



athabasca river water management framework

ALBERTA'S REGULATORY BACKSTOP TO PROTECT THE ATHABASCA RIVER



Alberta

[introduction]

Alberta Environment is setting strict limits on how much water oil sands companies can remove from the Athabasca River under a new framework that sets maximum withdrawals.

With this unprecedented action, Alberta Environment is putting in place a water management framework for immediate protection of the Athabasca. Alberta is providing this regulatory backstop as an interim measure while key stakeholders continue to work on long-term planning to safeguard the river.

The forward-thinking framework, co-authored by Alberta Environment and Fisheries and Oceans Canada, and developed in conjunction with stakeholders, sets a world standard by placing a high degree of protection on a waterway as a preventive measure, rather than reacting to environmental impacts.

Work on the in-stream flow needs of the river was started by the Cumulative Environmental Management Association (CEMA), a non-profit group of stakeholders from government, industry, First Nations, environmental groups and the public.

The fundamental concept behind the framework is to balance high levels of protection for the river with water needs. Monitoring and assessment of the protective and socio-economic goals will continue throughout the life of the oil sands projects. The framework will be adjusted as necessary to ensure water use does not threaten ecosystem sustainability.

The framework takes a comprehensive approach to safeguarding the river by setting maximum amounts of water that can be withdrawn. All oil sands operators – whether new or existing – will have to work together to share this resource within prescribed limits. For example, companies will have to reduce their withdrawals during environmentally sensitive periods, which may occur during ice formation and breakup and when fish are spawning. Companies have submitted a plan to Alberta Environment outlining how they will meet the restrictions.



This framework is a regulatory backstop that ensures the river's ecological integrity is protected during oil sands development.



Athabasca River

The Athabasca River runs 1,231 kilometers from the Athabasca Glacier in west-central Alberta to Lake Athabasca in northeastern Alberta. The average annual flow just downstream of Fort McMurray is 633 cubic meters per second.

The Athabasca River provides habitat for many plants and animals. It also serves as a transportation route for boaters.



Phase 1 represents the Government of Alberta's ongoing commitment to looking for practical and innovative methods to protect the Athabasca River from being impacted by water withdrawals.

a phased approach

The Water Management Framework for the lower Athabasca River is a two-phased strategy for managing and monitoring cumulative water withdrawals by oil sands companies.

[phase 1]

Phase 1 describes management actions required in the lower Athabasca River under three categories of naturally occurring flow conditions. It also specifies the cumulative withdrawal limits industry must meet in each flow category on a weekly basis. The actions and withdrawal limits were developed based on aquatic habitat requirements, water needs and existing options for reducing withdrawals.

Flow Conditions During Phase 1

Naturally occurring flow is divided into green, yellow and red conditions.

Green Condition

During most years, there is enough flow in the river to meet environmental and human needs. The green condition allows water withdrawals up to 15 per cent of the flow in the river.

Yellow Condition

The river is experiencing natural low flows that records show have occurred about 14 per cent of the time. Water withdrawals may increase stress to the aquatic ecosystem. During the yellow condition, water withdrawals proceed with caution and are limited.

Red Condition

The river is experiencing natural low flows that records show have occurred about four per cent of the time. Total water withdrawal is restricted to ensure fish habitat loss is minimal.





Short-term

- > Effective immediately, framework used in all regulatory decision-making.
- > Oil sand operators operate under a plan submitted to Alberta Environment outlining how the operators will cut their water withdrawals during environmentally sensitive periods.

Long-term

- > Implementation July 1, 2007.

[phase 2]

Ecological base flow will be developed in Phase 2 to ensure the aquatic ecosystem will be sustained into the future. Phase 2 will utilize further scientific and traditional knowledge of the lower Athabasca gathered over the years to assess possible limitations established in Phase 1. This will determine if adjustments are necessary to continue to protect the Athabasca River.

Short-term

- > Consultation with stakeholders on timelines and content (July 1, 2007).

Mid-term

- > Completion of information gathering, including further research on Athabasca River downstream of Fort McKay, and socio-economic work (July 1, 2009).
- > Integrating traditional environmental knowledge from First Nations who live in the area.

Long-term

- > Begin implementation no later than September, 2010.



Water Allocations

Water from the Athabasca River is used for community drinking water, agriculture and industrial development. A total of 3.6 per cent of the Athabasca's mean annual water flow volume is allocated to water users.

All existing and approved oil sands projects in northeastern Alberta are licensed to withdraw less than two per cent of the Athabasca's average yearly water flow.



For more information
on the *Water for Life*
strategy, visit
www.waterforlife.gov.ab.ca

[outcomes]

The framework is based on scientific research, stakeholder input and expertise within the provincial and federal government.

Several objectives will be achieved by the framework in both Phase 1 and 2:

- 1) To provide a high level of protection of the aquatic ecosystem over the long-term.
- 2) To provide incentive to develop cooperative management options for water in the Athabasca River
- 3) To provide incentive for achieving more efficient water use.
- 4) To provide a reliable supply of good quality water.
- 5) To ensure water use restrictions are realistic and the framework is straightforward to administer.

Alberta Environment and Fisheries and Oceans Canada will continue to review the framework based on data gathered from on-going monitoring. The review will also take into account socio-economic concerns about oil sands development and its impact.

As part of its *Water for Life* strategy, Alberta committed to keeping its waterways healthy by developing and implementing in-stream flow needs frameworks.

ADDITIONAL COPIES

Copies of the *Athabasca River Water Management Framework* document and the entire technical document are available at www.gov.ab.ca/env or by calling (780) 427-6267 (toll-free by first dialing 310-0000).

