

Library of Parliament Seminar
A Model Act to Preserve Canada's Water
May 16, 2008 at 9:00 am

Gary Levy (Seminar Coordinator, Library of Parliament): Good morning and welcome to this seminar organized by the Library of Parliament. This session has been put together in co-operation with the Munk Centre of Toronto University and I will ask Adele Hurley of the Munk Centre to introduce the panel

Adele Hurley (Director, Program on Water Issues, Munk Centre for International Studies, University of Toronto): The first Speaker will be **Ralph Pentland**. He is Acting Chairman of the Canadian Water Issues Council and a former Director of Water Planning and Management at Environment Canada; he was the primary author of the 1987 Federal Water Policy, has consulted on water policy matters in seven different countries, and co-chaired several International Joint Commission Boards.

The second speaker will be **Owen Saunders**. He is Executive Director of the Canadian Institute of Resources Law at the University of Calgary, where he also teaches Public International Law; he has researched, written and consulted on water law issues for over twenty years, with a special interest in interjurisdictional water management.

The third speaker is **Frank Quinn**. He has been one of Canada's foremost experts on transboundary water issues for over four decades; he has served as chief of water policy and transboundary issues in Environment Canada, as Director of Research for the Inquiry on Federal Water Policy, and as a special advisor to the international Joint Commission; and has taught at five different universities in Canada and the United States.

Ralph Pentland I'd like to start with a few observations about the many dimensions of the water export issue, and I should stress before I start that the objective of the Act is not to prevent water export, it's to protect the ecological integrity of Canada's major river basins. But there's an incidental relationship with the bulk water issue and there does tend to be a lot of questions come up when the people talk about the model act on the water export issue. When I speak about bulk water export, I'm not talking about bottled water or local arrangements between communities across the border. Removals of bottled water can be important locally but are trivial on the scale of major river basins. We've had several local arrangements between communities on the two sides of the border over the years, and those don't normally involve interbasin transfers, and they don't raise significant environmental or sovereignty issues.

The first dimension of the water export issue is the myth of Canadian water abundance. Canada has about seven percent of the world's renewable water supply, which is much less than either Brazil or Russia, and about the same as the United States. That seven percent of the world's renewable water supply meets the ecological needs of about the same proportion of the world's land mass. 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 in many cases, we're 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 only consumes about 10 percent of the renewable water supply and water use in that country has actually been declining for the past two decades. There are several reasons for that. First, the US has made considerable progress on water conservation, especially in agricultural regions, and some of you may have heard Peter Gleick speak on that progress recently. Also, some of their laws are changed to allow water to move from lower value to higher valued uses. As well, they've accidentally exported a lot of their water use to less developed nations as a result of outsourcing much of their manufacturing to low labour cost countries. The US does have a lot of local water shortages, just as we do in Canada, but most of those cases have been caused by the over pumping of groundwater with the return flow ending up far from its original source, and in many cases, that over pumping of groundwater has caused drinking water quality problems. There's a very good book on that topic called "Water Follies" if anybody would like to follow up. That's by Robert Glennon.

A third dimension of the water export issue is sovereignty. In Canada we don't 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 them to another country. Water's not like oil. There are many energy substitutes, but there's no substitute for life-sustaining water.

A fourth dimension is the economic one. You probably read lots of claims by entrepreneurs: there are bucket loads of money to be made by selling water. You should take those claims with a grain of salt. 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 analysis of the cost of the grand canal scheme. He calculated it would cost something like ten times as much as the hundred billion dollars claimed by its supporters. Another faulty assumption is the notion that the water has no value and will never have any value in the donor basin. And yet another area is overlooking the much lower cost alternatives that always exist much closer to home. As a generality, I think you could assume that for most large-scale long distance exports schemes, they would return about a nickel or a dime for every dollar invested. Those kinds of projects simply couldn't happen without massive taxpayer subsidies. One exception may eventually be marine tanker export, but that could only serve communities situated right on the east and west coast of the Southern US. The economics surrounding tanker export within North America are little better than for major diversions, but probably not feasible at this stage. The province of Newfoundland studied that possibility in great detail and decided it wouldn't work on the East Coast, and on the West Coast, Alaska's had a "for sale" sign out for well over a decade and still hasn't sold its first boatload of water. 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. I've done some work in China and simply don't believe those claims. Some northern Chinese provinces

are very water short, but there are extremely large supplies in the southern provinces of that country.

A fifth dimension is the energy-water connection. Theoretically all water scarcity could be overcome by some combination of desalinization, cleaning up wastewater to a very high standard and moving water over long distances. But all of those options are huge energy destroyers. The further we move down any of those paths, the sooner we'll arrive at the inevitable global energy crunch. Of course the opposite is also true. The faster we squander the energy resources, the sooner we'll reach water limits, and a good example of that is the tar sand development and the Athabaska River.

The final dimension I'd like to touch on is the political one. I'm sure it wouldn't surprise you to learn that many Canadian politicians have toyed with the idea of 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.

Enough about water export. I'd like to touch now briefly on how the model act came about. Some of you may recall that last spring a senior representative of a US think tank did a tour of Canadian talk shows promoting the idea of American replumbing, or in other words, Americans availing themselves of Canadian water. I think that shocked a lot of Canadians, and a lot of inaccuracies, a lot of inaccurate assumptions in a report written by that same think tank reportedly as input to the three countries' security and prosperity partnership discussions also astonished a lot of water experts. You may also recall that a Parliamentary committee held hearings on the SPP and that both Canadian water security and Canadian energy security were raised as issues at those hearings. Following those hearings, Parliament passed a motion calling on the government to attempt to get further safeguards regarding water into NAFTA. To the best of my knowledge, that didn't happen, but according to newspaper reports, the government did publicly distance itself from both the US think tank and its report and reconfirmed its position, its opposition to bulk water export. That would suggest to me that we're dealing with a non-partisan issue and one where all political parties should be able to agree on an appropriate way to move forward. By the end of last summer, despite government reassurances, there was still a lot of unease among both the public and water specialists. I think that unease was created by a combination of the less-than-transparent SPP process and widely criticized US think tank analysis and a fear that a combination of the less-than-transparent process and the flawed analysis could lead to an inappropriate outcome. A group of concerned scientists and citizens concluded that a more open and unfettered discussion would be helpful, both to publicly clarify the issues and to advance independent academic thinking. Subsequently, a conference on water energy and North American integration was organized for September of last year in Toronto. At that conference the five panellists discussed a paper prepared ahead of time by Andrew Nikiforuk, an independent writer from Calgary. I was one of the panellists, along with two other Canadians and two Americans. The two Americans were both senior officials with links to the security and prosperity partnership process.

Coming out of that conference, there was a relatively broad consensus among all five panellists and the hundred or so participants. The essence of that consensus was that water should be kept within its major river basins and used more efficiently. That was

not an unusual or even a particularly new policy position in North America. For example, as far back as 1968 in response to concerns from the Pacific Northwest states, the US Congress imposed a moratorium and studies of major interbasin transfers. Similarly in response to concerns from the eight Great Lake states, the US water source development act of 1986 placed a ban both on federal studies of interbasin transfers and diversions from the Great Lakes without the approval of all eight Great Lakes governors. More recently Great Lakes states and provinces negotiated agreements calling for the prohibition on the removals of waters from the Great Lakes basin with minor and well-defined exceptions. That position is quite consistent with existing policy at both the federal and provincial levels in Canada. For example, it's included in Alberta's Water for Life strategy, and it's already been partially translated into law by nine provinces, as well as by the federal government in 1961 amendments to the international boundary water treaty act. But all that leaves a bit of a mish-mash of things and everything isn't covered. Immediately following the September conference, a few of the participants got together and decided it would be helpful if someone were to draft a model act for the consideration of Parliamentarians, either now or sometime in the future. The Canadian Water Issues Council agreed to coordinate the project and the Munk Centre at the University of Toronto agreed to publish the final report. The primary author was Owen Saunders, who we have here today, and the other council members, along with the program on water issues at the Munk Centre served as reviewers. The model act was released and discussed at a seminar held in Toronto about three months ago. The proposed act is very simple. It would place a prohibition on removals of water from Canada's major river basins with minor and well-defined exceptions. It would also include equivalency provisions to ensure provincial jurisdiction is fully respected

The final thing I'd like to touch on is the difference between the model act and bill C-156. That's an act for the preservation of Canada's water resources, which was tabled in Parliament by the government of the day in August of 1988, but never passed into law. That was an act that was tabled just ahead of the free trade election in 1988. The most obvious difference is that bill C-156 would have prohibited large-scale exports of water from Canada rather than removals from major river basins, and I think you understand the reason for that. But the other very interesting difference is the flexibility offered to potential exporters or removers. In the model bill, the exceptions are very limited. On the other hand, bill C-156 would have permitted small-scale diversions for the purpose of export, subject to meeting environmental requirements. The size of diversion that would have been allowed was up to one cubic meter per second, which is pretty substantial. That would certainly be large enough to permit marine tanker exports or medium sized pipeline proposals. I was in the public service at that time and worked with the Department of Justice in drafting bill C-156. I was also tasked with fielding many of the questions from the media and the public following its tabling. Although there were a lot of questions asked, there was very little adverse reaction to the flexibility offered in that bill. I think if one were to suggest the same degree of flexibility today, my guess is that there would be a severe negative reaction. In other words, I think both expert and public opinion has significantly hardened on the topic over the past couple of decades. We can all speculate on the reasons for that hardening. In my view, there's two primary reasons. The first is a growing recognition of the risks to our own water and ecological security, risks posed by things like climate change, newer insidious forms of pollution and

accelerating stresses caused by resource extraction industries. The second and probably more significant reason is the prevailing view that any significant exceptions could and probably would start us down a very slippery slope that could not be reversed under current trade law regime. In any event, I do think the appropriate way forward is to focus on river basin boundaries instead of country boundaries, and to do that for the right reason and in a non-discriminatory way, we can do that by codifying the consensus that is pretty widespread in both Canada and the United States. That is the consensus that water should be kept within its major natural river basins with minor and well-defined exceptions, and used more efficiently.

Owen Saunders: (Executive Director, Canadian Institute of Resources Law, University of Calgary): Let me talk a little bit about the act and particularly about the architecture of the act. The essence of it Ralph has described, but what we tried to do with the act, and really, we had three objectives. The first and most obvious one, I think, is that we wanted to ensure the protection of Canadian water resources. That's obvious. But there were also two realities that had to be accommodated in the act as well. And these are, first of all, the existence of certain international obligations, so the objective was to construct and act that would be consistent with our international obligations, and we'll talk about those. And the second was to construct an act that was consonant with Canadians' understanding of appropriate constitutional roles of federal and provincial governments. And as well, of course, as an act that would respect existing Aboriginal treaty rights. And this second factor, or constraint, one might think of it, I should say is sometimes lost by writers in the area of water protection. They just assume that the federal government should come in and do it, and sometimes there is not an appropriate sensitivity to the realities of Canadian federalism.

Well, let me talk about each of these three objectives in turn. The first one, that is that it indeed would be an act that protected Canada's water resources, the important point here, and I think Ralph has made it, is that the approach in this act is based on an environmental ethos, that is that water basin boundaries are the appropriate way, the appropriate prism for viewing how we should manage water. Political boundaries are a constraint that we have to take account of, but our primary objective should be to focus on watershed boundaries, which are really just another reflection of an ecosystem approach. So the heart of this act then, as Ralph has mentioned, is a prohibition on the removal of water from major basins with very few exceptions. And that approach is consistent not only with modern ecological thinking, it's also consistent for example with the 2000 report of the international joint commission, which was focused primarily on the Great Lakes basin, but the idea was that in that report, one of the important ideas was that there is no water to spare, to take out of the basin. The water is needed for a range of needs, some of them not necessarily obvious within the basin.

The second element I talk about is the question of international obligations, and usually this is phrased in terms of trade obligations, and particularly the NAFTA and any obligations under the WTO, although as a practical matter in Canada, the focus has tended to be on our NAFTA obligations, probably because they are somewhat stricter in most respects than our WTO obligations. In any event, both the NAFTA and the WTO of course prohibit the quantitative restrictions on trade in goods, so that's one obligation that is always mentioned, and in the case of NAFTA, although not the WTO, there was also

an additional set of restrictions with respect to measures aimed at investment, and those measures in Chapter 11 of NAFTA may also of course be relevant in the case of water. Let me address each of those in turn, though. With respect to trade in goods, there is a disagreement in Canada as to whether water in its natural state is indeed included in NAFTA. Everyone I think agrees that water, when it's bottled, is certainly included within NAFTA, but there is a grey area with respect to water in its natural state. Some take one view, some take another. And really, what we've tried to do is cut the Gordian knot here and say regardless of whether or not you view water in its natural state as subject to NAFTA disciplines, everyone agrees that certainly the NAFTA and the WTO, they certainly don't stop water removals, regardless of whether or not they may or may not facilitate them. So if that's the case, then let's try and construct an act that is consistent with NAFTA and that will actually do something to preclude removals from basins. And as I said, this is something that there is common ground on. Everyone agrees that NAFTA certainly doesn't preclude water removals, as indeed one would not expect a trade agreement to do. As to investment, the investment chapter of NAFTA – and I should point out that often the investment chapter obligations are confused with the trade obligations in NAFTA, but they're really two very different chapters, two sets of issues, and the investment chapter has a much broader application. It doesn't apply just to trading goods or investment in goods. It applies generally to investments. The nature of NAFTA I think is such that you cannot evade Chapter 11. Chapter 11 is something that is always going to be with us; that is, if one essentially expropriates or there are other obligations as well, but the key one is if you expropriate or nationalize, in some sense engage in a taking of an investment of a NAFTA party, then a compensation has to follow. This act then doesn't address that directly, but I should say that the implication of Chapter 11 is that if indeed you want to preclude Chapter 11 actions in an area such as water export or water trade, then what you should do is get your house in order as soon as possible so you don't have the initial investments. There's nothing in Chapter 11 that precludes a country from setting certain areas of a national economy off limits for investment. It's just once you allow the initial investment in, then those obligations kick in. So I would think that our act, that our proposed model act is indeed very much complementary to NAFTA in the sense that it proposes to essentially set certain activities as beyond the limits, and thus hopefully preclude those Chapter 11 problems, because in fact there's very little in the way of investment in water right now. With respect to NAFTA generally and the WTO, I should say that one advantage, and I think Ralph has referred to it, about the approach that we suggest, is that it is not based on political boundaries, that is it does not discriminate on the basis of country of origin or country of destination, and that is really what attracts WTO and NAFTA interest, is whether or not you are indeed discriminating on a national basis. That is clearly not what this model act envisage. As Ralph has pointed out, and as I've mentioned, the focus is on natural watershed boundaries. The ethos is an environmental one, and the environmental exceptions exist in both the GAT and the NAFTA, and we think indeed this act is fully consistent with our trade obligations.

Let me say then just a few words about the third leg of our objectives, and that is the domestic, constitutional realities, which as I've said are often ignored by some policy people when they talk at a fairly abstract level. And there are a couple of underlying realities here that I think any sensible policy maker has to take into account. First of all,

the provinces in Canada are the owners of natural resources, by and large. There are of course federal resources within the provinces, but the province in our constitutional system is regarded as the resource owner with primary responsibility for managing the resource. Now, that's not true in all federations. If you looked at Russia, they have a two key approach, but in fact it's primarily the national government that has the key. If you looked at the United States, there are massive federal lands in the western US where the federal government has a very strong management role. In Canada we took a different approach, and that's something we have to accept as a starting point. However, there's also the other side of the coin, that is the federal government has a legitimate national interest in water in a number of respects. There's the standard heads of power we could go through, such as fishing, navigation, but however one constructs it, certainly there is an important role for the federal government, and the question then becomes how you reconcile this national interest in water resources with the provincial primacy. And the act, the model act in fact reflects this duality of interests. On the one hand it has the federal government setting out certain broad standards in terms of what must be included in legislation to protect Canada's water resources from interbasin transfers. On the other hand, it recognizes provincial primacy by deferring to provincial legislation where there is an equivalent regime in effect, and many of you will recognize that this is very much similar to the role that was taken with respect to CEPA, the Canadian Environmental Protection Act, that the federal government sets some minimum standards. The provinces can exceed those, but as long as you meet those federal standards and you have a regime in place, then the federal legislation gives way to the provincial legislation. And indeed, there are already some provinces that have the necessary legislation in place. One of the problems with provincial legislation right now is that it is very much a hodgepodge. Some use political boundaries, some use basin boundaries, some use a mix of both. There really isn't a sort of common denominator that runs through our approach to interbasin removals in Canada. It was at one time the aim of the federal government to achieve an accord to that end; ultimately the federal efforts failed and they failed I think perhaps largely because there was no really strong federal backstop if provinces chose not to comply with the federal plan. There was indeed a plan as to what removal legislation should look like. So we think that Canada is best served by getting our house in order, by letting the provinces take the lead, but also where provinces do not take the lead, to recognize that there is now a national interest in interbasin removals outside of Canada and within Canada.

The other think I'd like to just note is that the structure of the act was modeled consciously on the amendments introduced following the 2000 reference to the boundary waters treaty implementation act. Those amendments essentially achieved for boundary waters what we hope to achieve for non-boundary waters. And indeed when you think about it, it is a rather odd result in a federation that waters are protected on the basis of whether or not they happen to be boundary waters as opposed to not being boundary waters, and there is obviously no ecological sense for that. Certainly it's true that the federal government is more comfortable legislating with respect to boundary waters because they are more clearly within federal jurisdiction because of the boundary waters treaty. Nevertheless, from a policy perspective, it really makes no sense at all. The asymmetric treatment of boundary waters and non-boundary waters I think is something that most Canadians would just not understand at all. And most Canadians don't

understand that distinction. People who do understand the distinction understand why the federal government is reluctant to act, but from the perspective of an environmental ethos, there is no justification. If the federal government has an interest in asserting a national voice with respect to boundary waters, surely it should be able to assert one with respect to interbasin removals. We can talk in the discussion a little more about the basis of the federal power here. It's essentially based on national concern.

I'll just note finally that what we're proposing is not particularly new or radical. This is something the federal government itself has given some thought to in the past, and I think especially of finally of the 1987 federal water policy. It had a section in it on interbasin transfers. It may well have been written by Ralph Pentland. But I'll just read you one of the undertakings of the federal government from 1987 and I think was a water policy that had a relatively non-partisan basis. "The federal government will draft guidelines and criteria for assessing interbasin transfers within Canada and in cooperation with the provinces and territories, take all possible measures within the limits of its constitutional authority to prohibit the export of Canadian water by interbasin diversions." And I think what this model act is trying to do is just follow on the federal water policy and suggest that maybe it's time we took that commitment seriously.

Frank Quinn: (Former Chief, Water Policy and Transboundary Issues, Environment Canada): Water export, the kinds of issues that we've grown used to, have been with us for, I was just thinking last night, almost 50 years. Tom Kierans' grand canal, was it 1959, and he was testifying before the House committee on mines, forests and waters here in 1960 and 1965. The government at least at that time regarded it as premature, to be polite about it. It was a multi-billion-dollar scheme for saving all of North America from water problems of various kinds. In fact, the issue grew well beyond Mr. Kierans's, and I think we began to hear more about it from the other side of the border because of the outcome of Arizona versus California in 1963, in which California failed to stop Arizona from getting some water, which they had a legal right to under the Colorado River Compact, but California, which contributed least of the water of the southern states to the basin in fact was using most of it, and didn't want to share with the other states. But that conflict led to engineers, private sector people drawing all kinds of schemes up, and that's all they were, lines on a map. There's no serious economic or environmental assessments whatsoever. What was a little more serious for some Americans was a point of attack by California and the Allies it forced to join with California against the Columbia River states, Washington, Oregon, Idaho, Montana. I was a graduate school student in Seattle and this became my PhD thesis for much of the 1960s. That battle went on in Congress as well as outside for five years. California lost. The Sierra Club convinced many of the public through big ads in the New York Times that the southwestern forces were going to dam up the Grand Canyon. They'd provided for two dams inside the Grand Canyon. They obviously weren't very good public relations people to be putting forth schemes that would do that kind of thing. But in any event, we've been dealing with one scheme periodically after another. I just want to say that Canadians reject the very idea of exporting volumes of water south of the border or anywhere else, and the majority has usually been around the 70 percent area, sometimes more than that. And it's been consistent. Canadians are just trying to protect their own stream or the streams in their province, but they think of this nationally, and they think of it as maybe

the last great resource that we have a chance of saving, and that it's a key to our own heritage and our future as well as our past.

In any event, the water export schemes came and went, and without any government in Canada really developing anything that we'd call a policy until the 1980s when we got into that frame of mind through the federal water policy, but the real dangers perhaps developed in late, in that decade through the government's interest in a free trade agreement with the United States without providing any specific protection for water. It was asked to do so. I'm pretty sure that there was something in one of the drafts to do that, but it didn't stay in, and the same thing happened with NAFTA a few years later. No protection within the agreement. There was protection for raw logs and unprocessed fish, but there was no protection for fresh water. And I have some idea why things developed as they did, but I'm not going to mention that or go into any detail on that now. We came out of the free trade agreements with a feeling at last today where there are many people in Canada who have different views of whether the agreements are a threat to Canadian water, and that argument will go on for some time. It's quite unlikely that NAFTA is going to fall on that basis. But I want to say that in the late 1980s an incident occurred, and that's what finally led the government of Canada to realize we have to do something, we have to take some action. And that was the Nova incident. A gentleman walked into the regional office of the Ontario Minister of the Environment and said, "I want a permit to export water." And he got it. The official didn't realize his own province didn't support this. Ontario wasn't really a renegade in this respect. It happened by accident. But he got the permit. It hit the newspapers a few days later and we all began to realize in Ottawa and Washington, and not just in Ontario, but in Michigan and Illinois, that's not just Ontario or just Canadian water. That belongs to both countries, two provinces and eight states, and both countries were interested in resolving that kind of conflict. And this was shipping water by tanker. Very foolish proposal. The same gentleman could have picked up the water (inaudible) or tried to in the St. Lawrence and save taking the ship five days to get up to Lake Superior and another five days back, and paying for the rent of the ship and the crew. He couldn't take a very large ship. I think 30 000 deadweight tons. There's a limit a ship that could go through the seaway. But anyway, that was the idea. He didn't have a market. He hoped he might find a partner who knew more about marketing it, and so it had a lot of dubious connotations to it, but nevertheless it scared people, and it forced Foreign Affairs and International Trade, Mr. Axworthy realized that we needed to do something, and not just what was in the federal water policy. Not just protect Canada against large-scale export, but against any bulk export. That brought the amounts down to cover tanker loads, not just river diversions.

Well, then there were two hurdles, and how are we going to do this in Canada? How are we going to protect Canadian waters and not run afoul of free trade obligations? The first way after much talk with that, we'll just bring that old 1991 bill that Ralph mentioned where the Minister would get the licence, but only for small quantities. The trade lawyers and trade experts that met our little group laughed at us. "You can't under these trade agreements try to organize water within a political boundary." That was off limits, and we were told that was all right in 1988, but that bill was never re-introduced, and we just can't do anything like that. So a suggestion that was made was that, well, there's another way of breaking the country down into units, and it does not challenge trade. We can avoid the trade question altogether. Let's use natural units. Let's use an

environmental argument. Let's keep water within its natural watersheds. It'll still be used, but it'll be used by the people who really should have first call on it anyway, people who live there, the fish that have to go back and forth on the streams, and a general all-round appreciation of the environmental aspects of this kind of grouping. So this map you'll see on the screen, but if that's a little bit too faint, you might want to look at the map, if you picked one up in English or French at the back of the room. I brought this map for Foreign Affairs to look at. Their lawyers thought it was really good. This doesn't give us any problems at all on trade. The maps I brought really only show the top level of watersheds in Canada. That is, all the streams that drain into the Pacific Ocean versus all those that drain up to the Arctic directly, or through Hudson Bay, the Atlantic, and then fifthly, that little bit in southern Saskatchewan, Alberta, that drains into the Missouri and Mississippi Rivers and in the Gulf of Mexico. If you had a map of a continent, it would show the same five basic watersheds. This is the very largest scale. And you can break that down further. You can take the Pacific and say, all right, let's get the major basis within that, the Columbia, the Yukon, and so on. And as it turned out, our group has stayed with the largest, the top level here, because it gives the provinces lots of room to manoeuvre. They've already diverted many major rivers. In 1970, Manitoba made the decision to divert the Churchill River into the Nelson. That was the largest diversion of water between rivers in North America to that time, although it wasn't many years before Quebec topped that through its Le Grand program, which is still growing. So we leave it at the five largest basins. And that gives the provinces latitude to, if they insist upon it, to divert other smaller streams, sub-basins, sub-sub-basins.

This was the system the Water Survey of Canada has been using for the last 100 years – it's their anniversary this year – in measuring flows and levels and sediments and so on. Their stations are all set up and numbered according to the basin system of this kind. So that was the solution. And that solves, may solve one of the hurdles, that is, what kind of units. You use a natural unit; you don't get tangled up in the trade law. The other hurdle was who's going to take charge here? And the lawyers advising us in 1998 thought, well, the provinces are closer to resource management. As Owen says, the owners primarily had major responsibility for the resources, so federally, all we can really be sure we have overwhelming control is down in the boundary water area. And even there, and if you looked at the second map, which isn't as colourful, it shows the Canada-US boundary. (Inaudible) federally will amend the international boundary water treaty act to give us the power to prohibit any removal from the Canadian portion of boundary waters. That's not all of these waters that are indicated in the map. That's only some of these waters that are boundary, not transboundary. Boundary water is, simply stated, are waters that flow along the boundary. So that includes the Lake of the Woods from the Manitoba boundary through Northern Ontario and maybe a little interruption there, a mile or two in areas, through the Great Lakes and Upper St. Lawrence until that boundary leaves the St. Lawrence and goes cross-country, then we're back to transboundary waters, and finally to the St. John and St. Croix rivers, which are in part boundary and in part transboundary. So we only will be taking charge in our federal legislation for less than ten percent of Canada, for sure. The ones where there's a blue line going along the boundary, not a green line. And there is a tiny little bit of Canada that's in red, if you can find the dot. And that's between Quebec and, I guess, New Hampshire, a few kilometres, which is actually a drainage divide that nothing flows across. It divides rivers flowing north and

south. So that's all we're taking responsibility for, and an act was drawn up. It was amended in Parliament. That's in place. That's good. But as I say, it's less than ten percent of Canada. We left it for the provinces and territories to see if they would, with their own legislation, do the same kind of thing. Well, nine provinces did sell. New Brunswick hasn't gotten around to it, but they're in agreement with it. But the way they've done it, it's a mess. No two provinces have done the same thing. Some protect water at the political boundary. Some do it at the political, on one side the political and the watershed boundary. Some omit certain uses. Quebec will respect drainage boundaries except for hydropower. Well, what are all the big projects in Quebec? They're hydro. There are just too many changes and you've got ten governments going in ten different directions here. It really is not likely to stand up very well to challenge in the trade arena when at least half or more than half of those governments in fact are seen to be challenging the trade agreements, which the federal bill doesn't, federal agreement doesn't. So that's the nature of the problem that we've been facing, and why I think the federal government has to go back and recognize that this is not a regional issue, it's not something that should be treated one way in one part of the country and another way elsewhere, that public opinion has been very strong in this, and it's the federal government that has a national responsibility more than any other to respond to public interest across this country, and hence, our proposal that the federal government talked further with the provinces, but we need an overall consistency in legislation, and the federal government must take the lead to get there. Whether that means we sign equivalency agreements with the provinces remains to be seen.

But just a final word on Charles Caccia who, many of you know, died in the last few days. I was at a the University of Ottawa seminar last year, and Caccia stayed in Ottawa and advised the environmental institute at the university. Anyway, during discussion there, I raised the question about the federal government being a little bolder. We'd been withdrawing from too many water issues and leaving it for the provinces. And maybe we should have Justice Department or maybe a reference at the Supreme Court to see whether the federal government does have enough jurisdiction to go further than it has. Caccia followed with remarks, saying that the issue wasn't really a matter of law. It was a matter of courage, determination. Do we really want to work up our nerve and go for it? If we fail, we fail. But we must not keep back peddling as the federal government has been doing on water issues for the last 20 years. I mean, we don't have a federal water policy. I know a document was presented in 1987. Nobody uses it. You know, we don't have a lot of the institutions we used to have, and we've become invisible. Water management in this country is largely provincial and local, and I think it's time for the federal government to get back into the game.

Gary Levy: Thank you all very much for those presentations. We will open it up for questions.

Michael Parkes: I work mostly in security, but my provenance is in fact natural hazards and I spent some time working in the water management field with some of the gentlemen in the front. More and more it seems that water, A, is becoming a much more emotional issue than before, and in looking at the whole question of this, if risk and the risk of water export or water, even interbasin transfer, if the risk is socially perceived, then one of the real dangers, then, is that it becomes so emotional that it produces a

counter reaction, particularly south of the border. That's the major concern. Albeit the scientific facts are straightforward, we don't, A, we don't have that much water to spare; B, the crisis mainly seems to be locally manufactured. It still nevertheless is real. So that being the case then, is the panel either individually or collectively prepared to speak to the risk primarily engendered by emotional issues, climate change being one, which may be real, and its effect on trying to get a model act through. In other words, what slope are you getting onto with respect to international implications, primarily with the US?

Owen Saunders: I think it's true that water is increasingly viewed as a security issue, and the Americans are already there. They're ahead of Canadians in that respect, and it's partly because they're feeling the pinch, more and especially in the west. The question then become, are you better off acting now or acting later, and I think it's very clear that your success in achieving agreements on water is measured to some extent by the degree to which it's perceived as a crisis. And that's true, not just internationally, but domestically. For example, within Canada, there are a number of interbasin agreements. You look at the one in the prairie provinces, there is actually an allocation formula in place. You pass on 50 percent of what you've got per eastward flowing rivers. And that agreement was put in place in 1967. I think it was put in place because people weren't feeling the crunch then. But look what happened in the McKenzie. The McKenzie is a basin that cries out for an effective multi-jurisdictional agreement because of competing uses -- hydro, oil sands, Aboriginal interests in the North. But because we dithered what sort of agreement actually showed up on the McKenzie in the late 1990s? Well, essentially a toothless agreement, and the actual teeth are anticipated to be negotiated bilaterally. What's happened, there is one bilateral agreement in effect after over ten years now, I think, and that's between the Yukon and Northwest Territories, which have a few streams between them. It's pretty easy for them to get to agreement. And it's going to be increasingly more difficult. And why? It's because there isn't any hammer at the end of the day that forces the provinces to enter into an agreement, and why would you? If you're the upstream party why would you give away any rights that you have? I think that speaks more generally though to the problem, and as climate change kicks in, as we see greater stress on our water resources, it's going to be increasingly more difficult to do the sorts of things that we might be able to do now. And just one final point on that, and that is it's not always us versus them with the Americans. There's many places where the Americans share our interests and most obviously in the Great Lakes, of course, because it's actually a common pool resource. So there will be people in the United States, environmental NGOs with a lot of resources who are very sympathetic to watershed management ethos. So yes, there'll be problems, but they're going to just get worse if we don't act sooner rather than later.

Ralph Pentland: I think what happens in public and what happens in private is very different, and that's part of the problem here. I think the way the history books are being rewritten now during the free trade negotiations, it's pretty clear now that the Canadian negotiators used water as a negotiating tactic. You know, you won't find anybody to admit that, but they used it. Last summer during the security and prosperity discussions that were going on, there were closed-door meetings take place, and we know that they took place. There's one in Calgary on water and energy, and the US person who ran the meeting, the first thing he said was, "Why don't you do this again, you Canadians? Now we're coming up this meeting between the three leaders, and why don't you do it again?"

Why don't you use water again to move this SPP thing forward? I think the problem is that when you have a lot of poor analysis going into that behind there. They wrote a report, which was very poor, had a lot of bad assumptions and so on. So when you have this combination of secrecy combined with bad analysis, there's quite a high chance that we'll someday make a big mistake by accident. We do things the opposite of what we say we're doing publicly. There is always this chance that something will happen by accident. , even though the people of Canada, 70 percent of them don't want it to happen, it could still happen by accident.

Blair Seaborn: (Former Deputy Minister of the Environment): I congratulate the organizers of this meeting and holding it on Parliament Hill, I think highly appropriate, and I hope it might in and of itself have a salutary effect. You've done, I think, a splendid job in bringing fact and good science to bear on this important but still relatively contained question. But I'd like to know what the group have in mind now. Are you attempting to make these matters of fact and science more clearly available to the, at least the two leading parties at the federal level, and in any way to the provinces, possibly through such an organization if it still exists as the Canadian Council of Resource and Environment Ministers, which might bring the provinces in? In other words, I'm asking how are we going to push this forward rather than rely on this meeting and perhaps any press coverage that it gets?

Adèle Hurley: (Director, Program on Water Issues, Munk Centre for International Studies, University of Toronto): Well, thank you for the opportunity, actually, to think through next steps somewhat publicly. I think the Canadian Council of Resources Ministers is the obvious. Media were invited here today, and so to some degree, some of this will run its own course, and that's good. The message is out there. It's transparent now, and I think that having it occur today via our Library of Parliament is appropriate process, in both official languages. There is also a First Nation element here that has to carefully thought through, where many people in the United States who welcome this opportunity because they would like us to stand up for what is ours so that they can get on with the business of protecting what is theirs, and by extension, using this opportunity to shepherd their own resources more appropriately. They understand they need to do that, but it would help if we would simply look out for what is ours and respond as our tribe. That would be appropriate, they feel, and they feel that the time is right for us to put our house in order so that they can get on with putting their house in order. I would welcome suggestions from anyone here today as to the appropriate next venue for some of these discussions. I think that over the summer we're going to perhaps take one of these basins and run it, put it through its paces, see what it would be like if you tried to think through how a model act would, how the model act would apply to one of these basins. And just see what comes out. We don't really know some of that yet, and this seems like a great opportunity for us to think that through, maybe on a one basin level. But it would be welcome. We would welcome any suggestions of other fora. I know that it's about to be discussed in Peterborough at the Trent University water forum that I believe is this weekend. So it's generic. It will grow. We've seeded it. Some of it we'll continue to do, but I think personally, and I don't speak for others on this point, but I think that where it goes from this point is largely a matter of chance and some of it you direct and some of it you let happen.

David Brooks: (Friends of Earth Canada): I am delighted that this is getting back firmly on the agenda, because as someone with an economics background who believes that bulk water exports rarely if ever make any economic sense, I would just be so happy not to have to deal with this. It takes an extraordinary amount of time, and the only examples I know anywhere in the world of bulk water movements, they're political, as from Turkey to North Cyprus, other cases like this where the rationale is more nationalism than anything else. You've emphasized it has an environmental basis based on river basins. However, Ralph said something that worried me, and I wondered if there isn't a greater opportunity. He mentioned that we don't sell water, and an economist would immediately say, oh well, water has no value in place. I wonder if the model act says anything at this point, or whether it should about the value of water in place in its own basin, right where it exists? Every time estimates have been made of the value of water in place, they have in fact turned out to be enormous, even recognizing that there are vast areas that are intangible and that surpass estimates. It would seem to me this would strengthen the case, and I'm just wondering at this point what's there about that?

Frank Quinn: I think David's right that any water shipped by sea that I can think of as well is localized and often a country will have an offshore island, and without enough area to have a watershed they could draw on, or has a long, dry monsoon season. And so the country, the national government will make sure that water is provided by sending a ship back and forth or by building a small desalination plant. Take the island of Cyprus, the Turkish part of which is served I think by a desalination plant and the Greek part of which is served from Greece by tanker ship. So there are several examples like this around the world. What there aren't are any long distance shipments of water, which many entrepreneurs have talked about, and they're testing bags which they can drag behind a ship as well as what can be held in the hold of a ship. And it's questionable how the bag alternative would work out in the open ocean, in rough seas. And so there isn't yet any long distance water export. You're dealing with a very high weight, low value commodity, but strategically, if a country like Israel needs it, they think of security. They want a close source because water is low value, but they also want a secure source.

The other thing is the value of water, where it is in use, I'm really impressed at gains and efficiency in the United States. I look at websites for California, for Arizona, for the Great Lakes, and for the Northern Rockies. I don't think there are any Canadian websites that are focused exclusively on water. If there are, I wish somebody would tell me how to find them. But I'm impressed in seeing the literature three times a week that I get from these American websites. California is using as much water today as it used in 1970, and no more. It's because they may have doubled the population, but they're doing a lot to get more out of the water they have. And it's not just the fact that they're building 20 desalination plants. Only a very few of those are ready to open yet. But they do other things in the home, in the lawn, in landscaping, in reallocating water away from agriculture, and there's already more of that, to industrial, municipal, recreational uses. But the fact is they are doing these things, they're very active. I can't find anything comparable in Canada. I know there's a little anecdote about some little town in Northern Ontario or whatever, but I can't find the information in this country. I don't think we're trying very hard here, and maybe we don't think we have to.

Jennie Vega: I am a PhD student at the University of Montreal, working on water in North America, so I'm studying Canada, the United States and Mexico and that within the NAFTA, NAFTA. One of my questions is the status of water. What is water exactly? Is it a common good? Is it something that can't be appropriated? If we take it as something that is common, as a common good, then we cannot include it in NAFTA, because it is not a product. So everything really depends on the status that water is given. If water is a product, an economic good, will it immediately go into the NAFTA agreement? This is something we need to look at in Quebec where I looked at the state of affairs. We have a problem with both surface water and underground water. Surface water, we have a status of...it's non-commercial, but for underground water, it's not clear. Some say that it is something that can be appropriated, that it belongs to the owner of the surface. The owner on the surface owns what's below. If we compare with California, then they take water as a product, and they're managing it, and they have a water bank where they manage water. So they take surface water, which is a common good, and they inject it underground to be able to use it, and then sell it. So these are questions which need to be looked at with respect to the status of water. But I think that it is something that each province has the jurisdiction to legislate, and they need to look at the status and to protect what is non-commercial. This is something that could be suggested to the provinces in order to protect water. And I would like to have your opinion on that idea and on the protection of water in Ottawa. I would like to have some information on that.

Owen Saunders: Some of these questions go to our domestic characterization of water, and some go to international trade obligations, and the two aren't co-terminus in some respects. It's true that in the United States, water and the status of water is something that the Supreme Court has looked at in some detail, and there's a number of cases, for example cases in Nebraska and El Paso, and they do think of water when it crosses the state boundaries as subject to the commerce clause, even if you're just pumping it on your own farm. It's not clear that the Supreme Court in Canada, if it were presented with that question, would reach the same decision. I suspect they might not, just because we have a different view of publicly owned resources here, and the nature of resources in the United States. So the domestic situations in Canada and the United States are quite separate. With respect to this question of water as a product, and the point at which it becomes a product, this actually is the debate I referred to. It's true...and the NAFTA and the WTO use different terms. One uses product, the other uses goods, but they mean the same thing. It's certainly clear that if water is a product, or good, then it's subject to NAFTA/WTO disciplines. We know that some water is a product. We know that bottled water is a product. The question is what about the water out there in the lakes, you know? My own view, but it's my view, is that water in its natural state isn't subject to NAFTA or WTO disciplines, and the reason is I don't think it's a product. For me a product is something that you actually apply labour to. That said, there are other people out there who take a different view, and many of those people are in the environmental community, and I think one of the reasons they take a different view is they want to be cautious about the issue. So that debate, I think, is not going to end. It was around in 1988. 20 years later, it's still here. It's beneath the surface, but it's there. So really, what this act tries to do is just end-run the whole debate and just say, well, regardless of whether, you know, all water is included, some water is included, we do know that the NAFTA doesn't do anything to stop water from being traded. And that should be the

focus. And it should be a focus in terms of being traded across basin boundaries, because it's consistent with trade obligations. And you may have had a few other questions there, but I think that was the essence of what you were getting at.

Ralph Pentland: Very quickly, on your point about California allowing the buying and selling of water rights, and we don't. The international literature on that suggests that that can be a very good idea if you have the appropriate constraints in place, and if you look at California and South American capitals, for example, it works well in California. It doesn't work in South America because they don't have appropriate constraints in place, and in the United States it works well in California because they have something called public trust law. In other words you can't... governments have fiduciary duty to produce the essence of water for the use, enjoyment of the entire population. We don't have that in Canada, so I would say in Canada it's premature for us to go to the buying and selling of water rights, because we have insufficient protection of the public trust type.

Hans Forestel (Friends of Earth Canada): (inaudible)

Marc Hudon (Nature Québec): I heard about the model act a while back, and I'm very glad today to be here. I think what Canada needs is certainly a vision, a national vision about water. I don't get a sense that the people at the federal level feel they have partners in the provinces. I'm talking the provincial governments, the cities and other NGOs. I would have liked to hear, in this model act, for example the recognition of the hard work being done by the provinces towards this very common, difficult challenge. We're in this together. If we have failed over the past 50 years it's probably because people at the lower echelon elsewhere across the country see the federal coming with big boots on a very sensitive issue.

Ralph Pentland: I think it's a great point. These days whenever I think about water or energy or anything else, I always look to Europe for my inspiration. They do everything right there now in the last couple of decades. On water, what they, you know, the countries have come together, and they've agreed on standards for everything to do with water and they've asked their parliament to pass it. Now, if the ten provinces in Canada were as good as the ten countries in Europe, they'd come together and they'd ask their federal government to do something. On energy, water, climate change or anything else now, I always look to Europe for my inspiration these days.

Mary Rothfels (Fisheries and Oceans Canada): Good morning. I'm a wildlife conservationist by trade, and my interest is ecological. You've framed this act as being ecosystem based. I definitely heard that term, but it was also expressed in terms of "this'll get us a way of being consistent with NAFTA" and I think there's an appetite in Canada to make this an act that's ecosystem based or ecological for that good reason of ecological concern about our water basins. And I think that if you could avoid implying that you're taking an ecosystem approach because it's a legal mechanism that would be useful. That would be a way to characterize the act in a way that Canadians will embrace if it's ecologically based. My actual question, apart from that comment, was whether in fact if you're showing leadership at the federal level in terms of setting a minimum standard for provincial legislation? You couldn't in fact set a federal standard for the amount of water diversion, hydro activity that goes on at the provincial level, because some of those developments do way more harm than any export would ever do in terms of Canadian ecology.

Owen Saunders: Let me just say first of all about the comment about ecosystem base, the reason we talk about NAFTA is it always comes up. It's an issue. But we made it clear that the reason we're doing this is because it makes environmental sense. And then if you actually read the common treaty in the model act, you'll see that we make that point. So you're absolutely right; however, NAFTA is always an issue when we talk about water, so we have to address it.

Celeste Côté (Sierra Club of Canada): I'm working on fresh water issues. A quick comment about the title of the act insinuates it is about preserving Canada's waters. If you're taking an ecological outlook, dealing with bulk exports is but one component of a way of preserving Canada's waters in a national strategy context. My question is concerning section seven of the act, the regulations part. Basically to paraphrase, it says the governor in council is the one that can specify what constitutes a use, diversion or removal of water under the act, and it's the governor in council that describes what water basins the provision applies to. I'm wondering what the logic was behind leaving that kind of open. From what I understand, most acts will define their terms. Here I think that it would be useful to define the terms "use", "diversion", "removal", "water basin", and also in section three, subsection two, it talks about the five major basins, but it doesn't tell you which ones they are, except in the commentary, which is not, from what I understand, the actual legal text, so I thought it might be useful to really define those terms a bit more, so I was wondering if any perceived advantages or disadvantages were to leaving that ambiguity open.

Owen Saunders: This goes back to a comment I made earlier, and it's a cautionary note. This is not a model act. This is a description of basic elements that would be in a model act. And it's true that you need a whole array of legal language that will sort this sort of thing out. We veered away from that because this is something we want to make understandable to the public, so that's we went for a description of basic elements. With respect to what goes in regulations and what doesn't go in regulations, again, it's not something I'm wedded to. I know some people are concerned about putting things in regulations because they can be changed easily. But there are also good reasons to put things in regulations because it gives you flexibility, and it's very hard to change an act. It's relatively easier to change regulations. So some people want that flexibility, some people don't want it.

David Harris (Royal Military College): I am here representing the Global Initiatives Project, and perhaps two ideas about the way ahead. One way ahead is to come to our conference in Toronto, the seventh, eighth and ninth of November. We're going to bring people in from around the world, and they're going to be discussing some of the issues, hopefully including some of you. And the other thing is that I spend a lot of time working on strategic foresight, which is not a fad so much as a new discipline, and in two of the courses I teach, what I hope to do next year is we're going to give the students the model water act to do scenario planning from. So at the very least, you'll have a group of international students, military and civilian from around the world, looking at the model act and thinking about it from their perspective.

Gary Levy: I think that is a good note on which to end. I want to thank, on your behalf, the three speakers for all the work they have put into this and for a very interesting morning.

