Going with the Flow
Sovereignty, Cooperation and Governance of US-Canada Transboundary and Boundary Waters
Dean Sherratt and Marcus Davies
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About the Series

Marking 150 years since Confederation provides an opportunity for Canadian international law practitioners and scholars to reflect on Canada’s past, present and future in international law and governance. “Canada in International Law at 150 and Beyond/Canada et droit international : 150 ans d’histoire et perspectives d’avenir” is a series of essays, written in the official language chosen by the authors, that provides a critical perspective on Canada’s past and present in international law, surveys the challenges that lie before us and offers renewed focus for Canada’s pursuit of global justice and the rule of law.

Topics explored in this series include the history and practice of international law (including sources of international law, Indigenous treaties, international treaty diplomacy, subnational treaty making, domestic reception of international law and Parliament’s role in international law), as well as Canada’s role in international law, governance and innovation in the broad fields of international economic, environmental and intellectual property law. Topics with an economic law focus include international trade, dispute settlement, international taxation and private international law. Environmental law topics include the international climate change regime and international treaties on chemicals and waste, transboundary water governance and the law of the sea. Intellectual property law topics explore the development of international IP protection and the integration of IP law into the body of international trade law. Finally, the series presents Canadian perspectives on developments in international human rights and humanitarian law, including judicial implementation of these obligations, international labour law, business and human rights, international criminal law, war crimes, and international legal issues related to child soldiers. This series allows a reflection on Canada’s role in the community of nations and its potential to advance the progressive development of global rule of law.

“Canada in International Law at 150 and Beyond/Canada et droit international : 150 ans d’histoire et perspectives d’avenir” demonstrates the pivotal role that Canada has played in the development of international law and signals the essential contributions it is poised to make in the future.

The project leaders are Oonagh Fitzgerald, director of the International Law Research Program at the Centre for International Governance Innovation (CIGI); Valerie Hughes, CIGI senior fellow, adjunct assistant professor of law at Queen’s University and former director at the World Trade Organization; and Mark Jewett, CIGI senior fellow, counsel to the law firm Bennett Jones, and former general counsel and corporate secretary of the Bank of Canada. The series will be published as a book entitled Reflections on Canada’s Past, Present and Future in International Law/Réflexions sur le passé, le présent et l’avenir du Canada en matière de droit international in spring 2018.
About the International Law Research Program

The International Law Research Program (ILRP) at CIGI is an integrated multidisciplinary research program that provides leading academics, government and private sector legal experts, as well as students from Canada and abroad, with the opportunity to contribute to advancements in international law.

The ILRP strives to be the world’s leading international law research program, with recognized impact on how international law is brought to bear on significant global issues. The program’s mission is to connect knowledge, policy and practice to build the international law framework — the globalized rule of law — to support international governance of the future. Its founding belief is that better international governance, including a strengthened international law framework, can improve the lives of people everywhere, increase prosperity, ensure global sustainability, address inequality, safeguard human rights and promote a more secure world.

The ILRP focuses on the areas of international law that are most important to global innovation, prosperity and sustainability: international economic law, international intellectual property law and international environmental law. In its research, the ILRP is attentive to the emerging interactions among international and transnational law, Indigenous law and constitutional law.

About the Authors

Dean Sherratt is a retired Canadian government diplomat and lawyer who served 30 years in the foreign service. In addition to three diplomatic postings in Washington (DC), New Delhi (with accreditation to Nepal) and Boston, he devoted his career to the Legal Bureau in the Department of Foreign Affairs. His good fortune enabled him to represent Canada in the negotiations of treaty succession agreements with the states emerging from Czechoslovakia and Yugoslavia, as well as assist multilateral efforts to combat money laundering. He also developed an expertise in the full range of Canada–USA bilateral issues, from economic law to extraterritoriality. In particular, his expertise in transboundary environmental law served him in the writing of this article.

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Introduction

In the Westphalian order defined by principles of state sovereignty, states have sovereignty over their territory and domestic affairs to the exclusion of all external powers. However, water is a dynamic substance that flows, ignoring borders and calling for cooperation between states that share transboundary and boundary waters. In this regard, Canada occupies a unique place globally insofar as it has a very long and successful history of cooperative freshwater governance with the United States. Sharing the world’s longest international border and the world’s largest system of surface freshwater, Canada and the United States have developed and implemented forward-thinking principles and practices to manage jointly a vast and complex series of watercourses and bodies that cross their border.1

To understand how Canada has successfully and peacefully managed the freshwater reserves it shares geographically with the United States, one must look back to the early days of Canada and US cooperation when concluding the Boundary Waters Treaty of 1909 (BWT),2 which is the most important source of law governing the relationship of transboundary and boundary waters between Canada and the United States. By incorporating waters, both boundary (flowing along the border) and transboundary (crossing the border), the BWT cast a jurisdictional net over all waters of one country that with intervention might affect the other. With this treaty as a centrepiece, this paper examines the status of international law at the time, the results of the negotiations and, finally, how the BWT has advanced legal principles in its long implementation. The

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1 The Canada–US border is 8,891 km long and crosses through 75 bodies of water. Of these, the Great Lakes cover more than 243,000 km², and hold an estimated 6 quadrillion gallons of water. Additionally, there are some 82 bodies of water that cross the boundary, which includes 45 and 28 that originate in Canada and the United States, respectively, making them upper riparians, and nine rivers where both countries are the upper and lower riparian alike for different portions of their length. “Boundary Facts”, online: International Boundary Commission <www.internationalboundarycommission.org/en/the-boundary-and-you/interesting-facts.php>. See also LM Bloomfield & GF Fitzgerald, Boundary Water Problems of Canada and the United States (Toronto: Carswell, 1958); M Clamen & D Macfarlane, “The International Joint Commission, Water Levels, and Transboundary Governance in the Great Lakes (2015) 32:1 Rev Policy Research 40; B Fishery et al, “Moving Forward in Canada–United States Transboundary Water Management: An Analysis of Historical and Emerging Concerns” (2011) 36:7 Water Intl 924.

2 Treaty between the United States and Great Britain relating to Boundary Waters between the United States and Canada, 11 January 1909, 36 US Stat 2448; USTS 548 (entered into force 5 May 1910) [BWT].

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International Law at the Time of Negotiating the BWT (1906–1909)

The principle of absolute territorial sovereignty has long been a refrain in international law, relying on the maxim quidquid est in territorio est etiam de territorio — all individuals and all property within the territory of a state are under its dominion and sway.3 This concept was applied to water inter alia through more precise boundary treaties concluded in the nineteenth century. An excellent example was the Additional Act of the Treaty of Bayonne of May 26, 1866, stating under article 8: “All standing and flowing waters, whether they are in the private or public domain, are subject to the sovereignty of the State in which they are located, and therefore to that State’s legislation, except for the modifications agreed upon between the two Governments. Flowing waters change jurisdiction at the moment when they pass from one country to the other, and when the watercourses constitute a boundary, each State exercises its jurisdiction up to the middle of the flow.”4

It was thus clarified that the physical characteristic of water to move necessitated a change in territorial jurisdiction when water flowed past an immovable border from one country to another. Of some assistance to Canada was the fact that the theories of international law prior to the BWT were well rehearsed by the long-lasting negotiations over a water allocation treaty

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4 Cited in the Lake Lanoux Tribunal Arbitration: France v Spain, Decision, 16 November 1957, 12 RIAA 281, 24 ILR 101 at 102, online: <www2.ecolex.org/server2.php/libcat/docs/COU/Full/En/COU-143747E.pdf>.
between Mexico and the United States, ending just in time for the Canada–US negotiations.

Absolute territorial sovereignty was literally articulated in anticipation of a treaty with Mexico. It led to an adaptation and extension of the territoriality principle of jurisdiction that governed a state’s jurisdiction from that which doesn’t move (i.e., land territory) to that which does move (i.e., water flowing from that state into another). It also gave all the cards in negotiations or disputes to the upper riparian, as is apparent from its best articulation, in the Harmon Doctrine: “That the rules of international law imposed upon the United States no duty to deny to its inhabitants the use of water of that part of the Rio Grande lying wholly within the United States, although such use resulted in reducing the volume of water in the river below the point where it ceased to be entirely within the United States, the supposition of the existence of such a duty being inconsistent with the sovereign jurisdiction of the United States over the national domain.”

The flaws in this theory of water utilization that informed the US negotiations with Mexico and led to the 1906 water treaty are apparent. The doctrine is self-serving to the upper riparian and may be applied without regard to the needs of the lower riparian and the injury it may suffer. As such, it is not surprising that aside from the aspirational title (equitable distribution), the remainder of the treaty was an extended legal caveat that this supply of water represented no legal precedent or admission of liability whatsoever.

The principle of absolute territorial integrity was the other side of the coin from that of territorial sovereignty. It insisted that lower riparian states should receive the flow of waters originating in another state in full measure without diversion of quantity and unmarred in quality. Thus, the lower riparian state asserted a right that effectively created a veto for itself over the upper riparian’s desire to divert water or develop its flow as a resource. When the United States was both downwind and the lower riparian to Canada’s Trail smelter, the State Department legal adviser managed, without blushing, the hypocrisy of asserting this mutually exclusive view to that of Harmon. He had stated that it is a fundamental principle of the law of nations that a sovereign state is supreme within its own territorial domain and that it and its nationals are entitled to use and enjoy their territory and property without interference from an outside source.

As a lower riparian on the Rio Grande, Mexican authorities asserted prior appropriation and equitable apportionment as other alternatives to the Harmon Doctrine. Regarding prior appropriation, the Mexican minister Matías Romero articulated the following in a note to the State Department on October 21, 1895: “The principles of international law would form a sufficient basis for the rights of the Mexican inhabitants of the bank of the Rio Grande. Their claim to the use of the water of that river is incontestable, being prior to that of the inhabitants of Colorado by hundreds of years, and, according to the principles of civil law, a prior claim takes precedence in case of dispute.”

Aside from Mexico’s adherence to civil law, the concept of prior appropriation as for the United States originated in the headwaters of California goldfields where the steady flow of water was essential to the active exploitation of alluvial gold deposits. The doctrine commodified the use of...
water but made no effort to protect the natural flow of the river.\textsuperscript{10} It also led to a situation where "rapid, uncoordinated; multiple-use development was rewarded and the best way for a state to define its fair share was to put the river to use."\textsuperscript{11}

A second principle advanced by Mexico was of equitable apportionment. In October 1894, José Zayas Guarneros, the Mexican consul in El Paso, wrote to his superior, the head of post in Washington, DC, outlining the plight of lower riparians to the rigours of the Harmon Doctrine, and stating there was urgent necessity "for a decision of the question relative to the taking of water from the Rio Bravo (Rio Grande) del Norte in the State of Colorado and the territory of New Mexico, which has so seriously affected the existence of the frontier communities for several miles below Paso del Norte (Ciudad Juarez) and points out the danger lest otherwise those communities may be annihilated."\textsuperscript{12}

There was little exaggeration in Guarneros's description of the river. A US Department of War report dated 1889 had found instead that the Rio Grande was a dry bed for 500 of the 1,240 miles that the river formed of the US–Mexico border.\textsuperscript{13} Regardless, Guarneros also articulated a solution as he concluded that "there remains no other recourse for the maintenance of tranquility pending the settlement of the main question… than the equitable division of the waters of the river."\textsuperscript{14} As Carolin Spiegel noted, the principle of equitable apportionment ultimately prevailed in US law with US Supreme Court recognition:

In 1907, the US Supreme Court introduced the doctrine of equitable apportionment in \textit{Kansas v. Colorado}. When Colorado, the upstream riparian, decided to begin using water from the Arkansas River, Kansas protested, claiming protection via the prior apportionment and no harm doctrines.

Colorado countered with the Harmon doctrine. The Court did not agree with either state, however, and used the equitable utilization doctrine instead; stating that it must, "so adjust the dispute upon the basis of equality of rights as to secure as far as possible to Colorado the benefits of irrigation without depriving Kansas of the like beneficial effects of a flowing stream."\textsuperscript{15}

The timing of the adoption of the concept of equitable apportionment into US law was fortuitous for Canadian negotiators of the BWT because it called for a balance of upper and lower riparian rights. At the same time, the tort law principle of \textit{sic utere tuo ut alienum non laedas}, or "one should use his own property in such a manner as not to injure that of another," was also gaining prominence as a principle that should inform transboundary water use.\textsuperscript{16}

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\textbf{Issues on the BWT Negotiating Table}

While the issues were exclusive to Canada and the United States (i.e., no obvious imperial or UK concerns), the United Kingdom retained control over the Canadian treaty power and needed to be involved as Canada’s partner during the negotiations. Turning to the issues, with the no-treaty status quo, Canada was afforded no protection in the case of even extreme diversion. Canada’s equivalent to the Rio Grande was the mutual and accelerating cultivation of the drylands of Montana and southern Alberta. This led to competition over access to the limited water flows of the St. Mary River and the Milk River, both of which originate in the United States and flow northward to cross the forty-ninth parallel into Alberta. This was urgently exacerbated by the US Reclamation Service commencement...
of construction of works that would divert the St. Mary River and impound its waters (leading to a Canadian Legation protest in October 1902)\(^{22}\). There was also a need to apportion flow at Niagara Falls to enable mutual and maximum utilization of that resource while retaining its touristic beauty. The International Waterways Commission created in 1903 to deal with boundary issues lacked the authority and jurisdiction to carry out its work in the view of the government of Sir Wilfrid Laurier. Finally, one had the personality and policies of the US president to consider. Theodore Roosevelt was both an assertive US president, an expansionist who secured for US interests the Panama Canal, and also the proud father of US conservationism. So, negotiation during Roosevelt’s term in office was both fraught with peril yet also held the prospects of ambitious achievement.

### The Negotiation

The chief source describing the conduct of the negotiations is the *Annotated Digest of Materials Relating to its Establishment and Development of the International Joint Commission (IJC)*.\(^ {18}\) A similarly useful source is Gibbons’s 1953 article published in *The Canadian Historical Review*.\(^ {19}\)

Significantly, the UK government played a useful and collaborative role in the discussions and allowed Canada to lead in all matters aside from exercising the treaty power itself.\(^ {20}\)

The two-year negotiation period is neatly summarized by the creation of a draft treaty primarily favoured by Canadian interests (the Clinton/Gibbons text as set out on pages 26–28 of the *Annotated Digest*). There was also the introduction of a second draft strongly favoured by the United States (the Root/Anderson text, pages 52–54 of the *Annotated Digest*). It ended ultimately with an agreement by governments to a variation, the Anderson text, that substantially emerged from and improved on the Clinton/Gibbons draft (pages 77–81 of the *Annotated Digest*). The content and evolution of the drafts cooperatively confirm the movement of the parties toward creating an impartial, quasi-judicial commission with an extensive jurisdiction from the parties who created it. So, too, aside from the IJC, the drafts created causes of action for transboundary rivers and directly provided for allocation of waters in the St. Mary River and the Milk River in Montana/Alberta and the Niagara River in Ontario/New York.

### The BWT and its Provisions

The BWT came into force in 1910 after two years of animated negotiations. Since then, it has been amended once. Yet its content and mechanisms have stood the test of time as a treaty that could adapt to the evolving demands of transboundary water governance.\(^ {23}\) Relying primarily on the IJC, which the treaty established as a binational body consisting of six independent commissioners\(^ {22}\) from Canada and the United States with quasi-judicial powers to carry out their duties,\(^ {23}\) the treaty has evolved through the issuance of orders to regulate water use, investigate transboundary issues and recommend solutions.

The following is a summary of its most important provisions.

The Preliminary Article defines boundary waters in detail as those through which the international boundary passes, while transboundary rivers are described in various places as bodies of water flowing across the boundary.\(^ {24}\) The BWT seemingly incorporates the Harmon Doctrine into its legal framework, stating in article II that “Each of the High Contracting Parties reserves to itself...the exclusive jurisdiction and control over the use and diversion, whether temporary or permanent, of all waters on its own side of the line which in their natural channels would flow across the boundary or into boundary

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17 Bloomfield & Fitzgerald, supra note 1 at 90.
20 Annotated Digest, supra note 18 at 96–97, n 157.
21 Since the conclusion of the BWT, it has been amended but once, in 1950, to sever and amend the provisions of article V into an independent Niagara Falls treaty. See Treaty between Canada and the United States of America concerning the Diversion of the Niagara River, 27 February 1950, Can TS 1950 No 3 (entered into force 10 October 1950).
22 Both “six” and “independent” are significant to the IJC. The former is significant because its rules require that four votes are needed to take a decision, thereby ensuring support is needed by at least one Canadian and one US commissioner (per section 8 of the IJC’s Rules of Procedure). The latter is significant because all commissioners take an oath of impartiality, thereby ensuring that commissioners are not merely the servants of their government’s interests or instructions.
23 BWT, supra note 2, arts VII, VIII, XII. The independence of the commissioners and the quasi-judicial status were key demands of Canada for the BWT negotiations. See Annotated Digest, supra note 18 at 81, n 118.
24 BWT, supra note 2, art I.
waters.” However, this general statement is subject to a right of action articulating the sic utere theory such that “[a]ny interference with or diversion from their natural channel of such waters on either side of the boundary, resulting in any injury on the other side of the boundary, shall give rise to the same rights and entitle the injured parties to the same legal remedies as if such injury took place in the country where the diversion or interference occurs.”

To ensure that the BWT regulates transboundary water use, article III makes authorized uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, affecting the natural level or flow of boundary waters on the other side of the line, subject to IJC approval. This is the first and very important authority provided to the IJC, and an important gain for Canada, which desired a muscular commission to emerge from the negotiations.

Under article IV, the IJC had approval authority where “[t]he High Contracting parties agree that, except in cases provided for by special agreement between them, they will not permit the construction or maintenance on their respective sides of the boundary of any remedial or protective works or any dams or other obstructions in waters flowing from boundary waters or in waters at a lower level than the boundary in rivers flowing across the boundary, the effect of which is to raise the natural level of waters on the other side of the boundary unless the construction or maintenance thereof is approved by the aforesaid International Joint Commission.”

By providing for approval of works at a lower level than the border, the BWT caught works that would back up flood waters upstream and beyond the border. Article IV(2) further provided that the waters defined in the treaty as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other. Although this provision uses the passive voice, does not identify who is responsible for implementation and does not give the IJC authority in the matter, it is nevertheless a forward-looking provision and a further endorsement of the sic utere principle. Articles III and IV also ironed out the concept of special agreements such that a special agreement between Canada and the United States on a particular work precluded the jurisdiction of the IJC where it would otherwise have had it. This was a complete reversal of the original concept of special agreements during negotiations, which required the IJC to consider most matters of these agreements by Canada and the United States.

Article VIII created the IJC’s jurisdiction to exercise its powers over fact situations described in articles III and IV in the cases of boundary and transboundary waters, respectively. Following from US insistence that the IJC not have untrammelled jurisdiction, article VIII created an order of precedence binding on the IJC, with domestic and sanitary purposes the most important, navigation second and power generation and irrigation third. Significantly, the IJC had a prima facie authority to require an equal division in diversion of boundary waters, which it could otherwise suspend. The IJC could issue an authorization for a work with conditions precedent and could or had to provide for the protection and indemnity against injury of interests. The utilization of “interests” language in article VIII created a wider class of entities worthy of protection or indemnity than “parties” in article II. The IJC was to take a majority decision of the commissioners, making it necessary for at least one commissioner of one country to join those of the other in order to take a decision. Article VIII also provided that both of the contracting parties had equal and similar rights in the use of boundary waters.

Article IX created a reference authority where, if both countries requested, the IJC would advise on a wide range of matters, including those outside of the actual terms of the BWT. The advice so given would not be binding. The wording of article IX would allow a unilateral reference question to be asked. However, no such reference has even been posed by either country.

Article X gave the IJC arbitral authority to decide matters submitted to it. Its decision would be final and determinative. US authority to submit any such matter to the IJC under article X would need to be with the advice and consent of the US Senate. This has never occurred, so the article has never been triggered.

**Implementation of the BWT by the IJC**

It is chiefly by the decisions and advice provided by the IJC that the treaty has evolved into
a twenty-first-century instrument. In this evolution, some key themes and areas for further development can be observed. Some of those themes and issues are discussed below.

Achievement of Substantial Autonomy

Given the authority and jurisdiction of the BWT, the IJC rather readily occupied the field, essentially at the speed with which significant and complicated orders of approval were submitted, initially by private developments and later more and more by governments themselves directly or through publicly owned entities. The IJC used two methods to maintain control over the works authorized. First was through the creation of boards that reported to the IJC and implemented the control of levels and flows. Second was by imposing direct control of the IJC through retaining jurisdiction over important orders of approval. The credibility of the institution was reinforced over time by the objectivity and impartiality of its appointed members. Notably, in over a century of cases, there have been only three tied or deadlocked votes.

Decline and Fall of the Harmon Doctrine, Absolute Territorial Integrity and Prior Apportionment

The future of the Harmon Doctrine was doubtful in 1908, following its apparent enshrinement in article II of the BWT. This is not only because explicit BWT provisions that provided water rights to the lower riparian were inconsistent with the Harmon Doctrine, but also because the BWT in two articles provided comfort to the lower riparian. In transboundary cases of interference or diversion, article II established that injury caused by interference in waters flowing across the boundary gave rise to a cause of action in the venue where the interference occurred, with the caveat that its law would prevail. Furthermore, in exercising its article VIII jurisdiction, the IJC was either allowed or required to order that suitable and adequate provisions be made for the protection and indemnity against injury of any interests.

In the Sage Creek Reference, the IJC did not accept the prior apportionment argument advanced by the US complainant involving an alleged diversion of water but instead agreed with the rival ranchers based on the fair and equitable principle. Canadian government lawyers also objected strongly to utilization of the prior apportionment argument in the Columbia River Reference. Most persuasively, the United States was the lower riparian in too many transboundary waters to be a robust advocate for the upper riparian.

Adoption of the Sic Utere Doctrine

The sic utere doctrine was effectively adopted by the second paragraph in article IV and has been upheld strongly in IJC orders. In the Trail Smelter Reference, the IJC investigated airborne damages to Washington State farmland from that facility, leading to the famous Trail Smelter Case arbitration and the enshrinement of the sic utere principle in international law. In this respect, this reference was a condition precedent by finding existing damages and making recommendations to prevent any further damages in future.

Similarly, in the Garrison Diversion Reference, the IJC also applied the sic utere principle to a very large development proposal to divert untreated Missouri River water traversing North Dakota across the continental divide for various purposes.

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27 See Michigan Northern Power Co. v. St. Mary’s River Dam, 1913, UIC Docket 6A and Algoma Steel Corporation: St. Mary’s River Dam, 1913, UIC Docket 8A, cited in Bloomfield & Fitzgerald, supra note 1 at 65, n 1; 83–84. This information was taken substantially from WH Smith, Papers Relating to the Work of the International Joint Commission (Ottawa: UC, 1929) at 115–47.

28 Bloomfield & Fitzgerald, supra note 1 at 131.


30 BWT, supra note 2, art VI.

31 See Pembina County Water, Resource District v. Manitoba, 2016 FC 618. This interesting case has been the only litigation between Canadian and US parties based on article II and its implementation into Canadian law. See International Boundary Waters Protection Act, RSC 1985, c I-17, s 4(1), online: <www.laws-lois.justice.gc.ca/PDF/i-17.pdf>.


33 Bloomfield & Fitzgerald, supra note 1 at 169.


On October 22, 1975, the two governments jointly requested a reference on the project as it then existed, to determine if its widespread utilization of inter-basin transfers violated the BWT. In response, the IJC noted the following: “The Governments, having asked the Commission to report on the transboundary implications, necessarily have made the Reference more wide-ranging in that the Commission must advise the Governments on matters which go beyond the traditional concept of pollution. This marks an extremely forward-looking concept which, hopefully, the Governments will continue to follow. No longer will large land use activities be analyzed from a narrow pollution sense, but rather advice will be sought as to the general impacts of projects on the natural resources of the adjoining country.”

The IJC held that the development should abide by a no-harm utilization of the river basin or watercourse on behalf of both countries to manage water quality and eliminate the risk of biota transfer to the satisfaction of both parties to prevent harm to Canadian water.

**Equitable Sharing of Benefits**

The 1944 Columbia River Basin Reference dramatically changed the focus of the IJC from mere protection against injury to equitable sharing of benefits. Both nations asked the IJC to consider whether it was possible to have a significant development of the Columbia River system for a wide range of purposes. One question presented to the commission was in the following terms: “It is desired that the Commission shall determine whether in its judgment further development of the water resources of the river basin would be practicable and in the public interest from the points of view of the two Governments, having in mind (A) domestic water supply and sanitation, (B) navigation, (C) efficient development of water power, (D) the control of floods, (E) the needs of irrigation, (F) reclamation of wet lands, (G) conservation of fish and wildlife, and (H) other beneficial public purposes.”

Given the nature of the request, the IJC was given the scope to advise on a wider range of interests to be protected than previously based on the article VIII order of precedence. There was, however, disagreement between Canada and the United States on legal principles relevant to development of the Columbia River, especially by Canada in the role of the upper riparian. Notwithstanding US arguments for absolute territorial integrity and prior apportionment to prevent Canadian development without US concurrence, the fact that Canadian storage was key to preventing downstream flooding allowed Canada to insist on a benefits-sharing arrangement that recognized the costs Canada would incur to provide such protection to the United States. In turn, the IJC stressed in its response dated December 29, 1959, that the equitable sharing of benefits was a key principle that should guide cooperation between Canada and the United States. The IJC said this position was guided by the basic concept that the principles recommended to it should result in an equitable sharing of the benefits attributable to the two countries’ cooperative undertakings and that these should result in an advantage to each country as compared with other alternatives available to that country.

**Expansion and Advancement of Environmental Interests**

The IJC’s consideration of environmental matters was among its first references where it examined the causes, location and extent of pollution in...
boundary waters.\(^4^1\) Since then, the IJC has continued to progressively emphasize environmental protection as a key BWT consideration. In this respect, it has conducted studies on air pollution from shipping\(^4^2\) and requested that environmental assessments be done on the St. Mary’s River power canals.\(^4^3\) In the very recent reassessment of the 1952–1956 orders regulating Lake Ontario and the St. Lawrence River, the IJC adopted the environment wholesale as an interest to be considered under article VIII. The IJC concluded that it was “now necessary to also consider environmental issues and recreational boating upstream and downstream of the project.”\(^4^4\) Given the ever-progressive focus on environmental protection and ecosystem management, as well as the high priority that environmental protection demands politically and legally in both Canada and the United States, there is nothing to suggest that the IJC will not continue to emphasize environmental protection as an integral part of transboundary water governance.

**Aboriginal Interests**

The US construction of the Grand Coulee Dam was highly significant, leading as it did to the timely industrialization of the war effort in the Pacific Northwest and the nascent nuclear industry of the United States.\(^4^5\) However, a consequence of approving the Grand Coulee Dam was severing the escape/return route for anadromous salmon, leading to their extinction above the dam and in Canada.

Aboriginal interests made no representations in a Canadian hearing held in Trail, BC, on September 3, 1941; nor is there any evidence on the record of any IJC contact with Aboriginal groups. Recently an Aboriginal fishing collective requested the IJC exercise its retained jurisdiction and reopen the matter of compensation.\(^4^6\) In its response dated October 31, 2006, the IJC informed the Canadian Columbia River Inter-Tribal Fisheries Commission that it would not reopen the 1941 order.\(^4^7\)

The Shoal Lake Order of Approval is a second manifestly important matter. By its terms, water supply to the city of Winnipeg is provided by aqueduct\(^4^8\) from Shoal Lake (hydrologically part of Lake of the Woods) to Winnipeg. Recently, two Shoal Lake reserves requested the IJC investigate poor water quality allegedly arising from the aqueduct/withdrawal of water and the physical isolation of one part of one reserve consequential to constructing the aqueduct. The concerns of the two reserves were conveyed to the IJC upon Winnipeg seeking to reopen the order.\(^4^9\) The matter remains outstanding and the IJC is well engaged in it.

**Offspring of the BWT: The Columbia River Treaty and the Great Lakes Water Quality Agreement**

The two most prominent special agreements arising from the BWT have been the Great Lakes Water Quality Agreement\(^5^0\) and the Columbia River

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44 International Joint Commission in the Matter of the Regulation of Lake Ontario Outflows and Levels: Supplementary Order of Approval, 8 December 2016, UC Docket 68A at 2, online: <www.ijc.org/files/dockets/Docket%2068/Docket%2068_Order_Sup-RegulationOfLakeOntarioOutflows2016-12-08.pdf>.
46 Letter from Fred Fortier, Chairperson of CCRIFC, to the two chairs of the IJC (23 April 2003), online: <www.ijc.org/rel/pdf/ccrifc/b5q20200-15.pdf>.
47 Letter from Murray Clamen, IJC Canadian Section Secretary, to Fred Fortier, Chairperson of CCRIFC (31 October 2006), online: <www.ijc.org/rel/pdf/ccrifc/ccrifc_2006-10-31.pdf>.
48 In the Matter of the Application of the Greater Winnipeg Water District for the Approval of the Uses of the Waters of Shoal Lake (Situated in the Provinces of Manitoba and Ontario, Canada) In Pursuance of the Powers Conferred by an Act of the Parliament of Canada to Enable the City of Winnipeg to Get Water outside the Province of Manitoba: Order of Approval, 14 January 1914, UC Docket 7A, online: <www.ijc.org/files/dockets/Docket%207/Docket%207%20Order%20of%20Approval%201914-01-14.pdf>.
49 Letter from the IJC to the US and Canadian governments (3 November 2014), online: <www.s40.ca/docs/Shoal%20Lake%20Letter%20to%20Gov%27s%20Nov%202014.pdf>.
The GLWQA was negotiated to build upon the BWT’s anti-pollution commitments in response to a 1964 joint reference to the IJC on pollution in the Great Lakes and widespread public concern. Since its coming into force in 1972, the GLWQA has evolved through amendments from just pollution control to an instrument that seeks to restore the ecological integrity of the Great Lakes. The GLWQA was negotiated to build upon the BWT’s anti-pollution commitments in response to the joint reference of the IJC to the pollution in the Great Lakes and widespread public concern.

Another agreement, the Great Lakes Compact, was established on December 8, 2008, after the United States and Canada provided for the joint development, regulation and management of the Columbia River to manage flood risks and optimize electrical energy production. In particular, the treaty obligated Canada to build and operate three large dams to control the risk of downstream flooding (Assured Flood Control) and manage reservoir levels to maximize hydroelectric power generation downstream, which entitled Canada to half the downstream power generated. Both countries designated entities to coordinate water operation plans to maximize downstream power production while ensuring flood protection.

The CRT has no official expiry date. However, it has a minimum length of 60 years, which will be met on September 16, 2024. Either Canada or the United States can unilaterally terminate most of the provisions of the CRT any time after September 16, 2024, provided that at least 10 years’ notice is given. If neither country provides notice to terminate, the CRT will continue indefinitely except for the Assured Annual Flood Control provision, which will automatically convert post-2024 to a less comprehensive and more ad hoc Called Upon Flood Control model. Even though some aspects of the CRT will continue for the life of the dams, the pending changes to the CRT regarding flood management and the possibility of termination have led to calls to renegotiate the CRT. In this context, multiple stakeholders are urging governments to modernize the treaty by considering a broad range of issues beyond flood control and power generation, such as ecosystem management, climate change, reintroduction

Treaty, which collectively create governance mechanisms beyond the BWT to manage water systems for the economic and environmental welfare of both countries. Their provisions limit the application of the BWT and the IJC, and in so doing, these agreements serve as fertile ground for further innovation as other players take the lead.

Besides the agreement, the Great Lakes Compact coordinates eight states and two provinces that border the Great Lakes to severely limit diversions out of the Great Lakes Basin. Taken together, these instruments create an impressive and inclusive transboundary water governance model for a vast body of water between the two countries, eight states and two provinces, as along with First Nations, Indian tribes and local governments.

Like the GLWQA, the CRT also has a significant impact on a major transboundary watercourse. The negotiation of the CRT came out of a desire to manage flood risks after a spring flood in 1948 destroyed the town of Vanport, Oregon, and displaced 18,000 people. The resulting CRT, which was concluded in 1961 and entered into force in 1964, provided for the joint development, regulation and management of the Columbia River to manage flood risks and optimize electrical energy production. In particular, the treaty obligated Canada to build and operate three large dams to control the risk of downstream flooding (Assured Flood Control) and manage reservoir levels to maximize hydroelectric power generation downstream, which entitled Canada to half the downstream power generated. Both countries designated entities to coordinate water operation plans to maximize downstream power production while ensuring flood protection.

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54 Great Lakes–St. Lawrence River Basin Water Resources Compact, Pub L No 110-342, § 1.3, 122 Stat 3739 at 3742–43 (2008), online: <www.glslcompactcouncil.org/Agreements.aspx> [Great Lakes Compact]. The Great Lakes Compact was established on December 8, 2008, after Ontario, Quebec and the eight Great Lakes states legislatures provided their consent for the accord to prohibit diversions outside of the Great Lakes Basin subject to three exceptions: the intra-basin transfer exception, the straddling community exception and the straddling county exception, all of which allow diversions to communities on the fringes of the basin. See Cl Wabizewski, “Diversions from the Great Lakes: Out of the Watershed and in Contravention of the Compact” (2016–17) 100 Marq L Rev 627.

55 See CRT, supra note 51, art XVII.2, online: <http://crtlibrary.cbt.org/archive/files/no-7894_Bff7afcdce.pdf>.

of extirpated salmon stocks, First Nations and tribal rights and agriculture, among others.61

From a governance perspective, it is interesting to note how the transboundary and boundary water governance models have expanded to include more stakeholders beyond sovereign states. In this respect, the BWT, the GIWQA and the CRT have all implemented (or are contemplating) measures and processes that expand the conversation about water management between countries to include First Nations, provinces, US states, local governments and civil society organizations. The plurality of views that result from such processes provide for a more inclusive, but also a potentially more complicated, dynamic for the management of boundary and transboundary waters. It is beyond the scope of this paper to detail how such dialogues and processes can implicate national and provincial/state constitutional responsibilities, how they can create the potential for conflicts, or how they present new opportunities for cooperation locally, regionally, nationally and binationally. Nonetheless, there is nothing to suggest that the push for more inclusive governance models that consider local and regional interests regarding water will diminish. Rather, the national has become local, and the local has become national, because local and regional actors have successfully inserted themselves into the dialogue regarding transboundary and boundary water governance between Canada and the United States. One cannot consider national interests without also considering local and regional interests and vice versa.

Advancements in International Law Parallel to Implementing the BWT

It is interesting to observe that the principles of equitable use and harm mitigation that developed in implementing the BWT were adopted over time as robust principles of international law. We have noted the Trail Smelter Case whose preliminary work was carried out by the IJC.62 In other jurisprudence, the Permanent Court of International Justice (PCIJ) held in the 1929 River Oder Case that riparian states had a community of interest based on perfect equality with no preferential treatment such that the right of passage could not favour upstream nor downstream states.63 Similarly, the PCIJ held in the 1937 River Meuse Case that although Belgium and the Netherlands could use the River Meuse as they wish and to divert water to support irrigation in the Netherlands as agreed upon in a 1863 treaty, Belgium was not free to undertake works on the river that would affect the level of flow to the Netherlands contrary to the treaty.64 Later, the International Court of Justice (ICJ) held in the 1949 Corfu Channel Case that states have an obligation not to knowingly use their territory in a way that is contrary to the rights of other states.65 The ICJ ruling in the Corfu Channel Case recognized and applied a similar general principle relied on in the 1941 Trail Smelter Case where the tribunal concluded that no state may use its territory in such a way that toxic fumes could cause serious consequence and injury to another state.66

The emergence and recognition of a duty to cooperate to prevent transboundary harm and ensure equitable use has since been upheld by the ICJ as key principles of international law. In 1997, the ICJ held in the Gabčíkovo-Nagymaros


62 Trail, supra note 8.

63 Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder (United Kingdom, Czechoslovakia, Denmark, France, Germany, and Sweden v Poland) (1929), PCIJ (Ser A) No 23.

64 Diversion of Water from the Meuse (Netherlands v Belgium) (1937), PCIJ (Ser A/B) No 70, online: <www.worldcourts.com/pcij/eng/decisions/1937.06.28_meuse.htm>.

65 The Corfu Channel Case (United Kingdom v Albania): Assessment of Compensation, Order of 15 December 1949, [1949] ICJ Rep 244, online: <www.refworld.org/cases,ICJ,402398c84.html>.

66 Trail, supra note 8 at 1965.
Case\textsuperscript{67} that Slovakia had breached its bilateral treaty obligations to Hungary and international law to ensure reasonable and equitable utilization of the Danube by proceeding unilaterally with a variation of the barrage project to divert the Danube, stating, “The Court considers that Czechoslovakia, by unilaterally assuming control of a shared resource, and thereby depriving Hungary of its right to an equitable and reasonable share of the natural resources of the Danube — with the continuing effects of the diversion of these waters on the ecology of the riparian area of the Szigetkőz — failed to respect the proportionality which is required by international law.”\textsuperscript{68}

Most recently in the 2015 San Juan border cases between Costa Rica and Nicaragua involving the dredging of the San Juan River bordering both states by Nicaragua without notification to Costa Rica, the ICJ held that there was a customary legal obligation to exercise due diligence to avoid causing significant transboundary harm.\textsuperscript{69} According to the court, to fulfill its obligation to exercise due diligence in preventing significant transboundary environmental harm, a state must, before embarking on an activity having the potential to adversely affect the environment of another state, ascertain if there is a risk of significant transboundary harm, which would trigger the requirement to carry out an environmental impact assessment.\textsuperscript{70}

The broadest modern statement of legal principles and obligations governing watercourse states is the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, which only recently came into force in August 2014.\textsuperscript{71} This treaty, which pertains to the uses and conservation of all waters that cross international boundaries, including both surface and groundwater, is often described as modern codification of riparian states’ customary legal obligations regarding international boundaries.\textsuperscript{72} This includes the general principle that “[w]atercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse.”\textsuperscript{73}

Within this overall objective, the Watercourse Convention mirrors many of the principles that Canada and the United States have long employed, including taking appropriate measures to prevent the causing of significant harm to other watercourse states through cooperation, information sharing and the balancing of benefits and costs, to realize effective joint management of shared watercourses.\textsuperscript{74}

### Conclusion

A century of implementing the BWT has been a fruitful pursuit by the IJC. Despite dealing with a static Edwardian text, the IJC manages its mandate with a small professional staff, has modest budgets and imposes no adjudicative costs on its parties and interests. It crafts its decisions fully cognizant of the environmental assessment of the options before it, and with a subtle and delicate balance of the interests that present themselves in any order or reference that the IJC has before it. Challenges loom, however. An instrument based on surface water is incomplete until a similar jurisdiction may be given over groundwaters and the 10 Canadian–


\textsuperscript{68} Gabčíkovo-Nagymaros Case, supra note 67.

\textsuperscript{69} Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua) and Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v Costa Rica), [2015] IJC at para 104, online: <www.icj-cij.org/files/case-related/150/150-20151216/JUD-01-00-EN.pdf>.

\textsuperscript{70} Ibid.


\textsuperscript{73} Watercourse Convention, supra note 68, art 5.

\textsuperscript{74} Ibid, arts 7, 8, 11–12 and 25.
US transboundary aquifers. It is also evident in recent reviews that the interests of Aboriginal groups will be increasingly important, and will raise new political and legal considerations.

Some years ago, the late Canadian commissioner Len Legault observed that the IJC is a toolbox that the two federal governments have at the ready to confront difficult problems. As new challenges have emerged, new tools and agreements have been developed. In turn, cooperation between Canada and the United States has expanded and become more inclusive with more levels of government and different stakeholders. In this regard, the emerging processes regulating boundary waters in the St. Lawrence River Basin Sustainable Water Resources Agreement/Great Lakes–St. Lawrence River Basin Water Resources Compact represent a broad and inclusive model of transboundary and boundary water governance with active consultation, cooperation and decision making between multiple provinces and states. Other mechanisms and instruments covering transboundary waters may well be updated in the coming years, such as the CRT.

The evolution, expansion and modernization of transboundary and boundary water governance models and agreements between Canada and the United States demonstrate that even though Canada and the United States may change how they manage and regulate the freshwater reserves they share geographically, their commitment to joint governance remains strong and has expanded to include multiple levels of government. While regulating transboundary and boundary water use between Canada and the United States could have evolved in isolation for different issues and regions to create conflict and confusion, practice and experience have shown that they evolved in a complementary manner to promote best practices premised on cooperation and alliance building rather than isolation and unilateralism. By committing to these principles, which have been recognized as key elements of international law for riparian states, Canada and the United States have worked together to cooperatively manage their transboundary and boundary waters with considerable success and little to no conflict. To the extent that the past can be taken as a good predictor of the future, there is every reason to believe that Canada and the United States will continue to set a positive example of what can be achieved when riparian states actively commit to joint governance over shared resources consistent with the principles of international law.

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76 Interview of Len Legault (December 2004).

77 “Great Lakes Agreement and Compact”, online: The Conference of Great Lakes and St. Lawrence Governors and Premiers <www.cglsgp.org/projects/water-management/great-lakes-agreement-and-compact>. The agreement and compact are instruments between Canadian provinces and US states to further control diversion of water from the Great lakes.
Marking 150 years since Confederation provides an opportunity for Canadian international law practitioners and scholars to reflect on Canada’s rich history in international law and governance, where we find ourselves today in the community of nations, and how we might help shape a future in which Canada’s rules-based and progressive approach to international law gains ascendancy. These essays, each written in the official language chosen by the authors, provide a critical perspective on Canada’s past and present in international law, survey the challenges that lie before us and offer renewed focus for Canada’s pursuit of global justice and the rule of law.

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