



Reflections on Water:

Alberta from the Perspective of Water

Alberta Urban Municipalities Association



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*Alberta from the Perspective of Water
does not look at all the same as
Water from an Alberta Perspective*

I would like to begin by declaring my biases. Please allow me to say I do not believe that we are by any means facing the end of the world either in hydrologic or climatic terms. Fortunately, some natural systems are a great deal more resilient than we think, as witnessed by the amazing news coverage this past week of salmon returning to formerly mine-poisoned Britannia Creek near Vancouver. Modern water treatment technology can undo very serious damage.

Unfortunately, however, even with technology we are not keeping up with the damage we are causing by way of our growing numbers and increased activity, which gives rise to the purpose of our initiative. The global water situation is such that wholesale water policy reform is not optional. It is inevitable. Water policy globally will change more in the next decade than it has in the last 2000 years. It will do so because it has to. We would like to find ways to ensure that the serious problems and unfortunate political paralyses that have emerged so widely in water governance elsewhere do not limit the possibility of crucial water policy reform here.

A second bias I must declare is that I am here to speak for water. I am not here to defend how agriculture uses water, or the energy sector, or cities and towns or even the UN.

Nor am I here to defend government policy or to plead for the environment. I am here to speak for water. I wish to speak for water from the perspective of the best international example. Perhaps the most important lesson I have learned from wide international example is that leadership matters. Without it you get nowhere. We have seen this in Alberta.

Dr. Taylor's strong leadership as Alberta's Environment Minister led to the Water for Life Strategy. As a member of the Rosenberg International Forum on Water Policy I was part of a panel that in 2006 examined Alberta's water strategy and found its principles sound. We worried, however, about challenges surrounding its implementation.

These were legitimate concerns. Despite Dr. Taylor's outstanding leadership in creating the strategy, it has gone almost nowhere since he left office. We have appear to have lost our momentum in Alberta at least in terms of water governance and policy reform.

While I have enormous respect for Dr. Taylor which I have expressed to him many times in many forums, not everyone shares his party's view of how well we are managing water in Alberta. One of the biggest problems I think we face in this province is that we have come to believe our own public relations spin. We have been telling ourselves since the inception of the Water for Life Strategy that our management of water is world class. Simply saying that, however, doesn't make it so. Strategic planning goals are just goals until you achieve them.

One of the reasons we have been able to make exaggerated claims of our own success is that we largely compare ourselves only to ourselves. Some examples.

Like many communities in Alberta and around the world, the Town of Okotoks is facing difficulty balancing rapid population growth with limited availability of water supplies. They are also increasingly faced with the realization of nature's need for water, which we now realize is greater than we thought in the past.

If you visit its website you will see that Okotoks prides itself on being recognized locally, regionally and nationally as municipal leaders in wise and responsible water management. To the town's very great credit it not only achieved its 2010 Sustainable Okotoks Legacy Plan objective of 318 litres per capita per day, but surpassed it. The year end gross water consumption average in 2010 was 295 litres per day per capita.

Excellent! Outstanding! Clearly conservation is the solution. Everyone in the dry West should be doing this. I have great respect for Mayor Bill Robertson and his council and have told them so.

What is happening in Okotoks is a commendable start but viewed from water's perspective it can only be seen as a start from way back in the pack. In Canada average municipal water use is about 329 litres per person per day. Most of the countries in the European Union are at about 140 litres a day. Singapore - around 125.

Munich at 100 litres per person per day and there are places in crisis in Australia that are probably less. My question is this: are we not deceiving ourselves just a little when we say we are leaders in water management in Alberta when even our best average municipal water consumption is still 300% of that of the real leaders; who live in climates similar to ours in countries just as prosperous as ours; where the standard of living is just as high?

The rest of the developed world has begun to act on the realization that municipal conservation is central to water and energy security and that appropriate pricing is the most reliable means of achieving conservation of both. Recent statistics suggest that we are now pulling ahead of the U.S. as the greatest water guzzlers in the world. We live on the edge of a semi-arid continental interior that most climate models say will get drier over time. Given our vulnerable circumstances, shouldn't we set our water conservation targets higher? Just the energy savings in terms of treating and pumping water alone would be worth it.

The other thing we like to do in Alberta is compare ourselves to the rest of the country. Sure, we can call ourselves leaders in water management in Canada but what does that actually mean from water's perspective? Let's look at where other provinces stand.

BC doesn't even have groundwater legislation. Their water allocation laws are even older and even less relevant to contemporary circumstances than ours.

Saskatchewan no longer has the water management capacity to meaningfully protect itself from flooding. Manitoba is now home each summer to algal blooms on Lake Winnipeg that are nearly 15,000 square kilometres in area. These blooms are now larger in area than the famous dead zone created by agricultural run-off at the mouth of the Mississippi in the Gulf of Mexico downstream from New Orleans. Let's go to Ontario. After spending billions to clean up industrial pollution, the Great Lakes are now becoming contaminated again by agricultural runoff and urban stormwater pollution.

Let's go on to Quebec and talk about water infrastructure. Montreal loses 50% of its treated water to leaks. Its dilapidated water infrastructure places it into the same category as cities in the developing world. Think of the energy waste. Speaking again on behalf of water: we should also be concerned about the state and fate of our country's aging pipelines – water and otherwise. Let's look at groundwater across this country. Contamination is so widespread in places that we are poisoning aquifers we share with the United States. This is not to point fingers. The point here is that we are not doing as well as we think. Saying we can do better is not enough. We *have to* do better.

When we do compare ourselves to outside others, we often do so selectively. Our comparisons are often motivated not by a desire to arrive at best practices but by a desire to legitimize and quietly advance established vested interests and political agendas.

There are 191 countries represented in the United Nations. Only two, Chile and Australia, have moved in a serious way toward national water markets. Why do we keep focussing on these two in Alberta? I would submit to you that the reason we are so focused on markets in Chile and Australia is that there are private and sector interests in Alberta that are quietly attempting to use the political means at their disposal to transform water use privileges into permanent property rights. We should be wary of accidental and not-so-accidental policy precedents aimed at non-transparent ends. I do not oppose water markets on principle.

We should not take the transfer of public wealth into individual hands lightly. International example suggests if markets are not properly designed and lack appropriate and consistent long-term government oversight, the public may have to pay what amounts to a ransom to get that wealth back. And you *can* look to Chile as an example if you want to see how that works. Australia went through more than 10 years of major water policy reform before contemporary markets came into being. We seem to want the markets, but not the reform.

Oversight in matters such as markets is crucial. Right now it is difficult to have full confidence in the way the Government of Alberta provides oversight in matters related to water. Just when we need them most, every time we face a budget squeeze we cut baseline monitoring programs.

For ten years Albertans and the rest of the world were assured – again and again – that the monitoring of oil sands effects on water was of the highest standard. “World Class” is what we kept hearing. Scientific research proved later that that wasn’t so. Much remains needs to be done to make it so.

While there are also water markets in parts of the U.S. there are reasons why the other 188 countries in the UN haven’t pursued large scale water markets. They have identified other priorities related to water and chosen different approaches to using water to sustain economic growth.

Equity of water supply is a growing concern. In many places in the world, including Alberta, First Nations and Aboriginal water rights have yet to be fully characterized and reconciled. This needs to be done before water markets are created so as to ensure that the water in the licenses put up for sale actually belongs to its registered owner.

Industrial scale agricultural practices are now being recognized in North America and globally as the single most damaging impact on water quality. Jurisdictions around the world are wrestling with actions that in tandem might reduce eutrophication and other water quality impacts created by agricultural run-off. Water and agricultural policy must be linked.

The realization of nature’s need for water is growing everywhere. It is a global problem.

Despite this, we have yet – in this country at least – to develop and codify exactly the practices that will be put in place to assure adequate environmental flows; nor have we been able to properly manage and protect groundwater.

The most pressing global water governance issue is infrastructure development, operation, maintenance and replacement. If we count the world's un-served – that is to say those who do not have reliable access to high quality drinking water and sanitation – we are facing a multi-trillion dollar water infrastructure deficit globally.

While we know that conservation is no longer an option we have yet to satisfactorily define the water pricing and conservation measures that need to be put in place so as to free more water to be generally available for minimum human use and other purposes now and in the future.

The institutional mechanisms we have in place in Canada to pay for the orderly operation, maintenance and replacement of our crucial drinking water and sewage treatment infrastructure are inconsistent and won't hold up over the long term.

It would, in fact, be fair to say that we have a three-tier system in Canada, each with a different set of rules.

The first tier is the system that provides water to First Nations. That tier is not working.

The second tier is that which provides grants for infrastructure development in small communities and rural municipalities. Unfortunately there is no assurance that infrastructure grants will actually be directed in a timely way toward the maintenance and replacement of crucial water infrastructure. Nor is there is any real incentive to manage such systems efficiently and sustainably. Success at this tier, therefore, is hit or miss.

Operating this way in a rapidly changing world is a recipe for disaster. Because of the increasing presence of endocrine altering substances and other new chemicals in our water, treatment standards are by necessity on the rise. Either you keep up with these standards or sooner or later you will face the social and political consequences of non-compliance which as we have all seen can be catastrophic in cases where public health is threatened or compromised.

Only at the third tier – the tier in which municipalities have priced water to ensure conservation gains while preserving equitable access; and instituted full-cost recovery and comprehensive asset management strategies – do we find the foundation for long-term sustainability.

Dr. Taylor has indicated that the Premier's Council has proposed the creation of a provincial water authority. Such an authority could address many of these problems. To ensure its effectiveness, however, municipalities and the public should pay very close attention to how such an authority comes into being, if in fact it does.

Transparency is critical. It is important that this opportunity not be used to reward political insiders. Individual sectors and interests should not be permitted backroom opportunities to quietly veto badly needed policy reforms.

If properly designed, however such an authority could address emerging issues that will almost certainly affect water security in Alberta in the future. Some of these problems demand our fullest attention.

It appears that human activities and particularly atmospheric warming have altered the rate and manner in which water moves through the hydrological cycle. What we are seeing is what hydrologists describe as a loss of hydrological stationarity.

The fear is that the damage caused by extreme weather events won't public infrastructure such as roads, bridges, dams and water treatment plants will extend to our entire built and natural environment and may in time be substantial enough to make it difficult to sustain prosperity as we know it today and still keep our cities, towns, national transportation systems and other critical infrastructure in functional repair. Woe to those whose infrastructure is already inadequate.

A new world order is emerging based on water governance. We should aim to be at the top of that order. To achieve that goal we need the kind of leadership Dr. Taylor exhibited in creating the Alberta Water for Life strategy.

This is the same the kind of leadership that has just been demonstrated in the creation of a new water strategy in the Northwest Territories. We need that leadership *now*.

Perhaps timing is on our side. We are about to elect a new Premier. Perhaps he or she could be brought over to the side of real leadership on water matters. In this, Alberta's municipalities will play a crucial role; for if anyone can make leadership happen in matters of water governance – and particularly in matters of infrastructure – you can. And I hope you will.

Thank you.