titanium T	30	104	-
Uranium D	0.313	0.381	-
Uranium T	0.4	0.7	10 <sup>b,5</sup>
Vanadium D	0.450	0.698	-
Vanadium T	4	16	100 <sup>b</sup>
Zinc D	4.5	12.4	-
Zinc T	12.3	25.6	-

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses

c The Guidelines for Canadian Drinking Water Quality

d U.S. EPA Aquatic Life Criteria

1 Developed as an interim maximum acceptable concentration

2 Faucets should be thoroughly flushed before water is taken for consumption or analysis

3 Livestock watering guideline is interim

4 Total nickel CCC =  $e^{0.846(\ln \text{ hardness}) + 0.0584}$  µg/L, where hardness is measured in mg/L CaCO<sub>3</sub>. See Table A4 for alkalinity (CaCO<sub>3</sub>) values from the Old Fort monitoring station

5 Interim guideline

# 6.0

## The Management System

This framework brings the following new elements to the existing system:

- establishing a surface water quality objective for the lower Athabasca River
- identifying key indicators for that objective
- setting of triggers and/or limits for those indicators
- identifying the management response when triggers and limits are exceeded.

Within this framework, ambient surface water quality levels have been assigned to identify where ambient water quality conditions are in relation to the triggers and limits and to define the corresponding management response. When ambient surface water quality levels change, the main influences are identified, and the appropriate management actions can be applied if needed.

At present, surface water quality levels have been assigned to the Athabasca River at the Old Fort monitoring station. In the future, additional triggers and limits will be included in this management framework as the monitoring station upstream of the Firebag River and possibly other stations are added.

Alberta Environment and Sustainable Resource Development will use the ambient surface water quality levels to:

- describe ambient water quality conditions in the lower Athabasca River as measured at the Old Fort monitoring station
- initiate the management response outlined in this framework when monitoring indicates undesirable trends are developing or triggers and/or limits are being exceeded
- assess the impacts of water quantity management on water quality conditions
- in conjunction with water quantity and water quality models, evaluate water and reclamation policy options on the lower Athabasca River.

It is important to understand that this framework is intended to be used to monitor and manage long-term, cumulative changes in water quality in the lower Athabasca River; and not intended to replace existing management systems such as spill reporting, drinking water surveillance, or facility or activity-specific regulation.

Overall, this framework fits within, and supports, the broader provincial water legislation and policy framework that applies to the lower Athabasca River. The management approaches presented in this framework to manage ambient surface water quality are collective requirements that apply to all regulated water users or parties releasing substances to the lower Athabasca River. The framework requirements do not replace existing policies guiding development of individual facility approval and licence conditions; they are additional requirements that will formally be incorporated into new applications and into approval and licence amendments and renewals.

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Elements from the framework will be included in the *Lower Athabasca Regional Plan* and will be implemented as part of that plan with legal force as provided by the *Alberta Land Stewardship Act*. The ambient WQTs and WQLs come into effect when the regional plan is approved.

## 6.1 Assignment of Surface Water Quality Levels

To help define where ambient water quality conditions sit relative to the triggers and limits, surface water quality levels are assigned for each indicator. Level 1 represents ambient conditions within the range of historically observed conditions; there are no trigger exceedances in Level 1. Level 2 indicates a shift away from historical conditions, where there is a trigger exceedance and the potential development of an undesirable trend. Level 3 indicates the exceedance of a water quality limit. The management focus also varies depending on the surface water quality level (Table 4).

The purpose of assigning the three levels is to identify where ambient conditions are in relation to the defined ambient surface WQTs and WQLs. Assignment of levels also provides a way to manage changes in surface water quality so that they do not compromise the protection of aquatic life and other water uses.

There are corresponding management intentions for each of the three ambient water quality levels. The idea is to prevent ambient surface water quality concentrations from approaching or reaching Level 3, as defined by the WQL, by proactively monitoring and managing water quality indicators in Level 2.

### Level 1

Ambient water quality conditions are within mean and peak historical values. Approval and licence conditions are being implemented and water, wastewater and aquatic ecosystem policy is being applied.

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### Level 2

Ambient water quality conditions are shifting away from mean and/or peak historical conditions. Level 2 conditions are statistically defined and do not necessarily signal additional environmental risk. Confirming whether an undesirable trend is developing and evaluating the consequences of that trend is central to deciding on the need for action. The proximity of each indicator to its limit varies; consequently, a range of management actions may be used in Level 2 to address individual situations depending on urgency and potential risk. Level 2 conditions are defined by WQTs.



### Level 3

Water quality conditions exceed the limit established to protect the most sensitive water use for a given indicator. Human contributions to the indicator are documented and suspected of posing additional, unacceptable risk to human or ecosystem health. Level 3 conditions will be avoided through careful management of activities influencing the indicator in Level 2 and good wasteload management. Level 3 conditions are defined by WQLs.

Table 4: Description of Ambient Surface Water Quality Levels

Level	Description	Management Intent
3	Exceedance of water quality limits.	Improve ambient water quality to below limits.
Limit		
2	Exceedance of water quality triggers.	Proactively maintain water quality below limits. Improve knowledge and understanding of trends.
Trigger		
1	Mean and peak water quality conditions at or better than historical water quality conditions.	Apply standard regulatory and non-regulatory approaches to manage water quality.



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## 6.2 Working with the Current Data

There are two ions, four metals and one dissolved nutrient for which no guidelines exist, and therefore no limit was set in this framework. There are also some indicators with mean and/or peak historical values that are higher than provincially-accepted guidelines. These include two nutrients: total phosphorus and total nitrogen; and eight metals: total aluminum, total cadmium, total copper, total iron, total lead, total manganese, total mercury and total zinc (Table 5). In addition, several of the indicators have maximum observed historical values (Tables A1 and A2) that are close to, or exceed, the WQL. These indicators will need to be followed carefully as relatively small changes in contaminant loading (natural or anthropogenic) may lead to limit exceedances.

With the exception of total manganese, all of the indicators with historical exceedances were higher than chronic guidelines or chronic criteria for the protection of aquatic life. When guidelines are naturally exceeded within aquatic ecosystems, these indicators are typically present in forms that reduce their toxicity (CCME 1999). In the Athabasca River, this is thought to be associated with high concentrations of suspended particulate matter; however more work is needed to confirm this notion.

For indicators with historical exceedances of guidelines, Alberta Environment and Sustainable Resource Development will evaluate and prioritize the need for investigation and management of these exceedances. Investigation and/or the development of management options may require additional source characterization and water, sediment and biological monitoring to better define or evaluate the issue. If significant human influences are found and are suspected of posing additional, unacceptable risk, indicators with historical exceedances may be assigned to Level 3 and require mandatory management action.

For indicators where no guideline exists or indicators with historical exceedances of guidelines, Alberta Environment and Sustainable Resource Development will evaluate and prioritize the development of acceptable limits. The preferred method for defining acceptable risk is to develop a site-specific guideline using CCME protocols. It should be noted that limits will not be developed for dissolved metals at this time, but trigger exceedances will require follow-up.

A report summarizing conditions at the Old Fort monitoring station will be prepared once the Lower Athabasca Regional Plan is approved. This report will describe the status of each water quality indicator relative to the surface water quality levels described in Table 4.

Table 5: Surface Water Quality Indicators with Historical Conditions in the Athabasca River at the Old Fort Station that Exceed Water Quality Guidelines

Note: Guidelines are total concentrations except copper.

Indicator	Unit	Water Quality Guideline
Aluminum	µg/L	5 or 100 <sup>b,1</sup>
Cadmium	µg/L	Varies with hardness <sup>b,2</sup>
Copper	µg/L	7 <sup>a,3</sup>
Iron	µg/L	300 <sup>b</sup>
Lead	µg/L	Varies with hardness <sup>e,4</sup>
Manganese	µg/L	50 <sup>d</sup>
Mercury	µg/L	0.005 <sup>a,5</sup>
Total Phosphorus	mg/L	0.05 <sup>a</sup>
Total Nitrogen	mg/L	1.00 <sup>a</sup>
Zinc	µg/L	30 <sup>b</sup>

a Alberta Guidelines for the Protection of Freshwater Aquatic Life

b CCME Guidelines for the Protection of Aquatic Life

c CCME Guidelines for the Protection of Agricultural Water Uses

d The Guidelines for Canadian Drinking Water Quality

e US EPA Aquatic Life Criteria

1 5 µg/L if water pH < 6.5, 100 µg/L if water pH ≥ 6.5. See Table A4 for pH values from the Old Fort monitoring station

2 Total cadmium =  $10^{0.86[\log_{10}(\text{hardness})]-3.2}$  µg/L, where hardness is measured in mg/L CaCO<sub>3</sub>. See Table A4 for alkalinity (CaCO<sub>3</sub>) values from the Old Fort monitoring station

3 The Alberta guideline is for acid extractable copper, however it is being applied to total recoverable copper (a more conservative application of the guideline)

4 Total lead CCC =  $e^{1.273(\ln \text{hardness})-4.705}$  µg/L, where hardness is measured in mg/L CaCO<sub>3</sub>. See Table A4 for alkalinity (CaCO<sub>3</sub>) values from the Old Fort monitoring station

5 The Alberta guideline for total mercury is draft.

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## 6.3 Management Response

The terms management response and management action have distinct meanings in the context of this management framework. The management response is a set of steps that will be undertaken (all or in part) if an ambient surface water quality trigger or limit is believed to have been exceeded. Part of the management response is determining the need for management actions.

The management response begins with verifying whether an ambient surface WQT or WQL has been exceeded. Depending on the findings of assessment and investigation, the contributing parties responsible for reaching the ambient surface WQT or WQL may be required to take mitigative management actions. Alberta Environment and Sustainable Resource Development will provide oversight of the management actions, evaluate the effects of implementation, and communicate progress toward meeting regional outcomes.

The framework addresses the cumulative effects of point sources and non-point sources on general and metal indicators. It enables the identification of local and regional contaminant sources that contribute to ambient concentrations reaching WQTs and WQLs, and ensures that appropriate actions are taken when the triggers and limits are exceeded. The intent is to use appropriate place-based measures to address specific circumstances.

It should be noted that this management response does not replace other responses that are taken as part of ensuring compliance under the environmental regulatory system.

Further description of the regional management response follows.



Figure 5  
Management Response



### **6.3.1 Verification**

The monitoring data used to assess ambient surface water quality conditions as part of this framework will be verified by Alberta Environment and Sustainable Resource Development. Verification involves ensuring the integrity of the data. This could include looking at sample collection, sample analysis, data validation, and data reporting and storage. Once the data have been verified, the water quality metrics that will be used to assess ambient conditions relative to triggers and limits will be calculated.

Alberta Environment and Sustainable Resource Development's current ambient surface water quality monitoring program will be augmented to implement this framework. Water quality indicators will be monitored monthly at all three AESRD monitoring stations on the lower Athabasca River: upstream of Fort McMurray, upstream of the Firebag River and at Old Fort. Until sufficient data are available to develop triggers and limits for AESRD's Firebag River monitoring station, reporting on the status of ambient surface water quality triggers and limits in the lower Athabasca River will be based on the water quality data collected from the department's Old Fort monitoring station.

The historical datasets for the general (1988-2009) and trace metals indicators (generally 1999-2009) will be compared against annual monitoring data from the Old Fort monitoring station to identify large-scale changes. Less frequent, longer-term analysis will monitor for subtle trends that may not be evident in a single year of data. Trends within and between levels will be identified and considered.

### **6.3.2 Preliminary Assessment**

Once the ambient surface water quality monitoring data is verified, and indicator annual means, peaks and other metrics are calculated, the results will be assessed against ambient surface WQTs and WQLs (Appendix B). This preliminary assessment determines if a trigger or a limit has been exceeded and evaluates whether an investigation is warranted. Part of this assessment involves ensuring that rare events (e.g., spills) or natural circumstances that cannot be controlled through wastewater management (e.g., high river flows) are understood as part of the annual assessment. This will be accomplished by consulting upstream monitoring data and other supporting information (e.g., meteorological data) to check for potential causes.

Additionally, because WQTs are set very conservatively within historically observed values at the Old Fort monitoring station, false positives (i.e., a trigger is exceeded, but no change has occurred) should be expected. For this reason, Alberta Environment and Sustainable Resource Development may choose not to initiate an investigation until more evidence exists that an undesirable trend is developing.

### **6.3.3 Investigation**

When a WQT or WQL is exceeded and the preliminary assessment confirms the need for an investigation, Alberta Environment and Sustainable Resource Development has a two-phased approach. Relevant stakeholders, First Nations and Métis peoples may be included in the investigation, and parties that are potentially contributing to the problem may be asked to conduct portions of the investigation.

In phase 1, gaps in knowledge and data are identified. Activities are conducted to define and characterize the problem. The results of this characterization are evaluated relative to regional conditions and desired outcomes. Alberta Environment and Sustainable Resource Development will decide whether a more comprehensive, phase 2 investigation is needed or what mitigation actions, if any, are required.

In phase 2, terms of reference are developed for a comprehensive evaluation of risks to human and aquatic ecosystem health. A comprehensive evaluation is conducted and its results are assessed. The investigation determines if mitigation is required.

A management plan and management actions will be required if the phase 2 investigation indicates mitigation is required to avoid an unacceptable risk to the aquatic environment or human health.

### **6.3.4 Mitigative Management Actions**

Mitigation includes any action that is needed due to changes, or trends, in surface water quality conditions that are deemed unacceptable. Changes from existing conditions will be carefully monitored and impairment of water uses will be avoided by the use of WQTs (Level 2) and by managing indicators so that they do not reach the WQL and enter Level 3.

The intent of mitigative management action is to halt the problem, set a goal and manage the problem until that goal is met. Before determining whether mitigative management action is needed, Alberta Environment and Sustainable Resource Development will determine if other management frameworks have been triggered, or if other initiatives are taking steps to address the issue. Mitigative management actions may require amendments to existing approvals. These amendments would be made in accordance with existing authority under the *Environmental Protection and Enhancement Act* including Director-initiated amendments to monitoring or reporting requirements, or amendments arising from unforeseeable effects.

Alberta Environment and Sustainable Resource Development will determine which stakeholders will be involved in the mitigative actions and what aspects of the process they will be responsible for (e.g., monitoring, data analysis, modelling and/or technology assessment). Alberta Environment and Sustainable Resource Development will be responsible for all key decisions about mitigative management actions and will retain overall accountability for the effectiveness of the action.

#### **6.3.4.1 Level 1**

When ambient water quality conditions are at Level 1, water quality is within historically observed conditions (i.e., mean and peak values at or better than the mean or peak historical conditions). There should be little to no risk of detectable impacts to water quality or the aquatic environment.

When water quality conditions are at Level 1, management for Alberta Environment and Sustainable Resource Development includes operation of the existing regulatory system and conducting ambient water quality monitoring and reporting. For regulated parties, the expectation is that they are operating within the terms of their approvals and licences, and are applying all existing water, wastewater and aquatic ecosystem policies. Regulated parties are expected to participate in regional monitoring and management activities.

#### **6.3.4.2 Level 2**

When monitoring indicates that water quality is shifting away from mean and/or peak historical conditions, Level 2 is triggered. Level 2 conditions are statistically defined to act as early warning triggers and do not necessarily signal additional environmental risk, as they are not based on ecological risk criteria. Therefore, impacts to the aquatic environment are likely negligible to low.

WQTs are set very conservatively at historically observed values at the Old Fort monitoring station, therefore not all trigger exceedances signal real or meaningful change. Significant new changes to contaminant loading to the lower Athabasca River would be needed to trigger real changes in many of the water quality indicators at the Old Fort monitoring site. Exceptions to this rule include indicators that have maximum observed historical values (Tables A1 and A2) that are close to, or exceed, the WQL set out in this framework.

Level 2 management actions may be required when ambient water quality monitoring indicates WQTs have been exceeded and an undesirable trend is developing. Level 2 management actions may involve increased surveillance monitoring (of water, sediment and biota), additional modelling, and trend assessment. Where an undesirable trend in an indicator is predicted to continue rather than stabilize, management options will be reviewed to ensure limits are not used as “pollute up to” numbers.

Level 2 management actions may also be required when water quality modelling indicates WQTs will be exceeded. When Level 2 conditions are triggered in this context (e.g., based on information from environmental impact assessment or in support of an application to release substances to the lower Athabasca River), additional effort such as increased monitoring or toxicity evaluation may be required to reduce uncertainty in model outcomes and/or in assessing the cumulative environmental risk.

#### **6.3.4.3 Level 3**

Level 3 conditions occur when an indicator exceeds a WQL at the Old Fort monitoring station and human sources are thought to pose additional, unacceptable risk to ecosystem or human uses. While it is expected that anthropogenic WQL exceedances will be avoided through the use of WQTs and good wasteload management, should an exceedance occur, mandatory management actions will be required.

WQL exceedances will most often require a phase 2 investigation and/or mitigation actions that may, for example, include wastewater loading restrictions and more stringent wastewater treatment or performance standards.

In addition to existing policy guiding regulatory decisions, if modelling through the environmental impact assessment process or in support of an application to release wastewater to the lower Athabasca River indicates that an ambient WQL will be exceeded at the Old Fort monitoring station, the proposed wastewater release will not be permitted without appropriate mitigation.

#### **6.3.5 Evaluation and Communication**

Alberta Environment and Sustainable Resource Development will use annual evaluations under this framework and other means to assess, over time, if required management actions are achieving the anticipated results.

In addition, the department will prepare an annual report that will summarize the status of ambient surface water quality conditions relative to both WQTs and WQLs and describe activities initiated as part of the management response. The report may also integrate relevant water quantity and groundwater monitoring results, identify gaps in data, knowledge and monitoring, report on progress in implementing the framework, and provide recommendations for improvements. This report will be posted on the Government of Alberta's website.

Public access to ambient water quality monitoring data is available through the Alberta Environment and Sustainable Resource Development website. The LTRN data is used to determine ambient surface water quality levels within the lower Athabasca River at Old Fort.



Implementation details, including timelines and allocation of resources, will be determined when the *Lower Athabasca Regional Plan* has been approved by Cabinet and this framework is considered final.

Implementation planning will include the following:

- An inventory of tasks that must be done to meet the requirements of the framework for the lower Athabasca River including at a minimum: identification and development of system components such as monitoring, modelling, evaluation and reporting; a protocol for periodic trend assessment; management response expectations; reporting processes and communication plans for ambient water quality and management responses activated by the framework; evaluation and prioritization of management options for historical exceedances; and evaluation and prioritization of limit development for indicators without appropriate limits.
- Confirmation of roles and responsibilities of government and other parties for implementation of the framework and an assessment of resources needed to fulfill the tasks and commitments of the framework, including human resources and any missing data requirements.
- Ongoing evaluation of the framework's alignment with other policies and initiatives (e.g., other Lower Athabasca Region management frameworks, provincial policies) to ensure consistency of management intent and process.
- Ongoing evaluation of progress towards incorporating the Athabasca River upstream of the Firebag River monitoring station into the framework, as well as progress towards developing indicators for NAs and PAHs for both the Old Fort and upstream of the Firebag River monitoring stations.
- A timeline for implementation including key milestones and their target dates for completion.

## 7.1 Roles and Responsibilities

Alberta Environment and Sustainable Resource Development, environmental and community associations, and regulated parties (i.e., *Environmental Protection and Enhancement Act* and *Water Act* approval holders and licencees) all have responsibilities related to managing wastewater releases and ambient surface water quality. These roles and responsibilities are described only briefly in the context of the framework, so should not be regarded as an exhaustive list.

### **7.1.1 Alberta Environment and Sustainable Resource Development**

Alberta Environment and Sustainable Resource Development is responsible for ensuring the framework is implemented, but engagement of stakeholders remains key to the overall management intent. The department also:

- is responsible for managing the data used in the annual ambient surface water quality assessment
- is responsible for the annual review and assessment of water quality data to determine ambient water quality levels at the Old Fort monitoring station
- is responsible for initiating a management response when required based on the assessment of data and other approaches such as forecasting future development (e.g., spatial, temporal)
- identifies stakeholders, First Nations and Métis peoples roles, and considers their inclusion in management planning and actions. If a multi-stakeholder process is desirable, the use of established multi-stakeholder groups (such as CEMA and VBEA) will be considered
- assesses management actions implemented through other frameworks or initiatives to determine impacts on ambient water quality
- defines timelines and selects or recommends management approaches and tools, if required, to manage ambient water quality
- communicates to stakeholders the implementation status and selected management actions.

### **7.1.2 Regulated Parties and Proponents**

Regulated parties and project proponents include a variety of players including industry, municipalities and communities. As a result, there may be roles for all levels of government and government agencies within surface water quality management. Roles and responsibilities for regulated parties and proponents with respect to the framework include:

- participating in regional water quality and aquatic ecosystem monitoring (e.g., RAMP)
- providing wastewater characterization, storage and release information to the department when requested
- modelling and assessing how current and planned operations influence local and regional ambient water quality
- participating in ambient water quality management action, if identified (e.g., development of plans or implementation of reductions)
- reporting on progress of implementation of management actions, as required.

This management framework is part of a series of management frameworks developed by Alberta Environment and Sustainable Resource Development for the Government of Alberta's *Lower Athabasca Regional Plan*. As the regional plan is implemented, all of the outcomes and objectives in it, including those for air, surface water and groundwater, will be considered in planning and decision-making for the region by all provincial government departments and municipal governments. This will help to drive integration across environmental media.

### **Surface Water Quality and Water Quantity**

As noted earlier, comprehensive management of the region's surface water resources will require the careful, integrated management of three linked ecosystem components: water quality, water quantity and the aquatic environment (species and habitat). In time, the intention is for management of all of these components to be integrated for the Lower Athabasca Region. Continuing work in the region will include a renewed surface water quantity management framework for the lower Athabasca River and the development of a management framework for biodiversity, including biodiversity of aquatic ecosystems. There are challenges to making integration happen; however, development of these additional management frameworks and advances in knowledge, understanding and analytical tools will support these efforts moving forward.

### **Surface Water and Groundwater**

A second critical point of integration is between surface water management and groundwater management. Implementation of the *Groundwater Management Framework* and the *Surface Water Quality Management Framework* will support better understanding of these components of our environment and the interaction of impacts on both. Other frameworks will also contribute as they are completed. For this reason, integrating, as much as possible, all monitoring, evaluation and reporting for surface water with groundwater will help to address the challenges of managing the interaction between surface water and groundwater.



# 9.0

## Terminology

### 9.1 Abbreviations and Acronyms

Abbreviation/Acronym	Description
AESRD	Alberta Environment and Sustainable Resource Development
AENV	Alberta Environment
AEP	Alberta Environmental Protection
ARWQI	Alberta River Water Quality Index
CCME	Canadian Council of Ministers of the Environment
CEMA	Cumulative Environmental Management Association
HC	Health Canada
LTRN	Long-term River Network
NA	Naphthenic Acid
mg/L	Milligrams per Litre
PAH	Polycyclic Aromatic Hydrocarbon
RAMP	Regional Aquatics Monitoring Program
TSS	Total Suspended Solids
µg/L	Micrograms per Litre
U.S. EPA	United States Environmental Protection Agency
WQT	Water Quality Trigger
WQL	Water Quality Limit



## 9.2 Glossary


<b>Aquatic Ecosystem</b> .....	For the purposes of this framework, “aquatic ecosystem” is synonymous with the definition of “aquatic environment” under the <i>Water Act</i> : “the components of the earth related to, living in or located in or on water or the beds or the shores of a water body, including but not limited to: 1. all organic and inorganic matter, and 2. living organisms and their habitat, including fish habitat, and their interacting natural systems”. <sup>a</sup>
<b>Contaminant / Pollutant</b> .....	A substance in a concentration or amount that adversely alters the physical, chemical, or biological properties of the natural environment. <sup>b</sup> (adapted from)
<b>Ecosystem Health</b> .....	A healthy aquatic ecosystem is an aquatic environment that sustains its ecological structure, processes, functions, and resilience within its range of natural variability. <sup>c</sup>
<b>Non-point Source Pollutant</b> .....	Pollution that enters a water body from diffuse or undefined sources and is usually carried by runoff. <sup>b</sup> (adapted from)
<b>Point Source Pollutant</b> .....	Pollution that originates from an identifiable cause or location, such as a sewage treatment plant. <sup>d</sup>
<b>Substance</b> .....	For the purposes of this framework, a “substance” is defined as: (i) any matter that: (A) is capable of becoming dispersed in the environment, or (B) is capable of becoming transformed in the environment into matter referred to in (A), (ii) any sound, vibration, heat, radiation or other form of energy, and (iii) any combination of things referred to in (i) and (ii).
<b>Toxicity</b> .....	The adverse effect on the growth, reproduction, or survival of an organism.
<b>Wastewater</b> .....	The liquid waste generated through various industrial and municipal processes.

### Sources:

- a *Water Act* RSA 2000 cW-3.
- b AENV (2008). Glossary of Terms Related to Water and Watershed Management in Alberta.
- c Alberta Water Council: Healthy Aquatic Ecosystems Working Group.
- d AENV (2003). *Water for Life: Alberta's Strategy for Sustainability*.

# 10.0

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Please note that in May 2012, the Government of Alberta brought together the ministries of Environment and Water and Sustainable Resource Development to create one ministry called Alberta Environment and Sustainable Resource Development.

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# 11.0

## Appendices

### Appendix A

Table A1: Summary Statistics for Surface Water Quality Triggers for the Athabasca River at Old Fort – General Indicators

Note: All values are in mg/L; n = sample size, P = percentile, SD = standard deviation.

General Indicator	n	Max	Min	Median	Mean	99.9 <sup>th</sup> P	99 <sup>th</sup> P	95 <sup>th</sup> P	Variance	SD
Calcium (Ca <sup>2+</sup> )	235	54.8	19.1	33.7	34.7	54.8	52.4	48.9	63.2	8.0
Chloride (Cl <sup>-</sup> )	235	64.2	1.2	17.1	20.2	63.9	61.0	45.0	195.6	14.0
Magnesium (Mg <sup>+</sup> )	235	15.7	4.59	9.6	9.5	15.6	14.3	13.7	5.7	2.4
Potassium (K <sup>+</sup> )	235	8.2	0.15	1.3	1.4	7.2	2.9	2.1	0.4	0.6
Sodium (Na <sup>+</sup> )	235	51.4	4.6	19.4	21.5	51.0	48.2	43.7	138.2	11.8
Sulphate (SO <sub>4</sub> <sup>-</sup> )	235	53.9	0.3	25.6	26.7	52.4	47.2	41.4	91.2	9.5
Total Dissolved Phosphorous (TDP)	228	0.096	0.002	0.013	0.016	0.091	0.067	0.032	0.000	0.012
Total Phosphorous (TP)	231	0.370	0.013	0.042	0.074	0.369	0.336	0.261	0.005	0.072
Nitrate (NO <sub>3</sub> -N)	118	0.630	0.002	0.052	0.092	0.597	0.340	0.264	0.011	0.105
Total Ammonia (NH <sub>3</sub> +4-N)	229	1.00	0.01	0.03	0.05	0.84	0.20	0.12	0.01	0.08
Total Nitrogen (TN)	231	1.931	0.034	0.568	0.597	1.785	1.207	1.041	0.060	0.246



Table A2: Summary Statistics for Surface Water Quality Triggers for the Athabasca River at Old Fort - Metals

Note: All values are in  $\mu\text{g/L}$ ; T = total, D = dissolved; n = sample size, P = percentile, SD = standard deviation.

Metal Indicator	n	Max	Min	Median	Mean	99.9 <sup>th</sup> P	99 <sup>th</sup> P	95 <sup>th</sup> P	Variance	SD
Aluminum D	49	98	2	9	16	97	81	49	312	18
Aluminum T	54	8220	8	586	1533	8196	7976	6454	4507322	2123
Antimony D	34	0.459	0.007	0.092	0.107	0.451	0.376	0.202	0.006	0.078
Antimony T	39	0.725	0.050	0.100	0.148	0.715	0.626	0.388	0.019	0.137
Arsenic D	49	1.1	0.1	0.5	0.5	1.1	0.9	0.7	0	0.2
Arsenic T	52	5.0	0.1	0.8	1.1	4.9	3.8	2.5	0.7	0.9
Barium D	49	268.0	33.1	45.1	52.6	259.3	180.8	73.7	1103.1	33.2
Barium T	52	269.0	43.1	67.1	79.3	264.2	220.6	147.6	1521.4	39.0
Beryllium T	33	0.277	0.002	0.030	0.077	0.277	0.276	0.269	0.008	0.087
Bismuth T	35	0.0628	0.0005	0.0107	0.0172	0.0628	0.0628	0.0564	0.0003	0.0168
Boron D	49	60	5	25	26	59	50	40	93	10
Boron T	52	848	5	30	48	810	472	69	13045	114
Cadmium D	34	1.0200	0.0050	0.0269	0.0997	1.0188	1.0078	0.5150	0.0547	0.2339
Cadmium T	52	2.6	0.0	0.1	0.3	2.6	2.3	1.2	0.2	0.5
Chromium D	34	0.69	0.02	0.40	0.41	0.69	0.68	0.65	0.03	0.17
Chromium T	53	10	0	2	3	10	10	8	7	3
Cobalt D	34	0.11	0.02	0.07	0.07	0.11	0.11	0.11	0.00	0.02
Cobalt T	52	3.1	0.0	0.5	0.8	3.1	2.9	2.2	0.5	0.7
Copper D	48	5.8	0.1	1.3	1.6	5.8	5.6	3.6	1.4	1.2
Copper T	53	11.7	0.1	2.4	3.1	11.5	9.9	7.2	5	2.2
Iron D	120	1600	5	160	185	1500	724	372	30045	173
Iron T	54	9630	13	881	1899	9477	8104	5821	4018346	2005
Lead D	49	18.50	0.00	0.15	0.56	17.67	10.21	0.56	6.88	2.62
Lead T	54	71.0	0.1	1.1	3.3	68.6	47.3	7.0	102.3	10.1

Metal Indicator	n	Max	Min	Median	Mean	99.9 <sup>th</sup> P	99 <sup>th</sup> P	95 <sup>th</sup> P	Variance	SD
Lithium D	49	11	2	6	6	11	10	9	4	2
Lithium T	51	54	2	8	9	53	44	12	59	8
Manganese D	120	59	1	6	12	58	53	36	175	13
Manganese T	54	295	22	47	65	288	225	141	2134	46
Mercury T	34	0.0197	0.0003	0.0030	0.0051	0.0196	0.0191	0.0159	0.0000	0.0054
Molybdenum D	49	2.6	0.1	0.6	0.7	2.5	2.1	1.2	0.1	0.4
Molybdenum T	52	4.6	0.3	0.7	0.9	4.5	3.9	1.6	0.5	0.7
Nickel D	49	9.7	0.0	0.9	1.6	9.7	9.4	4.7	3.7	1.9
Nickel T	52	11.5	0.0	2.2	3.4	11.5	11	8.2	8.5	2.9
Selenium D	34	1.200	0.020	0.199	0.229	1.176	0.963	0.409	0.037	0.194
Selenium T	35	0.9	0.050	0.282	0.333	0.889	0.792	0.581	0.026	0.161
Silver T	35	0.1350	0.0003	0.0136	0.0243	0.1329	0.1136	0.0677	0.0008	0.0286
Strontium D	49	437	103	196	215	434	408	361	5688	75
Strontium T	51	538	110	205	225	533	488	361	6937	83
Thallium D	34	0.2700	0.0002	0.006	0.0238	0.2657	0.2268	0.1137	0.0028	0.0525
Thallium T	35	0.2700	0.0002	0.0297	0.0546	0.2696	0.2656	0.1751	0.0044	0.0662
Thorium D	34	0.1200	0.0015	0.0169	0.0284	0.1193	0.1134	0.0942	0.0008	0.0289
Thorium T	35	1.77	0.01	0.15	0.35	1.76	1.66	1.44	0.22	0.47
Titanium D	49	11	1	1	2	11	11	7	6	2
Titanium T	51	150	1	14	30	149	140	104	1282	36
Uranium D	34	0.455	0.217	0.325	0.313	0.453	0.431	0.381	0.003	0.058
Uranium T	52	0.8	0.2	0.4	0.4	0.8	0.8	0.7	0.0	0.1
Vanadium D	34	0.702	0.230	0.443	0.450	0.702	0.701	0.698	0.018	0.135
Vanadium T	52	18	0	3	4	18	17	16	24	5
Zinc D	47	19.6	0.8	3.0	4.5	19.5	18.3	12.4	16.7	4.1
Zinc T	46	45.6	2.1	9.7	12.3	44.9	38.9	25.6	85.5	9.2

Table A3: Temperature and pH-dependent Values of the CCC (chronic criterion) for Ammonia for Fish Early Life Stages Present

**CCC for Ammonia for Fish Early Life Stages Present (mg N/L)**

pH	Temperature (°C)									
	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.8	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.5	3.07	2.7	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.3	3.78	3.32	2.92	2.57	2.25
7	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.5	3.08	2.7	2.38	2.09
7.2	5.39	5.39	4.9	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.3	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.9	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.5	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.8	2.8	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8	2.43	2.43	2.21	1.94	1.71	1.5	1.32	1.16	1.02	0.897
8.1	2.1	2.1	1.91	1.68	1.47	1.29	1.14	1	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.7	0.615	0.541	0.475
8.5	1.09	1.09	0.99	0.87	0.765	0.672	0.591	0.52	0.457	0.401
8.6	0.92	0.92	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.48	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9	0.486	0.486	0.442	0.389	0.342	0.3	0.264	0.232	0.204	0.179

Source: U.S. EPA 1999 Update of Ambient Water Quality Criteria for Ammonia



Table A4: Summary Statistics for Toxicity Modifying Factors from the Athabasca River at Old Fort Monitoring Station

Note: *n* = sample size, *P* = percentile, *SD* = standard deviation.

Modifying Factor	<i>n</i>	Max	Min	Median	Mean	99.9 <sup>th</sup> P	99 <sup>th</sup> P	95 <sup>th</sup> P	Variance	SD
Alkalinity (CaCO <sub>3</sub> mg/L)	235	185.0	65.1	114.0	116.7	184.1	169.3	159.6	708.3	26.6
Field pH (pH units)	131	9.32	6.06	7.80	7.76	9.25	8.76	8.35	0.20	0.45
Water Temperature (°C)	190	23.5	-0.3	1.0	6.9	23.4	22.6	20.5	64.2	8.0

## Appendix B

### Annual Evaluation of Surface Water Quality Triggers and Limits

The primary purpose of the *Lower Athabasca Region Surface Water Quality Management Framework* is to monitor and manage cumulative, long-term changes in water quality at the Old Fort monitoring station. This type of change is best evaluated through periodic trend assessment, where monitoring data collected over multiple years is examined statistically. Periodic trend assessments will be conducted regularly as part of implementing the *Framework*, yet there is also a need for more frequent, transparent evaluation and reporting on the annual monitoring data collected as part of this *Framework*.

There is considerable value in evaluating the data collected at the Old Fort monitoring station annually, so that changes in water quality are detected early and the source of these changes are understood and acted upon where appropriate. Nevertheless, there are challenges associated with conducting annual evaluations given the limited amount of annual water quality data (i.e., monthly samples) supporting the evaluation, and given that the data are affected by variability in both natural conditions and human activities.

The annual evaluation of water quality data from the Old Fort monitoring station aims to balance the goal of early detection of water quality changes with the desire to avoid unnecessary effort and the costs associated with false positives (i.e., concluding there is a change in a water quality indicator when in fact there is not). For this reason, statistical approaches that reduce the likelihood of false positives and maximize the use of the monitoring data will be used to evaluate changes, where possible. To ensure this balance and to assess a variety of operational and technical considerations, it will be important to review the methodologies used to evaluate changes in water quality indicators regularly.

### Surface Water Quality Triggers

The purpose of assessing the surface water quality triggers annually is to evaluate whether changes are occurring that may be shifting water quality to a less desirable state. The triggers are coarse metrics intended to detect changes in the distribution of the monitoring data including shifts in central tendency (mean triggers) and changes in the frequency of observed extreme values (peak triggers).



### **How will trigger exceedances be assessed?**

Mean triggers are calculated as the arithmetic mean of all historical observations for a given indicator (measured at Old Fort). Annual assessment of changes from historical mean triggers (Tables 2 and 3) will be evaluated by conducting Welch's two sample t-tests when annual means are higher (or in the case of calcium and magnesium are higher or lower) than mean triggers. The intent is to test the null hypothesis that the annual mean is not different from the historical mean for that indicator. A mean trigger will have been exceeded<sup>1</sup> if a statistically significant difference is found to have occurred in a direction of concern.

Because water quality data are often non-normally distributed and have outliers that can affect the outcome of parametric comparisons, nonparametric comparisons such as the Wilcoxin-Mann-Whitney test will also be conducted to cross-check results. Differences in results between these two types of statistical tests will be carefully examined and will provide additional context for the annual evaluation.

Peak triggers (Tables 2 and 3) are calculated as the 95<sup>th</sup> percentile of all the historical observations measured for a given indicator. Annual assessment of changes from the historical 95<sup>th</sup> percentile will be evaluated using the Binomial test when one or more samples are higher than a peak trigger. The intent is to test the null hypothesis that the frequency of new, annual observations exceeding the historical 95<sup>th</sup> percentile does not exceed 5% (the expected frequency given no change). A peak trigger will have been exceeded if the results of the Binomial test are found to be statistically significant.

### **Surface Water Quality Limits**

The purpose of assessing the surface water quality limits annually is to evaluate whether water uses are being protected. The limits are derived from provincially-accepted water quality guidelines and represent conditions where the risk of adverse effects is heightened (Tables 2 and 3). Mandatory management action will be required where an exceedance is found to be the result of human contributions and those contributions are suspected of posing additional, unacceptable risk to human or ecosystem health.

### **How will limit exceedances be assessed?**

A limit will have been exceeded if the annual mean (i.e., average conditions) for a given water quality indicator exceeds the surface water quality limit for that indicator. For water quality indicators where the limit is calculated using toxicity modifying factors (i.e., total ammonia and total nickel), a limit exceedance will have occurred if more than 50% of the monthly samples exceed the limit within a given year. Because Alberta Environment and Sustainable Resource Development is also interested in trends in guideline exceedances that may not result in limit exceedances (for example a recurring guideline exceedance during freshet), annual evaluations and periodic trend assessment will aim to identify these types of emerging patterns as well.

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<sup>1</sup> In the case of calcium and magnesium indicators, either statistically significant increases or decreases are a concern.

# **ENVIRONMENTAL PROTECTION AND ENHANCEMENT ACT**

## **Chapter E-12**

### *Table of Contents*

- 1 Definitions
- 2 Purpose of Act
- 2.1 Application of REDA
- 3 Crown is bound
- 3.1 ALSA regional plans

### **Part 1 Administration**

#### **Consultation, Communication and Education**

- 4 Advisory committees, experts
- 5 Sustainable Development Co-ordinating Council
- 6 Purpose of Co-ordinating Council
- 7 Members of Co-ordinating Council
- 8 Rules of operation
- 9 Quorum
- 10 Committees
- 11 Health issues
- 12 Powers and duties of Minister
- 13 Economic instruments
- 14 Development of guidelines and objectives
- 15 State of the environment reporting

#### **General Administrative Matters**

- 16 Administration of Act
- 17 Delegation
- 18 Transfer of administration
- 19 Agreements
- 20 Emergency response plan
- 21 Agreements with land owners

consideration under the environmental assessment process, that Director may refer the proponent or the proposed activity to the Director who is designated for the purposes of sections 43 to 56 so that the proposed activity may be dealt with under section 44.

1992 cE-13.3 s39

**Definition**

**42** In sections 43 to 56, "Director" means the Director who is designated for the purposes of those sections.

1992 cE-13.3 s40

**Director's power to require environmental assessment**

**43** Where the Director is of the opinion that the potential environmental impacts of a proposed activity warrant further consideration under the environmental assessment process, the Director may by notice in writing to the proponent advise the proponent that the proposed activity must be dealt with under section 44.

1992 cE-13.3 s41

**Initial review by Director**

**44(1)** Where a proponent or a proposed activity is referred to the Director under section 41, where the Director gives a notice under section 43 or where a proponent on the proponent's own initiative consults with the Director in respect of the application of this Division to a proposed activity, the Director shall,

- (a) if the proposed activity is a mandatory activity, direct the proponent by order in writing to prepare and submit an environmental impact assessment report in accordance with this Division, or
- (b) if the proposed activity is not a mandatory activity,
  - (i) make a decision that the potential environmental impacts of the proposed activity warrant further consideration under the environmental assessment process and require that further assessment of the proposed activity be undertaken, or
  - (ii) make a decision that further assessment of the proposed activity is not required and, if it is an activity for which an approval or registration is required, advise the proponent that it may apply for the approval or registration.

**(2)** The Director may require a proponent to submit a disclosure document in the form and containing the information required by the Director to assist the Director in making a decision under subsection (1)(b).

(3) In making a decision under subsection (1)(b), the Director shall consider the following:

- (a) the location, size and nature of the proposed activity;
- (b) the complexity of the proposed activity and the technology to be employed in it;
- (c) any concerns in respect of the proposed activity that have been expressed by the public of which the Director is aware;
- (d) the presence of other similar activities in the same general area;
- (e) any other criteria established in the regulations;
- (f) any other factors the Director considers to be relevant.

(4) The Director shall notify the proponent

- (a) in writing of a decision made under subsection (1)(b)(i), and
- (b) orally or in writing of a decision made under subsection (1)(b)(ii).

(5) The proponent shall provide notice of a decision of the Director under subsection (1)(b)(i) in accordance with the regulations.

(6) Any person who is directly affected by a proposed activity that is the subject of a decision of the Director under subsection (1)(b)(i) may, within 30 days after the last notice under subsection (5) or within any longer period allowed by the Director in the notice, submit a written statement of concern to the Director setting out the person's concerns with respect to the proposed activity.

1992 cE-13.3 s42;1994 c15 s19;1996 c17 s55

**Whether environmental impact assessment report required**

**45(1)** Where the Director decides under section 44(1)(b)(i) that further assessment of a proposed activity is required, the Director shall, in accordance with the regulations,

- (a) prepare a screening report regarding the need for the preparation of an environmental impact assessment report, and
- (b) decide whether preparation of an environmental impact assessment report is required.

(2) The Director shall make the screening report available in accordance with the regulations.



(3) Where the Director decides under subsection (1) that preparation of an environmental impact assessment report is not required, the Director

- (a) shall advise the proponent of that fact,
- (b) if the activity is one for which an approval or registration is required, shall advise the proponent that it may apply for the approval or registration, and
- (c) may refer any information on the potential environmental impacts of the proposed activity to the Director responsible for issuing the approval or registration.

(4) Where the Director decides under subsection (1) that preparation of an environmental impact assessment report is required, the Director shall by order in writing direct the proponent to prepare and submit the report in accordance with this Division.

(5) The Director shall provide notice of the Director's decision regarding preparation of an environmental impact assessment report under subsection (1)(b) in accordance with the regulations.

1992 cE-13.3 s43;1994 c15 s20;1996 c17 s55

#### **Effect of statement of concern**

**46** The Director shall, in accordance with the regulations, give due consideration to all statements of concern that have been submitted and shall not make a decision under section 45(1)(b) until the applicable period referred to in section 44(6) has expired.

1992 cE-13.3 s44

#### **Minister may order environmental impact assessment report**

**47** If the Minister is of the opinion that an environmental impact assessment report is necessary because of the nature of a proposed activity, the Minister may by order in writing direct the proponent to prepare and submit the report in accordance with this Division, notwithstanding that

- (a) the Director has not ordered an environmental impact assessment report, or
- (b) the proposed activity is the subject of an exemption under regulations under section 59(b).

1992 cE-13.3 s45

#### **Terms of reference**

**48(1)** Where a proponent is required to prepare an environmental impact assessment report, the proponent shall prepare proposed terms of reference for the preparation of the report in accordance with requirements specified by the Director and shall submit the proposed terms of reference to the Director.

(2) The proponent shall provide notice of the proposed terms of reference and make them available in accordance with the regulations.

(3) After allowing what the Director considers to be a reasonable time for the receipt of comments in respect of the proposed terms of reference, and after giving due consideration to those comments, the Director shall issue final terms of reference for the preparation of the report to the proponent.

(4) The Director shall make the final terms of reference available in accordance with the regulations.

1992 cE-13.3 s46

#### **Contents of environmental impact assessment report**

**49** An environmental impact assessment report must be prepared in accordance with the final terms of reference issued by the Director under section 48(3) and shall include the following information unless the Director provides otherwise:

- (a) a description of the proposed activity and an analysis of the need for the activity;
- (b) an analysis of the site selection procedure for the proposed activity, including a statement of the reasons why the proposed site was chosen and a consideration of alternative sites;
- (c) an identification of existing baseline environmental conditions and areas of major concern that should be considered;
- (d) a description of potential positive and negative environmental, social, economic and cultural impacts of the proposed activity, including cumulative, regional, temporal and spatial considerations;
- (e) an analysis of the significance of the potential impacts identified under clause (d);
- (f) the plans that have been or will be developed to mitigate the potential negative impacts identified under clause (d);
- (g) an identification of issues related to human health that should be considered;
- (h) a consideration of the alternatives to the proposed activity, including the alternative of not proceeding with the proposed activity;

- (i) the plans that have been or will be developed to monitor environmental impacts that are predicted to occur and the plans that have been or will be developed to monitor proposed mitigation measures;
- (j) the contingency plans that have been or will be developed in order to respond to unpredicted negative impacts;
- (k) the plans that have been or will be developed for waste minimization and recycling;
- (l) the manner in which the proponent intends to implement a program of public consultation in respect of the undertaking of the proposed activity and to present the results of that program;
- (m) the plans that have been or will be developed to minimize the production or the release into the environment of substances that may have an adverse effect;
- (n) the final terms of reference issued by the Director under section 48(3);
- (o) any other information that the Director considers necessary to assess the proposed activity.

1992 cE-13.3 s47

**Submission of report**

**50** The proponent shall submit the environmental impact assessment report to the Director for review.

1992 cE-13.3 s48

**Provision of further information**

**51** The Director may, at any time after receipt of an environmental impact assessment report under section 50, require the proponent to submit to the Director any additional information respecting the proposed activity that the Director considers necessary for the review of the proposed activity.

1992 cE-13.3 s49

**Publication of environmental impact assessment report**

**52** The Director shall require the proponent to publish the environmental impact assessment report and otherwise make it available in accordance with the regulations.

1992 cE-13.3 s50

**Powers of Director**

**53** Where in the opinion of the Director an environmental impact assessment report is complete, the Director shall

- (a) advise the Alberta Energy Regulator or the Alberta Utilities Commission, as the case may be, that the report is complete, in a case where the proposed activity is one in respect of which the approval of the Alberta Energy Regulator or the Alberta Utilities Commission, as the case may be, is required,
- (b) advise the Natural Resources Conservation Board that the report is complete, in a case where the proposed activity is a reviewable project within the meaning of the *Natural Resources Conservation Board Act*, or
- (c) in any other case, submit the environmental impact assessment report to the Minister together with any further information and any recommendations that the Director considers appropriate.

RSA 2000 cE-12 s53;2007 cA-37.2 s82(6);2012 cR-17.3 s88

#### **Powers of Minister**

**54(1)** Subject to section 64(1), where the Director submits an environmental assessment report to the Minister and the proposed activity is one in respect of which

- (a) an approval or registration, or an amendment to an approval or registration, or
- (b) an approval or licence or an amendment to an approval or licence under the *Water Act*

is required, the Minister may advise the proponent that the proponent may apply for the appropriate approval, registration, licence or amendment.

**(2)** Notwithstanding anything in this Act, the Minister may refer a proposed activity to the Lieutenant Governor in Council with the recommendation that the Lieutenant Governor in Council make an order prescribing the proposed activity as a reviewable project within the meaning of the *Natural Resources Conservation Board Act*.

1992 cE-13.3 s52;1996 cW-3.5 s175;1996 c17 s55

#### **Additional powers of Minister**

**55** Where the Director submits an environmental impact assessment report to the Minister, the Minister may make any recommendations in respect of the proposed activity that the Minister considers necessary to any person, the Government, a Government agency, a government of another jurisdiction or an agency of that government that may be dealing with the proposed activity.

1992 cE-13.3 s53;1994 c15 s21



(no amdt)

**ALBERTA REGULATION 179/2011**

**Alberta Land Stewardship Act**

**ALBERTA LAND STEWARDSHIP REGULATION**

*Table of Contents*

- 1 Definition
- 2 Application of Regulation
- 3 Interpretation bulletins
- 4 Service of notice of conservation directive

**Part 1**

**Requests for Review of Regional Plan**

- 5 Interpretation
- 6 Panel
- 7 Making an application
- 8 Delivery of application
- 9 Forwarding application to panel
- 10 Rules respecting conduct of review
- 11 Availability of applications and reports

**Part 2**

**Variances in Respect of Regional Plan**

- 12 Definitions
- 13 Form of application
- 14 Delivery of application
- 15 Combining applications
- 16 Application temporarily suspends operation of a restriction,  
limitation or requirement
- 17 Additional information
- 18 Advisory panel
- 19 Decision
- 20 Withdrawal of application
- 21 Variance order
- 22 Availability of applications and variance orders

**Part 3**

**Regional Plan Compensation**

- 23 Definitions

bulletins on the interpretation, application, compliance, non-compliance and intended purpose, application or implementation of a regional plan.

(2) An interpretation bulletin must indicate whether it is to be binding or advisory.

(3) An interpretation bulletin that is to be binding must be approved by the Lieutenant Governor in Council.

(4) An interpretation bulletin that is binding has the same effect as if it had been included in a regional plan.

#### **Service of notice of conservation directive**

**4(1)** In this section, “certificate of title” means the record of the title to land that is maintained by the Registrar of Titles.

(2) A notice of a conservation directive may also be served by sending the notice by registered mail or courier,

- (a) in the case of Crown land, to the title holder at the last address shown for that person on the records of the department administering the land, or
- (b) in the case of land that is neither Crown land nor settlement patented land, to the title holder at the last address shown for that person on the certificate of title.

## **Part 1 Requests for Review of Regional Plan**

### **Interpretation**

**5(1)** In this Part,

- (a) “applicant” means a person who has made a request for a review of a regional plan or an amendment to a regional plan under section 19.2 of the Act;
- (b) “application” means a request for review of a regional plan or an amendment to a regional plan;
- (c) “directly and adversely affected”, in respect of a person with regard to a regional plan, means that there is a reasonable probability that a person’s health, property, income or quiet enjoyment of property, or some combination of them, is being or will be more than minimally harmed by the regional plan;

- (d) “panel” means a panel referred to in section 6(1)(a) or a board or other body referred to in section 6(1)(b) when it is acting as a panel under this Regulation.

(2) A reference in this Part to review of a regional plan includes review of an amendment to a regional plan.

#### **Panel**

**6(1)** On receiving an application, the Stewardship Minister may, for the purpose of the conducting of a review of a regional plan in accordance with section 9,

- (a) appoint members to a panel, or
- (b) refer the request for review to a board or other body established under another enactment if the Stewardship Minister considers that the board or other body has suitable expertise and resources.

(2) The Stewardship Minister may, with respect to a panel referred to in subsection (1)(a),

- (a) prescribe the terms of office of its members,
- (b) designate a chair,
- (c) authorize, fix or provide for the payment of expenses to its members and remuneration to its members who are not employees of the Government, and
- (d) prescribe the number of members of the panel that constitutes a quorum.

(3) Where the Stewardship Minister refers an application to a board or other body referred to in subsection (1)(b), the Stewardship Minister may

- (a) authorize, fix or provide for the payment of expenses to its members, and remuneration to those members who are not employees of the Government, when they are acting as a panel under this Regulation, and
- (b) require the board or other body to act in accordance with the rules respecting the conduct of a review established by the Stewardship Minister under section 10.

#### **Making an application**

**7(1)** An application must be in a form approved by the Stewardship Minister and must contain the following information:

- (a) the name and address of the applicant and, if the applicant is a corporation, society or other body corporate, the name of the chief executive officer of the applicant;
  - (b) if the applicant is appointing a person to represent the applicant with respect to the application, the name of the person and the contact information of the person;
  - (c) the address in Alberta to which notices or other communications with respect to the application may be sent;
  - (d) identification of the specific provision of the regional plan that the applicant believes is directly and adversely affecting the applicant or will directly and adversely affect the applicant;
  - (e) an explanation of how the specific provision identified in clause (d) is directly and adversely affecting the applicant or will directly and adversely affect the applicant;
  - (f) an explanation of the adverse effects the applicant is suffering or expects to suffer as a result of the specific provision identified in clause (d);
  - (g) the relief being requested by the applicant, which may include any amendment to the specific provision of the regional plan identified in clause (d) that the applicant proposes in order to diminish or eliminate the adverse effects identified in clause (f).
- (2) If an application includes a technical or professional report or material of a technical or professional nature, the application must set out the qualifications of the person who prepared the technical or professional report or material.

#### **Delivery of application**

- 8(1)** Subject to subsection (2), an application must be delivered by personal service, registered mail or courier to the Stewardship Minister at the address designated by the stewardship commissioner.
- (2) An application may be delivered by fax or other electronic means, but the application is not considered to be received unless the Stewardship Minister acknowledges receipt of the application.

#### **Forwarding application to panel**

- 9(1)** Subject to subsection (2), on receipt of a complete application, the Stewardship Minister shall forward the application



**C**

Canada Federal Statutes

Constitution Act, 1982

▣ Schedule B — Constitution Act, 1982

▣ II — Rights of the Aboriginal Peoples of Canada

s 35.

Federal English Statutes reflect amendments current to May 7, 2014

Federal English Regulations are current to Gazette Vol. 148:10 (May 7, 2014)

**35.**

**35(1) Recognition of existing aboriginal and treaty rights**

The existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.

**35(2) Definition of "aboriginal peoples of Canada"**

In this Act, "aboriginal peoples of Canada" includes the Indian, Inuit and Métis peoples of Canada.

**35(3) Land claims agreements**

For greater certainty, in subsection (1) "treaty rights" includes rights that now exist by way of land claims agreements or may be so acquired.

**35(4) Aboriginal and treaty rights are guaranteed equally to both sexes**

Notwithstanding any other provision of this Act, the aboriginal and treaty rights referred to in subsection (1) are guaranteed equally to male and female persons.

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# **ADMINISTRATIVE PROCEDURES AND JURISDICTION ACT**

## **Chapter A-3**

### *Table of Contents*

#### **Part 1 Administrative Procedures**

- 1** Definitions
- 2** Application of Part
- 3** Notice to parties
- 4** Evidence and representations
- 5** Cross-examination
- 6** When certain representations not permitted
- 7** Written decision with reasons
- 8** Requirements of other Acts
- 9** Rules of evidence

#### **Part 2 Jurisdiction to Determine Questions of Constitutional Law**

- 10** Definitions
- 11** Lack of jurisdiction
- 12** Notice of question of constitutional law
- 13** Referral of question of constitutional law
- 14** Attorney General of Canada and Minister of Justice  
and Solicitor General of Alberta
- 15** Transitional
- 16** Regulations

- (b) the reasons for the decision.

RSA 1980 cA-2 s7

#### **Requirements of other Acts**

**8** Nothing in this Part relieves an authority from complying with any procedure to be followed by it under any other Act relating to the exercise of its statutory power.

RSA 2000 cA-3 s8;2005 c4 s6

#### **Rules of evidence**

**9** Nothing in this Part

- (a) requires that any evidence or allegations of fact made to an authority be made under oath, or
- (b) requires any authority to adhere to the rules of evidence applicable to courts of civil or criminal jurisdiction.

RSA 2000 cA-3 s9;2005 c4 s7

## **Part 2**

### **Jurisdiction to Determine Questions of Constitutional Law**

#### **Definitions**

**10** In this Part,

- (a) “court” means the Court of Queen’s Bench of Alberta;
- (b) “decision maker” means an individual appointed or a body established by or under an Act of Alberta to decide matters in accordance with the authority given under that Act, but does not include
- (i) The Provincial Court of Alberta or a judge of that Court,
- (ii) a justice of the peace conferred with the authority to determine a question of constitutional law under the *Provincial Court Act*,
- (iii) the Court of Queen’s Bench of Alberta or a judge or master in chambers of that Court, or
- (iv) the Court of Appeal of Alberta or a judge of that Court;
- (c) “designated decision maker” means a decision maker designated under section 16(a) as a decision maker that

has jurisdiction to determine one or more questions of constitutional law under section 16(b);

- (d) “question of constitutional law” means
- (i) any challenge, by virtue of the Constitution of Canada or the *Alberta Bill of Rights*, to the applicability or validity of an enactment of the Parliament of Canada or an enactment of the Legislature of Alberta, or
  - (ii) a determination of any right under the Constitution of Canada or the *Alberta Bill of Rights*.

2005 c4 s8;2011 c20 s8

#### **Lack of jurisdiction**

**11** Notwithstanding any other enactment, a decision maker has no jurisdiction to determine a question of constitutional law unless a regulation made under section 16 has conferred jurisdiction on that decision maker to do so.

2005 c4 s8

#### **Notice of question of constitutional law**

**12(1)** Except in circumstances where only the exclusion of evidence is sought under the *Canadian Charter of Rights and Freedoms*, a person who intends to raise a question of constitutional law at a proceeding before a designated decision maker that has jurisdiction to determine such a question

- (a) must provide written notice of the person’s intention to do so at least 14 days before the date of the proceeding
    - (i) to the Attorney General of Canada,
    - (ii) to the Minister of Justice and Solicitor General of Alberta, and
    - (iii) to the parties to the proceeding,
- and
- (b) must provide written notice of the person’s intention to do so to the designated decision maker.

**(2)** Until subsection (1) is complied with, the decision maker must not begin the determination of the question of constitutional law.

**(3)** Nothing in this section affects the power of a decision maker to make any interim order, decision, directive or declaration it



**Attorney General of Canada and Minister of Justice  
and Solicitor General of Alberta**

**14** In any proceeding relating to the determination of a question of constitutional law before a decision maker or before the court under this Part, or in any subsequent proceeding on appeal or judicial review,

- (a) the Attorney General of Canada and the Minister of Justice and Solicitor General of Alberta are entitled as of right to be heard, in person or by counsel,
- (b) no person other than the Minister of Justice and Solicitor General of Alberta or counsel designated by the Minister of Justice and Solicitor General of Alberta shall, on behalf of Her Majesty in right of Alberta, or on behalf of an agent of Her Majesty in right of Alberta, appear and participate, and
- (c) if the Minister of Justice and Solicitor General of Alberta or counsel designated by the Minister of Justice and Solicitor General of Alberta appears, the Minister of Justice and Solicitor General of Alberta is deemed to be a party and has the same rights as any other party.

2005 c4 s8;2013 c10 s34

**Transitional**

**15** Where proceedings to determine a question of constitutional law have commenced but have not been concluded before the coming into force of this Part, the decision maker hearing the question may continue the proceedings as if this Part had not come into force.

2005 c4 s8

**Regulations**

**16** The Lieutenant Governor in Council may make regulations

- (a) designating decision makers as having jurisdiction to determine questions of constitutional law;
- (b) respecting the questions of constitutional law that decision makers designated under a regulation made under clause (a) have jurisdiction to determine;
- (c) respecting the referral of questions of constitutional law to the court;
- (d) respecting the form and contents of the notice under section 12(1).

RSA 2000 cA-3 s10;2005 c4 s8

2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

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2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

**Carrier Sekani Tribal Council v. British Columbia (Utilities Commission)**

Rio Tinto Alcan Inc. and British Columbia Hydro and Power Authority (Appellants) and Carrier Sekani Tribal Council (Respondent) and Attorney General of Canada, Attorney General of Ontario, Attorney General of British Columbia, Attorney General of Alberta, British Columbia Utilities Commission, Mikisew Cree First Nation, Moosomin First Nation, Nunavut Tunngavik Incorporated, Nlaka'pamux Nation Tribal Council, Okanagan Nation Alliance, Upper Nicola Indian Band, Lakes Division of the Secwepemc Nation, Assembly of First Nations, Standing Buffalo Dakota First Nation, First Nations Summit, Duncan's First Nation, Horse Lake First Nation, Independent Power Producers Association of British Columbia, Enbridge Pipelines Inc. and TransCanada Keystone Pipeline GP Ltd. (Intervenors)

Supreme Court of Canada

McLachlin C.J.C., Binnie, LeBel, Deschamps, Fish, Abella, Charron, Rothstein, Cromwell JJ.

Heard: May 21, 2010  
Judgment: October 28, 2010  
Docket: 33132

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Proceedings: reversing *Carrier Sekani Tribal Council v. British Columbia (Utilities Commission)* (2009), [2009] 2 C.N.L.R. 58, 266 B.C.A.C. 228, 449 W.A.C. 228, 76 R.P.R. (4th) 159, 89 B.C.L.R. (4th) 298, [2009] 4 W.W.R. 381, 2009 CarswellBC 340, 2009 BCCA 67 (B.C. C.A.)

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2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

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Arthur C. Pape, Richard B. Salter for Intervener, First Nations Summit

Jay Nelson for Interveners, Duncan's First Nation, Horse Lake First Nation

Roy W. Millen for Intervener, Independent Power Producers Association of British Columbia

Harry C. Underwood (written) for Intervener, Enbridge Pipelines Inc.

C. Kemm Yates, Q.C. (written) for Intervener, TransCanada Keystone Pipeline GP Ltd.

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Subject: Public; Constitutional; Property

#### Aboriginal law --- Constitutional issues — Miscellaneous

Major dam project was constructed in 1950s to produce power for aluminium smelting, without consultation with First Nations represented by tribal council, whose historic use of river was affected by altered water flows — Excess power from project was sold to Crown corporation — R Inc. entered into energy purchase agreement with Crown corporation committing to such excess power sales until 2034, which agreement was subject to review by provincial Utilities Commission — After Commission's initial scoping order, tribal council obtained intervener status and unsuccessfully applied for reconsideration of scoping to include consideration of adequacy of Crown consultation — Commission approved agreement — Tribal council's appeals of reconsideration decision and approval of agreement were allowed — R Inc. and Crown corporation appealed — Appeal allowed — Commission correctly accepted it had jurisdiction to consider adequacy of Crown's consultation — Crown had knowledge of potential aboriginal claims and agreement was clearly proposed Crown conduct — Commission was correct in concluding that duty to consult was not triggered by underlying infringement from failure to consult on initial project, as question was whether there was claim or right that could be adversely impacted by current government conduct of agreement — Commission considered organizational implications of agreement and any possible physical changes it might bring about — It was not unreasonable for Commission to find that agreement did not have potential to adversely impact claims or rights of tribal council's First Nations.

#### Public law --- Public authorities — Provincial boards and commissions — Miscellaneous

Major dam project was constructed in 1950s to produce power for aluminium smelting, without consultation with First Nations represented by tribal council, whose historic use of river was affected by altered water flows — Excess power from project was sold to Crown corporation — R Inc. entered into energy purchase agreement with Crown corporation committing to such excess power sales until 2034, which agreement was subject to review by provincial Utilities Commission — After Commission's initial scoping order, tribal council obtained intervener status and unsuccessfully applied for reconsideration of scoping to include consideration of adequacy of Crown consultation — Commission approved agreement — Tribal council's appeals of reconsideration decision and approval of agreement were allowed — R Inc. and Crown corporation appealed — Appeal allowed — Commission correctly accepted it had jurisdiction to consider adequacy of Crown's consultation — Crown had knowledge of potential aboriginal claims and agreement was clearly proposed Crown conduct — Commission was correct in concluding that duty to consult was not triggered by underlying infringement from failure to consult on initial project, as question was whether there was claim or right that could be adversely impacted by current government conduct of agreement — Commission considered organizational implications of agreement and any possible physical changes it might bring about — It was not unreasonable for Commission to find that agreement did not have potential to adversely impact claims or rights of tribal council's First Nations.

#### Public law --- Public utilities — Regulatory boards — Practice and procedure — Miscellaneous

Major dam project was constructed in 1950s to produce power for aluminium smelting, without consultation with First



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Nations represented by tribal council, whose historic use of river was affected by altered water flows — Excess power from project was sold to Crown corporation — R Inc. entered into energy purchase agreement with Crown corporation committing to such excess power sales until 2034, which agreement was subject to review by provincial Utilities Commission — After Commission's initial scoping order, tribal council obtained intervener status and unsuccessfully applied for reconsideration of scoping to include consideration of adequacy of Crown consultation — Commission approved agreement — Tribal council's appeals of reconsideration decision and approval of agreement were allowed — R Inc. and Crown corporation appealed — Appeal allowed — Commission correctly accepted it had jurisdiction to consider adequacy of Crown's consultation — Crown had knowledge of potential aboriginal claims and agreement was clearly proposed Crown conduct — Commission was correct in concluding that duty to consult was not triggered by underlying infringement from failure to consult on initial project, as question was whether there was claim or right that could be adversely impacted by current government conduct of agreement — Commission considered organizational implications of agreement and any possible physical changes it might bring about — It was not unreasonable for Commission to find that agreement did not have potential to adversely impact claims or rights of tribal council's First Nations.

#### Droit autochtone --- Questions d'ordre constitutionnel — Divers

Dans les années 50, un important projet de barrage a été exécuté en vue de la production d'électricité destinée à l'alimentation d'une aluminerie, sans consultation avec le conseil tribal représentant les Premières nations, ce qui a gêné celles-ci dans leur utilisation ancestrale d'une rivière en raison des dérivations subies par les courants d'eau — Surplus d'électricité produits par le barrage ont été vendus à une société d'État — R inc. a signé un contrat d'achat d'électricité avec la société d'État suivant lequel elle s'engageait à vendre l'électricité excédentaire jusqu'en 2034, lequel contrat était assujéti à l'approbation de la commission de services publics provinciale — Après que la commission ait rendu une première ordonnance portant sur le cadre de l'audience, le conseil tribal a été constitué partie intervenante et a échoué dans sa tentative de demande de révision de l'ordonnance définissant le cadre de l'audience afin que le caractère adéquat de la consultation faite par la Couronne soit examiné — Commission a ratifié le contrat — Appels interjetés par le conseil tribal à l'encontre de la décision portant sur le réexamen et celle ayant ratifié le contrat ont été accueillis — R inc. et la société d'État ont formé un pourvoi — Pourvoi accueilli — Commission a eu raison de conclure qu'elle avait compétence pour examiner le caractère adéquat de la consultation faite par la Couronne — Couronne avait connaissance de l'existence possible des revendications autochtones et la participation au contrat proposé était clairement une mesure projetée par la Couronne — Commission a eu raison de conclure que l'obligation de consulter n'était pas déclenchée du fait d'une atteinte sous-jacente découlant de l'omission de consulter au sujet du projet initial, étant donné que la question était de savoir s'il y avait une revendication ou un droit qui risquerait de subir des effets préjudiciables découlant de la mesure du gouvernement en question, soit le contrat — Commission a considéré les répercussions organisationnelles du contrat et les changements physiques qui pouvaient en résulter — Conclusion de la commission à l'effet que le contrat ne risquait pas de compromettre les revendications ou les droits des Premières nations représentées par le conseil tribal n'était pas déraisonnable.

#### Droit public --- Pouvoirs publics — Commissions et offices provinciaux — Divers

Dans les années 50, un important projet de barrage a été exécuté en vue de la production d'électricité destinée à

2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

l'alimentation d'une aluminerie, sans consultation avec le conseil tribal représentant les Premières nations, ce qui a gêné celles-ci dans leur utilisation ancestrale d'une rivière en raison des dérivations subies par les courants d'eau — Surplus d'électricité produits par le barrage ont été vendus à une société d'État — R inc. a signé un contrat d'achat d'électricité avec la société d'État suivant lequel elle s'engageait à vendre l'électricité excédentaire jusqu'en 2034, lequel contrat était assujéti à l'approbation de la commission de services publics provinciale — Après que la commission ait rendu une première ordonnance portant sur le cadre de l'audience, le conseil tribal a été constitué partie intervenante et a échoué dans sa tentative de demande de révision de l'ordonnance définissant le cadre de l'audience afin que le caractère adéquat de la consultation faite par la Couronne soit examiné — Commission a ratifié le contrat — Appels interjetés par le conseil tribal à l'encontre de la décision portant sur le réexamen et celle ayant ratifié le contrat ont été accueillis — R inc. et la société d'État ont formé un pourvoi — Pourvoi accueilli — Commission a eu raison de conclure qu'elle avait compétence pour examiner le caractère adéquat de la consultation faite par la Couronne — Couronne avait connaissance de l'existence possible des revendications autochtones et la participation au contrat proposé était clairement une mesure projetée par la Couronne — Commission a eu raison de conclure que l'obligation de consulter n'était pas déclenchée du fait d'une atteinte sous-jacente découlant de l'omission de consulter au sujet du projet initial, étant donné que la question était de savoir s'il y avait une revendication ou un droit qui risquerait de subir des effets préjudiciables découlant de la mesure du gouvernement en question, soit le contrat — Commission a considéré les répercussions organisationnelles du contrat et les changements physiques qui pouvaient en résulter — Conclusion de la commission à l'effet que le contrat ne risquait pas de compromettre les revendications ou les droits des Premières nations représentées par le conseil tribal n'était pas déraisonnable.

Droit public --- Services publics — Organismes de réglementation — Procédure — Divers

Dans les années 50, un important projet de barrage a été exécuté en vue de la production d'électricité destinée à l'alimentation d'une aluminerie, sans consultation avec le conseil tribal représentant les Premières nations, ce qui a gêné celles-ci dans leur utilisation ancestrale d'une rivière en raison des dérivations subies par les courants d'eau — Surplus d'électricité produits par le barrage ont été vendus à une société d'État — R inc. a signé un contrat d'achat d'électricité avec la société d'État suivant lequel elle s'engageait à vendre l'électricité excédentaire jusqu'en 2034, lequel contrat était assujéti à l'approbation de la commission de services publics provinciale — Après que la commission ait rendu une première ordonnance portant sur le cadre de l'audience, le conseil tribal a été constitué partie intervenante et a échoué dans sa tentative de demande de révision de l'ordonnance définissant le cadre de l'audience afin que le caractère adéquat de la consultation faite par la Couronne soit examiné — Commission a ratifié le contrat — Appels interjetés par le conseil tribal à l'encontre de la décision portant sur le réexamen et celle ayant ratifié le contrat ont été accueillis — R inc. et la société d'État ont formé un pourvoi — Pourvoi accueilli — Commission a eu raison de conclure qu'elle avait compétence pour examiner le caractère adéquat de la consultation faite par la Couronne — Couronne avait connaissance de l'existence possible des revendications autochtones et la participation au contrat proposé était clairement une mesure projetée par la Couronne — Commission a eu raison de conclure que l'obligation de consulter n'était pas déclenchée du fait d'une atteinte sous-jacente découlant de l'omission de consulter au sujet du projet initial, étant donné que la question était de savoir s'il y avait une revendication ou un droit qui risquerait de subir des effets préjudiciables découlant de la mesure du gouvernement en question, soit le contrat — Commission a considéré les répercussions organisationnelles du contrat et les changements physiques qui pouvaient en résulter — Conclusion de la commission à l'effet que le contrat ne risquait pas de compromettre les revendications

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ou les droits des Premières nations représentées par le conseil tribal n'était pas déraisonnable.

In the 1950s, A Inc. constructed a major dam project to produce hydro power for aluminium smelting, which altered the water flows to a river used by First Nations represented by the tribal council since time immemorial. No consultation occurred with those First Nations prior to provincial approval of the project. Excess power from the project was sold to a Crown corporation for local and regional use.

In 2007, R Inc., the successor to A Inc., entered into an energy purchase agreement with the Crown corporation committing to such excess power sales until 2034. The provincial Utilities Commission issued an order as to the scope of its hearing to review the agreement. The tribal council obtained intervener status and unsuccessfully applied for reconsideration of the scoping order to include consideration of the adequacy of Crown consultation. The Commission took the view that the agreement could have no potential adverse impact on aboriginal claims or rights so no duty to consult with the First Nations was triggered. The Commission approved the agreement as in the public interest, as required by s. 71 of the Utilities Commission Act.

The tribal council's appeals of the reconsideration decision and the approval of the agreement were allowed. R Inc. and the Crown corporation appealed.

**Held:** The appeal was allowed.

McLachlin C.J.C. (Binnie, LeBel, Deschamps, Fish, Abella, Charron, Rothstein, Cromwell JJ. concurring): The Commission correctly accepted that it had the jurisdiction to consider the adequacy of the Crown's consultation, given the breadth of factors it had to consider under s. 71 of the Act and its power to decide questions of law, which implicitly included constitutional issues such as aboriginal consultation.

The Crown had knowledge of the potential aboriginal claims, as the First Nations were lodged in the provincial claims resolution process, and the proposed agreement was clearly proposed Crown conduct given the involvement of a Crown corporation. The third necessary element for triggering the Crown's duty to consult was whether the proposed Crown conduct could have an adverse impact on the aboriginal claims or rights. The Commission was correct in concluding that an underlying infringement from the failure to consult on the initial project did not constitute an adverse impact giving rise to a duty to consult. The question was whether there was an aboriginal claim or right that could be adversely impacted by the current government conduct or decision, which here was the agreement. Consultation required the parties to meet in good faith to accommodate the conflicting interests involved in state-authorized development that might have adverse impacts on aboriginal interests. This was impossible where the resource had long since been altered and the present government conduct did not have any further impact on the resource.

The Commission correctly identified that the main issue was whether the agreement had potential to adversely affect claims and rights of First Nations. The Commission considered the organizational implications of the agreement and any possible physical changes it might bring about. The Commission reasonably found that the agreement did not have

2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

the potential to adversely impact the claims or rights of the First Nations and so did not err in rejecting the tribal council's application to consider the issue of Crown consultation. As that was the only basis for attacking the Commission's approval of the agreement, such approval was not unreasonable.

Dans les années 50, A inc. a exécuté un important projet de barrage en vue de la production d'électricité destinée à l'alimentation d'une aluminerie, ce qui a modifié les débits d'eau dans une rivière utilisée depuis des temps immémoriaux par les Premières nations représentées par un conseil tribal. Ces Premières nations n'ont pas été consultées avant que le projet ne soit ratifié par la province. Les surplus d'électricité produits par le barrage ont été vendus à une société d'État pour usage local et régional.

En 2007, R inc., la société ayant succédé à A inc., a signé un contrat d'achat d'électricité avec la société d'État suivant lequel elle s'engageait à vendre l'électricité excédentaire jusqu'en 2034. La commission de services publics de la province a émis une ordonnance définissant le cadre de l'audience devant se tenir devant elle concernant le contrat. Le conseil tribal a été constitué partie intervenante et a échoué dans sa tentative de demande de révision de l'ordonnance définissant le cadre de l'audience afin que le caractère adéquat de la consultation faite par la Couronne soit examiné. Selon la commission, le contrat n'aurait aucun effet préjudiciable sur les revendications ou les droits des Premières nations, de sorte qu'il n'y avait aucune obligation de consultation avec les Premières nations. La commission a ratifié le contrat, le jugeant dans l'intérêt public, conformément à l'art. 71 de la Utilities Commission Act (la « Loi »).

Les appels interjetés par le conseil tribal à l'encontre de la décision portant sur le réexamen et celle ayant ratifié le contrat ont été accueillis. R inc. et la société d'État ont formé un pourvoi.

**Arrêt:** Le pourvoi a été accueilli.

McLachlin, J.C.C. (Binnie, LeBel, Deschamps, Fish, Abella, Charron, Rothstein, Cromwell, JJ., souscrivant à son opinion) : La commission a eu raison de conclure qu'elle avait compétence pour examiner le caractère adéquat de la consultation faite par la Couronne, compte tenu de la diversité des facteurs qu'elle devait prendre en considération en vertu de l'art. 71 de la Loi et de son pouvoir de trancher des questions de droit, y compris, de façon implicite, des questions d'ordre constitutionnel tel que le devoir de consulter les Premières nations.

La Couronne avait connaissance de l'existence possible des revendications autochtones, puisque celles-ci étaient formulées dans le cadre du processus mis sur pied par la province pour le règlement des revendications autochtones et que la participation au contrat proposé était clairement une mesure projetée par la Couronne, compte tenu de la présence d'une société d'État. Le troisième élément requis pour que soit déclenché l'obligation de la Couronne de consulter était la question de savoir si la mesure projetée par celle-ci aurait un effet préjudiciable sur les revendications ou les droits des Premières nations. La commission a eu raison de conclure qu'une atteinte sous-jacente découlant de l'omission de consulter au sujet du projet initial ne constituait pas un effet préjudiciable déclenchant l'obligation de consulter. La question était de savoir s'il y avait une revendication ou un droit des Premières nations qui risquerait de subir des effets préjudiciables découlant de la mesure ou de la décision du gouvernement en question, soit, en l'espèce, le contrat. Il était nécessaire, dans le cadre de la consultation, que les parties se rencontrent de bonne foi dans une optique de conciliation des intérêts divergents en jeu dans le projet autorisé par l'État pouvant avoir des effets préju-



2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

differentiating between tenuous claims, claims possessing a strong *prima facie* case, and established claims.

41 The claim or right must be one which actually exists and stands to be affected by the proposed government action. This flows from the fact that the purpose of consultation is to protect unproven or established rights from irreversible harm as the settlement negotiations proceed: Newman, at p. 30, citing *Haida Nation*, at paras. 27, 33.

## (2) Crown Conduct or Decision

42 Second, for a duty to consult to arise, there must be Crown conduct or a Crown decision that engages a potential Aboriginal right. What is required is conduct that may adversely impact on the claim or right in question.

43 This raises the question of what government action engages the duty to consult. It has been held that such action is not confined to government exercise of statutory powers: *Huu-Ay-Aht First Nation v. British Columbia (Minister of Forests)*, 2005 BCSC 697, [2005] 3 C.N.L.R. 74 (B.C. S.C.), at paras. 94, 104; *Wii'litswx v. British Columbia (Minister of Forests)*, 2008 BCSC 1139, [2008] 4 C.N.L.R. 315 (B.C. S.C.), at paras. 11-15. This accords with the generous, purposive approach that must be brought to the duty to consult.

44 Further, government action is not confined to decisions or conduct which have an immediate impact on lands and resources. A potential for adverse impact suffices. Thus the duty to consult extends to "strategic, higher level decisions" that may have an impact on Aboriginal claims and rights (Woodward, at p. 5-41, emphasis omitted). Examples include the transfer of tree licences which would have permitted the cutting of old-growth forest (*Haida Nation*); the approval of a multi-year forest management plan for a large geographic area (*Brown v. Sunshine Coast Forest District (District Manager)*, 2008 BCSC 1642, [2009] 1 C.N.L.R. 110 (B.C. S.C.)); the establishment of a review process for a major gas pipeline (*Dene Tha' First Nation v. Canada (Minister of Environment)*, 2006 FC 1354, [2007] 1 C.N.L.R. 1 (F.C.), aff'd, 2008 FCA 20, 35 C.E.L.R. (3d) 1 (F.C.A.)); and the conduct of a comprehensive inquiry to determine a province's infrastructure and capacity needs for electricity transmission (*An Inquiry into British Columbia's Electricity Transmission Infrastructure & Capacity Needs for the Next 30 Years, Re*, 2009 CarswellBC 3637 (B.C. Utilities Comm.)). We leave for another day the question of whether government conduct includes legislative action: see *R. v. Lefthand*, 2007 ABCA 206, 77 Alta. L.R. (4th) 203 (Alta. C.A.), at paras. 37-40.

## (3) Adverse Effect of the Proposed Crown Conduct on an Aboriginal Claim or Right

45 The third element of a duty to consult is the possibility that the Crown conduct may affect the Aboriginal claim or right. The claimant must show a causal relationship between the proposed government conduct or decision and a potential for adverse impacts on pending Aboriginal claims or rights. Past wrongs, including previous breaches of the duty to consult, do not suffice.

46 Again, a generous, purposive approach to this element is in order, given that the doctrine's purpose, as stated by Newman, is "to recognize that actions affecting unproven Aboriginal title or rights or treaty rights can have irreversible effects that are not in keeping with the honour of the Crown" (p. 30, citing *Haida Nation*, at paras. 27, 33).

2010 CarswellBC 2867, 2010 SCC 43, J.E. 2010-1926, [2010] B.C.W.L.D. 8040, [2010] B.C.W.L.D. 8185, [2010] B.C.W.L.D. 8184, 96 R.P.R. (4th) 1, [2010] 11 W.W.R. 577, 54 C.E.L.R. (3d) 1, 9 B.C.L.R. (5th) 205, [2010] 4 C.N.L.R. 250, 406 N.R. 333, 325 D.L.R. (4th) 1, 11 Admin. L.R. (5th) 246, 293 B.C.A.C. 175, 496 W.A.C. 175, [2010] 2 S.C.R. 650, 225 C.R.R. (2d) 75, 194 A.C.W.S. (3d) 691

Mere speculative impacts, however, will not suffice. As stated in *R. v. Douglas*, 2007 BCCA 265, 278 D.L.R. (4th) 653 (B.C. C.A.), at para. 44, there must an "appreciable adverse effect on the First Nations' ability to exercise their aboriginal right". The adverse effect must be on the future exercise of the right itself; an adverse effect on a First Nation's future negotiating position does not suffice.

47 Adverse impacts extend to any effect that may prejudice a pending Aboriginal claim or right. Often the adverse effects are physical in nature. However, as discussed in connection with what constitutes Crown conduct, high-level management decisions or structural changes to the resource's management may also adversely affect Aboriginal claims or rights even if these decisions have no "immediate impact on the lands and resources": Woodward, at p. 5-41. This is because such structural changes to the resources management may set the stage for further decisions that will have a *direct* adverse impact on land and resources. For example, a contract that transfers power over a resource from the Crown to a private party may remove or reduce the Crown's power to ensure that the resource is developed in a way that respects Aboriginal interests in accordance with the honour of the Crown. The Aboriginal people would thus effectively lose or find diminished their constitutional right to have their interests considered in development decisions. This is an adverse impact: see *Haida Nation*, at paras. 72-73.

48 An underlying or continuing breach, while remediable in other ways, is not an adverse impact for the purposes of determining whether a particular government decision gives rise to a duty to consult. The duty to consult is designed to prevent damage to Aboriginal claims and rights while claim negotiations are underway: *Haida Nation*, at para. 33. The duty arises when the Crown has *knowledge*, real or constructive, of the potential or actual existence of the Aboriginal right or title "and contemplates conduct that might adversely affect it": *Haida Nation*, at para. 35 (emphasis added). This test was confirmed by the Court in *Mikisew Cree* in the context of treaty rights, at paras. 33-34.

49 The question is whether there is a claim or right that potentially may be adversely impacted by the *current* government conduct or decision in question. Prior and continuing breaches, including prior failures to consult, will only trigger a duty to consult if the present decision has the potential of causing a novel adverse impact on a present claim or existing right. This is not to say that there is no remedy for past and continuing breaches, including previous failures to consult. As noted in *Haida Nation*, a breach of the duty to consult may be remedied in various ways, including the awarding of damages. To trigger a fresh duty of consultation — the matter which is here at issue — a contemplated Crown action must put current claims and rights in jeopardy.

50 Nor does the definition of what constitutes an adverse effect extend to adverse impacts on the negotiating position of an Aboriginal group. The duty to consult, grounded in the need to protect Aboriginal rights and to preserve the future use of the resources claimed by Aboriginal peoples while balancing countervailing Crown interests, no doubt may have the ulterior effect of delaying ongoing development. The duty may thus serve not only as a tool to settle interim resource issues but also, and incidentally, as a tool to achieve longer term compensatory goals. Thus conceived, the duty to consult may be seen as a necessary element in the overall scheme of satisfying the Crown's constitutional duties to Canada's First Nations. However, cut off from its roots in the need to preserve Aboriginal interests, its purpose would be reduced to giving one side in the negotiation process an advantage over the other.

#### (4) *An Alternative Theory of Consultation*

2004 CarswellOnt 936, 184 O.A.C. 84, [2004] 2 C.N.L.R. 355, 43 B.L.R. (3d) 244, 129 A.C.W.S. (3d) 2



2004 CarswellOnt 936, 184 O.A.C. 84, [2004] 2 C.N.L.R. 355, 43 B.L.R. (3d) 244, 129 A.C.W.S. (3d) 2

**Wasauksing First Nation v. Wasausink Lands Inc.**

Council of the Wasauksing First Nation a.k.a. Council of Ojibways of Parry Island Band, and John Beaucage and Terry Pegahmagabow, on their own behalf and on behalf of the registered members of the Wasauksing First Nation a.k.a. Ojibways of Parry Island Band, Applicants (Appellants) and Wasausink Lands Inc., Joyce Tabobondung, Wilfred King, Dora Tabobondung, Leslie Tabobondung, and Florence Tabobondung, Respondents (Respondents)

Ontario Court of Appeal

Laskin, Cronk, Armstrong JJ.A.

Heard: April 2-3, 2003

Judgment: March 4, 2004

Docket: CA C37772

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Proceedings: affirming *Wasauksing First Nation v. Wasausink Lands Inc.* (2002), 2002 CarswellOnt 107, [2002] 3 C.N.L.R. 287 (Ont. S.C.J.)

Counsel: Yehuda Levinson, Eugene Meehan, David Stone for Applicants / Appellants

Charles Campbell, Renée Lang for Respondents / Respondents

Subject: Corporate and Commercial; Public; Contracts; Constitutional

Business associations --- Creation and organization of business associations — Corporations — Incorporation — Miscellaneous issues

Wasauksing First Nation ("WFN") was native community on island in Lake Huron — Back in 1960s, to gain revenues for its members, WFN decided to lease part of its land as cottage lots — Because Indian Act prohibited Indian bands from alienating land except to Crown, in 1971 W Inc. was incorporated to lease lots and collect and manage rents — Between 1971 and 1993, chief and council in office from time to time acted as de facto directors of W Inc. and were

2004 CarswellOnt 936, 184 O.A.C. 84, [2004] 2 C.N.L.R. 355, 43 B.L.R. (3d) 244, 129 A.C.W.S. (3d) 2

accepted as such by members of WFN and by federal government and all concerned parties dealing with W Inc. — In 1994 and 1995, chief and council at time reorganized W Inc., formally separating its governance from that of WFN by virtue of operating agreement — In 1997, WFN elected new chief and band council ("applicants") who objected to management of W Inc. by previous chief and band council — Applicant and individual members of WFN applied for declaration that all members of WFN were members of W Inc. — Application was dismissed — Applicants appealed — Appeal dismissed — Open to trial judge to find that there was no general understanding or belief amongst all, or even majority, of members of WFN that all members of WFN were "members" of W Inc., in corporate law terms, simply by virtue of fact that they were members of WFN — Trial judge did not err by applying "black letter" corporate law principles to assessment of issues concerning membership and board of directors of W Inc. — Applicants failed to establish requirements for rectification of W Inc.'s records under s. 309(1) of Corporations Act — Section 309(1) was not intended as tool to resolve complex corporate disputes by facilitating, through exercise of judicial discretion, fundamental changes that intruded on established internal corporate affairs — Applicants failed to establish that management of W Inc. was based on aboriginal rights and practices.

Aboriginal law --- Bands and band government — Band councils — Powers and jurisdiction — General principles

Wasauksing First Nation ("WFN") was native community on island in Lake Huron — Back in 1960s, to gain revenues for its members, WFN decided to lease part of its land as cottage lots — Because Indian Act prohibited Indian bands from alienating land except to Crown, in 1971 W Inc. was incorporated to lease lots and collect and manage rents — Between 1971 and 1993, chief and council in office from time to time acted as de facto directors of W Inc. and were accepted as such by members of WFN and by federal government and all concerned parties dealing with W Inc. — In 1994 and 1995, chief and council at time reorganized W Inc., formally separating its governance from that of WFN by virtue of operating agreement — In 1997, WFN elected new chief and band council ("applicants") who objected to management of W Inc. by previous chief and band council — Applicant and individual members of WFN applied for declaration that all members of WFN were members of W Inc. — Application was dismissed — Applicants appealed — Appeal dismissed — Open to trial judge to find that there was no general understanding or belief amongst all, or even majority, of members of WFN that all members of WFN were "members" of W Inc., in corporate law terms, simply by virtue of fact that they were members of WFN — Trial judge did not err by applying "black letter" corporate law principles to assessment of issues concerning membership and board of directors of W Inc. — Applicants failed to establish requirements for rectification of W Inc.'s records under s. 309(1) of Corporations Act — Section 309(1) was not intended as tool to resolve complex corporate disputes by facilitating, through exercise of judicial discretion, fundamental changes that intruded on established internal corporate affairs — Applicants failed to establish that management of W Inc. was based on aboriginal rights and practices.

Business associations --- Specific corporate organization matters — Directors and officers — Miscellaneous issues

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2004 CarswellOnt 936, 184 O.A.C. 84, [2004] 2 C.N.L.R. 355, 43 B.L.R. (3d) 244, 129 A.C.W.S. (3d) 2

virtue of operating agreement — In 1997, WFN elected new chief and band council ("applicants") who objected to management of W Inc. by previous chief and band council — Applicant and individual members of WFN applied for declaration that all members of WFN were members of W Inc. — Application was dismissed — Applicants appealed — Appeal dismissed — Open to trial judge to find that there was no general understanding or belief amongst all, or even majority, of members of WFN that all members of WFN were "members" of W Inc., in corporate law terms, simply by virtue of fact that they were members of WFN — Trial judge did not err by applying "black letter" corporate law principles to assessment of issues concerning membership and board of directors of W Inc. — Applicants failed to establish requirements for rectification of W Inc.'s records under s. 309(1) of Corporations Act — Section 309(1) was not intended as tool to resolve complex corporate disputes by facilitating, through exercise of judicial discretion, fundamental changes that intruded on established internal corporate affairs — Applicants failed to establish that management of W Inc. was based on aboriginal rights and practices.

Business associations --- Creation and organization of business associations — Corporations — Corporate constitution — Miscellaneous issues

Wasauksing First Nation ("WFN") was native community on island in Lake Huron — Back in 1960s, to gain revenues for its members, WFN decided to lease part of its land as cottage lots — Because Indian Act prohibited Indian bands from alienating land except to Crown, in 1971 W Inc. was incorporated to lease lots and collect and manage rents — Between 1971 and 1993, chief and council in office from time to time acted as de facto directors of W Inc. and were accepted as such by members of WFN and by federal government and all concerned parties dealing with W Inc. — In 1994 and 1995, chief and council at time reorganized W Inc., formally separating its governance from that of WFN by virtue of operating agreement — In 1997, WFN elected new chief and band council ("applicants") who objected to management of W Inc. by previous chief and band council — Applicant and individual members of WFN applied for declaration that all members of WFN were members of W Inc. — Application was dismissed — Applicants appealed — Appeal dismissed — Open to trial judge to find that there was no general understanding or belief amongst all, or even majority, of members of WFN that all members of WFN were "members" of W Inc., in corporate law terms, simply by virtue of fact that they were members of WFN — Trial judge did not err by applying "black letter" corporate law principles to assessment of issues concerning membership and board of directors of W Inc. — Applicants failed to establish requirements for rectification of W Inc.'s records under s. 309(1) of Corporations Act — Section 309(1) was not intended as tool to resolve complex corporate disputes by facilitating, through exercise of judicial discretion, fundamental changes that intruded on established internal corporate affairs — Applicants failed to establish that management of W Inc. was based on aboriginal rights and practices.

Aboriginal law --- Constitutional issues — Miscellaneous issues

Wasauksing First Nation ("WFN") was native community on island in Lake Huron — Back in 1960s, to gain revenues for its members, WFN decided to lease part of its land as cottage lots — Because Indian Act prohibited Indian bands from alienating land except to Crown, in 1971 W Inc. was incorporated to lease lots and collect and manage rents — Between 1971 and 1993, chief and council in office from time to time acted as de facto directors of W Inc. and were accepted as such by members of WFN and by federal government and all concerned parties dealing with W Inc. — In 1994 and 1995, chief and council at time reorganized W Inc., formally separating its governance from that of WFN by virtue of operating agreement — In 1997, WFN elected new chief and band council ("applicants") who objected to

2004 CarswellOnt 936, 184 O.A.C. 84, [2004] 2 C.N.L.R. 355, 43 B.L.R. (3d) 244, 129 A.C.W.S. (3d) 2

management of W Inc. by previous chief and band council — Applicant and individual members of WFN applied for declaration that all members of WFN were members of W Inc. — Application was dismissed — Applicants appealed — Appeal dismissed — Open to trial judge to find that there was no general understanding or belief amongst all, or even majority, of members of WFN that all members of WFN were "members" of W Inc., in corporate law terms, simply by virtue of fact that they were members of WFN — Trial judge did not err by applying "black letter" corporate law principles to assessment of issues concerning membership and board of directors of W Inc. — Applicants failed to establish requirements for rectification of W Inc.'s records under s. 309(1) of Corporations Act — Section 309(1) was not intended as tool to resolve complex corporate disputes by facilitating, through exercise of judicial discretion, fundamental changes that intruded on established internal corporate affairs — Applicants failed to establish that management of W Inc. was based on aboriginal rights and practices.

**Cases considered:**

*Canadian Pacific Ltd. v. Matsqui Indian Band* (1995), 26 Admin. L.R. (2d) 1, (sub nom. *Matsqui Indian Band v. Canadian Pacific Ltd.*) [1995] 2 C.N.L.R. 92, 122 D.L.R. (4th) 129, 85 F.T.R. 79 (note), [1995] 1 S.C.R. 3, 177 N.R. 325, 1995 CarswellNat 264, 1995 CarswellNat 700 (S.C.C.) — considered

*Casimel v. Insurance Corp. of British Columbia* (1993), 82 B.C.L.R. (2d) 387, 30 B.C.A.C. 279, 49 W.A.C. 279, 106 D.L.R. (4th) 720, 18 C.C.L.I. (2d) 161, [1994] 2 C.N.L.R. 22, 1993 CarswellBC 231 (B.C. C.A.) — distinguished

*Dynamex Canada Inc. v. Miller* (1998), 161 Nfld. & P.E.I.R. 97, 497 A.P.R. 97, 1998 CarswellNfld 88, 37 C.C.E.L. (2d) 41 (Nfld. C.A.) — referred to

*Equity Waste Management of Canada Corp. v. Halton Hills (Town)* (1997), 1997 CarswellOnt 3270, 40 M.P.L.R. (2d) 107, 103 O.A.C. 324, 35 O.R. (3d) 321 (Ont. C.A.) — referred to

*Friends of the Oldman River Society v. Canada (Minister of Transport)* (1992), [1992] 2 W.W.R. 193, [1992] 1 S.C.R. 3, 3 Admin. L.R. (2d) 1, 7 C.E.L.R. (N.S.) 1, 84 Alta. L.R. (2d) 129, 88 D.L.R. (4th) 1, 132 N.R. 321, 48 F.T.R. 160, 1992 CarswellNat 649, 1992 CarswellNat 1313 (S.C.C.) — referred to

*Harelkin v. University of Regina* (1979), [1979] 2 S.C.R. 561, [1979] 3 W.W.R. 676, 26 N.R. 364, 96 D.L.R. (3d) 14, 1979 CarswellSask 79, 1979 CarswellSask 162 (S.C.C.) — referred to

*Housen v. Nikolaisen* (2002), 2002 SCC 33, 2002 CarswellSask 178, 2002 CarswellSask 179, 286 N.R. 1, 10 C.C.L.T. (3d) 157, 211 D.L.R. (4th) 577, [2002] 7 W.W.R. 1, 219 Sask. R. 1, 272 W.A.C. 1, 30 M.P.L.R. (3d) 1, [2002] 2 S.C.R. 235 (S.C.C.) — referred to

*John Austin & Sons Ltd. v. Smith* (1982), 35 O.R. (2d) 272, 132 D.L.R. (3d) 311, 1982 CarswellOnt 1342 (Ont. C.A.) — considered

*Joscelyne v. Nissen* (1969), [1970] 2 Q.B. 86, [1970] 1 All E.R. 1213 (Eng. C.A.) — considered

2004 CarswellOnt 936, 184 O.A.C. 84, [2004] 2 C.N.L.R. 355, 43 B.L.R. (3d) 244, 129 A.C.W.S. (3d) 2

requirements of the Act concerning the regulation of a corporation's structure or affairs.

91 Finally, we do not accept the appellants' argument that an expansive interpretation of s. 309(1) of the Act is required in this case because its invocation is sought in an aboriginal context.

92 The appellants rely on *Nowegijick v. R.*, [1983] 1 S.C.R. 29 (S.C.C.), a case which concerned the issue of whether income earned by a registered Indian living on a reserve was exempt from taxation under the *Income Tax Act*, 1970-71-72 (Can.), c. 63 by virtue of s. 87 of the *Indian Act*, R.S.C. 1970, c. I-6. In considering this issue, the Supreme Court of Canada stated at 36:

It is legal lore that, to be valid, exemptions to tax laws should be clearly expressed. *It seems to me, however, that treaties and statutes relating to Indians should be liberally construed and doubtful expressions resolved in favour of the Indians...*In *Jones v. Meehan*, 175 U.S. 1 (1899), it was held that *Indian treaties "must...be construed, not according to the technical meaning of [their] words...but in the sense in which they would naturally be understood by the Indians*

[emphasis added].

As appears from this passage, the principle of statutory construction referenced by the Supreme Court applies to "treaties and statutes relating to Indians". See also, in the tax exemption rights context, *Mitchell v. Sandy Bay Indian Band*, [1990] 2 S.C.R. 85 (S.C.C.) at paras. 13-15 and, in the context of band taxation tribunal by-laws, *Canadian Pacific Ltd. v. Matsqui Indian Band*, [1995] 1 S.C.R. 3 (S.C.C.), at 67.

93 None of the *Nowegijick*, *Mitchell* or *Matsqui Indian Band* cases suggests that this interpretive principle applies to the construction of statutory provisions of general application, like s. 309(1) of the Act.

94 As well, we do not understand the interpretive principle formulated in *Nowegijick* to mandate the expansive interpretation of laws of general application where such a reading is not otherwise warranted. Were it otherwise, as the trial judge observed, laws of general application concerning corporations could be interpreted so as to create one form of statutory regime for aboriginals and another form of statutory regime, concerned with the same subject matter, for non-aboriginals. *Nowegijick*, *Mitchell* and *Matsqui Indian Band* do not dictate or support such an outcome. To the contrary, as observed by the Supreme Court in *Nowegijick* at p. 36: "Indians are citizens and, in affairs of life not governed by treaties or the *Indian Act*, they are subject to all of the responsibilities, including payment of taxes, of other Canadian citizens."

95 The appellants also argue that an expansive interpretation of a statutory provision is warranted in the aboriginal context if it is demonstrated that an established aboriginal practice conflicts with the applicable statutory provision. Support for this proposition may be found in *K's Adoption Petition, Re* (1961), 32 D.L.R. (2d) 686 (N.W.T. Terr. Ct.) and *Casimel v. Insurance Corp. of British Columbia* (1993), 82 B.C.L.R. (2d) 387 (B.C. C.A.). See also, in the context of membership in an unincorporated association, *Lakeside Colony of Hutterian Brethren v. Hofer*, [1992] 3 S.C.R. 165 (S.C.C.).

2007 CarswellAlta 1678, 2007 ABCA 402, 33 C.E.L.R. (3d) 204, [2008] A.W.L.D. 643, [2008] A.W.L.D. 644, [2008] A.W.L.D. 581, [2008] A.W.L.D. 580, 85 Alta. L.R. (4th) 208, 422 A.R. 113, 415 W.A.C. 113, [2008] 2 C.N.L.R. 363, 75 Admin. L.R. (4th) 75

## H

2007 CarswellAlta 1678, 2007 ABCA 402, 33 C.E.L.R. (3d) 204, [2008] A.W.L.D. 643, [2008] A.W.L.D. 644, [2008] A.W.L.D. 581, [2008] A.W.L.D. 580, 85 Alta. L.R. (4th) 208, 422 A.R. 113, 415 W.A.C. 113, [2008] 2 C.N.L.R. 363, 75 Admin. L.R. (4th) 75

Siksika First Nation v. Alberta (Director, Southern Region, Environment)

The Siksika First Nation (Appellant / Applicant) and The Director Southern Region (Alberta Environment), the Alberta Environmental Appeals Board and The Town of Strathmore (Respondents / Respondents)

Alberta Court of Appeal

E. McFadyen, K. Ritter, J. Watson JJ.A.

Heard: October 12, 2007

Judgment: December 12, 2007[FN\*]

Docket: Calgary Appeal 0601-0319-AC

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Proceedings: reversing *Siksika First Nation v. Alberta (Director, Southern Region, Environment)* (2006), 2006 CarswellAlta 2101 (Alta. Q.B.)

Counsel: L.D. Andrychuk, R.G. Jeerakathil for Appellant

C. Graham, S. Folkins for Respondent, Alberta Environment

A. Sims, Q.C. for Respondent, Alberta Environmental Appeals Board

S. Shawa for Respondent, The Town of Strathmore

Subject: Public; Environmental; Property; Civil Practice and Procedure

Administrative law --- Prerequisites to judicial review — Jurisdiction of court to review — Where issue becoming academic

2007 CarswellAlta 1678, 2007 ABCA 402, 33 C.E.L.R. (3d) 204, [2008] A.W.L.D. 643, [2008] A.W.L.D. 644, [2008] A.W.L.D. 581, [2008] A.W.L.D. 580, 85 Alta. L.R. (4th) 208, 422 A.R. 113, 415 W.A.C. 113, [2008] 2 C.N.L.R. 363, 75 Admin. L.R. (4th) 75

Director of Environment approved town's application for pipeline that would discharge waste water into river which passed through First Nation's reserve — Chambers judge dismissed First Nation's application for judicial review of Director's decision — Chambers judge found that motion was moot and premature because according to review process under Environmental Protection and Enhancement Act, that decision was subject to further appeal to Alberta Environmental Appeals Board and ultimately subject to decision of Minister of Environment — First Nation appealed — Appeal allowed — Matter returned to Court of Queen's Bench — Chambers judge erred in failing to exercise any discretion he might have had to consider merits of First Nation's challenge to director's decision — First Nation not only sought judicial review of director's decision, but also sought declarations as to extent of duty to consult and whether or not that duty could be met by legislative scheme under Act — Motion for declaratory relief was not rendered premature or otherwise moot by reason of there being internal appeal available from director's decision — It was for chambers judge to consider whether process followed by director, board, or Minister, or remedy issued by any of them, might be relevant to consultation or might meet requisites of consultation — First Nation's motion for declarations was not dependent upon stage of legislative process.

Environmental law --- Statutory protection of environment — Approvals, licences and orders — Judicial review — General principles

Where issue becoming academic — Director of Environment approved town's application for pipeline that would discharge waste water into river which passed through First Nation's reserve — Chambers judge dismissed First Nation's application for judicial review of Director's decision — Chambers judge found that motion was moot and premature because according to review process under Environmental Protection and Enhancement Act, that decision was subject to further appeal to Alberta Environmental Appeals Board, and ultimately subject to decision of Minister of Environment — First Nation appealed — Appeal allowed — Matter returned to Court of Queen's Bench — Chambers judge erred in failing to exercise any discretion he might have had to consider merits of First Nation's challenge to director's decision — First Nation not only sought judicial review of director's decision, but also sought declarations as to extent of duty to consult and whether or not that duty could be met by legislative scheme under Act — Motion for declaratory relief was not rendered premature or otherwise moot by reason of there being internal appeal available from director's decision — It was for chambers judge to consider whether process followed by director, board, or Minister, or remedy issued by any of them, might be relevant to consultation or might meet requisites of consultation — First Nation's motion for declarations was not dependent upon stage of legislative process.

Environmental law --- Statutory protection of environment — Approvals, licences and orders — Water — General principles

Discharge from pipeline — Director of Environment approved town's application for pipeline that would discharge waste water into river which passed through First Nation's reserve — Chambers judge dismissed First Nation's application for judicial review of Director's decision — Chambers judge found that motion was moot and premature because according to review process under Environmental Protection and Enhancement Act, that decision was subject to further appeal to Alberta Environmental Appeals Board, and ultimately subject to decision of Minister of Environment — First Nation appealed — Appeal allowed — Matter returned to Court of Queen's Bench — Chambers judge erred in failing to exercise any discretion he might have had to consider merits of First Nation's challenge to



2007 CarswellAlta 1678, 2007 ABCA 402, 33 C.E.L.R. (3d) 204, [2008] A.W.L.D. 643, [2008] A.W.L.D. 644, [2008] A.W.L.D. 581, [2008] A.W.L.D. 580, 85 Alta. L.R. (4th) 208, 422 A.R. 113, 415 W.A.C. 113, [2008] 2 C.N.L.R. 363, 75 Admin. L.R. (4th) 75

director's decision — First Nation not only sought judicial review of director's decision, but also sought declarations as to extent of duty to consult and whether or not that duty could be met by legislative scheme under Act — Motion for declaratory relief was not rendered premature or otherwise moot by reason of there being internal appeal available from director's decision — It was for chambers judge to consider whether process followed by director, board, or Minister, or remedy issued by any of them, might be relevant to consultation or might meet requisites of consultation — First Nation's motion for declarations was not dependent upon stage of legislative process.

Aboriginal law --- Reserves and real property — Miscellaneous issues

Discharge from pipeline — Director of Environment approved town's application for pipeline that would discharge waste water into river which passed through First Nation's reserve — Chambers judge dismissed First Nation's application for judicial review of Director's decision — Chambers judge found that motion was moot and premature because according to review process under Environmental Protection and Enhancement Act, that decision was subject to further appeal to Alberta Environmental Appeals Board, and ultimately subject to decision of Minister of Environment — First Nation appealed — Appeal allowed — Matter returned to Court of Queen's Bench — Chambers judge erred in failing to exercise any discretion he might have had to consider merits of First Nation's challenge to director's decision — First Nation not only sought judicial review of director's decision, but also sought declarations as to extent of duty to consult and whether or not that duty could be met by legislative scheme under Act — Motion for declaratory relief was not rendered premature or otherwise moot by reason of there being internal appeal available from director's decision — It was for chambers judge to consider whether process followed by director, board, or Minister, or remedy issued by any of them, might be relevant to consultation or might meet requisites of consultation — First Nation's motion for declarations was not dependent upon stage of legislative process.

**Cases considered by J. Watson J.A.:**

*Haida Nation v. British Columbia (Minister of Forests)* (2004), 19 Admin. L.R. (4th) 195, 327 N.R. 53, [2004] 3 S.C.R. 511, 36 B.C.L.R. (4th) 282, 206 B.C.A.C. 52, 338 W.A.C. 52, 11 C.E.L.R. (3d) 1, [2005] 1 C.N.L.R. 72, 26 R.P.R. (4th) 1, 2004 CarswellBC 2656, 2004 CarswellBC 2657, 2004 SCC 73, 245 D.L.R. (4th) 33, [2005] 3 W.W.R. 419 (S.C.C.) — referred to

*Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)* (2005), 2005 SCC 69, 2005 CarswellNat 3756, 2005 CarswellNat 3757, [2006] 1 C.N.L.R. 78, 342 N.R. 82, [2005] 3 S.C.R. 388, 21 C.P.C. (6th) 205, 259 D.L.R. (4th) 610, 37 Admin. L.R. (4th) 223 (S.C.C.) — referred to

**Statutes considered:**

*Administrative Procedures and Jurisdiction Act*, R.S.A. 2000, c. A-3

s. 11 — considered

s. 16 — considered

2007 CarswellAlta 1678, 2007 ABCA 402, 33 C.E.L.R. (3d) 204, [2008] A.W.L.D. 643, [2008] A.W.L.D. 644, [2008] A.W.L.D. 581, [2008] A.W.L.D. 580, 85 Alta. L.R. (4th) 208, 422 A.R. 113, 415 W.A.C. 113, [2008] 2 C.N.L.R. 363, 75 Admin. L.R. (4th) 75

*whether any failure, if there was one, to consult, can be cured.* (A.B.D., F9/17-F10/2) [Emphasis added]

8 The chambers judge was correct that there was further activity to come in the statutory process. Subsequent to his decision, the EAB heard the appellant's appeal in February, 2007 and issued a Report and Recommendations to the Minister on April 18, 2007. On May 18, 2007, the Minister issued Ministerial Order No. 11/2007, which amended the Director's order largely in accordance with the EAB's Report and Recommendations. The respondent Town of Strathmore then filed an Operational Plan which, according to the appellant, still failed to adequately address its concerns about discharge.

9 Were this case exclusively within the boundary of the Director's original decision, there would be merit in the submission that the present appeal is moot. However, as noted above, the appellant's motion to the chambers judge sought declarations as to the extent of the duty to consult and whether or not that duty could be met by the legislative scheme under the *EPEA*.

10 For the appellant, these questions did not rest solely on the terms of the Director's decision, nor the terms of any decisions by the EAB or the Minister. In light of ss. 11 and 16 of the *Administrative Procedures and Jurisdiction Act*, R.S.A. 2000, c. A-3, the Director and the EAB did not have jurisdiction to decide a "question of constitutional law". They could not therefore state constitutional law nor transcend the jurisdiction given to them by the *EPEA*. Moreover, the Minister was unlikely to do more than presuppose the constitutionality of his decision.

11 It was for the chambers judge to consider whether the process followed by the Director, the EAB, or the Minister, or a remedy issued by any of them, might be relevant to consultation or might meet the requisites of consultation. Neither following the process nor granting a remedy amounts to a declaration respecting the scope of the duty to consult, nor a declaration that the duty to consult could or could not be met by following the procedural steps set out in the *EPEA*. The formal order of the chambers judge [F19-F20] sets out that he made no decision on these contentions as to consultation. In addition to addressing the appellant's contentions, it was open to the chambers judge to decide that it was not possible to fairly evaluate the consultative capacity of the statutory process at the stage it had reached. However, had he done so, that would amount to a dismissal of the appellant's argument that such a decision could be made on the face of the statutory structure, not a finding that the appellant's arguments were premature.

12 It follows that the appellant's motion for declarations, as argued, was not dependent upon the stage of the legislative process. The appellant contended that the duty to consult in this context was comparable to the duty to consult recognized in the "taking up" cases of *Haida Nation v. British Columbia (Minister of Forests)*, 2004 SCC 73, [2004] 3 S.C.R. 511 (S.C.C.) and *Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)*, 2005 SCC 69, [2005] 3 S.C.R. 388 (S.C.C.) at paras. 63 to 69, where the Supreme Court held that "[t]he determination of the content of the duty to consult will, as *Haida* suggests, be governed by the context."

13 In allowing the appeal and returning the matter to the Court of Queen's Bench, we are not ruling on any of the merits of the appellant's position in this regard. We are, however, persuaded that the appellant's contentions raised live and significant issues, independent of the procedural stage governed by the legislation. They were therefore within the chambers judge's jurisdiction to determine one way or another.

(Consolidated up to 89/2013)

**ALBERTA REGULATION 69/2006**

**Administrative Procedures and Jurisdiction Act**

**DESIGNATION OF CONSTITUTIONAL  
DECISION MAKERS REGULATION**

*Table of Contents*

- 1 Definitions
- 2 Authorization
- 3 Form of notice
- 4 Expiry
- 5 Coming into force

Schedules

**Definitions**

**1** In this Regulation,

- (a) "Charter" means the *Canadian Charter of Rights and Freedoms*;
- (b) "labour arbitrator" means
  - (i) a voluntary arbitration board appointed under Part 2, Division 15 of the *Labour Relations Code*;
  - (ii) a compulsory arbitration board appointed under Part 2, Division 16 of the *Labour Relations Code*;
  - (iii) a public emergency tribunal established under Part 2, Division 18 of the *Labour Relations Code*;
  - (iv) an arbitrator, arbitration board or other body referred to in Part 2, Division 22 of the *Labour Relations Code*;
  - (v) a construction industry disputes resolution tribunal under Part 3, Division 6 of the *Labour Relations Code*;
  - (vi) a compulsory arbitration board established under Part 6 of the *Public Service Employee Relations Act*;

- (vii) an arbitrator appointed under Part 7 of the *Public Service Employee Relations Act*,
- (viii) an interest arbitration board established under Part 3 of the *Police Officers Collective Bargaining Act*;
- (ix) an arbitrator, a grievance arbitration board or other body referred to in Part 4 under the *Police Officers Collective Bargaining Act*;
- (c) "Law Society entity" means the Benchers or a panel, committee or subcommittee of the Benchers or any other entity established, by or under the *Legal Profession Act*.

**Authorization**

**2** The decision makers listed in column 1 of the Schedule have jurisdiction to determine the questions of constitutional law set out opposite them in column 2.

**Form of notice**

**3** The notice for the purpose of section 12(1) of the Act is set out in Schedule 2.

**Expiry**

**4** For the purpose of ensuring that this Regulation is reviewed for ongoing relevancy and necessity, with the option that it may be repassed in its present or an amended form following a review, this Regulation expires on January 31, 2016.

**Coming into force**

**5** This Regulation comes into force on the coming into force of section 8 of the *Administrative Procedures Amendment Act, 2005*.

**Schedule 1**

<b>Column 1</b>	<b>Column 2</b>
<b>Decision Maker</b>	<b>Jurisdiction</b>
Labour Relations Board	all questions of constitutional law
Alberta Energy and Utilities Board	all questions of constitutional law
Law Society entity	all questions of constitutional law
a human rights panel appointed under the <i>Human Rights, Citizenship and Multiculturalism Act</i>	questions of constitutional law arising from the federal or provincial distribution of powers under the Constitution of Canada
labour arbitrators	all questions of constitutional law
Workers' Compensation Board	questions of constitutional law arising from the federal or provincial distribution of powers under the Constitution of Canada
Appeals Commission established under the <i>Workers' Compensation Act</i>	questions of constitutional law arising from the federal or provincial distribution of powers under the Constitution of Canada
Law Enforcement Review Board	questions of constitutional law relating to the Charter
Alberta Securities Commission	questions of constitutional law that relate to the Charter or arising from the federal or provincial distribution of powers under the Constitution of Canada
Alberta Utilities Commission	all questions of constitutional law
Alberta Energy Regulator	all questions of constitutional law

AR 69/2006 Sched.1;254/2007;89/2013



**Schedule 2**

(Administrative Procedures and  
Jurisdiction Act (section 12))

**Notice of Question of Constitutional Law**

To: The Minister of Justice and Solicitor General of Alberta:

To: The Attorney General of Canada:

AND

To: (decision-maker before which question will be raised)

From: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Lawyer (if any): \_\_\_\_\_

Date of hearing: \_\_\_\_\_

I intend to raise the following question(s) of constitutional law. Attached are the details of my argument:

Question(s): \_\_\_\_\_

I intend to seek the following relief: \_\_\_\_\_

Estimated time needed to call evidence and make arguments before the decision-maker: \_\_\_\_\_

Dated: \_\_\_\_\_

Signed: \_\_\_\_\_

**Details of Argument**

Details are to include:

- The grounds to be argued and reasonable particulars of the proposed argument, including a concise statement of the constitutional principles to be argued, references to any statutory provision or rule on which reliance will be placed and any cases or authorities to be relied upon.
- The law in question, the right or freedom alleged to be infringed or denied or the aboriginal or treaty right to be determined, as the case may be.
- The material and documents that will be filed with the decision-maker.
- List of witnesses intended to be called to give evidence before the decision-maker and the substance of their proposed testimony.

AR 69/2006 Sched. 2;170/2012

2012 CarswellAlta 760, 2012 ABCA 130, [2012] A.W.L.D. 1685, [2012] A.W.L.D. 1647, [2012] A.W.L.D. 1630, [2012] A.W.L.D. 1718, [2012] A.W.L.D. 1717, 33 Admin. L.R. (5th) 321, 57 Alta. L.R. (5th) 249, [2012] 6 W.W.R. 211, 2012 C.L.L.C. 210-025, 522 A.R. 197, 544 W.A.C. 197, 349 D.L.R. (4th) 654, 258 C.R.R. (2d) 110

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2012 CarswellAlta 760, 2012 ABCA 130, [2012] A.W.L.D. 1685, [2012] A.W.L.D. 1647, [2012] A.W.L.D. 1630, [2012] A.W.L.D. 1718, [2012] A.W.L.D. 1717, 33 Admin. L.R. (5th) 321, 57 Alta. L.R. (5th) 249, [2012] 6 W.W.R. 211, 2012 C.L.L.C. 210-025, 522 A.R. 197, 544 W.A.C. 197, 349 D.L.R. (4th) 654, 258 C.R.R. (2d) 110

UFCW, Local 401 v. Alberta (Information and Privacy Commissioner)

United Food and Commercial Workers, Local 401 (Respondent/ Applicant) and Information and Privacy Commissioner (Respondent/ Respondent) and Attorney General of Alberta (Appellant/ Respondent)

Alberta Court of Appeal

Frans Slatter, J.D. Bruce McDonald, Donna Read JJ.A.

Heard: January 13, 2012

Judgment: April 30, 2012

Docket: Edmonton Appeal 1103-0211-AC

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Proceedings: varying *U.F.C.W., Local 401 v. Alberta (Information & Privacy Commissioner)* (2011), 2011 ABQB 415, 2011 CarswellAlta 1486, 339 D.L.R. (4th) 279, 2011 C.L.L.C. 210-055, 53 Alta. L.R. (5th) 235, (sub nom. *United Food & Commercial Workers, Local 401 v. Privacy Commissioner (Alta.)*) 509 A.R. 150, [2012] 4 W.W.R. 324, 32 Admin. L.R. (5th) 107 (Alta. Q.B.)

Counsel: R.S. Wiltshire, for Appellant

G.J. Gray, Q.C., V.A. Cosco, for Respondent, United Food and Commercial Workers, Local 401

G.S. Solomon, Q.C., for Respondent, Information and Privacy Commissioner

Subject: Public; Labour; Constitutional

Administrative law --- Standard of review --- Correctness

2012 CarswellAlta 760, 2012 ABCA 130, [2012] A.W.L.D. 1685, [2012] A.W.L.D. 1647, [2012] A.W.L.D. 1630, [2012] A.W.L.D. 1718, [2012] A.W.L.D. 1717, 33 Admin. L.R. (5th) 321, 57 Alta. L.R. (5th) 249, [2012] 6 W.W.R. 211, 2012 C.L.L.C. 210-025, 522 A.R. 197, 544 W.A.C. 197, 349 D.L.R. (4th) 654, 258 C.R.R. (2d) 110

Unionized employees picketed employer, casino — Union videotaped and photographed picket lines — Union advised that images of persons crossing picket line could be placed on its website — Union made posters featuring "mug shot" of vice president of employer, and his image was used in union publications — Complaints were made under Personal Information Protection Act — Adjudicator found statutory exceptions did not apply — Union successfully applied for judicial review, alleging that exceptions infringed s. 2(b) of Canadian Charter of Rights and Freedoms — Chambers judge struck down certain portions of Act — Attorney General of Alberta appealed — Appeal allowed in part — In place of declarations of invalidity, it was declared that application of Act to activities of union was unconstitutional — As adjudicator did not purport to balance Charter with privacy values, there was no truth to decision to review, either for reasonableness, disproportionality, or correctness — Accordingly, standard of review of compliance of decision with Charter was reviewed for correctness — To extent that decision of chambers judge engaged consideration of constitutionality of Act and engaged in review of decision for constitutional compliance, that decision also had to be reviewed for correctness.

Privacy and freedom of information --- Provincial privacy legislation — Constitutional issues

Unionized employees picketed employer, casino — Union videotaped and photographed picket lines — Union advised that images of persons crossing picket line could be placed on its website — Union made posters featuring "mug shot" of vice president of employer, and his image was used in union publications — Complaints were made under Personal Information Protection Act — Adjudicator found statutory exceptions did not apply — Union successfully applied for judicial review, alleging that exceptions infringed s. 2(b) of Canadian Charter of Rights and Freedoms — Chambers judge struck down certain portions of Act — Attorney General of Alberta appealed — Appeal allowed in part — In place of declarations of invalidity, it was declared that application of Act to activities of union was unconstitutional — Chambers judge assessed constitutionality of Act based on inaccurate premise about what Act prohibits, and what adjudicator had ordered — Even though union's purpose was not primarily journalistic, to extent that it did engage in journalistic activities, it was entitled to rely on exemption in Act for that purpose — Further, information could still be used for journalistic purposes or legal proceedings, as those were permitted uses — Information could not, however, be used for educational purposes or leverage in collective bargaining process, as those activities were not exempt.

Privacy and freedom of information --- Provincial privacy legislation — Collection of personal information — Statutory exceptions

Unionized employees picketed employer, casino — Union videotaped and photographed picket lines — Union advised that images of persons crossing picket line could be placed on its website — Union made posters featuring "mug shot" of vice president of employer, and his image was used in union publications — Complaints were made under Personal Information Protection Act — Adjudicator found statutory exceptions did not apply — Union successfully applied for judicial review, alleging that exceptions infringed s. 2(b) of Canadian Charter of Rights and Freedoms — Chambers judge struck down certain portions of Act — Attorney General of Alberta appealed — Appeal allowed in part — In place of declarations of invalidity, it was declared that application of Act to activities of union was unconstitutional — It was not helpful to analyze this situation as "journalism" — With regard to meaning of "journalistic" purposes, it was unreasonable to think that Legislature intended term to be so wide as to encompass everything within phrase "freedom of opinion and expression" — Issue was whether it was justifiable to restrain expression in support of

2012 CarswellAlta 760, 2012 ABCA 130, [2012] A.W.L.D. 1685, [2012] A.W.L.D. 1647, [2012] A.W.L.D. 1630, [2012] A.W.L.D. 1718, [2012] A.W.L.D. 1717, 33 Admin. L.R. (5th) 321, 57 Alta. L.R. (5th) 249, [2012] 6 W.W.R. 211, 2012 C.L.L.C. 210-025, 522 A.R. 197, 544 W.A.C. 197, 349 D.L.R. (4th) 654, 258 C.R.R. (2d) 110  
labour relations and collective bargaining activities such as existed here.

Labour and employment law --- Labour law — Industrial disputes — Picketing — Legality — Effect of Charter of Rights and Freedoms

Unionized employees picketed employer, casino — Union videotaped and photographed picket lines — Union advised that images of persons crossing picket line could be placed on its website — Union made posters featuring "mug shot" of vice president of employer, and his image was used in union publications — Complaints were made under Personal Information Protection Act — Adjudicator found statutory exceptions did not apply — Union successfully applied for judicial review, alleging that exceptions infringed s. 2(b) of Canadian Charter of Rights and Freedoms — Chambers judge struck down certain portions of Act — Attorney General (AG) of Alberta appealed — Appeal allowed in part — In place of declarations of invalidity, it was declared that application of Act to activities of union was unconstitutional — Union had established prima facie breach of its s. 2 Charter rights — AG was not able to justify infringements of free expression — Protection of personal information was no more important than collective bargaining and right of union to communicate its message to public — People did not have right to keep secret everything they did in public, such as crossing picket lines — Adjudicator's order had disproportionate effect on union's Charter rights, rising to level of unreasonableness.

Constitutional law --- Charter of Rights and Freedoms — Nature of remedies under Charter — General principles

Unionized employees picketed employer, casino — Union videotaped and photographed picket lines — Union advised that images of persons crossing picket line could be placed on its website — Union made posters featuring "mug shot" of vice president of employer, and his image was used in union publications — Complaints were made under Personal Information Protection Act — Adjudicator found statutory exceptions did not apply — Union successfully applied for judicial review, alleging that exceptions infringed s. 2(b) of Canadian Charter of Rights and Freedoms — Chambers judge struck down certain portions of Act — Attorney General of Alberta appealed — Appeal allowed in part — In place of declarations of invalidity, it was declared that application of Act to activities of union was unconstitutional — Striking out or reading down portions of Act were not attractive options — Artificially expanding meaning of "journalism" was not helpful solution.

**Cases considered by *Frans Slatter J.A.*:**

*A.T.A. v. Alberta (Information & Privacy Commissioner)* (2011), 339 D.L.R. (4th) 428, 2011 CarswellAlta 2068, 2011 CarswellAlta 2069, 2011 SCC 61, (sub nom. *Alberta Teachers' Association v. Information & Privacy Commissioner (Alta.)*) 424 N.R. 70, 52 Alta. L.R. (5th) 1, 28 Admin. L.R. (5th) 177, [2012] 2 W.W.R. 434, (sub nom. *Alberta (Information & Privacy Commissioner) v. Alberta Teachers' Association*) [2011] 3 S.C.R. 654 (S.C.C.) — considered

*Alliance Pipeline Ltd. v. Smith* (2011), 328 D.L.R. (4th) 1, 56 C.E.L.R. (3d) 161, 16 Admin. L.R. (5th) 157, [2011] 1 S.C.R. 160, 2011 SCC 7, 2011 CarswellNat 202, 2011 CarswellNat 203, 102 L.C.R. 1, 412 N.R. 66 (S.C.C.) — followed

2012 CarswellAlta 760, 2012 ABCA 130, [2012] A.W.L.D. 1685, [2012] A.W.L.D. 1647, [2012] A.W.L.D. 1630, [2012] A.W.L.D. 1718, [2012] A.W.L.D. 1717, 33 Admin. L.R. (5th) 321, 57 Alta. L.R. (5th) 249, [2012] 6 W.W.R. 211, 2012 C.L.L.C. 210-025, 522 A.R. 197, 544 W.A.C. 197, 349 D.L.R. (4th) 654, 258 C.R.R. (2d) 110

stitutionality of the statute calls for an application of the *Oakes* test. On the other hand, it could be argued that the statute is not unconstitutional *per se*, but that the way it was brought to bear in this particular decision was inconsistent with *Charter* values. From that perspective, a *Doré* analysis is called for. Even if the statute is valid, *Doré* confirms that the particular decision must be consistent with *Charter* values: *PHS Community Services Society v. Canada (Attorney General)*, 2011 SCC 44 (S.C.C.) at paras. 116-7, [2011] 3 S.C.R. 134 (S.C.C.). As long as the tribunal's decision correctly interprets the *Charter* text, the decision will not be disturbed unless its assimilation of *Charter* values is disproportional, and therefore unreasonable.

41 The application of *Doré* in Alberta is, however, complicated by the *Administrative Procedures and Jurisdiction Act*, RSA 2000, c. A-3, s.11. It provides that certain tribunals, including the Commissioner and therefore his Adjudicators, have no jurisdiction to decide constitutional and *Charter* issues. The operative definition is:

10 In this part

...

(d) "question of constitutional law" means

(i) any challenge, by virtue of the Constitution of Canada or the *Alberta Bill of Rights*, to the applicability or validity of an enactment of the Parliament of Canada or an enactment of the Legislature of Alberta, or

(ii) a determination of any right under the Constitution of Canada or the *Alberta Bill of Rights*.

These legislative provisions recognize the limited expertise and resources of some tribunals with respect to constitutional issues. They were passed in response to decisions like *Martin v. Nova Scotia (Workers' Compensation Board)*, 2003 SCC 54, [2003] 2 S.C.R. 504 (S.C.C.).

42 The *Administrative Procedures and Jurisdiction Act* should not be viewed as a direction to Alberta tribunals that they should ignore *Charter* values. As *Doré* states at para. 35 "administrative decisions are *always* required to consider fundamental values". But because the statute limits their power to directly resolve *Charter* issues by limiting their jurisdiction, the statute will necessarily influence the standard of review analysis relating to the tribunal's decisions. As *Doré* points out at para. 30, the rule in *Dunsmuir* is based in part on legislative intent, and the intent of the *Administrative Procedures and Jurisdiction Act* is clearly that the excluded tribunals have a limited role to play in this area.

43 The decision in *Doré* was premised at paras. 29, 35 on a tribunal "both bound by fundamental values and empowered to adjudicate them, and that administrative discretion is exercised in light of institutional guarantees and the values they reflect". That important presumption does not prevail in Alberta, where the Legislature has recognized that many tribunals do not have the internal expertise to decide constitutional issues. Further, the Alberta statute reflects a policy decision that the citizens of Alberta are ultimately entitled to have their constitutional rights determined by a superior court.



# TERMS OF REFERENCE FOR DEVELOPING THE LOWER ATHABASCA REGIONAL PLAN

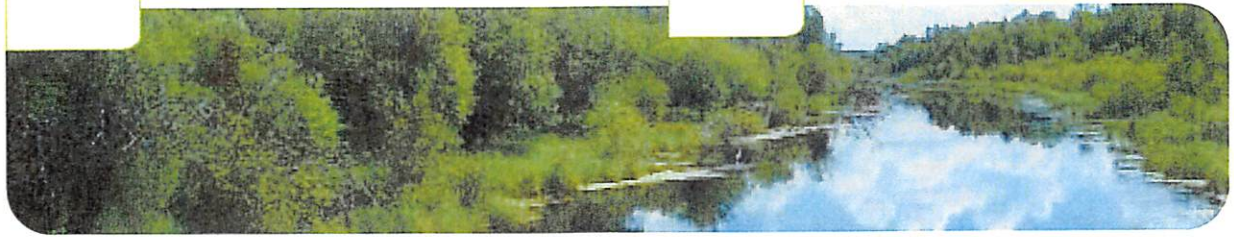


Beaver River



**Government  
of Alberta** ■

# The Land-use Framework



## What is the Land-use Framework?

Alberta's Land-use Framework sets out the new approach for managing public and private lands and natural resources to achieve Alberta's long-term economic, environmental and social goals. It is a blueprint designed to guide us in making decisions about our land and natural resources, developed after extensive consultation with Albertans.

The Land-use Framework establishes three desired outcomes for our province:

- a healthy economy supported by our land and natural resources;
- healthy ecosystems and environment; and
- people-friendly communities with ample recreational and cultural opportunities.

These outcomes are inter-related. How we pursue one unavoidably affects the others. For example, new resource industry projects in a region will create jobs, provide income to local residents and contribute to Alberta's economy. However, they may attract new workers to the region, placing added pressure on the region's public infrastructure and social systems. Each project will also have effects on the air, water, land and biodiversity.

Alberta's economic growth must therefore be balanced with our social and environmental goals. The Land-use Framework is designed to help Alberta achieve this balance through smart growth.

The Land-use Framework sets out seven key strategies for improving land-use decision-making in Alberta.

1. Develop seven regional plans based on seven new land-use regions.
2. Create a Land Use Secretariat and establish a Regional Advisory Council (RAC) for each region.
3. Cumulative effects management will be used at the regional level to manage the impacts of development on land, water and air.

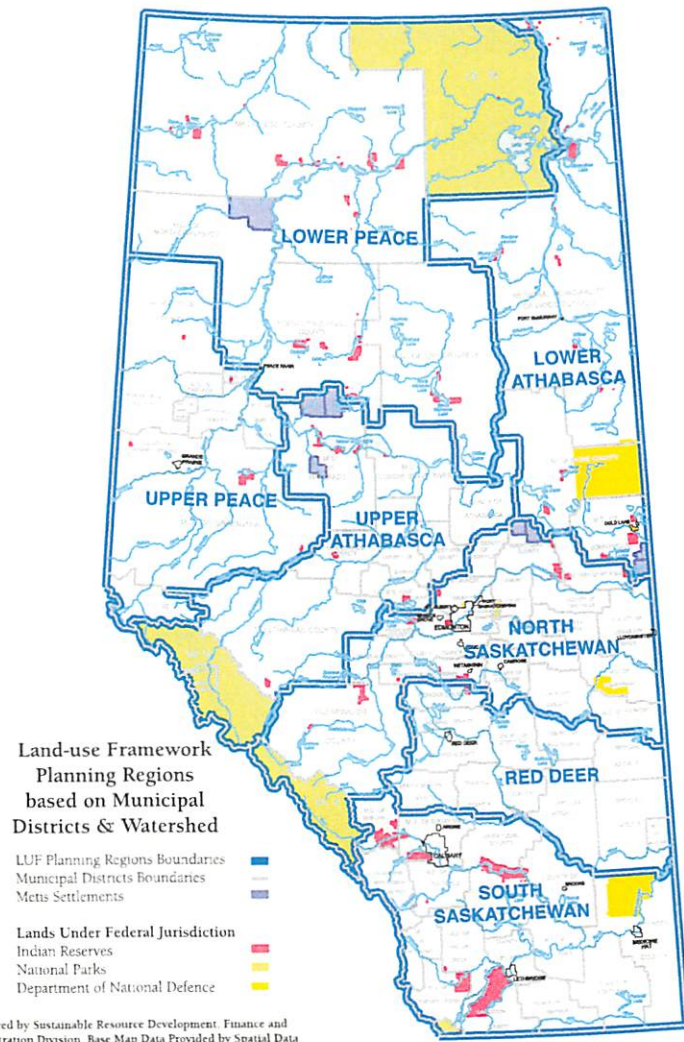




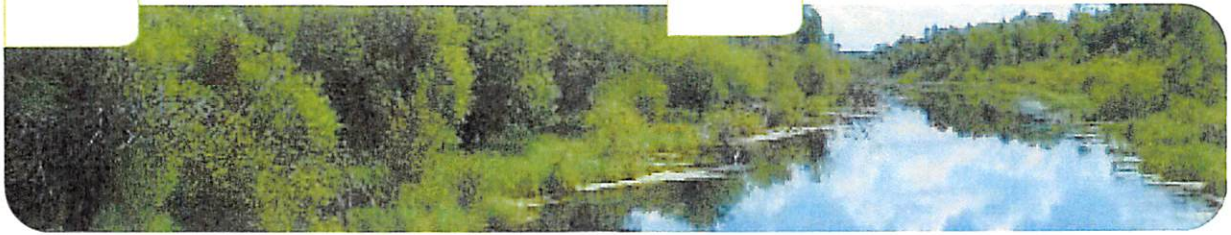
4. Develop a strategy for conservation and stewardship on private and public lands.
5. Promote efficient use of land to reduce the footprint of human activities on Alberta's landscape.
6. Establish an information, monitoring and knowledge system to contribute to continuous improvement of land-use planning and decision-making.
7. Inclusion of Aboriginal peoples in land-use planning.

The first three strategies involve the development of regional land-use plans for our province.

This document sets out the process by which these regional plans will be developed, and provides guidance from Cabinet on specific economic, environmental and social factors that must be considered.



# Regional Planning



## What will a regional plan do?

Each regional plan will address the current conditions in a region, and will anticipate and plan for the major activities, opportunities and challenges in that region over the long-term.

A regional plan is intended to paint a picture of how a region should look over several decades. At the broadest level, each regional plan will consider a planning horizon of at least 50 years. The plan will be designed to be effective for a five to 10 year period, after which it will be reviewed and updated as needed to address the realities of the day.

As set out in the Land-use Framework, regional plans are designed to integrate and achieve – not hinder – the Government of Alberta's environmental, economic and social objectives over the long-term.

Each regional plan will articulate desired outcomes for a region, which should reflect and integrate provincial policies and objectives that have been set by Cabinet. In effect, the plan will demonstrate how major provincial strategies will align with each other at the regional level.

Regional plans will also set thresholds to manage the cumulative effects of development at the regional level. This recognizes that a region's airsheds, watersheds and landscapes are not limitless; this will help guide future development in the region.

Regional plans need to balance regional and provincial considerations. Airsheds and watersheds, for example, cross regional boundaries. Transportation and utility systems and corridors (e.g., highways) span multiple regions. Each regional plan must therefore consider how choices made in the region will impact other, adjacent land-use regions.

Lands under federal jurisdiction, such as First Nations lands, national parks and military lands, also need to be considered. Although a regional plan will not direct activities on these lands, it must consider the long-term needs of these areas and how they may impact desired outcomes in the region.

## Who is responsible for regional planning?

The Government of Alberta is responsible for regional planning. Regional plans will be reviewed and approved by Cabinet, and they will become official policies of the Government of Alberta. Municipalities and Alberta government departments will be required to comply with regional plans in their decision-making.



Regional planning also involves local input. For each land-use region, a Regional Advisory Council is being established. Each RAC is comprised of members with a cross-section of social, economic and environmental expertise and experience. They will bring local insight and perspectives on present and future land-use activities and challenges in the region. The mandate of the RAC is to provide advice to Cabinet regarding the regional plan.

## What's in a regional plan?

A regional plan sets out information about the state of a region today. It describes our future vision and outcomes for that region. And it articulates the strategies, actions and approaches that should be followed to ensure the region is developed in ways that achieve the vision and outcomes.

Each regional plan will contain the same main components:

### **Profile of the Region**

The plan will summarize the current state of the region, discussing key economic, environmental and social considerations and trends in land use. Major issues facing the region now and in the future will be highlighted, with particular attention to the next decade.

### **Policy Context**

The plan will explain the context in which the plan is being created. This includes key policy direction and instructions provided by Cabinet that framed the plan's development.

### **Regional Vision Statement**

The plan will set out a vision that describes the desired future of the region. This vision must support the outcomes and principles of the Land-use Framework.

### **Regional Outcomes**

The plan will outline integrated outcomes that qualitatively describe what we want to achieve at the regional level to support the three outcomes of the Land-use Framework: a healthy economy supported by our land and natural resources; healthy ecosystems and environment; and people-friendly communities with ample recreational and cultural opportunities.





### Objectives and Goals

The plan will describe what must be done to achieve the regional vision and outcomes, and it will set quantitative, measurable targets and thresholds in this regard. The plan will also identify trade-offs and choices that will be made in the region to balance economic development with environmental and social considerations, and it will provide rationale for these choices.

### Strategies, Actions and Approaches

The plan will also recommend possible regulatory and non-regulatory approaches that could be used to achieve the plan's objectives and goals.

### Monitoring and Reporting

The plan will outline how the Alberta government will monitor, track and report on the quantitative targets and thresholds that have been established in the plan.



## What process will be followed?

The development of a regional plan is a complex task, involving a significant amount of data, policy input and decision-making. It requires collaboration among the Alberta government, the Regional Advisory Council and those working, living and doing business in the region.

The Alberta government's Land Use Secretariat will oversee the development of each regional plan. It will provide policy analysis, research and administrative support to the RAC. A project team, representing Alberta government ministries and agencies, will work with the Land Use Secretariat to develop the regional plan.



Cabinet will provide guidance to the RAC regarding the economic, environmental and social expectations for the region in the context of the entire province. This will ensure that the regional plan is consistent with the Alberta government's vision, objectives and priorities for the province.

The government will also consider input on the draft regional plan through public, stakeholder and Aboriginal consultations.

Cabinet will approve the final plan, which local governments, provincial departments and other decision-makers will need to follow. Once the regional plan is approved, the Alberta government will determine what action will be taken to implement the plan.

This overall process will ensure that development of the regional plan responds to new and emerging issues and meets the expectations of Albertans.



## How will regional plans be developed?

The RAC will start by conceptualizing the region in broad terms. It will provide advice on **what** the region should look like over the long-term and **how** activities in the region should be planned.

As the RAC is informed by data, modelling projections and provincial policies about the region, it will refine its advice in more focused and specific terms.



Guidance from Cabinet will be provided in stages, framing the work of the RAC as it progressively narrows its focus from broad to specific questions and issues.

In turn, the RAC will feed back advice to Cabinet, which will inform the development of the regional plan.

This will be an evolving conversation between Cabinet and the RAC as the RAC addresses important and complex questions about land use in the region.

The Government of Alberta has articulated many broad policy objectives at the provincial level. But applying those at a regional level won't be a simple exercise.

Some policy objectives may conflict with each other. Some will have greater relevance in one region than in other regions. Some policy objectives will be more achievable in certain regions and less achievable in other regions.

An important part of the RAC's work is to sort out these issues, based on the guidance it receives from Cabinet about the region. Guidance will include elements such as:

- general directions on priorities for the region;
- specific policies that should be considered by the RAC;
- qualitative and quantitative assumptions that the RAC should follow;
- possible land-use conflicts that must be reconciled; and
- key land-use questions on which Cabinet would like the RAC's advice.



## What issues will Cabinet provide guidance on?

Cabinet will provide the RAC with guidance regarding three major aspects of land-use:



### **The Balance Between Development and Environment**

Economic development is important for creating jobs and prosperity for Albertans. But development must be balanced with protection of



the environment, to ensure current and future generations have clean airsheds, watersheds and landscapes and healthy ecosystems. The RAC will be given guidance about how to strike this balance in the region.

#### **Assessment and Allocation of Resources**

Resources such as air, water and land have finite carrying capacity. Assessing and allocating these resources for different land-use activities (e.g., conservation, recreation, agriculture) will be an aspect of the RAC's work.

#### **Policy Alignment**

The RAC will be asked to identify policy gaps or conflicts that must be addressed in order to align provincial policies with the regional plan.

### **What will Regional Advisory Councils (RACs) provide advice on?**

The RACs will provide advice on the following:

#### **Future Development**

Each RAC will provide advice on how the region should develop over the long-term while achieving:

- a healthy economy supported by our land and natural resources;
- healthy ecosystems and environment; and
- people-friendly communities with ample recreational and cultural opportunities.

#### **Regional Outcomes**

Within the context of provincial outcomes set by Cabinet and the Land-use Framework, the RACs will provide advice on desired outcomes at the regional level.

#### **Provincial Policies**

The RACs will provide advice on how these policies should work together at the regional level.

#### **Trade-offs**

The RACs will provide advice on how competing land uses in the region should be reconciled and how trade-offs could be addressed.

#### **Public Input**

The RACs will provide advice on public and stakeholder consultations in the region as part of the regional planning process.

## Are there limits on what the RACs will do?

The following issues fall outside the scope of regional plans, and will not be considered by the RACs:

### **Municipal Governance**

Regional plans will not consider the re-organization or restructuring of municipalities in the province, nor make recommendations concerning the dissolution, amalgamation or creation of municipalities.



### **Aboriginal Consultation**

Alberta's *First Nation Consultation Policy on Land Management and Resource Development* will guide Aboriginal consultations. Regional plans will not modify the policy.

### **Population Limits**

Regional plans will not consider or set maximum caps on human population or settlement.

### **Taxation**

Regional plans shall not address tax policy, tax rates or questions regarding taxation of individuals or businesses.

### **Provincial Royalties**

Regional plans shall not address or make recommendations concerning provincial royalties.



### **Government Expenditures**

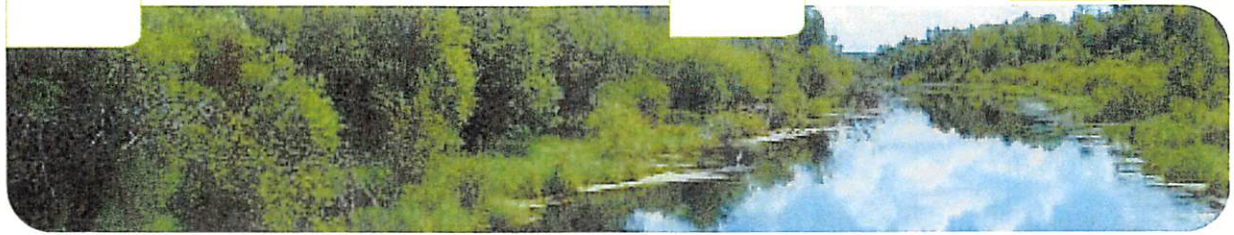
Regional plans will not stipulate, estimate or recommend levels of capital or operating expenditures required of the Government of Alberta or cost-sharing arrangements concerning infrastructure. Budgetary decisions remain the sole responsibility of the Government of Alberta as part of the plan's implementation. The plans may recognize, as part of meeting the overall objectives, that investment in infrastructure is required and may suggest efficient ways to implement.

### **Existing Laws and Regulations**

It is recognized that objectives and goals in the regional plans may require legislative and regulatory changes during implementation. The Alberta government will assess and determine the need for such changes, and make any required changes through Alberta's legislative procedures. The RACs are not being asked to advise on current laws and regulations but may pass comments to Cabinet as part of their advice should something become apparent as part of their deliberations.



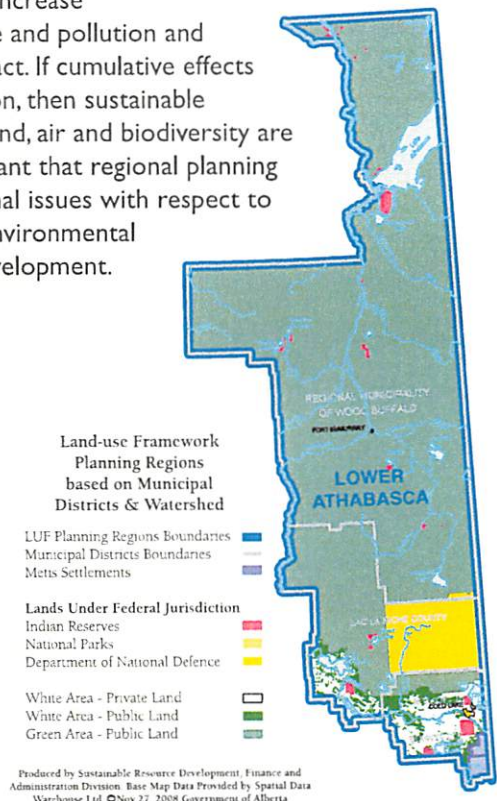
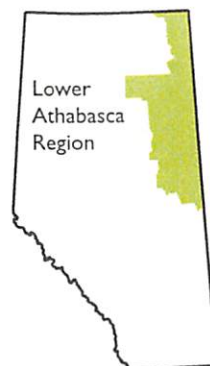
# The Lower Athabasca Region



The **Lower Athabasca Region** includes the Regional Municipality of Wood Buffalo, Lac La Biche County and the Municipal District of Bonnyville.

The Land-use Framework identified the Lower Athabasca Regional Plan as an immediate priority. On December 19, 2008, the Government of Alberta appointed a Regional Advisory Council for the Lower Athabasca.

First Nations and Métis have expressed serious concerns about the state of their traditional areas. Some seek creation of “preserved” areas to ensure the future of treaty rights. First Nations believe they should be consulted on regional plans beyond the land-use region in which their reserve lands lie because of the broad expanse of traditional territory. Aboriginal people are concerned that the rapid pace of development will increase environmental disturbance and pollution and that government will not act. If cumulative effects thresholds are not set soon, then sustainable environments for water, land, air and biodiversity are compromised. It is important that regional planning take into account Aboriginal issues with respect to Aboriginal consultation, environmental protection and human development.







## Balance between development and environment

Initial guidance to the RAC from government regarding the balance between development and environment in the Lower Athabasca, is provided in four key areas:

- economic growth and development scenarios;
- land conservation objectives;
- regional air and water thresholds; and
- human development considerations.



### Economic growth and development scenarios

The Lower Athabasca is major source of economic growth in Alberta. The region contains almost all of Alberta's proven oil sands reserves, and is home to the majority of oil sands developments in the province. Natural gas production is concentrated in the southern part of the region, and supports oil sands developments.

The forest industry is also a major contributor to economic development in the region. Timber production is estimated at 3.5 million cubic metres per year.

The region's economic growth has been a key driver of the provincial economy, creating jobs and opportunities for residents in the Lower Athabasca region and the rest of the province. Royalties and taxes from the energy and forestry industries contribute significant revenues to the Alberta Treasury, helping fund infrastructure and important programs and services for all Albertans.

- For the 2007-2008 fiscal year, the oil sands contributed almost \$3 billion in royalties to Alberta.
- In 2007, total revenue generated from the forest industry in the Lower Athabasca, directly and indirectly, was approximately \$1.4 billion. Currently, \$1.5 to \$4.3 million is generated as revenue to the provincial Crown.

Alberta's vision is to be "a global energy leader, recognized as a responsible world-class energy supplier; an energy technology champion, a sophisticated energy consumer; and a solid global environmental citizen."<sup>1</sup> The international and provincial significance of the oil sands resource means that oil sands development will continue to form a centrepiece of this vision.



<sup>1</sup> Provincial Energy Strategy

Future oil sands development will depend on a number of factors, including:

- commodity prices;
- global energy demand;
- cost constraints, such as labour, materials and compliance costs;
- physical constraints, such as availability of qualified labour and infrastructure;
- environmental objectives; and
- the development and use of new technologies and innovations.

The current level of bitumen production is 1.3 million barrels per day (mbd). Our knowledge of the oil sands resource shows that it is possible to produce 6.0 or more mbd from this deposit. In the short-term, oil sands development will mostly involve expansion of existing projects and those where significant upfront capital has already been invested.

Future development of the oil sands resource is expected to expand outwards beyond the concentrated locations within the bitumen land base, where the return on investment is highest and is in proximity to existing infrastructure.

About 40 per cent of the Lower Athabasca land base (or about 400 townships) is underlain with known oil sands deposits that are commercially attractive or potentially commercial bitumen, based on the ultimate potential of the resource.

Existing surface mining and in-situ developments, including associated infrastructure, are concentrated in locations throughout the Lower Athabasca land base. They comprise approximately two per cent of the land base.

The land base associated with bitumen deposits also supports many communities in the Lower Athabasca, as well as the forest industry and a range of other uses/activities. The scope of future oil sands development therefore engages other land-use considerations, including the following:

- land use must be managed to meet regional and local environmental objectives, such as the protection of vulnerable waterbodies and wetlands;
- land use must be managed to include Aboriginal traditional use activities; and
- social infrastructure, municipal growth, community and labour needs will need to be addressed.

Expansion of oil sands developments also has consequences for timber harvesting, reforestation and reclamation schedules. The forest industry's planning horizon is about 200 years, or two timber rotations.

Coniferous timber quota holders and Alpac have the rights to harvest timber in the region. Much of the fibre supply for their mills will come from integrated operations with oil sands operators, where timber is harvested in advance of oil sands development. However, timber shortfalls may start to be seen in 2050, as oil sands development occurs at a pace faster than harvesting and reforestation schedules. To address potential timber shortfalls, a range of strategies will need to be explored.



How these land-use considerations are influenced will depend on the nature and extent of future oil sands development. Given the volatility of energy prices and market demand, it makes sense to consider a number of economic development scenarios in developing the regional plan.

The RAC will consider three development scenarios, as follows:

#### **Current State Scenario**

Energy prices remain moderate. Existing production levels continue, with some new investments made. Current environmental management systems and technology continue to be employed. Production levels are approximately 1.5 to 2.0 mbd.



#### **Mid-range Scenario**

Increased average energy prices. Production levels grow with new investments. Technological advancements and innovations are employed, aimed at achieving environmental objectives. Production grows to meet a mid-range level of demand, and to a point of cost constraints. Production levels are approximately 4.0 to 4.5 mbd.

#### **High-end Scenario**

Robust and sustained energy prices. Production levels increase in response to increased energy demand. Technological advancements and innovations are employed, aimed at achieving environmental objectives. Project and compliance costs remain moderate, with limited cost constraints. Production levels are 6.0 mbd or more.



The mid-range scenario is achievable based on bitumen production increasing at a rate of 20 per cent each year. Government has set an aspiration goal of one-third (i.e., 1.3 to 1.5 mbd) bitumen production for bitumen sales, one-third for synthetic crude sales (i.e., upgraded), and one-third for value-added products and petrochemicals. Based on the stated goal, a bitumen production rate of approximately 4.0 to 4.5 mbd would be required. Market analysis is to be undertaken by the Government of Alberta to determine if this goal is economically achievable.

The RAC will explore these three development scenarios within the context of desired cumulative environmental management objectives for the Lower Athabasca.



In exploring each of these scenarios, the advice provided by the RAC should be consistent with the following guidelines:

- resource development in the Lower Athabasca Region will remain a key economic driver for Alberta. Accordingly, the land base should be managed to support economic development opportunities as the primary but not sole priority;
- the three development scenarios are to be explored within the context of desired cumulative environmental thresholds for the region, as outlined below; and
- options should be developed to address potential forest land base shortfalls in the Lower Athabasca Region over the long-term (i.e., 50 or more years). Continued oil sands development will provide sufficient timber for the region's mills over the next several decades. Strategies are needed over the long-term to prevent or minimize timber shortfalls – such as enhanced reclamation, and integrated land management.



## Land conservation objectives

The Lower Athabasca Region contains diverse landforms, vegetation and species. Maintaining this biodiversity is an important environmental objective. Healthy ecosystems are essential for supporting human life.

Conservation land areas are designed to maintain ecological systems and processes, and are also used for measuring ecological performance in these areas against performance in developed areas.

The dominant ecosystem in the Lower Athabasca is the Boreal forest, which stretches across northern and central Alberta and spans six of Alberta's land-use planning regions. It therefore makes sense that conservation objectives for the Lower Athabasca be established within the context of the Boreal forest.

All regional plans will consider conservation of the Boreal forest and make specific recommendations to government. All regional plans will take into account what is already conserved. For example, Wood Buffalo National Park already protects approximately nine per cent of Alberta's Boreal forest. The province will consider these recommendations as well as those of other external stakeholders as part of a province-wide approach to Boreal forest conservation. For example, the Canadian Boreal Forest Conservation Framework has a goal to protect at least 50 per cent of the Boreal forest in a network of large interconnected protected areas across Canada.



Key criteria for establishing conservation areas include the following:

- areas with little or no industrial activity;
- areas that support Aboriginal traditional uses;
- areas that are representative of the biological diversity of the area (e.g., landforms, species, vegetation); and
- areas of sufficient size (i.e., roughly 4,000-5,000 square kilometres).



Conservation areas also provide landscape connectivity. The protective nature of conservation areas, however, engages other land-use considerations in the Lower Athabasca. Specifically for this region:

- a considerable amount of land area in the region is underlain with oil sands deposits that are commercially attractive or potentially attractive in the future. Development activity is already occurring on some of this land area;
- about six per cent of the Lower Athabasca land base currently contributes to conservation objectives. An additional 10 per cent of the land base could meet the above key criteria for conservation areas, without conflicting with mineral tenure; these would be mostly situated in the northern part of the region. Taken together, the existing total of 16 per cent of the Lower Athabasca could meet conservation criteria without conflicting with mineral tenure;
- however, the Land-use Framework is about striking a new balance between development and the environment. To move beyond the status-quo, a scenario of 20 per cent of the Boreal forest will be used to test the implications of expanding the amount of conserved land;
- a sizeable portion of Lower Athabasca lands are already underlain with mineral tenure – that is, rights to develop oil sands, petroleum, natural gas, coal, metallic and industrial minerals. To achieve a total of 20 per cent conservation in the Lower Athabasca, there could be conflicts with mineral tenure in approximately 40 townships. Some conflicts may occur with current development activities, depending on the location;
- in cases where conservation areas conflict with mineral tenure (as regards surface or in situ development), current policies and regulations (i.e., under the auspices of the *Mines and Minerals Act*) enable the Alberta government to cancel the mineral leases and provide compensation to the leaseholder;
- conservation areas remove lands not only from industrial development, but also from residential development. The region has already experienced a rapid growth in population and will continue to see population increases in the future; and
- various organizations have identified conserving a range of land areas that overlap with the Lower Athabasca Region. For example, Cumulative Environmental Management Association (CEMA), recommended designating between 20 and 40 per cent of the





actual land mass conserved. Including areas such as Wood Buffalo National Park in a conserved area could have a significant impact on the calculation of the actual land mass conserved.

Establishing and achieving a new conservation objective will be very challenging in the Lower Athabasca due to the concentration of oil sands resources in the region, and the scope of development activity underway or expected. Nevertheless, the importance of ecosystem health makes it important to plan conservation areas for the region.

The RAC will provide advice consistent with the following guidelines:

- observe the key criteria for conservation lands as outlined above, and assess and advise which lands in the region could meet these criteria;
- demonstrate how the conservation scenario can be met, while minimizing and limiting any negative impacts, including mineral tenure and fiscal implications; and
- explore the feasibility of meeting a conservation scenario higher than 20 per cent, while achieving the stated economic objectives.

## Regional air and water thresholds

The Government of Alberta is committed to ensuring a healthy environment for current and future generations. In addition to good management of land, there is a need to protect airsheds and watersheds.

The government is shifting to a regional approach for managing the cumulative effects of development. This approach recognizes that airsheds and watersheds have a limited carrying capacity. Each new development has incremental effects on air and water. Together, the effects of all developments exert a cumulative impact.

Under cumulative effects management, regional thresholds for air and water will be established. These will represent the maximum allowable impacts in the region. Development will need to be managed such that these thresholds are not exceeded.

Management of river water and groundwater resources in the Lower Athabasca Region involves several management frameworks, including the Lower Athabasca River Water Management Framework, the Cold Lake-Beaver River Water Management Plan and the Groundwater Management Frameworks.

- *Lower Athabasca River Water Management Framework* – This is a strategy for managing and monitoring cumulative water withdrawals by oil sands companies. It specifies the cumulative water withdrawal limits that industry must meet on a weekly basis,



based on categories of naturally occurring flow conditions. The actions and withdrawal limits were developed based on aquatic habitat requirements, water needs and existing options for reducing withdrawals.

- Estimates were made of freshwater demand by oil sands mines (compared to water supply established in the *Lower Athabasca Water Management Framework*) for the various scenarios. The estimates are based on current ratios of freshwater needed per barrel of production.



- **current state scenario** – it is anticipated that water required from the Athabasca River will grow from 4.4 m<sup>3</sup> per second to 10.6 m<sup>3</sup> per second in 2020. By 2016, it is anticipated that industry will need to have storage to accommodate low flow periods. However, most operators could fulfill this need with existing on-site storage.
- **mid-range scenario** – at 4.0 mbd of bitumen production, the water requirements are projected to increase to 17 m<sup>3</sup> per second. Sustaining this production forecast would require eight to 10 weeks of storage to be available roughly every three years to accommodate low flow periods. To achieve this would likely require the development of better water recycling technologies or development of off-site storage.
- **high-end scenario** – at 6.0 mbd of bitumen production, water requirements are projected to increase to around 27 m<sup>3</sup> per second by 2030. Sustaining this level of production would require 28 weeks of storage every two years. If recent dry conditions continue, it could be every year. Again, this would require improvements in water conservation and efficiency as well as storage.



- *Groundwater Management Frameworks* – The Lower Athabasca Region is divided into three areas for groundwater management, reflecting differences in geology:
  - Athabasca Oil Sands Region (where mining operations are located) – interim framework has been developed and is currently undergoing technical review;
  - South Athabasca Oil Sands Region (in situ operations) – interim framework has been developed and is currently undergoing technical review; and
  - Cold Lake-Beaver River Basin area – to be completed in 2010.



These represent a current state of the knowledge of quality and quantity of groundwater resources in each area. They summarize challenges to the resource, and provide measurable, pragmatic outcomes.

These frameworks will form the basis of water thresholds established by the Alberta government for the Lower Athabasca region.



In regards to airshed management, regional thresholds for oxides of nitrogen ( $\text{NO}_x$ ) and sulphur dioxide ( $\text{SO}_2$ ) emissions will be established. The Lower Athabasca Region includes two airshed organizations within its boundaries, the Wood Buffalo Environmental Association and the Lakeland Industry and Community Association.

The  $\text{NO}_x$  and  $\text{SO}_2$  thresholds will be based on:

- a technical review and assessment of existing and projected oil sands operations; and
- the application of “best available technology economically achievable” to manage emissions from both existing and new oil sands operations.

Thresholds will consider cumulative environmental impacts (e.g., acidification of soil and lakes, etc.) on key condition indicators and may be adjusted accordingly.

The management of cumulative effects on watershed and airsheds will be important aspects of regional planning. Given the importance of future resource developments in the Lower Athabasca, the regional plan will need to consider how air and water thresholds can be monitored and achieved.

The RAC will use the established watershed and airshed thresholds in developing the regional plan, and will provide advice consistent with the following guidelines:

- The three development scenarios to be explored (i.e., current state, mid-range and high-end) should be assessed with reference to the specified regional cumulative environmental thresholds for air and water.
- If both economic and environmental objectives can not both be satisfied in each scenario, then options should be assessed and recommended.

## Human development considerations

Economic development opportunities in the Lower Athabasca will not only need to be balanced with environmental objectives. Land-use planning also involves social considerations. These relate to society or its organization, including living in organized communities and factors such as culture, health and well-being and safety.

Land-use considerations that relate to social and human development include:

### First Nations and Métis

Traditional use lands encompass much of the Lower Athabasca. There are 17 First Nations reserve lands, two Métis Settlements, and several communities with high Métis populations in the region. It will be



important that continued opportunities exist for Aboriginal traditional uses to be in close proximity to First Nations and Métis communities.

The Alberta government is committed to consult with Aboriginal people where land management and resource development on provincial Crown lands may adversely affect treaty or Aboriginal rights; and to consider First Nations and Métis traditional uses.



### **Recreation and Tourism**

There is great potential for increased tourism and recreational development opportunities in the region, particularly in Lakeland Country. Additional opportunities would reduce the amount of tourism and recreational investment that is lost to British Columbia and Saskatchewan. It would also help meet the growing recreational needs of residents in the region and the rest of the province.

### **Transportation and Utility Corridors**

Major transportation and utility corridors offer the opportunity to consolidate critical infrastructure within pre-defined areas, thereby reducing land fragmentation and environmental impacts.

There is a need for a robust, reliable and efficient utility and transportation system that will include a link within the Lower Athabasca, and between the region and the rest of the province. Connection with the Industrial Heartland will be a particularly important consideration.



### **Population Growth**

The current population of the Lower Athabasca is approximately 130,000, with most of the population located in the urban service area of Fort McMurray, Cold Lake, Bonnyville, and Lac La Biche County. In 2008, the shadow population of the Regional Municipality of Wood Buffalo was estimated at 25,000-30,000 people.

The population of the Lower Athabasca has expanded rapidly in a relatively short period of time and future development will drive further population growth. Challenges associated with adequate provision of services, such as housing and municipal infrastructure, are likely to continue. These impacts need to be considered in regional planning, as they also have the potential to act as constraints on future growth (e.g., supply of qualified labour, utilities, etc.).



In providing its advice on the development of the regional plan, the RAC should:

- consider options for tourism development with emphasis on Lakeland Country;
- consider options for recreational development, including advice on effective management of recreation activities on provincial Crown land;
- provide advice on the general location of major transportation and utility corridors in the region and the considerations that

must be addressed by the Alberta government in planning the specific locations;

- provide advice on the implications associated with the three economic development scenarios (i.e., current state, mid-range, high-end) as they affect population growth and labour needs; and
- provide advice on impacts to Aboriginal communities as well as treaty and other constitutional rights exercised by members of those communities.

## Additional guidance

The RAC will also observe the following additional guidance in developing the regional plan:

### Vision for the Lower Athabasca

A considerable amount of prior consultation, policy setting and decision-making concerning the Lower Athabasca Region has already occurred. For example, a great deal of input was gathered in the course of developing Alberta's strategic plan for the oil sands, *Responsible Actions*. The RAC will use this input as it develops an overall vision for the Lower Athabasca Region.

### Integration of Provincial Policies

The RAC will articulate desired strategies for the Lower Athabasca Region that reflect and integrate provincial policies and objectives. Specifically, the RAC will consider the following policies:

- *Aboriginal Policy Framework*
- *Alberta's Plan for Parks*
- *A Place to Grow: Alberta's Rural Development Strategy*
- *Building and Educating Tomorrow's Workforce*
- *Clean Air Strategy*
- *Climate Change Strategy 2008*
- *Cold Lake-Beaver River Water Management Plan (2006)*
- *Launching Alberta's Energy Future: Provincial Energy Strategy*
- *Responsible Actions: A Plan for Alberta's Oil Sands*
- *The Spirit of Alberta: Alberta's Cultural Policy*
- *Vision 2020: The Future of Health Care in Alberta*
- *Water for Life: Alberta's Plan for Sustainability (Renewal 2008)*
- *Water Management Framework: Instream Flow Needs Water Management System for the Lower Athabasca (2007)*



## Proposed Timelines for Regional Plan Completion

The Lower Athabasca Regional Plan will be developed in the following stages:

### Spring - Fall 2009



- Cabinet guidance provided through the Terms of Reference for the Lower Athabasca Regional Plan.
- Vision, outcomes and objectives for the Lower Athabasca Regional Plan to be developed.
- RAC provides advice based on Cabinet guidance, informing the development of the regional plan.
- Public, stakeholder and Aboriginal consultations on the draft Vision, Outcomes and Objectives will be held, using the Alberta government's consultation processes.

### Winter 2010



- Draft Lower Athabasca Regional Plan to be developed.
- Public, stakeholder and Aboriginal consultations on the draft regional plan will be held, using the Alberta government's consultation processes.
- Feedback from the consultation process will inform further work on the regional plan.
- Final, comprehensive draft of the Lower Athabasca Regional Plan submitted to Cabinet for final review and approval.






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ISBN: 978-0-7785-8479-7 (Printed Version)  
978-0-7785-8480-3 (Online Version)  
Pub No. I/354  
Printed July 2009

1994 CarswellNat 8, 14 C.E.L.R. (N.S.) 1, [1994] 1 S.C.R. 159, 20 Admin. L.R. (2d) 79, 112 D.L.R. (4th) 129, [1994] 3 C.N.L.R. 49, 163 N.R. 241, J.E. 94-363, EYB 1994-67299

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1994 CarswellNat 8, 14 C.E.L.R. (N.S.) 1, [1994] 1 S.C.R. 159, 20 Admin. L.R. (2d) 79, 112 D.L.R. (4th) 129, [1994] 3 C.N.L.R. 49, 163 N.R. 241, J.E. 94-363, EYB 1994-67299

Quebec (Attorney General) v. Canada (National Energy Board)

GRAND COUNCIL OF CREES (OF QUEBEC) and CREE REGIONAL AUTHORITY v. ATTORNEY GENERAL OF CANADA, ATTORNEY GENERAL OF QUEBEC, HYDRO-QUÉBEC and NATIONAL ENERGY BOARD

SIERRA LEGAL DEFENCE FUND, CANADIAN ENVIRONMENTAL LAW ASSOCIATION, CULTURAL SURVIVAL (CANADA), FRIENDS OF THE EARTH and SIERRA CLUB OF CANADA (intervenors)

Supreme Court of Canada

Lamer C.J.C., La Forest, L'Heureux-Dubé, Sopinka, Gonthier, Cory, McLachlin, Iacobucci and Major JJ.

Heard: October 13, 1993

Judgment: February 24, 1994

Docket: Doc. 22705

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*Judith B. Hanebury*, for respondent National Energy Board

*Gregory J. McDade* and *Stewart A.G. Elgie*, for intervenors

Subject: Environmental; Public

1994 CarswellNat 8, 14 C.E.L.R. (N.S.) 1, [1994] 1 S.C.R. 159, 20 Admin. L.R. (2d) 79, 112 D.L.R. (4th) 129, [1994] 3 C.N.L.R. 49, 163 N.R. 241, J.E. 94-363, EYB 1994-67299

Public Utilities --- Regulatory boards — Licensing (public convenience and necessity)

Native law — Constitutional issues — National Energy Board considering applications potentially affecting aboriginal rights — Function of board being quasi-judicial — No fiduciary duty on board to change hearing procedures or make decisions in best interest of aboriginal peoples.

Approvals, licences and orders — Licences to export electricity — National Energy Board being subject to Environmental Assessment and Review Process Guidelines Order — Environmental effects of new generating facilities unknown — Board required to ensure further study and re-screening or public review of proposal — Appropriate for board to impose conditions requiring further environmental assessment documentation — No duplication or improper delegation — Environmental Assessment and Review Process Guidelines Order, SOR/84-467.

Public utilities — Regulatory boards — Licensing — National Energy Board granting export licences to Hydro-Québec — Board imposing conditions requiring application of federal environmental assessment procedures for new generation facilities — Proper for board to consider overall environmental impacts of new facilities related to export — Conditions upheld.

In 1989, Hydro-Québec entered into two agreements to supply 1,450 megawatts of electricity to New York and Vermont over contract periods from 5 to 25 years for \$25 billion. The power would be supplied by Hydro's grid network, but required Hydro-Québec to advance construction of the James Bay II project to cover all customers over the life of the agreements. Hydro-Québec applied to the National Energy Board for licences to export the electricity.

In its decision, the board applied 1990 amendments to the *National Energy Board Act* and granted the licences, but imposed conditions respecting the federal *Environmental Assessment and Review Process Guidelines Order*. The conditions required Hydro-Québec to ensure that the new production facilities required to supply exports had been subjected to appropriate federal environmental assessment procedures and federal environmental standards and guidelines. Hydro-Québec was also required to file the environmental assessment documents and recommendations, government authorizations, and a statement of measures that Hydro-Québec would take to minimize negative environmental effects. An additional condition stipulated that the generation of exported thermal energy shall not contravene federal environmental standards or guidelines.

Hydro-Québec and the Attorney General of Québec appealed the board's conditions, while the Grand Council of the Crees of Québec and the Cree Regional Authority appealed the board's granting of the licences. The Federal Court of Appeal granted the appeals of Hydro-Québec and the Attorney General of Québec, but dismissed the appeal of the Grand Council of the Crees and the Cree Regional Authority, who further appealed to the Supreme Court of Canada.

#### **Held:**

The appeal was allowed and board's order was restored.



1994 CarswellNat 8, 14 C.E.L.R. (N.S.) 1, [1994] 1 S.C.R. 159, 20 Admin. L.R. (2d) 79, 112 D.L.R. (4th) 129, [1994] 3 C.N.L.R. 49, 163 N.R. 241, J.E. 94-363, EYB 1994-67299

The board acted within its jurisdiction in granting the export licences. In considering the social costs and benefits of the exports, the board had evidence from Hydro-Québec upon which it could reasonably conclude that the export price would recover an appropriate share of costs incurred in Canada. In considering this matter, it was not a jurisdictional error for the board to take into account the fact that the export contracts had received provincial approval. Because the appellants had access to all material before the board, the board did not breach the requirements of procedural fairness respecting the issue of cost recoverability.

Because the appellants were aboriginal peoples, there was a fiduciary relationship between the Crown and the appellants. However, this relationship did not impose a fiduciary duty on the board to make its decision in the best interests of the appellants, or to change the hearing process so as to impose superadded disclosure requirements. The board exercised quasi-judicial decision-making authority, and it would be inconsistent to impose a relationship of utmost good faith between the board and a party appearing before the board.

The board must exercise its decision-making authority in accordance with the Constitution, including s. 35(1) of the *Constitution Act, 1982*. However, it was not possible to determine the impact of the board's decision on the appellants' aboriginal rights without referring to the James Bay and Northern Quebec Agreement, on which the appellants disavowed reliance. In any event, assuming that the board's decision had prima facie effects on the appellants' aboriginal rights, and assuming that the board must conduct a rigorous cost-benefit review to justify interference with aboriginal rights, the review carried out by the board was not wanting in this respect.

The board did not exceed its jurisdiction in considering the environmental effects of the construction of future generating facilities which are related to the proposed export. Under the application review process of the *National Energy Board Act*, the board has the power to consider all factors which appear to be relevant, including the environmental effects of generating the power for export. The Court of Appeal erred in limiting the scope of the board's inquiry to the environmental effects of transmitting the power by wire across the border. To limit the inquiry to the effects resulting from the physical act of transmission is an unduly narrow interpretation of the board's role under the elaborate regulatory review process.

It is proper for the board to consider the overall environmental costs of granting the proposed licences, even where licence approval means accelerating the construction of facilities which would have been built in any event to meet domestic needs. If the new facilities are required to serve, among other needs, the demands of an export contract, then the environmental effects of the construction of such facilities are related to the export. In these circumstances, it is appropriate for the board to consider the source of the electrical power to be exported, and the environmental costs that are associated with the generation of that power. While the board's authority should be limited to matters of federal concern, the scope of the board's inquiry should not be narrowed to such a degree as to render the board's function meaningless or ineffective.

The *Environmental Assessment and Review Process Guidelines Order* applied to the board's decision whether to grant the export licences. Because Hydro-Québec declined to provide information on the overall impact of the construction and operation of the planned facilities, the board concluded that the environmental effects of such facilities were unknown. Accordingly, the board was required by s. 12(d) of the Guidelines Order to ensure that the project was subject to further study and subsequent re-screening, or that it was submitted to a public review. The conditions im-

1994 CarswellNat 8, 14 C.E.L.R. (N.S.) 1, [1994] 1 S.C.R. 159, 20 Admin. L.R. (2d) 79, 112 D.L.R. (4th) 129, [1994] 3 C.N.L.R. 49, 163 N.R. 241, J.E. 94-363, EYB 1994-67299

posed by the board satisfied this obligation, and did not amount to an improper delegation of the board's responsibility under the Guidelines Order. Rather, the conditions attempted to avoid duplication while continuing the jurisdiction of the board over the matter.

**Cases considered:**

*Bell Canada v. Canada (Canadian Radio-Television & Telecommunications Commission)*, [1989] 1 S.C.R. 1722, 38 Admin. L.R. 1, 60 D.L.R. (4th) 682, 97 N.R. 15 — *referred to*

*Canada (Canadian Radio-Television & Telecommunications Commission) v. London Cable TV Ltd.*, [1976] 2 F.C. 621, (sub nom. *Re Canada (Canadian Radio-Television Commission)*) 13 N.R. 292, (sub nom. *London Cable TV Ltd. v. Canada (Canadian Radio-Television & Telecommunications Commission)*) 29 C.P.R. (2d) 268, 67 D.L.R. (3d) 267 (Ont. C.A.) [leave to appeal refused (sub nom. *Canada Cablesystems (Ont.) Ltd. v. Consumers' Assn. (Canada)*) [1977] 2 S.C.R. 740, 77 D.L.R. (3d) 641, 15 N.R. 111, 30 C.P.R. (2d) 76] — *referred to*

*Canadian Wildlife Federation Inc. v. Canada (Minister of the Environment)* (1989), 4 C.E.L.R. (N.S.) 201, 31 F.T.R. 1, affirmed (1990), [1991] 1 F.C. 641, 6 C.E.L.R. (N.S.) 89, 121 N.R. 385 (C.A.) — *referred to*

*Cardinal v. Kent Institution*, [1985] 2 S.C.R. 643, 16 Admin. L.R. 233, [1989] 1 W.W.R. 577, 69 B.C.L.R. 255, 49 C.R. (3d) 35, 63 N.R. 353, 23 C.C.C. (3d) 118, 24 D.L.R. (4th) 44 — *referred to*

*Committee for Justice & Liberty v. Canada (National Energy Board)*, [1978] 1 S.C.R. 369, 9 N.R. 115, 68 D.L.R. (3d) 716 — *referred to*

*Friends of the Island Inc. v. Canada (Minister of Public Works)*, [1993] 2 F.C. 229, 10 C.E.L.R. (N.S.) 204, 61 F.T.R. 4, 102 D.L.R. (4th) 696 (T.D.) — *applied*

*Friends of the Oldman River Society v. Canada (Minister of Transport)*, [1992] 1 S.C.R. 3, 7 C.E.L.R. (N.S.) 1, [1992] 2 W.W.R. 193, 84 Alta. L.R. (2d) 129, 132 N.R. 321, 88 D.L.R. (4th) 1, 3 Admin. L.R. (2d) 1 — *considered*

*Gilludahl v. British Columbia (Minister of Forests)* (August 13, 1992), Doc. Vancouver A922935, Newbury J. (B.C. S.C.) — *referred to*

*Guerin v. R.*, [1984] 2 S.C.R. 335, [1984] 6 W.W.R. 481, 20 E.T.R. 6, (sub nom. *Guerin v. Canada*) 36 R.P.R. 1, 55 N.R. 161, 13 D.L.R. (4th) 321, [1985] 1 C.N.L.R. 120 — *referred to*

*International Corona Resources Ltd. v. LAC Minerals Ltd.*, [1989] 2 S.C.R. 574, 6 R.P.R. (2d) 1, 44 B.L.R. 1, 35 E.T.R. 1, 69 O.R. (2d) 287, 26 C.P.R. (3d) 97, 61 D.L.R. (4th) 14, 101 N.R. 239, 36 O.A.C. 57 — *referred to*

*Lakeside Colony of Hutterian Brethren v. Hofer*, [1992] 3 S.C.R. 165, [1993] 1 W.W.R. 113, 142 N.R. 241, 97 D.L.R. (4th) 17, 81 Man. R. (2d) 1, 30 W.A.C. 1 — *referred to*

1994 CarswellNat 8, 14 C.E.L.R. (N.S.) 1, [1994] 1 S.C.R. 159, 20 Admin. L.R. (2d) 79, 112 D.L.R. (4th) 129, [1994] 3 C.N.L.R. 49, 163 N.R. 241, J.E. 94-363, EYB 1994-67299

original rights. In this appeal, the appellants argue that the decision of the Board to grant the licences will have a negative impact on their aboriginal rights, and that the Board was therefore required to meet the test of justification as set out in *Sparrow*.

44 It is obvious that the Board must exercise its decision-making function, including the interpretation and application of its governing legislation, in accordance with the dictates of the Constitution, including s. 35(1) of the *Constitution Act, 1982*. Therefore, it must first be determined whether this particular decision of the Board, made pursuant to s. 119.08(1) of the *National Energy Board Act*, could have the effect of interfering with the existing aboriginal rights of the appellants so as to amount to a prima facie infringement of s. 35(1).

45 The respondents in this appeal argue that it cannot. They assert that, with the signing by the appellants of the James Bay and Northern Quebec Agreement, incorporated in the *James Bay and Northern Quebec Native Claims Settlement Act*, S.C. 1976-77, c. 32 ("the *James Bay Act*"), the appellants ceded and renounced all aboriginal rights except as set out in the Agreement. Since the act of granting a licence neither requires nor permits the construction of the new production facilities which the appellants claim will interfere with their rights, and since the Agreement itself provides for a participatory review process to authorize the construction of such facilities, Hydro-Québec and the Attorney General of Quebec argue that no prima facie infringement results from the decision of the Board.

46 The evaluation of these competing arguments requires an examination and interpretation of the Agreement as embodied in the *James Bay Act*. The appellants, however, requested that this question be determined without reference to the Agreement or to the Act, since its interpretation and application form the subject of other legal proceedings involving the parties to this appeal. The appellants accordingly placed no reliance on this document in their assertion of a breach of aboriginal rights.

47 In my view, it is not possible to evaluate realistically the impact of the decision of the Board on the rights of the appellants without reference to the *James Bay Act*. The respondents assert that the rights of the appellants are limited to those set out in this document. The validity of this assertion cannot be tested without construing the provisions of the Agreement.

48 Moreover, even assuming that the decision of the Board is one that has, prima facie, an impact on the aboriginal rights of the appellants, and that the appellants are correct in arguing that, for the Board to justify its interference, it must, at a minimum, conduct a rigorous, thorough, and proper cost-benefit review, I find, for the reasons expressed above, that the review carried out in this case was not wanting in this respect.

#### **E. Environmental Impact Assessment**

49 Given that the social cost-benefit analysis appears to have been reasonable, the sole remaining ground on which the decision of the Board can be impugned relates to the environmental impact assessment carried out by the Board. It must be determined both whether the Board followed the procedures for such an assessment set out in the *National Energy Board Act* and in the EARP Guidelines Order, and whether the imposition of conditions 10 and 11 was a valid mechanism for fulfilling these requirements. If it is found that the conditions imposed by the Board caused it to exceed, or alternately to fail to exercise, its jurisdiction, it must also be determined whether the conditions are

2010 CarswellAlta 804, 2010 ABCA 137, [2010] 2 C.N.L.R. 316, [2010] A.W.L.D. 2783, [2010] A.W.L.D. 2784, [2010] A.W.L.D. 2785, [2010] A.W.L.D. 2705, [2010] A.W.L.D. 2706, [2010] A.W.L.D. 2707, [2010] A.W.L.D. 2733, [2010] A.W.L.D. 2734, [2010] A.W.L.D. 2735, 50 C.E.L.R. (3d) 38, 23 Alta. L.R. (5th) 1, [2010] 10 W.W.R. 627, 482 A.R. 198, 490 W.A.C. 198, 189 A.C.W.S. (3d) 1

**HL**

2010 CarswellAlta 804, 2010 ABCA 137, [2010] 2 C.N.L.R. 316, [2010] A.W.L.D. 2783, [2010] A.W.L.D. 2784, [2010] A.W.L.D. 2785, [2010] A.W.L.D. 2705, [2010] A.W.L.D. 2706, [2010] A.W.L.D. 2707, [2010] A.W.L.D. 2733, [2010] A.W.L.D. 2734, [2010] A.W.L.D. 2735, 50 C.E.L.R. (3d) 38, 23 Alta. L.R. (5th) 1, [2010] 10 W.W.R. 627, 482 A.R. 198, 490 W.A.C. 198, 189 A.C.W.S. (3d) 1

**Tsuu T'ina Nation v. Alberta (Minister of Environment)**

The Tsuu T'ina Nation and Chief Sandford Big Plume on behalf of himself and all other members of the Tsuu T'ina Nation (Appellant / Applicant) and Her Majesty the Queen In Right of Alberta, as Represented by the Minister of Environment, the Lieutenant Governor In Council and the Attorney General of Alberta (Respondents / Respondents)

The Samson Cree Nation and Chief Victor Buffalo, on behalf of himself and all other members of the Samson Cree Nation (Appellant / Applicant) and Her Majesty the Queen In Right of Alberta, as Represented by the Minister of Environment, the Lieutenant Governor In Council and the Attorney General of Alberta (Respondents / Respondents)

**Alberta Court of Appeal**

Ellen Picard, Clifton O'Brien, Patricia Rowbotham JJ.A.

Heard: November 3, 2009

Judgment: April 28, 2010[FN\*]

Docket: Calgary Appeal 0801-0272-AC

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Proceedings: affirming *Tsuu T'ina Nation v. Alberta (Minister of the Environment)* (2008), 39 C.E.L.R. (3d) 28, [2009] 2 W.W.R. 735, 2008 ABQB 547, 2008 CarswellAlta 1182, 96 Alta. L.R. (4th) 65, (sub nom. *Tsuu T'ina Nation v. Alberta (Environment)*) [2008] 4 C.N.L.R. 259, 453 A.R. 114 (Alta. Q.B.)

Counsel: L.D. Andrychuk, Q.C., C.D. Leonard for Appellants

S.M.C. Folkins, A.L. Edgington, W. Gierulski for Respondents

Subject: Public; Civil Practice and Procedure; Constitutional; Environmental; Natural Resources; Property

2010 CarswellAlta 804, 2010 ABCA 137, [2010] 2 C.N.L.R. 316, [2010] A.W.L.D. 2783, [2010] A.W.L.D. 2784, [2010] A.W.L.D. 2785, [2010] A.W.L.D. 2705, [2010] A.W.L.D. 2706, [2010] A.W.L.D. 2707, [2010] A.W.L.D. 2733, [2010] A.W.L.D. 2734, [2010] A.W.L.D. 2735, 50 C.E.L.R. (3d) 38, 23 Alta. L.R. (5th) 1, [2010] 10 W.W.R. 627, 482 A.R. 198, 490 W.A.C. 198, 189 A.C.W.S. (3d) 1

Public law --- Crown — Practice and procedure involving Crown in right of province — Miscellaneous

Application to strike evidence in context of duty to consult analysis — Demand for non-irrigation water was expected to increase 52 to 136 per cent over next 50 years in area where population was likely to triple, so committees were struck to study issue — Resulting water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of approval of plan, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Crown brought application to strike portions of some of First Nations' affidavits and exhibits — Application to strike was dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

Aboriginal law --- Practice and procedure — Evidence — Admissibility

Demand for non-irrigation water was expected to increase 52 to 136 per cent over next 50 years in area where population was likely to triple, so committees were struck to study issue — Resulting water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of approval of plan, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Crown brought application to strike portions of some of First Nations' affidavits and exhibits — Application to strike was dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

Aboriginal law --- Constitutional issues — Treaty rights

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, and plan was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of plan's approval, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Applications dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising



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his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

#### Aboriginal law --- Aboriginal rights to natural resources — Miscellaneous

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, and plan was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of plan's approval, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Applications dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

#### Environmental law --- Constitutional issues — Jurisdiction to enact environmental legislation — Scope of enabling statute

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, and plan was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of plan's approval, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Applications dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

#### Environmental law --- Statutory protection of environment — Approvals, licences and orders — Water — Public water supply

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, and plan was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of plan's approval, declara-

2010 CarswellAlta 804, 2010 ABCA 137, [2010] 2 C.N.L.R. 316, [2010] A.W.L.D. 2783, [2010] A.W.L.D. 2784, [2010] A.W.L.D. 2785, [2010] A.W.L.D. 2705, [2010] A.W.L.D. 2706, [2010] A.W.L.D. 2707, [2010] A.W.L.D. 2733, [2010] A.W.L.D. 2734, [2010] A.W.L.D. 2735, 50 C.E.L.R. (3d) 38, 23 Alta. L.R. (5th) 1, [2010] 10 W.W.R. 627, 482 A.R. 198, 490 W.A.C. 198, 189 A.C.W.S. (3d) 1

tions regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Applications dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

#### Natural resources --- Waters and watercourses — Miscellaneous

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, and plan was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of plan's approval, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Applications dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

#### Environmental law --- Statutory protection of environment — Environmental assessment — Aboriginal interests

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to new allocations except for limited purposes, including those of Treaty Seven First Nations, and plan was approved by Cabinet and affirmed in council — First Nations brought applications for judicial review of plan's approval, declarations regarding duty to consult and accommodate, and order setting aside order and enjoining Crown from implementing plan — Applications dismissed — First Nations appealed — Appeal dismissed — Declaratory relief was discretionary, and there was no good reason to grant declaration in circumstances where chambers judge, exercising his judicial discretion, declined to do so — Moreover, it was relevant to exercise of discretion to note that these same issues and claims for relief were presently before Court of Queen's Bench in existing litigation commenced by appellant First Nations — It seems reasonable that these issues, including determination of appropriate relief, should be left to be dealt with in context of broader litigation.

#### Public law --- Crown — Crown property — Grants of Crown lands — Interpretation of grants — Grants of rights regarding streams and rivers

Demand for water was expected to increase 52 to 136 per cent over next 50 years in area where population could triple, so committees struck to study issue devised water management plan (plan) recommending closure of river basins to

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**Cases considered by *Clifton O'Brien J.A.*:**

*Authorson (Litigation Guardian of) v. Canada (Attorney General)* (2003), (sub nom. *Authorson v. Canada (Attorney General)*) 2003 C.E.B. & P.G.R. 8051, (sub nom. *Authorson v. Canada (Attorney General)*) 227 D.L.R. (4th) 385, (sub nom. *Authorson v. Canada (Attorney General)*) 109 C.R.R. (2d) 220, (sub nom. *Authorson v. Canada (Attorney General)*) 306 N.R. 335, (sub nom. *Authorson v. Canada (Attorney General)*) 66 O.R. (3d) 734 (note), (sub nom. *Authorson v. Canada (Attorney General)*) [2003] 2 S.C.R. 40, 2003 CarswellOnt 2773, 2003 CarswellOnt 2774, 2003 SCC 39, 36 C.C.P.B. 29, (sub nom. *Authorson v. Canada (Attorney General)*) 175 O.A.C. 363, 4 Admin. L.R. (4th) 167 (S.C.C.) — considered

*Brokenhead Ojibway Nation v. Canada (Attorney General)* (2009), 44 C.E.L.R. (3d) 1, [2009] 3 C.N.L.R. 36, 2009 CarswellNat 4884, 2009 CF 484, 345 F.T.R. 119 (Eng.), 2009 CarswellNat 1339, 2009 FC 484 (F.C.) — considered

*Delgamuukw v. British Columbia* (1997), 220 N.R. 161, 153 D.L.R. (4th) 193, [1997] 3 S.C.R. 1010, 99 B.C.A.C. 161, 162 W.A.C. 161, 1997 CarswellBC 2358, 1997 CarswellBC 2359, [1998] 1 C.N.L.R. 14, [1999] 10 W.W.R. 34, 66 B.C.L.R. (3d) 285 (S.C.C.) — considered

*Haida Nation v. British Columbia (Minister of Forests)* (2004), 19 Admin. L.R. (4th) 195, 327 N.R. 53, [2004] 3 S.C.R. 511, 36 B.C.L.R. (4th) 282, 206 B.C.A.C. 52, 338 W.A.C. 52, 11 C.E.L.R. (3d) 1, [2005] 1 C.N.L.R. 72, 26 R.P.R. (4th) 1, 2004 CarswellBC 2656, 2004 CarswellBC 2657, 2004 SCC 73, 245 D.L.R. (4th) 33, [2005] 3 W.W.R. 419 (S.C.C.) — considered

*Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)* (2005), 2005 SCC 69, 2005 CarswellNat 3756, 2005 CarswellNat 3757, [2006] 1 C.N.L.R. 78, 342 N.R. 82, [2005] 3 S.C.R. 388, 21 C.P.C. (6th) 205, 259 D.L.R. (4th) 610, 37 Admin. L.R. (4th) 223 (S.C.C.) — considered

*R. v. Lefthand* (2007), 2007 CarswellAlta 850, 2007 ABCA 206, [2007] 4 C.N.L.R. 281, 222 C.C.C. (3d) 129, [2007] 10 W.W.R. 1, 77 Alta. L.R. (4th) 203 (Alta. C.A.) — considered

*R. v. Lefthand* (2008), 2008 CarswellAlta 195, 2008 CarswellAlta 196, (sub nom. *R. v. Eagle Child*) 454 A.R. 176

2010 CarswellAlta 804, 2010 ABCA 137, [2010] 2 C.N.L.R. 316, [2010] A.W.L.D. 2783, [2010] A.W.L.D. 2784, [2010] A.W.L.D. 2785, [2010] A.W.L.D. 2705, [2010] A.W.L.D. 2706, [2010] A.W.L.D. 2707, [2010] A.W.L.D. 2733, [2010] A.W.L.D. 2734, [2010] A.W.L.D. 2735, 50 C.E.L.R. (3d) 38, 23 Alta. L.R. (5th) 1, [2010] 10 W.W.R. 627, 482 A.R. 198, 490 W.A.C. 198, 189 A.C.W.S. (3d) 1

fish. If there is presently any adverse impact on the water use of the Application, (either directly or as an adjunct their other rights) it is a result of the priority system as set out in the *Water Act* and the licences already granted. These are historical facts and not the result of the decisions under review or the SSRB Plan.

83 The appellants intimate that the chambers judge, in assessing potential adverse impacts (at para. 138) overlooked his observation that, as a result of transfers by existing licence holders of under-utilized allocations, it is likely "that more water will be consumed, exacerbating the water shortage". The appellants point to the expected reduced flows as seriously impacting on the fish population, and thereby adversely affecting their right to fish.

84 As already noted, the provisions for transferring licences were part of the existing Water Plan approved in 2002 (prior to the Phase II planning), and consequently were not part of the proposed government action during the relevant time frame. In any event, the transfers are subject to holdbacks by the Director, which the chambers judge commented may "partially offset" any negative impact of transfers that are approved (para. 138). In that event, the holdbacks may provide a future source of water to the First Nations.

85 Finally, with respect to the transfer of water licences, the Plan, incorporating both Phases I and II, contemplates public review and requires an applicant for a transfer to give public notice. A further requirement was added to the Plan - that the concerns of the First Nations must be considered as part of the review. It should not be supposed that every transfer of a water licence is adverse to the interests of the First Nations. However, with respect to transfers which the First Nations may consider adverse, they will have opportunity to have their concerns considered. In my view, the chambers judge was correct in refusing to "speculate" as to "the scope of any duty to consult which may or may not arise in those transfer approval applications" (para. 140). Such will depend upon the particular circumstances surrounding an application.

86 The appellant First Nations submit that the Plan further adversely affected their rights, by recommending that the 1991 Crown reservation be repealed and replaced. It is argued that the 1991 Crown reservation was an instrument used to address First Nation water needs that would provide them with a 1991 priority. In result, it is said that the First Nations will thereby be lower in priority than thousands of other licences for approximately 4 to 4.5 million acre feet granted between 1991 and 1999.

87 This submission with respect to the repeal of the *SSRB Water Allocation Regulation*, A.R. 307/91, was not commented upon by the chambers judge and, in any event, appears to be misconceived. The *1991 Regulation* reserved all water in the SSRB to the Crown under section 12 of the *Water Resources Act*, R.S.A. 1980, c. W-5. All licences issued thereafter come out of the water reserved under that *Regulation*.

88 Priorities under the *Water Resources Act* were assigned according to the date of the completed application for a licence. Accordingly, any priorities obtained under the *Regulation* were based upon application date, and not the date of the *1991 Regulation*. The new *Water Act* made no change affecting priorities under the *1991 Regulation*.

89 In short, the overall effect of Phase II that constituted the proposed government action is to enhance conser-

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vation and to improve aquatic environment. The adverse impacts alleged by the appellants are not attributable to the Plan. The focus of their concerns originates with the regime, as existing at the time that Phase II was put forward by Alberta Environment. At worst, the Plan did not change the *status quo* relative to those concerns, although these concerns were beyond the scope of the mandate of Phase II. In any event, it is difficult to construe the maintenance of the *status quo* with respect to the concerns of the appellants as constituting an adverse impact arising from the proposed government action.

90 Finally, with respect to adverse impact, it is useful to consider the object of the consultation. In *Haida*, the duty to consult was aimed at finding an "interim" solution (para. 44) in order "to preserve" the Haida interest pending resolution of the claim to aboriginal rights, including title (para. 77). It was clear, in that case, that if the forests were logged out pending determination of their claim, they would "find themselves deprived of forests that are vital to their economy and their culture", which could never be replaced (para. 7).

91 The situation in this case is very different. The rivers and water bodies are not likely to disappear pending the resolution of the claims of the appellant First Nations, even if the time frame for determination is many years. In fact, if the Plan is successful, the environment and aquatic health will be improved, and the exercise of the treaty hunting rights will be enhanced rather than impaired. This is to be contrasted with the situation in *Mikisew Cree*, where the court found that the impacts of the road in that case "were clear, established and demonstrably adverse to the continued exercise of the Mikisew hunting and trapping rights over the lands in question", (para. 55). Even then, it was held that the Crown's duty to consult lay "at the lower end of the spectrum" (para. 64).

92 At the heart of the concern of the appellant First Nations is that other water users will gain priorities to water and thereby deprive the appellants of the control of the management of the waters, which they claim to own, and to have priority for their uses. However, if the appellants should succeed in their litigation presently before the courts and they are found to possess aboriginal rights to water, and it is further found that the *Water Act* and all predecessor legislation enacted by the Province of Alberta since 1930 constitutes an unjustified infringement of their treaty and aboriginal rights, then the priorities under the existing regime will be in issue and required to be re-addressed. In other words, the government and third parties may bear the risks. In any event, the appellants are not facing a peril similar to that faced in *Haida*. The degree of irreparable harm, if any, to the First Nations, pending resolution of their claims, is an appropriate consideration in determining the scope and level of consultation that should take place for the purpose of preserving rights in the interim.

93 While the above analysis of potential adverse impacts of the SSRB Plan applies to both the Tsuu T'ina and the Samson Cree, it applies to the rights and claims of the Samson Cree with even greater force. The Red Deer River was identified as being hydrologically the healthiest of the SSRB Rivers. The Plan recommends that a cap be placed when allocations reach a certain level, and for further review at that time. In the meantime, the Plan recommends a water conservation objective that will leave more water in the river than the in-stream objective that existed before the Plan.

94 The Samson Cree seek to protect a claimed right to take and transport water from the Red Deer River, to meet their future needs where they reside. To the extent that the Samson Cree have hunting and fishing rights in the Red Deer River Sub-basin (and may ultimately be able to establish water and water management rights relative to the



**C**

Canada Federal Statutes

**Constitution Act, 1867**

¶ VI. — Distribution of Legislative Powers

¶ Powers of the Parliament

**s 91. Legislative Authority of Parliament of Canada**

Federal English Statutes reflect amendments current to May 7, 2014

Federal English Regulations are current to Gazette Vol. 148:10 (May 7, 2014)

**91. Legislative Authority of Parliament of Canada**

It shall be lawful for the Queen, by and with the Advice and Consent of the Senate and House of Commons, to make Laws for the Peace, Order, and good Government of Canada, in relation to all Matters not coming within the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces; and for greater Certainty, but not so as to restrict the Generality of the foregoing Terms of this Section, it is hereby declared that (notwithstanding anything in this Act) the exclusive Legislative Authority of the Parliament of Canada extends to all Matters coming within the Classes of Subjects next hereinafter enumerated; that is to say,

1. Repealed.
- 1A. The Public Debt and Property.
2. The Regulation of Trade and Commerce.
- 2A. Unemployment insurance.
3. The raising of Money by any Mode or System of Taxation.
4. The borrowing of Money on the Public Credit.
5. Postal Service.
6. The Census and Statistics.
7. Militia, Military and Naval Service, and Defence.
8. The fixing of and providing for the Salaries and Allowances of Civil and other Officers of the Government of Canada.
9. Beacons, Buoys, Lighthouses, and Sable Island.
10. Navigation and Shipping.
11. Quarantine and the Establishment and Maintenance of Marine Hospitals.
12. Sea Coast and Inland Fisheries.
13. Ferries between a Province and any British or Foreign Country or between Two Provinces.
14. Currency and Coinage.
15. Banking, Incorporation of Banks, and the Issue of Paper Money.
16. Savings Banks.

17. Weights and Measures.
18. Bills of Exchange and Promissory Notes.
19. Interest.
20. Legal Tender.
21. Bankruptcy and Insolvency.
22. Patents of Invention and Discovery.
23. Copyrights.
24. Indians, and Lands reserved for the Indians.
25. Naturalization and Aliens.
26. Marriage and Divorce.
27. The Criminal Law, except the Constitution of Courts of Criminal Jurisdiction, but including the Procedure in Criminal Matters.
28. The Establishment, Maintenance, and Management of Penitentiaries.
29. Such Classes of Subjects as are expressly excepted in the Enumeration of the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces.

And any Matter coming within any of the Classes of Subjects enumerated in this Section shall not be deemed to come within the Class of Matters of a local or private Nature comprised in the Enumeration of the Classes of Subjects by this Act assigned exclusively to the Legislatures of the Provinces.

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**C**

Canada Federal Statutes

Constitution Act, 1867

¶ VI. — Distribution of Legislative Powers

¶ Exclusive Powers of Provincial Legislatures

**s 92. Subjects of exclusive Provincial Legislation**

Federal English Statutes reflect amendments current to May 7, 2014

Federal English Regulations are current to Gazette Vol. 148:10 (May 7, 2014)

**92. Subjects of exclusive Provincial Legislation**

In each Province the Legislature may exclusively make Laws in relation to Matters coming within the Classes of Subjects next hereinafter enumerated; that is to say,

1. Repealed.
2. Direct Taxation within the Province in order to the raising of a Revenue for Provincial Purposes.
3. The borrowing of Money on the sole Credit of the Province.
4. The Establishment and Tenure of Provincial Offices and the Appointment and Payment of Provincial Officers.
5. The Management and Sale of the Public Lands belonging to the Province and of the Timber and Wood thereon.
6. The Establishment, Maintenance, and Management of Public and Reformatory Prisons in and for the Province.
7. The Establishment, Maintenance, and Management of Hospitals, Asylums, Charities, and Eleemosynary Institutions in and for the Province, other than Marine Hospitals.
8. Municipal Institutions in the Province.
9. Shop, Saloon, Tavern, Auctioneer, and other Licences in order to the raising of a Revenue for Provincial, Local, or Municipal Purposes.
10. Local Works and Undertakings other than such as are of the following Classes:
  - (a) Lines of Steam or other Ships, Railways, Canals, Telegraphs, and other Works and Undertakings connecting the Province with any other or others of the Provinces, or extending beyond the Limits of the Province:
  - (b) Lines of Steam Ships between the Province and any British or Foreign Country:
  - (c) Such Works as, although wholly situate within the Province, are before or after their Execution declared by the Parliament of Canada to be for the general Advantage of Canada or for the Advantage of Two or more of the Provinces.
11. The Incorporation of Companies with Provincial Objects.
12. The Solemnization of Marriage in the Province.
13. Property and Civil Rights in the Province.
14. The Administration of Justice in the Province, including the Constitution, Maintenance, and Organization of

Provincial Courts, both of Civil and of Criminal Jurisdiction, and including Procedure in Civil Matters in those Courts.

15. The Imposition of Punishment by Fine, Penalty, or Imprisonment for enforcing any Law of the Province made in relation to any Matter coming within any of the Classes of Subjects enumerated in this Section.

16. Generally all Matters of a merely local or private Nature in the Province.

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P

1980 CarswellMan 112, [1980] 5 W.W.R. 456, [1980] 2 S.C.R. 451, 7 Man. R. (2d) 359, 53 C.C.C. (2d) 289, 113 D.L.R. (3d) 374, 35 N.R. 361, [1980] 3 C.N.L.R. 71, J.E. 80-671

R. v. Sutherland

R. v. SUTHERLAND, WILSON and ATTORNEY GENERAL OF CANADA

Supreme Court of Canada

Martland, Ritchie, Dickson, Beetz, Estey, McIntyre and Chouinard JJ.

Heard: March 24, 1980

Judgment: June 27, 1980

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Counsel: *A.G. Bowering* and *M.J. Conklin*, for the Crown.

*M.B. Nepon*, *H.I. Pollock*, *Q.C.*, and *B. Keyser*, for respondents.

*J. Mabbutt* and *B.A. MacFarlane*, for intervenant Attorney General of Canada.

Subject: Criminal; Public; Constitutional

Native Law --- Constitutional issues — Hunting and fishing — Hunting offences — Application of provincial statutes

Constitutional law — Indians and lands reserved for Indians — Provincial legislation deeming land to be occupied Crown land to which Indians have no right of access — Ultra vires.

Indians and Eskimos — Constitutional issues — Applicability of provincial legislation — Provincial legislation deeming land to be occupied Crown land to which Indians have no right of access — Ultra vires.

Indians and Eskimos — Constitutional issues — Civil rights — Provincial legislation granting limited hunting rights on certain land — Indians having "right of access" — Indians' right to hunt for food unlimited.



1980 CarswellMan 112, [1980] 5 W.W.R. 456, [1980] 2 S.C.R. 451, 7 Man. R. (2d) 359, 53 C.C.C. (2d) 289, 113 D.L.R. (3d) 374, 35 N.R. 361, [1980] 3 C.N.L.R. 71, J.E. 80-671

Fish and game — Indian and Eskimo rights — Provincial legislation granting limited hunting rights on certain land — Indians having "right of access" — Indians' right to hunt for food unlimited.

The accused, treaty Indians, were charged under s. 19(1) of the Wildlife Act with unlawfully hunting deer. The offence took place in a wildlife management area, and while provincial regulations allowed hunting for some game in the area, deer hunting was, at the time, prohibited. The accused were acquitted by the Manitoba Court of Appeal on the ground that s. 49 of the Wildlife Act, which deemed wildlife management areas to be occupied Crown lands so as to deny Indians access for the purposes of exercising their rights to hunt for food on unoccupied Crown lands, was ultra vires. The Crown appealed.

**Held:**

The appeal was dismissed.

Section 49 was ultra vires as it was in relation to only one class of citizens, Indians, in object and purpose, and was in derogation of the right of the federal power to legislate for Indians. Further, the memorandum of agreement between the federal Parliament and Manitoba, approved by the Manitoba Natural Resources Act, which gave Indians the right to hunt for food on unoccupied Crown lands or lands to which they had a right of access, also provided that the agreement could be varied only by further agreement confirmed by both provincial and federal Parliaments.

The wildlife management area was found to be occupied Crown lands. However, as the provincial government had given citizens at large the right to hunt for certain game from time to time in the area, it was land to which Indians had access, and therefore para. 13 of the agreement gave Indians the unlimited right to hunt for food.

**Cases considered:**

*C.P.R. v. Notre Dame de Bonsecours*, [1899] A.C. 367 *referred to*

*Cardinal v. A.G. Alta.*, [1974] S.C.R. 695, [1973] 6 W.W.R. 205, 13 C.C.C. (2d) 1, 40 D.L.R. (3d) 553 — *referred to*

*Four B Mfg. Ltd. v. United Garment Wks.* (1979), 102 D.L.R. (3d) 385, 30 N.R. 421 (Can.) — *referred to*

*Frank v. R.*, [1978] 1 S.C.R. 95, [1977] 4 W.W.R. 294, 34 C.C.C. (2d) 209, 75 D.L.R. (3d) 481, 4 A.R. 271, 15 N.R. 487 — *considered*

*Kruger v. R.*, [1978] 1 S.C.R. 104, [1977] 4 W.W.R. 300, 34 C.C.C. (2d) 377, 75 D.L.R. (3d) 434, 14 N.R. 495 — *referred to*

*Myran v. R.*, [1976] 2 S.C.R. 137, [1976] 1 W.W.R. 196, 23 C.C.C. (2d) 73, 58 D.L.R. (3d) 1, 5 N.R. 551 — *referred to*

1980 CarswellMan 112, [1980] 5 W.W.R. 456, [1980] 2 S.C.R. 451, 7 Man. R. (2d) 359, 53 C.C.C. (2d) 289, 113 D.L.R. (3d) 374, 35 N.R. 361, [1980] 3 C.N.L.R. 71, J.E. 80-671

and subsistence, Canada agrees that the laws respecting game in force in the Province from time to time shall apply to the Indians within the boundaries thereof, provided, however, that the said Indians shall have the right, which the Province hereby assures to them, of hunting, trapping and fishing game and fish for food at all seasons of the year on all unoccupied Crown lands and on any other lands to which the said Indians may have a right of access.

4 By para. 13 the province assures to the Indians the right to hunt game for food at all seasons of the year on (i) all unoccupied Crown lands, and (ii) any other lands to which the Indians may have a right of access. It is readily apparent that the effect of s. 49 of the Wildlife Act, if valid, is thus to proclaim conclusively great tracts of Crown land within the province to be: (i) occupied Crown lands, excluded thereby from the "unoccupied Crown lands" referred to in para. 13; and (ii) lands to which the Indians do not have a right of access, excluded thereby from the "other lands", referred to in para. 13.

5 I do not think there is any doubt that s. 49 of the Wildlife Act is beyond the constitutional competence of the province of Manitoba and is ultra vires in entirety. The provision cannot purport to be a law of general application. Section 49 has effect only against Indians and its sole purpose is to limit or obliterate a right Indians would otherwise enjoy. Indians are singled out for special treatment. While provincial law may apply to Indians, it can do so only "as long as such laws do not single out Indians nor purport to regulate them *qua* Indians": *Four B. Mfg. Ltd. v. United Garment Wks.* (1979), 102 D.L.R. (3d) 385, 30 N.R. 421 (Can.). This legislation is clearly "in relation to" one class of citizens in object and purpose and is, therefore, in constitutional derogation of the right of the federal power to legislate in respect of Indians and lands reserved for the Indians under s. 91(24) of the B.N.A. Act, 1867: see *C.P.R. v. Notre Dame de Bonsecours*, [1899] A.C. 367; *Kruger v. R.*, [1978] 1 S.C.R. 104, [1977] 4 W.W.R. 300, 34 C.C.C. (2d) 377, 75 D.L.R. (3d) 434, 14 N.R. 495. As Hall J., speaking for a majority of the Manitoba Court of Appeal in the present case observed [p. 557]: "It is one thing to deem certain lands to be occupied Crown lands to which the public, including Indians, have no right of access; it is quite another thing to deem the same lands to be occupied Crown lands to which Indians have no right of access."

6 The purpose of any "deeming" clause is to impose a meaning; to cause something to be taken to be different from that which it might have been in the absence of the clause. In the present instance, the patent purpose of s. 49 is to cause certain provincial forests, wildlife management areas, and the like to be regarded as occupied whether or not, on the facts, they can properly be said to be occupied. The unoccupied is conclusively deemed to be occupied. Section 49 seeks to affect the status of Indians in respect of their constitutionally entrenched right to hunt for food. It is a blatant attempt to un-entrench the concluding words of para. 13 and, by taking lands out of the operation of para. 13, to derogate from rights granted to the Indians by the agreement.

7 There is a second, equally valid, reason for declaring s. 49 of the Wildlife Act to be ultra vires. The province cannot arrogate to itself the right to amend, unilaterally, para. 13 of the memorandum of agreement of 14th December 1929 by giving words a particular interpretation. Paragraph 24 of that agreement makes provision for amendment in these words:

24 The foregoing provisions of this agreement may be varied by agreement confirmed by concurrent statutes of the Parliament of Canada and the Legislature of the Province.

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> Modelling

> Monitoring and Reporting

> **Objectives, Directives, Policies and Standards**

> Air Monitoring Directive

**Ambient Air Quality Objectives**

Ambient Air Quality Objectives Mailing List

Existing Ambient Air Quality Objectives

Air Policies

> Clearing the Air

## Ambient Air Quality Objectives

These objectives are intended to provide protection of the environment and human health to an extent technically and economically feasible, as well as socially and politically acceptable.

The objectives are used to report on the state of Alberta's atmospheric environment; to inform Albertans on air quality through an air quality index; to establish approval conditions for regulated industrial facilities; to evaluate proposals for constructing facilities; to guide special ambient air quality surveys and to assess compliance near major industrial air emission sources.

Alberta Environment and Sustainable Resource Development ensures that emissions from human activities will be minimized and that air quality continues to be better than the Ambient Air Quality Objectives.

These objectives are based on scientific, social, technical and economic factors that include:

### Sensitive receptors

Is one component of the environment or one stage in an organism's development more sensitive than another?

### Substance behaviour in the atmosphere

What reactions do a substance undergo and how long is the substance in the air?

### Substance behaviour in the environment

Can the substance bioaccumulate or biodegrade after entering the environment?

### Natural levels and fluctuations

Do substances fluctuate as they enter the atmosphere from natural but uncontrollable sources (e.g. forest fires)?

### Technological availability

What is the cost and availability of technology to control or avoid emissions?

### Monitoring

Can the substance be routinely monitored in the atmosphere?

Alberta Environment and Sustainable Resource Development has been reviewing ambient air quality objectives by multi-stakeholder consultation since 2000. Alberta now has air quality objectives for more than 30 substances that could be released to the atmosphere.

This [document](#) summarizes Alberta's ambient air quality objectives.

Any proposed new objective is posted for public review.

Updated: Apr 1, 2014