Managing Water in a Federal State: The Canadian Experience

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Abstract:

Canada faces special challenges as a federal state in managing its vast water resources, many of which are transjurisdictional in nature, shared either with the United States or amongst Canadian provinces and territories. Although the federal government possesses an array of potentially powerful constitutional levers with which to influence specific aspects of water management, it lacks the plenary jurisdiction that would enable it to address water management in an integrated fashion. Under the Canadian constitution, provinces are vested with most of the proprietary and legislative responsibility for natural resources management, including water management, subject to some specific federal interests. However, even recognising the primacy of the provincial role, the federal level of government has taken an exceedingly modest view of its powers. The federal reticence to exercise its authority in waters that are clearly of national interest – especially transjurisdictional watercourses – has arguably hampered the development of effective basin management regimes in Canada. As these waters come increasingly under stress in coming decades, especially in light of the expected effects of climate change, a continuing failure by the federal government to assert a clear role for itself in articulating the national interest in water management may well hamper the effective resolution of emerging water management challenges.

Key words: federalism, law, water

I. Introduction

1. General

The governance of water resources in the Canadian federation reflects generally a highly decentralised approach to federalism and specifically an approach to natural resources management under which the national government largely defers to the provinces as the primary resource managers. This paper, first, explores the constitutional and political roots of provincial supremacy in water resources management; second, illustrates through two case studies how this supremacy may lead to poor policy outcomes for the management of shared water basins; and finally, offers some suggestions as to how the decentralised approach to federalism as practiced in Canada can be reconciled with the need to reflect national interests in interjurisdictional water management.

2. Canada's Freshwater Endowment

On the face of it Canada is one of the most richly-endowed countries in the world with respect to its freshwater resources: approximately one-half of 1% of the world's population enjoys 20% of its freshwater resources. This picture is, however, misleading. First, much of its freshwater endowment is non-renewable (although Canada still has access to 7% of the world's renewable freshwater resources). Additionally, much of Canada's freshwater endowment is located far from the major centres of population, with 60% of its rivers flowing north – while between 80 and 90% of its population live in a southern band within 300 km of the border with the United States (NOWLAN, 2005).

Both the nature of water resources and the management challenges they present vary significantly from region to region. Canada's five major drainage basins (there are numerous, sometimes significant, sub-basins) are those flowing into the Pacific, the western Arctic Ocean, Hudson Bay, the Atlantic and (of very minor significance) the Mississippi system (eventually feeding into the Gulf of Mexico). The six eastern

provinces rely primarily on the Atlantic Basin (including notably the Great Lakes and St. Lawrence River), although northern rivers in the provinces of Québec and Ontario which flow towards Hudson Bay have great significance for hydroelectric development. The population centres of the three Prairie Provinces (Alberta, Saskatchewan and Manitoba) are also located primarily in the Hudson Bay Basin, although the Arctic Basin (dominated by the Mackenzie and its tributaries) is of growing significance because of the pace of resource development in the north – and in particular energy development associated with the rapid expansion of the Alberta oilsands. Finally, the west coast province of British Columbia is dominated by its reliance on the Pacific Drainage Basin, although in the northeast of the province the Arctic Basin holds important hydroelectric capacity. It should also be noted that the legal character of water rights varies across the country, with the regimes in the eastern provinces (other than Québec) rooted in riparian rights doctrine, while Québec relies on a civil code and the western provinces have adopted regimes based on prior allocation (a situation not unlike the United States, where the riparian approach is the dominant influence in eastern states and prior apportionment dominates the western states).

In addition to the 10 provinces, Canada comprises three federal territories – Yukon, the Northwest Territories and Nunavut, the latter of which is in the Hudson Bay Drainage Basin and the former two which lie within the Arctic Basin. The three territories are at different stages of constitutional devolution, including with respect to water management responsibilities. While in many respects the territories enjoy responsibilities broadly comparable to the provinces, this is not true in some key areas; moreover, what responsibilities they do enjoy is as the result of federal legislation, and are not constitutionally guaranteed. Therefore, the primary emphasis in this paper is on the provincial and federal roles in water management.

Apart from its surface water endowment, Canada also has significant groundwater resources, which, again, are not evenly distributed across the country. Nevertheless, approximately 30% of Canadians depend upon groundwater to provide their drinking water. Two-thirds of these are people living in rural areas (CÔTÉ, 2006). Despite its

importance, Canada's groundwater endowment is in many respects poorly understood, and the knowledge varies significantly as between regions and aquifers. Similarly there is a wide range of management approaches to groundwater – including with respect to such fundamental issues as to whether to charge for extraction of the resource.

Just as the nature of Canada's water resources varies significantly from region to region, so not surprisingly do its water management challenges. In eastern Canada and British Columbia, water quantity has not typically figured as a major worry, although in the Great Lakes region variations in lake levels have from time to time generated concerns related especially to recreational and navigation uses. Generally, though, concerns in these provinces have focused on water quality issues, including a spike in concern in recent years over the safety of drinking water, largely as the result of a major problem with water contamination in an Ontario municipality that resulted in a number of deaths and focused national attention on the safety of drinking water supplies (it should also be noted that the problem of drinking water quality has been identified as a particular challenge for Aboriginal communities across Canada).

In the three Prairie Provinces, especially in the southern parts located in the Hudson Bay drainage system, the challenges posed to water managers have traditionally been associated with concerns relating to water quantity, although in recent years water quality has also emerged as an issue, especially as the result of the growing number of large feedlots, especially in southern Alberta. This primary focus on water quantity reflects in part the arid nature of the Prairie region, and in part the significance of agriculture to the regional economy, although even here the challenges vary as between provinces. For example, while Manitoba depends very little on irrigation for its agricultural sector, and Saskatchewan only modestly when compared to the national total, Alberta makes heavy use of irrigation to support its southern agricultural sector, with the province accounting for over 60% of the Canadian total of irrigated land – almost all of this devoted to field crops, hay and pasture. In the event of future reductions in flow rates on Prairie rivers – which are widely anticipated as a likely result of climate change –

Alberta may be forced to make difficult decisions between its own needs and those of its downstream neighbours.

The Arctic Basin – and in particular the Mackenzie system – faces challenges relating to both water quality and water quantity. These challenges are aggravated by the differing needs of the various jurisdictions in the Basin – with British Columbia having a special interest in the use of the basin for hydroelectricity generation, Alberta relying on the Basin for the development of other natural resources (especially petroleum and forestry) and the Northwest Territories relying on the Mackenzie for instream uses associated with the preservation of Aboriginal lifestyles. These challenges are discussed further on in this paper.

As a final note, the one unifying theme that does seem to characterise Canadians' use of their freshwater resources is profligacy. Canadians rank among the highest users of freshwater in the world. Amongst OECD members, for example, Canada ranks second only to the United States in its per capita use of water, and consumes at a rate 65% above the average in the OECD (NOWLAN, 2005).

II. The Constitutional Context for Water Management in Canada

Canada was created as a federation out of four British Colonies in 1867. As the result of subsequent additions, the federation now consists of 10 provinces and three northern federal territories. The latter, while not formally recognised under the Constitution (*Constitution Act, 1867*, 30 & 31 Vict. (U.K.), c. 3]), are at different stages of political development, but for many purposes are treated much the same as provinces; this is especially the case with respect to the conduct of intergovernmental relations. The Canadian Constitution in general attempts to divide legislative powers of the federal and provincial levels of government into two discrete lists, with each level of government sovereign in its own sphere, and with any residual powers resting with the federal government (there are also a few shared powers in the Constitution, but only one of these, agriculture, has relevance to water management).

On the face of it the Constitution provides important powers to the federal government through which it may influence water management. The most obvious heads of federal authority in the Constitution relevant to water management are those relating to navigation and fisheries, although important levers are also found in the federal responsibility for criminal law (especially relevant in the case of pollution that may be injurious to human health), trade and commerce, interprovincial and international works and undertakings (for example, canals), and the implementation of treaties concluded by the British Empire on Canada's behalf.

While there is no one plenary head of legislative power available to the federal government that would enable it to legislate comprehensively with respect to water resources management, one could imagine that as the result of either an expansive reading of individual powers or the consideration of the collective weight of the various specific heads of power, there might be considerable room for the federal government to act. In Canadian federalism, however, the tendency of constitutional jurisprudence, especially in recent decades, has been to give a narrow reading to the specific powers and to restrict them to their most obvious intent. So, for example, federal pollution-related legislation passed under the authority of the fisheries power has been struck down as overreaching where there was no demonstrated link between the water pollution and harm to fish or fish habitat (*Fowler v R* [1980] 2 S.C.R. 213). A similar demonstrable link between the water policy measure and the specific head of power has been demanded by the Supreme Court with respect to the invocation of the navigation power (*Northwest Falling Contractors v R* [1980] 2 S.C.R. 292). Even the apparent willingness of the Supreme Court in recent years to use the criminal law power to support federal environmental legislation (including legislation with respect to water quality) (*R v Hydro-Québec* [1997] 3 S.C.R. 213) is arguably a mixed blessing, given the inflexible nature of that power as a regulatory instrument, especially in addressing interjurisdictional relations.

In addition to the specific heads of legislative authority, the federal government is also given other broad powers under the Constitution, the most important one of which is the general power to legislate for the "peace, order and good government" of Canada. This power has a chequered history of interpretation in the courts and has been interpreted as embracing a number of branches, the most relevant one for water management being the "national concern" doctrine. While this doctrine has been invoked expressly by the Supreme Court with respect to water management – for example to justify legislation relating to marine pollution (other than that falling under the fisheries power) (*R v Crown Zellerbach Canada Ltd* [1988] 1 S.C.R. 401) – on other occasions it is not always clear the extent to which the Court is relying on this general power or on one of the specific heads of power. For example the Court has struck down provincial water quality legislation that has interprovincial impacts (*Interprovincial Cooperatives v Manitoba* [1976] 1 S.C.R. 477), but it is not fully clear the extent to which the judgment relied on the fisheries power as opposed to a more general power with respect to interjurisdictional water management.

Regardless of the theoretical potential for action under the peace, order and good government power, the federal government, especially in recent decades, has in practice been hesitant to invoke national concern explicitly as a basis for federal regulation of natural resources management, and has demonstrated a strong preference for relying on specific heads of power in the Constitution. Even in those cases where the federal government has indicated a willingness to take a stronger role in water management, it does not always follow through. For example, in the *Canada Water Act* of 1970 (R.S.C. 1985, c. C-11) the federal government asserted the authority to take strong and, where necessary, unilateral water management measures in basins where water quality had become a matter of national concern. In practice, however, those provisions of the Act have never been invoked. Similarly, an ambitious agenda for federal action on water in the *Federal Water Policy* of 1987 (ENVIRONMENT CANADA, 1987) has gone largely unimplemented. More typically when the federal government wishes to pursue water management goals, it employs its spending power – usually in the form of cost-shared programs negotiated with the provinces.

It is true that the Constitution also provides for other, even more sweeping powers on the part of the federal government – including the power to essentially occupy a policy area by declaring any works to be for the general advantage of Canada, and the power to disallow any piece of provincial legislation within a specified period of its passing a legislature. While there are many examples of the use of both these powers in the first several decades of Confederation, however, today they have probably fallen into desuetude; certainly, as a practical matter, their invocation would be regarded as, at a minimum, politically explosive, and potentially even as breaching established constitutional convention.

This last point – the political impossibility of invoking constitutional authority that formally exists in the written Constitution – reflects a broader and vital dimension of Canadian federalism: in many respects the actual mechanics of Canadian federalism are influenced more by what has been termed the "political constitution" than by the written Constitution. In this respect, it should be remembered that the core of Canada's Constitution is still the 1867 legislation passed by the British Parliament (and not "patriated" to Canada until 1982), with all its peculiarities intact. Chief among these is the formal emphasis on a strong federal government, an emphasis rooted in fresh memories of the then-recent Civil War in the United States. While in the early days of Confederation, the federal government behaved much as was anticipated in 1867, the relative positions of the federal and provincial levels of government have changed significantly over the years. The forces that have militated in favour of greater provincial autonomy need not be related here. Suffice it to note that, despite the formal provisions of the written Constitution, and in large measure because of political pressures (abetted in some important respects by judicial interpretations of the Constitution), the Canadian federal system has evolved into one of the most decentralised in the world. One of the consequences of this evolution is the inability – or at least the unwillingness – of successive federal governments to assert a strong voice in natural resources management, including water management.

In contrast to the important but discrete powers available to the federal government to influence the management of water resources, the provincial governments are seized with much broader authority. This authority is both proprietary and legislative in nature. Unlike in the United States, where there are very significant federal lands, especially in the western states, the great bulk of public lands within the provinces belongs to the provinces (albeit there are some important federal proprietary interests as the result of lands held for Aboriginal people and through ownership of national parks, defence lands, etc). The proprietary rights that attach to provincial ownership are buttressed by legislative rights, both specifically with respect to the management of public lands (and resources), and more generally with respect to matters of a local or private nature, including property and civil rights. In the result, it is at the provincial level that one finds the necessary broad authority to manage water resources in a comprehensive manner.

The dominant role of the provinces in natural resources management has been strengthened in recent years as the result of a very practical consideration. As provinces have engaged in management of their natural resources endowment, they have necessarily acquired the associated expertise and personnel such management entails. They are therefore the level of government that has the "boots on the ground" required to implement resource management initiatives. By contrast, the federal government, lacking a plenary mandate for resource management, has not developed the same level of expertise to actually implement resource-related policies, and in many cases depends on cooperation with provincial officials to effectively implement initiatives of its own. This is especially the case over the past 15 years, where the federal government for fiscal reasons has shed much of its policy expertise in a number of areas, including water management.

III. Challenges Posed by Provincial Dominance of Water Resource Management

While the dominance of the provinces in water management probably reflects a consensus in Canada that provinces should in general be the masters of their resource

endowments, it is at least questionable whether this hegemony has always resulted in optimal policy outcomes. This is especially the case with respect to the management of interjurisdictional waters; indeed, it has been pointed out in the literature on Canadian federalism that the nature of interjurisdictional externalities in water use is such that "there is a strong case for central authority to ensure integrated watershed management and respect for the basis values of federalism related to criteria of democracy and functional effectiveness" (KENNETT, 1992, at 48). Two practical examples of the drawbacks posed by a high level of deference to provincial interests are provided by the negotiations on the management of the Mackenzie Basin and the federal response to public concerns over the threat of water exports.

1. Mackenzie Basin Management

The Mackenzie River system flows through three provinces and two territories for over 4000 km in northern Canada before emptying into the Arctic Ocean. The major portion of the Mackenzie Basin, however, is located in three jurisdictions: moving roughly from upstream to downstream, these are the provinces of British Columbia and Alberta, and the Northwest Territories (the other two jurisdictions are the Yukon Territory and the province of Saskatchewan). It comprises the tenth largest river basin in the world – 1.8 million km^2 in area, or equal to about 20% of Canada's landmass (STATE OF THE ECOSYSTEM REPORT, 2003). The Basin, is however, sparsely populated (about 400,000 people) and accounts for little more than 1% of Canada's population. A significant portion of this population, especially in the Northwest Territories, is Aboriginal. There are obvious resource-use conflicts in the Basin, which is the site of significant hydro-electric development (especially in British Columbia) and increased pressures on both water quality and water quantity in the face of the rapid development of Alberta's massive oilsands deposits. At the same time, Aboriginal populations in the north are highly dependent on the waters of the Mackenzie system for maintenance of traditional subsistence lifestyles. Unfortunately these people find themselves largely as the downstream users of the resource. In sum, the Mackenzie is precisely the sort of interjurisdictional system with competing resource uses that is most

in need of an overarching arrangement that would balance the interests of the various resource users.

In reality, however, the actions that have been taken towards a comprehensive plan for the management of the Mackenzie Basin can only be described as disappointing – and the deficiencies in governmental measures in this respect are largely the result of the unwillingness on the part of successive federal governments to articulate a strong voice, even where it seems clearly appropriate. Multi-jurisdictional negotiations on the Mackenzie began in the early 1970s but an intergovernmental agreement on the use of the Basin did not come into effect until 1997 (Mackenzie River Basin Transboundary Waters Master Agreement, *entered into force* 24 July 1997). The Agreement commits the parties (which include the governments of Canada and the five Basin provinces and territories) to several principles, that emphasise such worthwhile goals as maintenance of the ecological integrity of the aquatic ecosystem, intergenerational sustainability, reasonable use (or more precisely the avoidance of unreasonable harm) and duties to notify and consult – in effect the core of what would be considered a "modern" instrument for sharing the waters of an interjurisdictional basin. Beyond this general statement of principles, however, the Agreement offers very little comfort to downstream jurisdictions. For example, the Agreement lacks a process for binding dispute resolution (it provides merely for a process that will at most generate recommendations for the terms of settlement for disputes), and the articulation of any specific substantive obligations is left to be negotiated through subsidiary agreements on a bilateral basis between the parties. After over a decade, however, there has been only one such bilateral agreement concluded – and that between the Yukon Territory and the Northwest Territories, which have a very small number of shared waters of no great significance. It should finally be noted that even in the event that other bilaterals are successfully concluded, it is not anticipated that they will be legally binding on the parties.

Despite the fact that the federal government would almost certainly have the constitutional authority – acting under its power in relation to peace, order and good government – to intervene legislatively with respect to the Mackenzie, its role has largely

been quiescent, and at most facilitative in encouraging negotiations. In a situation such as that obtaining in the Mackenzie Basin, where upstream jurisdictions have no incentive to act against their own self-interest in the development of the Basin's water resources, it can hardly come as a surprise that the negotiations have produced such unimpressive results. Moreover, the prospects for significant commitments on the part of upstream provinces on the Mackenzie in the future are even more daunting when one considers that the Mackenzie is expected to suffer above-average adverse effects on flows as the result of climate change.

While the challenges to interjurisdictional cooperation on shared water resources in Canada are perhaps most pronounced in the case of the Mackenzie River system, they are not unique to that Basin, and are likely to grow as these resources come under increased stress as the result of both economic development and the expected significant effects on river flows associated with climate change. The potential for such stresses is most apparent in the Canadian Prairie Provinces (Alberta, Saskatchewan and Manitoba), whose shared eastward-flowing watercourses (which flow into Hudson Bay) are already strained by existing demands. While there is admittedly in place an interjurisdictional agreement on the use of these waters, which does commit the parties to a specific allocation formula, its legal status is ambiguous (SAUNDERS, 1988).

2. Water Exports

In addition to the challenges presented by interjurisdictional waters within Canada, the operation of Canadian federalism also raises issues for water relations with the United States. One might assume that the management of internationally shared water resources is a matter that falls clearly within the authority of the national government in a federation. However, the position in Canada is somewhat more nuanced. The major treaty governing Canada's water relations with the United States is the International Boundary Waters Treaty (BWT) of 1909 (United States – Great Britain, Treaty Relating to the Boundary Waters and Questions Arising Along the Boundary Between the United States and Canada, s*igned* 11 January 1909, *entered into force* 5 May

1910, 36 Stat. 2448; TS 548; 12 Bevans 319). The BWT deals with the respective rights and obligations of the parties both for boundary waters (that is, waters which form part of the international boundary, including, most importantly, the Great Lakes) and their tributaries, and for transboundary waters (that is, rivers that cross the international boundary). It also establishes a binational commission, the International Joint Commission (IJC), which is essentially vested with the responsibility for overseeing the operation of the treaty.

In many respects the Treaty appears to modern eyes as dated in its approach to water management. For example, it reflects the hierarchy of uses one would expect a century ago; there is no explicit inclusion of groundwater in the Treaty; and there is an asymmetric allocation of rights depending upon whether the waters are boundary (where the applicable principle is equal and similar rights) or are transboundary or tributary to boundary waters (where the applicable principle is exclusivity of rights in the upstream riparian – the so called Harmon Doctrine). Moreover, pollution is dealt with in a cursory sentence and there is lacking any reference to modern concepts of watershed management or ecosystem integrity. Despite these apparent defects, the Treaty has demonstrated a remarkable robustness in its accommodation of evolving challenges and new approaches to water management. This is largely because of how the IJC operates; while it does exercise some quasi-judicial powers, much of the Commission's most important work is of an investigative and recommendatory nature in response to references from the two governments – references which are typically phrased broadly and have allowed for the consideration of modern approaches to water management. So, for example, the Commission has been able to address concerns related to groundwater both generally and specifically. Similarly, it has for many years accepted the desirability of pursuing an ecosystem approach in relation to water management.

Despite the many benefits that have accrued to both nations from the BWT, in so far as intergovernmental relations within Canada are concerned the existence of the Treaty has in some respects arguably tended to restrain the federal government from taking initiatives that are consistent with the rational management of boundary and

transboundary waters. One example of this is found in the federal government's approach to interbasin transfers of water. Before exploring this issue, however, it is first necessary to describe briefly the unique constitutional context which provides the backdrop to Canada's transboundary management of water resources.

An important aspect of the BWT that affects how the federal government approaches binational water management issues relates to the peculiarities of the Canadian Constitution. Owing to its vintage, the Constitution does not adequately address the role of the federal government in international relations; this is because at the time of Confederation and for several decades thereafter, Canada's foreign relations effectively fell within the authority of the Imperial Cabinet in London. The Constitution does, however, include a provision enabling the federal government to implement treaties (regardless of whether this involves an intrusion on provincial powers) that have been concluded on Canada's behalf by the British Empire.

When Canada attained the power to conclude treaties in its own right (formally in 1931, but informally several years before this), it might have been expected that the power to implement "Empire" treaties would also extend to treaties concluded by Canada in its own right. In fact, however, this proposition was rejected by the courts (*A-G Canadaa v A-G Ontario (Labour Conventions)* [1937] A.C. 326 (P.C.)), so that the federal government is restricted in its implementation of treaty obligations to those treaty provisions which fall within its normal legislative competence. Put differently, it cannot rely on non-Empire-treaty obligations to justify legislating in violation of the division of legislative powers established under the Constitution. This position is not only anomalous in terms of federal states, it also creates significant practical problems for the federal government, both generally and with specific reference to water management. This means that while the federal government can rely on the Empire treaty clause to justify its implementation of the BWT, it must look elsewhere (primarily the peace, order and good government power) to justify its implementation of other post-Empire treaties related to water management, such as the Niagara River Treaty of 1950 (Treaty Relating to Uses of the Niagara River, *signed* 27 February 1950, *entered into force* 10 October

1950, 1 UST 694; TIAS 2130; 132 UNTS 223) and the Columbia River Treaty of 1961 (Treaty Relating to Cooperative Development of the Water Resources of the Columbia River Basin, *signed* 17 January 1961, e*ntered into force* 16 September 1964, with related agreements effected by exchanges of notes at Washington 22 January 1964, and at Ottawa 16 September 1964, 15 UST 1555; TIAS 5638; 542 UNTS 244).

One example of the consequences that arise for water management as the result of federal reliance on the BWT is provided by a national debate that has emerged sporadically over the past 20 years in Canada with respect to the implications of Canada's international trade agreements (including both World Trade Organisation obligations and those under the North American Free Trade Agreement, but especially the latter) for Canada's ability to manage its water resources as it sees fit – and in particular the ability to limit or prohibit exports of water. The incident that attracted the most public attention in this respect was the granting of a provincial licence for tanker exports of water from the Great Lakes (specifically, Lake Superior) in 1998. Despite the fact that the licence was subsequently withdrawn – and that the export plan as conceived was both absurdly naïve and never remotely likely to come to fruition – the very fact that such licences could apparently be readily obtained created a national outcry for action on the part of the federal government.

Eventually the federal government took a number of steps in response to this public pressure, including the reference of the matter to the IJC for investigation and recommendations, and an undertaking (ultimately unsuccessful) to work with the provinces to achieve provincial moratoriums on the possibility of water exports. The step of most interest in the context of this paper is, however, the legislation introduced by the federal government to address the problem as a national issue. The core of the federal legislation (which was accomplished through an amendment to the existing legislation which implemented the BWT) provided for significant restrictions (essentially a prohibition with some limited exceptions) on the removal of *boundary* waters out of the basin in which they were located. In sum, then, the government felt able to address only a part of the problem – the potential for exports of boundary as opposed to other waters

(whether transboundary or purely domestic). Such a partial solution – regardless of how one views its utility in any event – is clearly not consistent with what water managers unconstrained by political considerations would consider an appropriate way to deal with the problem. The federal response appears even more tepid when one considers that any practical threat of water exports is – for reasons of simple geography – almost certainly to come not from boundary waters but from coastal freshwater lakes and rivers that do not fall within the ambit of the BWT and its implementing legislation.

What is most striking about the federal response to the potential threat of water exports is the narrow way it was tailored to fit within a clear federal head of power (the Empire treaty clause in the Constitution), even at the expense of policy coherence. Why boundary waters are more in need of protection than others from the threat of interbasin transfer is not something that was addressed by the federal government, despite a strong feeling at the time in the Canadian public that there was indeed a need to protect Canadian freshwater generally from potential export pressures. It should be noted finally in this respect that there were other options available to the federal government – including most obviously plenary legislation based on the federal peace, order and good government power discussed earlier. The government's unwillingness to exercise this option, even when it might well have commanded public approval, is a reflection of the unwillingness of federal governments to interfere with the prerogatives of provincial governments in matters related to natural resources management generally and water governance specifically.

IV. Emerging Policy Challenges and Options

There are significant new and emerging challenges that Canadian water managers must confront. Some of these are conventional in nature but of a quantitatively different magnitude than experienced in the past. One important example of this in Canada is the increasingly apparent conflict between energy security and water security. The threat to both water quality and quantity in the Mackenzie Basin as the result of rapid development of the Alberta oilsands is fast becoming a national issue in Canada (as it has already

generated a significant debate within the province itself). More generally, as the west increasingly becomes a more dominant engine for economic growth in Canada, there will be increasing pressure on water resources in what is (with the exception of British Columbia) already an arid region. In addition to addressing the conventional challenges for water resources policy that attend a growing population and economy, Canadian water managers in the next several decades will also have to confront the impacts associated with climate change. The outlook for Canadian water resources as the result of climate change is for significant negative effects on river flows in the Prairie Provinces (not only because of changes in patterns of precipitation, but also owing to the melting of glaciers and snowcaps that currently feed eastward-flowing Prairie rivers); the outlook for eastern Canada is more mixed, but again the forecast is for lower water levels in the Great Lakes region (ENVIRONMENT CANADA, 2008). In light of these expectations, it is increasingly important that the federal and provincial levels of government arrive at an accommodation of responsibilities that allows for policy responses that are based on sound principles of water management rather than on the protection of jurisdictional turf. This section discusses some options that are designed to both satisfy the legitimate jurisdictional concerns of both levels of government and meet the criteria of good water policy.

One of the primary roles for a national government in most federations is in facilitating, directly or indirectly, the resolution of disputes between sub-national entities. In the context of water resource management, this may mean, for example, inducing or requiring management structures for interjurisdictionally shared waters. Such an approach may be attractive in light of the most likely alternative – the resolution of disputes through intergovernmental litigation, which by its nature is arguably less likely than a negotiated solution to generate an outcome that is acceptable to both parties. Both options have been exercised in the United States; however, because of the peculiarities of its federal system, neither of these has been pursued with any great vigour in Canada. In Canada, however, there is not only a disinclination on the part of the federal government to impose solutions, but also a tradition of not litigating interprovincial disputes (this reluctance to engage in interjurisdictional litigation is further buttressed by the absence in

Canada of a court with a constitutionally–embedded jurisdiction to arbitrate such disputes, interjurisdictional litigation is indeed possible in Canada, but only because provincial and federal governments maintain legislation providing for submission of such disputes to the Federal Court – legislation which can, of course, be repealed at any time). In the result, there is little incentive on the part of upstream provinces to seriously address issues related to interjurisdictional sharing of water resources (and even, to some extent, the quality of the water that is shared). As noted above in the context of the Mackenzie Basin, this unwillingness on the part of upstream provinces to constrain their discretion to use the resource as they see fit is likely to be exacerbated in coming decades as the full effects of climate change are realised.

The important question in terms of water management, then, is how the federal government can both act to resolve festering interprovincial (and provincial-territorial) differences and at the same time respect the strong inclination in Canadian federalism towards deference to the role of the provinces as managers of their own resources. The preferable option in this respect is one that would both minimise federal intrusion and at the same time provide a sufficient incentive for the parties (but especially upstream provinces) to reach an agreement. The option that would appear to come closest to satisfying these dual requirements is that proposed over two decades ago in the report of the Inquiry on Federal Water Policy (ENVIRONMENT CANADA, 1985). Under this proposal, the federal government would provide a fallback in the event that provincial or territorial governments are unable to reach an agreement on shared water resources. Where "reasonable efforts" at agreement have failed, and upon the receipt of a complaint from one of the parties, the federal government would set up a board (including representation from all affected parties) to make recommendations on the dispute; the federal resolution of the dispute would then be based on these recommendations. The constitutional authority for such an approach would be based on the federal peace, order and good government power. Ideally of course the very existence of such a mechanism would lead to a political resolution of the dispute and obviate the need for its invocation. Unfortunately, this approach has yet to be adopted in Canada, with the negative consequences in the Mackenzie Basin that have been discussed earlier. Nevertheless, it

may be that the effects of climate change will ultimately force the federal government to take a stronger role as the stresses on interjurisdictional waters make interprovincial (and provincial-territorial) agreements more difficult to obtain, or even motivate some provinces to question the legal force of existing commitments.

With respect to the federal government's role in international water management, the highly cautious federal response to assuming responsibilities for the protection of water from extra-basin removal, described in the previous section of this paper, has also been the subject of both criticisms and suggestions for change. In February 2008, the Canadian Water Issues Council (CWIC), an independent and loosely affiliated group of resource professionals with long-standing interests and backgrounds in various aspects of water policy, proposed a role for the federal government which would both address the public concern over potential future trade in bulk water and yet provide for only minimal intrusion on the provinces' roles as primary managers of their water resources (in the interests of full disclosure, the author of this paper is a founding member of CWIC and was directly involved in drafting the proposal described here).

The proposed federal role is articulated by CWIC through the vehicle of a draft model act, the Canada Water Preservation Act – the essence of which is to prohibit most extra-basin removals of water from Canada's five major water basins (CANADIAN WATER ISSUES COUNCIL, 2008). The Act bears a resemblance to the amendments to federal legislation described in the previous section, but addresses only removals from non-boundary waters (removals from boundary waters would be covered by the existing federal legislation). The rationale for the Act is an environmental one; the Act is predicated on the general principle that, with a few limited exceptions, interbasin transfers are inconsistent with the application of ecosystem and watershed approaches to resource management. This approach also has the benefit of avoiding potential conflicts with Canada's international trade obligations, since the Act is directed at interbasin transfers generally, rather than discriminating against those that cross the international boundary (although as a practical matter the Act would effectively preclude water exports).

Apart from ensuring consistency with any international trade obligations, the model Act also minimises federal intrusion on provincial water management prerogatives. This is accomplished by providing that where a province has equivalent regulatory restrictions on the interbasin transfer of water, the federal legislation will be inoperative and the provincial regime will apply. In fact, some provinces already have such legislation in place.

As a final word on the federal-provincial relationship, the discussion in this paper has concentrated on the challenges to sound water management posed by a federal system that in practice concentrates authority in the sub-national level of government. Not surprisingly, in such a situation there is a danger that the legitimate national interest in management of the resource will be lost as the national government – whether for political or legal reasons – defers to the other order of government. The converse may also be true, however: that local nuances and interests are poorly accounted for, or that better, locally-developed solutions to water-use conflicts are ignored, when the federal government exercises policy hegemony. This is most likely to be the case in those areas where the national voice is considered to be most legitimate – for example, in the area of international water relations. The deference to the national government as the natural candidate to manage internationally shared waters is intuitively attractive, and indeed is often desirable, as indicated in the above discussion. It is also true, however, that simple deference to the national government as the regulator may leave unexplored the possibility of creative regional trans-border cooperative solutions. It is certainly arguable, for example, that the water management challenges facing the population of the Great Lakes Basin are more likely to be understood and resolved by residents of the Great Lakes states and provinces than they are by their respective co-citizens in the arid west of the continent, where both the legal and management issues are significantly different. In such an environment, it may be desirable then to look for ways to *increase* the provincial role in water resource management *vis-à-vis* the national government. This is especially the case as water resources come under increasing, but regionally differential, stresses, and the need for appropriately tailored local solutions becomes more

apparent. One approach that builds on this insight is found in the management of the internationally-shared Great Lakes Basin.

The Great Lakes Basin embraces eight American states and two Canadian provinces (this includes Québec, which, although it does not border the Great Lakes, is directly affected by management decisions in the Basin because of the impact on the St. Lawrence River). With the exception of Lake Michigan, all the lakes (Superior, Huron, Ontario and Erie) are shared between Canada and the United States. The Great Lakes Charter of 1985 (COUNCIL OF GREAT LAKES GOVERNORS, 1985) is attractive as a cross-border regional initiative that facilitates local solutions to internationally shared challenges. It is also legally interesting as a "soft law" instrument – which is to say that, while it contains a number of important undertakings, it is not legally binding as such (reflecting the constitutional restriction on both states and provinces with respect to entering into treaties).

The Charter originated in the work of the Great Lakes Governors, who were concerned over possible new diversions from the basin (one of the issues of most concern in this respect lakes relates to Lake Michigan, where the Basin boundary comes very close to the Lake itself in places, including at Chicago, thus raising the question of whether "straddling communities" should have rights to the use of the Basin's water). This work also attracted the interest of the two Basin provinces in Canada, and the Charter signatories include all the Basin states and provinces. The Charter sets out several major purposes, and, flowing from these, several principles for the management of the shared water resources of the Basin. The emphasis in the Charter is on an ecosystem approach to management rather than one predicated on political boundaries. This approach requires interjurisdictional cooperation on a range of matters; of special importance is the commitment by each Great Lakes state and province to prior notification and consultation in the event of new or increased diversions or uses above a specified triggering limit. The Charter does not, then, provide a veto to states or provinces on the use of water by another party, although it certainly opens up such decisions to more scrutiny (under separate federal legislation in the United States, each

Great Lakes state does effectively have such a veto on diversions outside the Basin by other states; this does not of course apply to diversions undertaken by provinces in Canada).

The Charter process has evolved over time. In 2001, the parties agreed to an Annex directed at providing more concrete implementation of the Charter principles. In particular, the goal was "to develop and implement a new common, resource-based conservation standard and apply it to new water withdrawals proposals" (COUNCIL OF GREAT LAKES GOVERNORS, 2001). Following several years of intensive and sometimes difficult negotiations, with significant public participation, in 2005 the parties eventually adopted two agreements – one a "good-faith" agreement among all the parties (Great Lakes – St. Lawrence Basin Sustainable Water Resources Agreement, 13 December 2005) (reflecting again the inability of the states and provinces to enter into binding international agreements), and the second, a binding agreement (Great Lakes – St. Lawrence Basin Sustainable Water Resources Compact, 13 December 2005) including only United States states. The commitments under the international good-faith agreement come into effect in different phases, and to some extent depend upon the ability of the parties to enact the necessary legislation within their respective jurisdiction so that they will be able to fulfill their undertakings. However, the key provisions in the international good faith agreement relating to the common objectives of the parties and the implementation of the decision-making standard (actually two standards – a general decision-making standard for withdrawals and an exception standard, which applies to those limited cases which constitute exceptions to the general prohibition on diversions) came into effect on signature. With respect to the binding interstate compact, this required ratification by each of the Basin states and by Congress, steps that were by no means certain at the time, especially given the differing interests of the various basin states. Ultimately, however, all the states ratified the Compact, which was subsequently approved by Congress (the Senate on 1 August 2008 and the House of Representatives on 23 September 2008) and signed by President Bush on 3 October 2008.

The success of the agreements remains to be seen, but certainly they represent a remarkable example of the ability of sub-national units to engage in very substantive cooperation across international boundaries. It should be noted finally that the Great Lakes Charter process also provides a good example of how national governments can sometimes serve a useful role by simply standing aside and letting regional processes move ahead.

V. Conclusion

Canadian federalism is characterised by a high degree of decentralisation of authority, especially with respect to natural resources management, including water management. This decentralisation is not a necessary – or even intended – result of the formal Constitution as originally adopted in 1867, but rather reflects a consensus that has developed over time that provinces are in the best position to manage their own resources as they see fit. One need not question the appropriateness of a strong provincial voice in resource management in suggesting that there are also good reasons for the assertion of a strong federal voice in relation to those aspects of resource management that have national dimensions. This is most obviously the case for the management of waters that cross provincial or international boundaries. Unfortunately, in Canada, successive federal governments of differing political complexions have been consistent in pursuing a timid approach to exercising a role in interjurisdictional water management. In particular, they have tended to rely narrowly on specific heads of constitutional authority such as the fisheries power or the Empire treaty clause. This has come at the expense of sound water management principles.

Given the likelihood of increased stresses on Canadian water resources in coming decades, the timid federal approach may well be tested as there is a growing need for the assertion of a national voice in matters of interjurisdictional concern. This paper has suggested that there are options available to the federal government to exercise this voice in a way that is consistent with recognition of provincial primacy in water resources management. Indeed, there is even room for some expansion of the provincial role in

finding creative solutions to regional problems, even on a binational basis. However, experience suggests that if provinces believe that the federal government is not willing to intervene to articulate a national interest, there may well be little incentive for upstream provinces to negotiate substantive constraints on their rights to use shared water resources as they see fit, even where this may be to the detriment of the basin – and the nation – as a whole.

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