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## Skilled Skippers Needed to Negotiate Alberta's Troubled Waters

By Joyce Hildebrand, AWA Conservation Specialist

On March 22, 2007, Liberal MLA Dr. David Swann asked Premier Stelmach in the Legislative Assembly to explain his refusal to slow economic growth in light of water shortages in the province. The Premier's response is revealing and alarming: "Mr. Speaker, as one that has grown various crops in this province of Alberta, we do depend on the good Lord to give us a sprinkle from time to time to grow our crops. I mean, without rain we don't have any crops." Next question please.

Albertans deserve a better answer from their leader, given the series of water events in the province over the last few years.

2001 – The total allocation of water from the Bow River exceeds its natural flow.

2002 – Minimal spring runoff after a dry winter results in surface water supply shortages, causing significant crop stress, water shortages and feed shortages.

2003 – A water moratorium is imposed on new applications for water allocations from rivers in the Oldman Basin.

2004 – A drought worse than that of the Dirty Thirties parches the province.

2005 – Floods across Alberta trigger the Disaster Recovery Program.

2006 – A federal review panel is told that contaminated drinking water on Alberta reserves is to blame for sickness and possibly even deaths. A moratorium is placed on new water allocations for the Bow and South Saskatchewan rivers.

2007 – A new study co-authored by Canada's top water expert, Dr. David Schindler, reports that the amount of water available in northern Alberta isn't enough to both accommodate the needs of oil sands development and preserve the Athabasca River.

It's simple – there's only so much fresh water in the world and all life depends on it. While we can live without oil, wood products, or natural gas, a few days without water and we're toast. So why is water at the bottom of our priority list in Alberta, after oil and gas production, timber harvesting, motorized recreation – even horse racing and shopping?

### Water for Life Strategy

To give the government credit where it's due, in 2003 the Water for Life strategy was launched, promising to "develop a new water management approach." But before we gulp this down and move on, we may want to see what actions have followed up on that document's soothing words: "The Government of Alberta is committed to the wise management of Alberta's water quantity and quality for the benefit of Albertans now and in the future."

Where are we four years later? How are our provincial leaders dealing with activities impacting the watersheds that provide our drinking water and the aquatic ecosystems that we depend on?





According to Alberta Energy's latest figures (mid-May 2007), 123,000 km<sup>2</sup> of Crown land have been leased for petroleum and natural gas production since the Water for Life strategy was launched in December 2003. That's 14 percent of Alberta's land base and 23 percent of the province's public land. More than 18 percent of those leases, or 22,600 km<sup>2</sup>, were sold for oil sand exploration, which is – along with agriculture – one of the thirstiest of our industries. These figures don't include any of the other increasing pressures on Alberta's land, including forestry, residential development, agriculture, transportation, and motorized recreation.

Premier Stelmach has made it clear that he has no plans to slow down development – so what has the government done to back up the brave words in Water for Life?

### Proliferating Water Groups

In May 2004, the Alberta Water Council (AWC) was appointed to “monitor and steward implementation of the Water for Life strategy and to champion achievement of the strategy's three outcomes:

- Safe, secure drinking water supply,
- Healthy aquatic ecosystems,
- Reliable, quality water supplies for a sustainable economy” (AWC Annual Report 2005-2006).

Under the direction of Alberta Environment, the AWC comprises 25 members from government, industry, and NGOs. In late 2006, two additional seats were opened to environmental groups (formerly only one ENGO delegate was allowed), and Alberta Wilderness Association (AWA) was appointed to fill one of those positions. Unfortunately, we are still waiting to attend an AWC meeting, since the Council began a transition in 2006 to become an arm's-length organization of the government. As that process drags on, it appears that it will be more than a year from our appointment before we will be allowed to participate.

This lengthy transition is indicative of the glacial pace of government processes that are intended to deal with the cumulative impacts of stampeding industrial development. We are running out of metaphors to describe the horses-have-left-the-barn syndrome.

The government plan to deal with water issues in Alberta, centered around the Water for Life strategy, includes a variety of groups in addition to the AWC, but their mandates and the relationships among them remain as muddy as the spring runoff that recently caused a boil water advisory in the Drumheller region. Although the government lists Watershed Planning and Advisory Councils (WPACs) and Watershed Stewardship Groups (WSGs) as “partners” of the AWC, their responsibilities, governance, and authority is unclear. “Providing recommendations and input” appears to be one of their core responsibilities, but nothing is said about what will be done with that input.

Some of the half-dozen or so WPACs (Environment Minister Renner mentions 15, but only five are listed on the Water for Life website) evolved from previous organizations; others have come into existence since Water for Life was launched.

One of the longest-running WPACs is the Bow River Basin Council. AWA's representative on this Council has pushed hard for a focus on the protection of the Bow's headwaters, the source of water for communities across the southern prairies. Only recently has the Council stated this as a priority, and we hope to see recommendations to the government that will support our concerns for these southern Eastern Slopes watersheds.

Although some of the WPACs are doing worthwhile research and making valuable recommendations, there is currently little coherence or consistency among these groups. The WSGs are even more disparate – while Alberta Environment's *Watershed Stewardship in Alberta* directory lists more than 120 WSGs, they range from field naturalist and birdwatching groups, to urban sustainability groups, to land





trust societies. There appears to be no unifying governance or mandate, and no structural connection to the AWC.

All of this points once again to the government's lack of leadership on issues that might cause a stir among industry leaders and to its downloading the responsibility for land use management to citizens. But the citizenry, including rural voters, is getting increasingly restless. Shawn Campbell, a Ponoka-area farmer, choked back tears at a news conference recently as he added his voice to those of other rural Albertans who are worried about groundwater contamination. About 90 percent of rural Albertans rely on groundwater. Campbell's words express what many are feeling in this province: "I've lost total faith in our government today."

### Is Groundwater the Answer?

One of the long-term actions (2010/11 to 2013/14) listed in the Water for Life strategy is the need to "understand the state of the quality and quantity of Alberta's groundwater supply." With river flows – including that of the Athabasca – becoming increasingly depleted in the province, the big water users are looking to groundwater to meet their needs. The serious lack of information about Alberta's groundwater resources, however, means that ongoing approvals for projects like enhanced oil recovery, coal bed methane extraction, and oil sands production are being made in a knowledge vacuum.

In the February 2007 Rosenberg report, an international panel of experts convened by the Alberta government state the following: "The existing network of groundwater monitoring is insufficient to provide reliable information on water quality and water levels and their variability." They go on to say that "the development and projected exploitation of oil sands and coal bed methane are likely to pose special threats to both groundwater quantity and quality." As Rachel Carson noted in *Silent Spring* almost 50 years ago, "In the entire water-pollution problem, there is probably nothing more disturbing than the threat of widespread contamination of groundwater.... [P]ollution of the groundwater is pollution of water everywhere."

The Pembina Institute report *Protecting Water, Producing Gas*, released in April 2007, lists a number of groundwater issues that need addressing in the province:

- In the early 1990s, approximately 400 wells were monitoring groundwater levels in Alberta. That number has been halved, while Manitoba, for example, has maintained approximately 600 groundwater monitoring wells.
- Alberta's 200 wells are concentrated in the settled area of the province. If they were distributed evenly across the province, there would be only one well for every 3,000 square kilometres.
- If knowledge of Alberta's groundwater is not improved, groundwater could become overallocated and aquifers could become depleted and no longer able to provide a viable source of water.
- Excessive withdrawals from groundwater can trigger unwanted hydrochemical changes, leading to the requirement for expensive treatment for domestic use.
- Very large volumes of saline water and other forms of waste from drilling, exploration, and production have been injected into deep saline aquifers for many years. If these aquifers are not deep enough or are in communication with non-saline aquifers, contamination of fresh groundwater could occur.

In *Oil and Troubled Waters* (2003), Pembina notes that some of Alberta's wetlands depend on groundwater recharge, and that "water withdrawals resulting in drawdown effects will eliminate or severely impact these areas, many of which serve as important habitat and are ecologically significant."





### Government Ducks Leadership

It seems that whenever a new water issue arises in Alberta, the government calls for yet another multi-stakeholder group. After the release of the Rosenberg report mentioned earlier, Premier Stelmach asked Environment Minister Renner to renew and resource the Water for Life strategy. Renner asked the AWC to establish yet another project team – this will be the eighth – to make recommendations to that effect by the end of 2007. Another request for volunteers went out to overstretched groups with limited resources.

Although AWA believes firmly in public involvement in government decision-making, these invitations by government are generally made in the absence of clear identification of the problem to be solved, firm government commitment to take action, clear buy-in to the process from Cabinet, and offers of adequate resources for participants. If the government is unwilling to meet these criteria, its commitment to the Water for Life strategy and similar public participation processes must be questioned.

Yet another task was laid on the AWC when the Balzac mega-mall, the biggest Alberta development outside of the oil sands, came to public attention. In late April, the *Calgary Herald* reported that project construction had been suspended due to snags around water availability: with a moratorium on additional water allocations from the Bow and South Saskatchewan rivers, the developer is looking to the Red Deer River.

According to author Kevin Ma (*The State of the Sturgeon River and the Alberta Water Crisis*), water diversions between basins “almost guarantee the transfer of fish, plants, and parasites between watersheds, creating fox-in-the-henhouse situations where newly introduced species run rampant due to lack of natural predators.” Since Alberta’s *Water Act* places the Red Deer within the South Saskatchewan basin, the diversion that the Balzac developer is planning is considered an intrabasin transfer, a transfer between sub-basins. The *Water Act* only prohibits interbasin transfers between what it defines as the seven major basins in the province.

No new water licences are necessary for the Balzac project to go ahead. The only thing holding it up is municipal reluctance: recently, the Town of Drumheller unanimously rejected a request to treat and pipe water for the project. Alberta Environment has responded to public concern about the intrabasin transfer by creating yet another AWC Project Team to determine if such transfers are valid and to make suggestions for policy changes, if necessary. But the province has already committed \$4.8 million to the construction of a pipeline needed to transfer water 68 km from Acme to Balzac, suggesting that this latest AWC assignment is just window dressing.

### River Flows Declining

While recognizing that water is a finite resource, Environment Minister Renner recently told the *Lethbridge Herald* that storage is the “main answer” to our limited water supply. Once again, the government is avoiding the need to slow down development by implying that water flowing during peak snow melt and spring runoff is water wasted. Water storage means disrupting the natural flow of rivers and streams, using precious land for reservoirs, and working against healthy aquatic ecosystems, one of the three priorities of the Water for Life strategy.

According to a 2006 study by Alberta’s top water experts, Drs. David Schindler and Bill Donahue, water flows in three of Alberta’s large rivers have experienced astounding drops. Summer flows in the South Saskatchewan are running at 15 percent of what they were in the early 1900s; the North Saskatchewan’s flow is down 40 percent from that of 1912; and the flow of the mighty Athabasca has dropped 30 percent since the 1970s. There is now widespread recognition that the Athabasca could soon be in trouble.





In February 2007, Alberta Environment and Fisheries and Oceans Canada released the long-awaited Water Management Framework for the lower Athabasca, based on the work of the Cumulative Environmental Management Association (CEMA). The Framework begins, "This Water Management Framework is designed to protect the ecological integrity of the lower Athabasca River during oil sands development."

The Framework does nothing of the sort, declares a subsequent joint news release by Athabasca Chipewyan First Nation, Fort Chipewyan Elders, Mikisew Cree First Nation, and Pembina Institute. The authors state that the government is "misleading Albertans and Canadians because it does not require industry to turn off its pumps when the River hits the red zone." Pat Marcel, Chair of the Elders group, adds, "We're talking about the survival of the Athabasca River, but more than that this is about the survival of our people."

The Framework defines three status levels – green, amber, and red – depending on in-stream flows. The red status is defined as "a zone where withdrawal impacts are potentially significant and long-term, depending on duration and frequency withdrawals" – in other words, where withdrawals threaten the river's ecological integrity. Although the Framework caps the amount that can be withdrawn in the red zone (8 to 15 m<sup>3</sup> – or 50 to 90 average bathtubs – per second), it does not put in place a threshold where withdrawals have to stop to protect the river. (For perspective, each Alberta household has a statutory right to approximately 20.5 bathtubs of water per day.)

### **Providence Isn't Enough**

The Water for Life strategy appears to be pooling behind a dam of government inaction. "It's in the same bin as the Kyoto protocol," said one resident in the vicinity of the Sturgeon River, another Alberta river in a state of crisis.

Relying on providence may be appropriate when nothing else can be done, but the water issues in this province, and in the world, have human causes. If we want safe, secure drinking water, healthy aquatic ecosystems, and reliable, quality water supplies – and surely no one would argue against those three priorities of Water for Life – we must push our politicians to the front of the parade and demand that they lead us into human solutions.

