

THE FUTURE OF CANADA-US WATER RELATIONS: THE NEED FOR MODERNIZATION

Ralph Pentland

It is well known that Canada and the United States share the longest unguarded border in the world. What is less well known is that much of that border is actually water. Ralph Pentland examines Canada-USA transboundary water relations and observes that they are relatively healthy, compared with those in most other parts of the world. But in recent years that relationship has become more fragile and less predictable, he says, and we need to reexamine what conditions need to be met to optimize it. As a contribution to that dialogue, he offers three suggestions: eliminate the distraction of the bulk water export issue; enhance the effectiveness of the International Joint Commission; and base water policy in the two countries on the highest common denominator.

Comme chacun sait, le Canada partage avec les États-Unis la plus longue frontière sans surveillance du monde. Mais on sait moins qu'une grande partie de cette frontière est constituée d'eau. Examinant les relations transfrontalières canado-américaines dans le secteur de l'eau, Ralph Pentland constate qu'elles sont relativement bonnes comparativement à la plupart des régions du globe. Mais ces liens étant devenus depuis quelques années plus fragiles et moins prévisibles, on gagnerait à réexaminer les conditions nécessaires à leur optimisation. Pour favoriser ce dialogue, l'auteur formule trois suggestions : écarter la question des exportations d'eau en vrac, renforcer l'efficacité de la Commission mixte internationale et fonder la politique de l'eau des deux pays sur le dénominateur commun le plus élevé.



Four years ago, American author Peter Anin wrote a book entitled *Great Lakes Water Wars*, speculating on probable future struggles between the Great Lakes Region and the US Southwest for access to Great Lakes water. That same book also described floundering state-provincial negotiations aimed at permanently blocking southward diversions. A bit later, the Centre for Strategic and International Studies (CSIS), a US think tank, the Centro de Investigación y Docencia Económicas, a Mexican one, and the Conference Board of Canada collaborated on a report that, among other things, floated the idea of continental, replumbing. Also at about the same time, the Governor of Montana was demanding renegotiation of a century-old-water-sharing agreement in the St. Mary-Milk drainage area, aimed at gaining greater access to Canadian water.

In all three cases, cooler heads eventually prevailed, but not before much consternation among large segments of the Canadian population. In the Great Lakes case, negative public reaction led to renegotiation of what was a fundamentally flawed draft agreement and eventual signing of a document prohibiting interbasin

diversions, with minor and well-defined exceptions. Public backlash to the CSIS/Conference Board musings led to Parliamentary hearings, and the Canadian government belatedly distancing itself from the report and its American authors. Public and expert reaction in the St. Mary-Milk case contributed to the International Joint Commission's decision to reject Montana's demands, and Montana and Alberta are now working closer together to resolve their problems within the terms of the existing apportionment formula.

On the 100th anniversary of the Boundary Waters Treaty, most experts would agree that Canada-US water relations remain relatively healthy, at least when compared to those in most other parts of the world. But, as illustrated by the above and other recent examples, the state of that relationship has become more fragile and less predictable in recent years.

The future of transboundary water relations will obviously depend on the nature of the Canada-US relationship more generally, and it would obviously be very presumptuous to attempt to forecast that future. It would nevertheless be useful to have a dialogue around the conditions that need

to be met to optimize the water relationship. As a contribution to that dialogue, I would offer the following three suggestions: the distraction of the bulk water export issue needs to be eliminated; the effectiveness of the International Joint Commission needs to be enhanced; and water policy in the two countries needs to evolve to the highest common denominator.

The CSIS/Conference Board effort mentioned above is but one of many that have toyed with the notion of bulk water export over the past half-century. A more recent effort was a report published by the Montreal Economics Institute last year entitled *Freshwater Exports for the development of Quebec's Blue Gold* (2008). Most reports of this type tend to be enthusiastic about the prospect of bulk water export, and many have spoken about its inevitability and even its imminence. They have always turned out to be wrong for the same basic reasons. All tend to be over-simplistic, and all are based on some or all of the following misconceptions.

The first myth related to bulk water export issue is the myth of Canadian water abundance. Canada has about 7 percent of the world's renewable water supply, which is much less than either Brazil's or Russia's share and about the same as that of the United States. That 7 percent of the world's renewable water supply meets the ecological needs of about the same proportion of the world's landmass, so from an ecological perspective, we have no water to spare. Large parts of Canada such as the prairies and the Okanagan Valley are semi-arid, and many of the lakes and groundwater aquifers that we treat as bottomless reservoirs renew at an extremely slow rate, so that in many cases we are actually draining them for generations to come.

The second dimension is the myth that the United States is running out of water. On a national scale, the US

still consumes only about 10 percent of its renewable water supply. And water use in that country has actually been declining over the past two decades. There are several reasons for that. First, the US has made considerable progress on water conservation, especially in agricultural regions. Also, some of its laws have changed to allow water to move from lower-valued to higher-valued uses. As well, it has accidentally exported a lot of its water use to less developed nations, as a result of outsourcing much its manufacturing to low-labor-cost countries.

The US does have a lot of local water-short areas, just as we have in Canada. But most of those situations have been caused by the overpumping of groundwater, with the return flow ending up far from its original source. And in many cases, that overpumping of groundwater has caused drinking-water quality problems.

A third dimension to the water export issue is sovereignty. In Canada, we do not generally sell water, even to Canadians. We give individuals and institutions a right to use it, and we sell water services. Governments can theoretically take back the water rights they give to Canadians, but they could never take them back if they ever gave

analysis of the cost of the Grand Canal scheme. He calculated that it would cost at least 10 times as much as claimed by its promoters.

Another faulty assumption is the notion that water has no value, and will never have any value in the donor basin. And yet another error is in overlooking the much-lower-cost alternatives that always exist much closer to home. As a generality, it is safe to assume that most large-scale long-distance export schemes would return about a nickel or a dime for every dollar invested. Those kinds of projects simply could not happen without massive taxpayer subsidies.

One exception may eventually be marine tanker export. But that could serve only communities situated right on the east and west coasts of the southern US. The economics surrounding tanker export within North America are a little better than for major diversions, but it still would not be profitable at this point in time. Newfoundland and Labrador studied that possibility in great detail, and decided it would not work on the east coast. And on the west coast, Alaska has had a for-sale sign out for two decades, and still has not sold its first boatload of water.

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or sold them to another country. Water is not like oil — there are many energy substitutes, but there is no substitute for life-sustaining water.

A fourth dimension is the economic one. You can read lots of claims by entrepreneurs that there are bucketloads of money to be made by selling Canadian water. Most of those claims are based on three faulty assumptions. The first is cost. For example, while I was in government, we had a top-notch engineer do an independent

Offshore potential is simply a non-starter. Transportation costs are just too high, and there are many countries better situated than Canada to serve potential markets. For example, China is often mentioned as one potential market. Some northern Chinese provinces are indeed very water short, but there are extremely large supplies of water in the southern provinces of that country.

The fifth dimension is the water-energy connection. Theoretically, water

scarcity could always be overcome by some combination of desalinization, cleaning up wastewater to a very high standard and moving water over long distances. But those options are all huge energy destroyers. The further we move down any of those paths, the sooner we will arrive at the inevitable global energy crunch. Of course the opposite is also true. The faster we squander non-renewable energy resources, the sooner we will

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reach regional water limits. A good example of that is the impact of oil sands development on the Athabasca River.

The final dimension I would like to touch on is the political one. Many Canadian politicians have toyed with the idea of bulk water export behind the scenes since 1960. However, once the economic and environmental realities have been explained to them, and once they realize that 70 percent of Canadians have always opposed bulk water export, they have inevitably beaten a hasty retreat.

There is a growing consensus in Canada, and for that matter in much of the United States, that water should generally be kept within its major natural drainage areas and used more efficiently. That fundamental premise is central to the Great Lakes agreements recently negotiated between the eight Great Lakes states and two Canadian provinces. And it is also consistent with existing legal regimes in most Canadian provinces.

The Canadian Water Issues Council recently proposed federal safety net legislation with a similar aim in mind, and actually developed a model act to achieve it. Last year the federal government committed itself in a Speech from the Throne to moving forward with legislation of that nature. This may provide an excellent opportunity to take the bulk water export illusion off the table for the

foreseeable future, and prevent it from further distracting us from the serious work of managing domestic and shared waters for the benefit of current and future generations of Canadians and Americans.

The Boundary Waters Treaty of 1909 is a truly remarkable document. Its fundamental principles are every bit as valid today as they were a

century ago. The treaty established the International Joint Commission (IJC). The IJC's six commissioners, three from each country, are obliged to pursue the common interest of both nations, and by and large they have accomplished that objective. They have failed to reach a full consensus only twice in their 100 years of existence, and in most cases, governments have acted on their advice. There is no reason to assume that the IJC will not continue to provide an excellent example to the rest of the world on how water-related opportunities can be captured and water-related disputes resolved in shared water basins.

As the IJC enters its second century, it is faced with both some disturbing trends and some very promising opportunities. One of its greatest challenges is a lack of appropriate support from governments, as was pointed out by the Auditor General's office in 2001, as well as by a parliamentary committee in 2004. This is in part due to underfunding of the commission, in part due to reluctance by governments to use the commission to its full potential and in part due to a general decline in supporting water and environmental science and policy capacity, especially in Canada.

Another disturbing trend over the past decade has been a tendency on the part of North American governments to replace scientific sound judgment

of the type offered by the IJC with political expediency. The examples most often cited relate to climate change and environmental decisions surrounding mega-energy development. But to many in the environmental community, it is also a concern with respect to transboundary waters, with the Devil's Lake issue often held up as an example.

In the Devil's Lake case, an artificial outlet channel from that lake in North Dakota threatens to introduce non-native fish species and pathogens into Lake Winnipeg, as well as increase nutrient loads. If there had been a truly independent, science-based IJC reference, it is entirely possible that the commission might have concluded that the outlet is potentially very harmful, and has no significant benefits. Instead, a politically negotiated settlement focused on unproven mitigation measures.

Fortunately, there are now promising signals from Washington that the new US administration is committed to more fully respecting the independence of and legitimate contribution of science in decision-making. Assuming there is follow-through on those promising signals, there is a high probability that Canadians will eventually follow in their footsteps.

Another way that the IJC's contribution could be enhanced would be for federal, provincial and state governments to more fully embrace the commission's ongoing efforts to move in the direction of integrated water resources management, through its International Watersheds Initiative. To date progress has been minimal, being based mostly on the integration of a few existing institutions, with no significant new resources. I will use the St. Mary-Milk example mentioned earlier to attempt to demonstrate the very significant potential of this approach.

The St. Mary-Milk apportionment debate itself is complex, with compelling arguments on both sides, which I will not go into here. But placing the

entire focus on international water sharing has tended to mask many other equally important problems and opportunities, for example:

- There is a general consensus among climate experts that, due to climate change, much of the Great Plains Region will have less runoff in the future than it has today. It is also likely that diminishing glaciers and snowpack in the upper watersheds will have a detrimental impact on the seasonal pattern of runoff.
- Many of the problems in Montana relate less to an absolute shortage of water than to the fact that many of its storage, diversion and conveyance facilities are nearing the end of their design life and are in need of rehabilitation.
- Irrigation efficiencies in Alberta increased from 36 percent in 1965 to 74 percent in 2000. Similar gains were not made in Montana. In fact, the US Bureau of Reclamation has noted that, with appropriate infrastructure upgrades, Montana could apply twice as much water to its irrigated acreage as Alberta does now, with no change to the existing apportionment arrangement.
- Wetland and riparian conservation is in a sad state throughout the basin. This consideration is critically important for sustaining streamflow, groundwater and water quality.

There is clearly an urgent need to more fully engage all stakeholders in a comprehensive way, both to increase their understanding of scientific and management approaches, and to listen to their perspectives of a desirable future. Federal, provincial and state governments, together with the IJC, can and must provide top-down policy frameworks and transfer knowledge to citizens in an understandable way. But beyond that, the fate of the basin will be largely determined by bottom-up

citizen initiative at a quite local level.

A broader-based watershed institution would have the potential of creating and facilitating the two-way flow of the knowledge that will be necessary to improve the effectiveness of water and water-related environmental management at all levels, and to help citizens adapt to things like climate change that are beyond their control. A broader-based cooperative mechanism reporting through the IJC may also be able to exert more influence with funding agencies at the state, provincial and federal levels.

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ed more and more in the future, is an approach that recognizes the complex interplay between socio-economic and environmental factors, and between quantity and quality issues. Critics sometimes raise the issues of cost and inter-jurisdictional complexity. But the incremental cost need not be high — the individual issues are inevitably going to have to be dealt with anyway. And a neutral focus like the International Joint Commission would tend to minimize intergovernmental tensions.

Harmonizing environmental, food safety and other public good regulation simply to facilitate trade, as has

been the emphasis in recent years under the Security and Prosperity Partnership, does not represent highest-common-denominator policy. But there are indications that is all about to change.

When President Barack Obama visited Ottawa on February 19, he agreed to work cooperatively on clean coal technology but rejected Canada's suggestion to develop a North American climate agreement. Instead, his policy appears to be to move ahead aggressively at home and engage multilaterally on what can be achieved domestically. In an April article in the *Globe and Mail*, Jeffrey Simpson concluded "Waiting for Obama is the way to describe the Canadian position."

But, waiting for Obama is not good enough on the water file. Instead, we should be proactively pursuing truly highest-common-denominator policy. Water policy is complex and multifaceted, so I will just touch briefly on three possibilities, all three of which are admittedly challenging.

The first deals with inter-basin diversions. Earlier, I mentioned momentum in Canada toward banning removals of water from major Canadian river basins. Although it has not yet been legislated federally, there are some provincial laws and a federal policy that has been in place for a decade and is based on sound ecological principles. The state-provincial agreement to virtually prohibit removals from the Great Lakes has now been codified into US law in the form of a compact passed by the US Congress. We also know there are longstanding concerns in the US Northwest about possible southward diversions.

If Canada were to legislate federally in this area, and at the same time press for similar federal legislation south of the border, there is some possibility that enough support could be generated in the US Congress, and with an environmentally sensitive president. The era of large-scale dams and diversions in the

United States likely ended with the completion of the Central Arizona Project in the 1970s. Major new water projects are increasingly expensive and difficult to justify in a mature economy. The best and most conveniently located sites have already been developed, and intractable conflicts with other resource users and environmental interests are unavoidable.

A second highest-common-denominator possibility would be for Canadian policy to move closer to that in the US regarding public trust legislation.

In one way or another, democratic societies have always found ways, consistent with their respective traditions and

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values, to place upon governments a fiduciary duty to sustain the essence of renewable natural resources for the long-term use and enjoyment of the entire populace. One such option with respect to water and related resources is the so-called public trust doctrine. Over the past 30 years, a rich body of public trust law has developed in US states, mainly through court judgments. The concept in Canada is notable mainly for its absence.

The essence of public trust law in the US is that state governments, as trustees, must preserve and continuously assure the public's ability to fully use and enjoy public trust resources, for uses consistent with the purposes of the trust. Under the public trust doctrine, the trust can be expanded and strengthened by legislators, but never narrowed, surrendered or alienated except in furtherance of a public purpose, and then only without harm to the sustainability of the public trust resource. South of the border, the doctrine has moved from its initial emphasis on ensuring access to a greater concern with resource conservation, and in some cases even to recognition of the intrinsic value of preservation.

There are differences in the nature and scope of public property rights in the two countries that may make an exact duplication difficult in Canada, but a number of changes have taken place recently that suggest the time may be right to move the public trust concept, or at least something akin to it, forward in the Canadian context. These developments include a more activist role being played by the judiciary in response to the Canadian Charter of Rights and Freedoms, the development of broad fiduciary duties that do not depend on a traditional trust relationship, the introduction of public trust language into a few

statutes and musings by the Supreme Court of Canada on the topic.

Finally, the third option has to do with water law more generally. There is an interesting and constructive gradual convergence taking place between eastern and western US water laws. In the west, a prior appropriations doctrine reflects the relative scarcity of water, and provides a measure of certainty in times of change. That doctrine gives secure title to those who undertook to develop water resources for beneficial use by awarding water rights on a "first in time, first in right" basis. New permits are granted only if there is unappropriated water, and rights are lost if the water rights holder does not actually use the water.

The riparian doctrine in the eastern states reflects the realities of a region historically blessed with an abundance of water. That doctrine is sometimes described in terms of two basic principles: the reasonable use principle, which means that a riparian landowner can divert or use any quantity of water he or she chooses, for use on riparian lands, as long as those diversions and uses do not

interfere with the reasonable use of other riparian landowners; and the correlative principle, which requires that riparian landowners must share the total flow of water in a stream, based on the amount of waterfront owned.

In recent years, western states have gradually begun placing more value on environmental and in-stream uses, moving them slightly toward a more riparian view. That is creating a more balanced situation, in which in-stream uses, including the protection of ecological integrity, are carrying more weight, and in which consumptive uses are being managed more carefully. At the same time, eastern states are beginning

to move away from a strict riparian view. That is because in situ uses, contamination of existing supplies and gradual climate change are all impacting on the perception of overabundance. In doing so, in some areas, they are beginning to

develop and implement an integrated and fully functioning permit system for all groundwater and surface water uses.

Similar trends are just beginning to show up in Canada, driven primarily by the myriad of growing threats to the Great Lakes, and expanding water use in support of western energy projects. But it will happen at a somewhat slower pace here, so we will have the opportunity to learn from the US in our own policy evolution, especially in boundary and transboundary basins.

In summary, as the Boundary Waters Treaty enters its second century, it continues to provide a sound foundation for Canada-US water relations, but the relationship itself needs to be modernized and rejuvenated. There is ample opportunity for Canadian leadership in that regard if we choose to exercise it.

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