

The Hydro Files

January 2009

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Did you know???

- In a 100-year period, a water molecule spends 98 years in the ocean, 20 months as ice, about 2 weeks in lakes and rivers, and less than a week in the atmosphere.
- Groundwater can take a human lifetime just to traverse a mile.

Source: www.lenntech.com

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Water in the News

Environmentalists have launched a private prosecution against one of Canada's largest oilsands producers over the much-publicized death of 500 ducks in a toxic tailings pond last spring. Toronto-based Ecojustice says the Alberta and federal governments have failed to enforce their own laws against Syncrude Canada.

"This should be prosecuted in a timely manner and the government has not done that," Ecojustice spokesman Barry Robinson said Wednesday as his group filed court papers in Edmonton on behalf of an Alberta resident.

The death of the ducks in the sludge of a Syncrude tailings pond near Fort McMurray, Alta., last April reignited environmental concerns about the oilsands and made headlines around the world. An Alberta government spokesman said in July a decision on whether to lay charges was expected within weeks, but there has been no word. Syncrude spokesman Alain Moore said the company acknowledges the death of so many ducks in one of its ponds was "unacceptable." "We're definitely committed to making the appropriate changes to ensure this doesn't happen again," he said.

The legal action doesn't ensure Syncrude will ultimately face charges under the federal Migratory Birds Act.

A hearing is scheduled for Feb. 19 in Edmonton provincial court.

The Crown may also step in at any

time to take over the prosecution. "What we did today was just the initial step to get the ball rolling," said Robinson. "We believe that there's sufficient evidence an offence was committed and that it should be prosecuted in a timely manner and it was not happening. A private citizen had to step in."

Implications for other oilsands operators could be significant if the case goes to

trial and Syncrude loses, suggested Robinson.

"It could cause the government and the companies to rethink the whole use of tailings ponds."

Wednesday's legal filing comes after a string of critical studies on the environmental impact of the oilsands. One suggested that oilsands tailings ponds together leak enough contaminated water into the region's aquifers every day to almost fill five Olympic-sized swimming pools. Another found that cumulative effects from current development plans could eventually deprive North American skies of up to 166 million birds through habitat loss.

Most recently, a study for the Canadian Council of Ministers of the Environment concluded that up to

12 per cent of the province's forest soils may be over their acid-carrying capacity, probably because of oilsands emissions. Although the Alberta government disputes some of the conclusions, international concern is growing.

Wednesday's New York Times, in an article about recent delays to

oilsands developments caused by the global financial crisis, reminded readers of environmental concerns, including the ducks. Several states

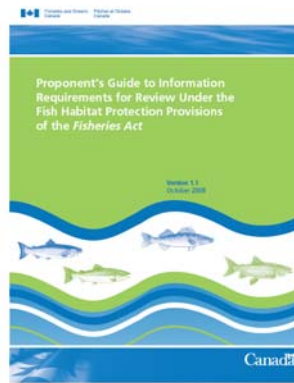
have also enacted clean-fuels legislation that could complicate imports of so-called "dirty oil" from the oilsands. "There's a big discussion in Canada and abroad about the oilsands and we're committed to being part of that conversation," said Moore.

But for now Syncrude, which hadn't yet been contacted by Ecojustice about the prosecution, is more concerned with preventing further bird deaths, he added. "Everyone in our organization felt horrible about what happened. There's a lot of resolve here to make appropriate changes." Syncrude bought full-page newspaper ads to issue a public apology after the bird deaths. ~Bob Weber, *Canadian Press*, published in the *Westcoaster* Jan 8, 2009.



Fisheries Act Update

October 2008—Fisheries and Oceans Canada have released the “Proponent’s Guide to Information Requirements for Review Under the Fish Habitat Protection Provisions of the Fisheries Act”. The Guide is intended for proponents proposing to carry out works or undertakings in or near water including riparian areas. It outlines the information that Fisheries and Oceans Canada staff need in order to review a development proposal and ensure adequate protection of fish and fish habitat in accordance with the fish habitat protection provisions of the Fisheries Act. The information provided by proponents will help staff determine whether additional measures are needed to prevent or reduce potential impacts to fish and fish habitat from the proposed development or whether a Fisheries Act authorization



when those impacts are considered to be unavoidable but acceptable.

This Guide is also intended to promote dialogue between proponents and Fisheries and Oceans Canada staff. Proponents are encouraged to contact staff as early as possible in the planning stage of their proposed development. If you have any questions regarding this Guide, please contact your local Fisheries and Oceans Canada office. A copy of the Guide can be found in PDF format at the following location:

http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/water-eau/requirements-exigences/index_e.asp



Did you know???

- If all the world's water were fit into a gallon jug, the fresh water available for us to use would equal only about one table-spoon.
- Human brains are 75% water.

Source: www.lenntech.com

First Land-use Framework Regional Advisory Committee Announced

The Government of Alberta has established the first Regional Advisory Council (RAC) under Alberta’s new Land-use Framework. The council will provide strategic advice to the government in the development of a land-use plan for the Lower Athabasca Region, which covers an area from the town of Bonnyville to Alberta’s northern border and includes Fort McMurray, Cold Lake and Lac La Biche.

Heather Kennedy, assistant deputy minister in the Government of Alberta’s Oil Sands Secretariat, will chair the council that will build on work started with the Water for Life renewal and the Provincial Energy Strategy.

in the development of the regional plan. The Government of Alberta will design and run the consultation process.

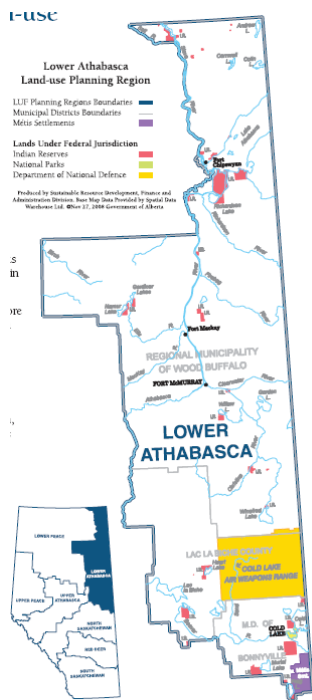
The role of the RAC member will be to provide a perspective based on their own experience and expertise and not that of the company or organization they are affiliated with. RAC members will be paid a per diem and their travel expenses will be covered. The RAC will be in place until the Lower Athabasca Regional Plan is completed in 2010.

RAC members were appointed by the Minister and will operate within a terms of reference approved by the Government of Alberta. The RAC will provide strategic advice for development of the regional plan that is consistent with the vision and outcomes of the Land-use Framework. This advice will be provided in the following areas:

More details on the RAC including the Committee’s Draft Terms of Reference and a complete listing of the Committee members can be found at:

- addressing trade-off decisions regarding land uses;
- recommending thresholds to address cumulative effects;
- identifying strategies to achieve the vision and outcomes;
- identifying land information, monitoring, evaluation and assessment procedures; and
- providing advice on developing, and then participating in the process to gather and consider input from the public, stakeholders and Aboriginal Peoples

<http://www.landuse.alberta.ca/regional.aspx>



The 15-member Lower Athabasca RAC, which will provide its advice by the end of 2009, represents a cross-section of interests, including municipal and provincial bodies, industry, Aboriginal groups and environmental concerns and will consider input from Albertans who live and work in the northeast part of the province. Government is awaiting nominations from Treaty 6 and Treaty 8 First Nations and is holding seats on the RAC for this representation.

“The Lower Athabasca Region is the epicentre of Alberta’s current and future growth. The well-being of all Albertans depends on striking a better balance in this region,” said Sustainable Resource Development Minister Ted Morton. “We can’t get the results that Albertans expect under the old rules. The new conditions require new approaches.”

Aquality News and Updates

Everyone at Aquality would like to wish you a very happy new year and all the best for 2009!

Aquality has recently revived the Healthy Shorelines/Vincent Lake website, it can be found at:

www.healthyshorelines.com

We will be working on this site over the next year to make it a tool for showcasing the accomplishments of local Alberta stewardship groups. Keep checking back for updates!

The Aquality website will also be getting an overhaul this year, we will keep you posted as the changes take place.

Aquality enjoyed the 2008 NALMS Conference in beautiful Lake Louise, and were proud to not only give multiple presentations but to also sponsor the event, and Jay participated in the hockey tournament (see picture on

Page 4) and silent auction as well. This was a spectacular conference and we are proud to have been a part of it!

On a sad note....our field technician, Jon Fuller, has left Aquality to pursue other opportunities. We will miss him and wish him all the best in the future.

For more information, please see our website at:

www.aquality.ca

or call us at:

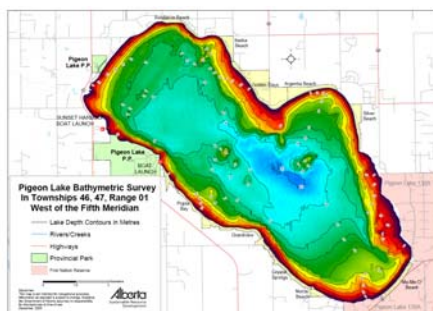
(780) 757-5530



Above: (L-R) Gabor Sass, Jay White, Dr. Suzanne Bayley, Dr. Markus Thormann and Sheena Majewski at the NALMS Conference 2008.

Digitized Lake Bathymetry Maps

The Alberta Geologic Survey has recently posted bathymetric maps for 169 different Alberta lakes. Data were captured from historical hydrographic survey maps that were digitized and digitally modeled to produce a continuous surface for each lakebed. There are 3 datasets for each of the 169 lakes: shoreline contours, bathymetry contours (both shapefiles) and ASCII lakebed grids. Maps are available for free and can be viewed using ArcGIS. The maps can be found at:



http://www.ag.gov.ab.ca/publications/lake_bathymetry.html

Bathymetry maps are also available from Alberta Sustainable Resource Development in colour and black and white for select Alberta lakes. These are also free of charge and can be viewed using a PDF viewer. The maps can be found at:

<http://www.srd.gov.ab.ca/fieldoffices/prairies/fisheriesmanagement/bathymetrymaps.aspx>

Weed and Feed Banned

Edmonton...A new ban on herbicide-fertilizer combination products in Alberta will help protect the quality of water downstream of urban areas. As of January 1, 2010 herbicide-fertilizer combination products will no longer be sold in Alberta. Products intended for spot application to weeds will still be available for sale and use.

“We need to take steps wherever possible to protect and preserve the quality of Alberta’s rivers and lakes,” said Alberta Environment Minister Rob Renner. “By eliminating products that encourage mass application we will reduce the amount of chemical run-off in our waterways.”

A chemical used in herbicide-fertilizer combination products, such as weed and feed, is highly mobile and commonly appears in water downstream of municipalities. This occurs when excess chemical runs off lawns into storm drainage systems and is deposited into creeks and rivers. More than 10 times the required amount of pesticide can be applied to lawns when weed and feed is used. The decision to ban weed and feed will not impact the agriculture sector or the landscaping industry since these products are almost exclusively used on homeowners’ lawns.

The regulation of pesticide use is typically the responsibility of Health Canada’s Pest Management Regulatory Agency. Currently, the average amount of 2,4-D in surface water downstream of Alberta municipalities is below the recommended federal threshold. By banning weed and feed, Alberta is taking a proactive stance to eliminate opportunities for additional unwanted substances to enter our waterways.

“This is a simple measure that Albertans can take to curb the amount of chemicals entering our water,” said Renner.

Did you know???

- **Less than 3%:**
The amount of municipally-treated water that is used for drinking.
- **50%:**
The percentage of all municipally-treated water used up during the summer months by people watering their lawns and gardens.

Source: Environment Canada





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think. water.

WE'RE ON THE WEB:
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About Us

Aquality is an Alberta based company specializing in watershed management and planning, source water protection, lake and wetland management, treatment wetlands, water quality testing and project management. Our main purpose is to assist our clients working in the aquatic environment with innovative approaches to identifying water quality impacts from point and non-point source pollutants, and recommending best management practices to improve water quality.

Join our team!

Are you a junior biologist or biological field technician with an interest in surface water testing and other field work? If so, we want to talk to you! Please send a detailed cover letter and curriculum vitae to : jobs@aquality.ca



NALMS 2008 Hockey Team, Lake Louise, Alberta.

Water Quotes

“In an age when man has forgotten his origins and is blind even to his most essential needs for survival, water along with other resources has become the victim of his indifference” - *Rachel Carson*

A lake is the landscape's most beautiful and expressive feature. It is earth's eye; looking into which the beholder measures the depth of his own nature. -*Henry David Thoreau*

If there is magic on this planet, it is contained in water.—*LORAN EISELY, The Immense Journey, 1957*

All the water that will ever be is, right now.—*National Geographic, October 1993*

The marsh, to him who enters it in a receptive mood, holds, besides mosquitoes and stagnation, melody, the mystery of unknown waters, and the sweetness of Nature undisturbed by man.—*CHARLES WILLIAM BEEBE (1877-1962), Log of the Sun, 1906*

Wetlands have a poor public image.... Yet they are among the earth's greatest natural assets... mankind's waterlogged wealth.—*EDWARD MALTBY, Waterlogged Wealth, 1986*