

LEGAL ASPECTS OF THE POWER DEVELOPMENT OF THE SAINT JOHN RIVER BASIN *

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INTRODUCTION

The orderly development of the rivers of the world presents one of the great challenges of our times. In particular, the hydro-electric development of international rivers, that is, rivers that border on or traverse at least two states, poses legal problems of great complexity. Lack of accepted international law on the uses of these streams is a major obstacle in the settlement of differences, with the result that progress in development is often held up for years to the detriment of the countries concerned.¹

The Saint John River Basin, no less than some of the greater systems, presents a challenge to the international lawyer. Fortunately, as will be seen, there is a favourable legal context in which engineers and economists may work towards the full development of the hydro-electric potential of the basin.

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1. Sevette, *Legal Aspects of Hydro-Electric Development of Rivers and Lakes of Common Interest* (UN E/ECF. 136 and E/ECE/EP/98 Rev. 1, 1952), p. 1; UN Dept. of Economic and Social Affairs, *Integrated River Basin Development*, Doc. E/3066 (1958), p. 43.

I

SAINT JOHN RIVER BASIN

I. Topography²

The Saint John River Basin is located in Northern Maine and the adjacent areas of Quebec and New Brunswick between the watersheds of the St. Lawrence River to the north and the Penobscot River to the south. The basin has a drainage area of 21,600 square miles and is one of the largest rivers on the Atlantic coast of North America. Of the total drainage area, 65 percent, or 14,000 square miles, lies in Canada, while 35 percent, or 7,600 square miles lies in the United States, being wholly located in the State of Maine. Of the total area in Canada, 2,750 square miles are in the Province of Quebec and 11,250 square miles in New Brunswick. The basin area at tidewater, just above Fredericton, New Brunswick, is 16,000 square miles. The main stem of the river is 450 miles in length.

The river rises in Little Saint John Lake in the extreme southwestern corner of the basin, on the international boundary between Quebec and Maine. After flowing along the boundary for about 38 miles, it flows through Maine for about 107 miles. Thence it proceeds easterly along the international boundary between New Brunswick and Maine for about 70 miles and then in a general south-easterly direction about 200 miles through New Brunswick to its mouth at Saint John on the Bay of Fundy. The total fall in the river between its source at Little Saint John Lake and tidewater some 89 miles from its mouth, just above Fredericton, is about 1,578 feet.

II. Existing hydro-electric developments

The chief hydro-electric power sites on the river are located at Grand Falls, New Brunswick, with a gross head of 132 feet, 4

2. For a more detailed description of the Saint John River Basin, see Water Resources of the Saint John River Basin - Quebec - Maine - New Brunswick - Interim Report to the International Joint Commission (Under the Reference of 7 July 1952) by the International Saint John River Engineering Board, 6 April 1953, p. 18 *et seq.* See also, Bailey, *The St. John River, in Maine, Quebec and New Brunswick*, 1894. For a history of the Saint John River, see Raymond, *The River St. John - Its Physical Features, Legends and History from 1604 to 1784*, Sackville, 1943 and Wright, *The Saint John River*, Toronto, 1949.

units and an installed capacity of 57,000 kw, and at Beechwood, New Brunswick, with a head of 60 feet, 2 units and an initial installed capacity of 68,000 kw.³

III. Proposed hydro-electric developments

During 1955, energy requirements in New Brunswick were 423 million kwh. One forecaster has estimated that by 1980 the requirements will increase to 2,647 million kwh, an increase of over 600 percent. In Maine the energy requirements are expected to increase from the 1955 figure of 2,417 to 7,160 million kwh, a predicted increase of almost 300 percent.⁴

It is not surprising then that major power developments are proposed for Hawkshaw, New Brunswick, with a gross head of 55 feet and an initial installed capacity of 75,000 kw, and Morrill, New Brunswick, with a gross head of 53 feet and an initial installed capacity of 44,000 kw.⁵ But before certain of the existing developments can be expanded and the projected ones made feasible, increased storage is needed upstream.⁶ The major storage

3. For other existing hydro-electric power sites in the basin, see Water Resources of the Saint John River Basin - Quebec - Maine - New Brunswick - Interim Report to the International Joint Commission (Under the Reference of 7 July, 1952) by the International Saint John River Engineering Board, 6 April 1953, p. 41:

Name	River	Gross Head (ft.)	No. of Units	Installed Capacity (kw)
Squa Pan	Squa Pan Stream	27	1	1,400
Caribou	Aroostook	14	2	800
Tinker	Aroostook	85	4	10,400
Tobique Narrows	Tobique	78	2	20,000
Edmundston	Madawaska	20	2	1,600
Second Falls	Green	25	2	1,100

4. Millar, International Passamaquoddy Tidal Power Project, Reprinted from *The Engineering Journal*, October 1958, p. 8.
5. Canadian House of Commons, Standing Committee on External Affairs, 23rd. Parl., 1st. Sess., 8 Minutes of Proceedings and Evidence, p. 320, Appendix A, Saint John River Profile (December 16, 1957).
6. In this regard, it has been suggested that the addition of further capacity at Grand Falls and ultimately the driving of a second tunnel which could make it economically feasible approximately to double the present installed capacity of the plant would depend upon the development of storage control upstream. However, the installation of the third unit at Beechwood, which, it is estimated, will fit into the load characteristics of the New Brunswick Electric Power Commission in 1964 or even sooner, will not depend upon the development of further water storage upstream at that time. See, Tweeddale, Paper presented at Fredericton, N. B., to Canadian Bar Association, Section on Mines, Petroleum and Power, February 20, 1959, p. 2 (mimeographed).

site is located at Rankin Rapids, Maine. This project would have the advantage of providing regulated flows for downstream sites in New Brunswick, as well as generating 400,000 kw through a head of 310 feet.⁷ The project is now being studied as a source of auxiliary power for the Passamaquoddy tidal power project which needs to be firmed up with power from other sources.

In the light of the above background material, the question of the main legal rules applicable to the Saint John River Basin may now be considered.

II

LEGAL RULES APPLICABLE TO THE SAINT JOHN RIVER BASIN

I. Provincial and State Law

(a) New Brunswick

At common law the use of the water of New Brunswick rivers is based on the doctrine of riparian rights. These rights include an entitlement on the part of the riparian owners to have the water flow down the stream to their land along its regular channel in the manner in which it has been accustomed to flow, substantially undiminished in quantity or quality. Conversely, a riparian owner has the right of having the water flow from his land without obstruction. Although a riparian owner does not own the water in a running stream, he may use it for ordinary purposes connected with riparian land even on a consumptive basis. He may also take water for extraordinary purposes, such as a hydroelectric power development, though in this case he must restore it to the stream substantially undiminished in quantity and quality.⁸

Statutory rules have been developed to avoid the many difficulties arising out of the extraordinary use of waters. Thus, as early as 1921, the Dams Act⁹ required the approval of the Lieu-

7. Information received from the office of the Canadian Section of the International Joint Commission. An alternative development of this section of the river would be to replace the proposed Rankin Rapids project by two other proposed storage projects at Big Rapids and Lincoln School. Big Rapids, with a head of 230 feet would have an installed capacity of 129,000 kw, while Lincoln School, with a head of 80 feet, would have an installed capacity of 58,000 kw. See Report of the New England-New York Inter-Agency Committee, Saint John River Basin, Maine.

8. See for a more complete statement, together with the relevant New Brunswick decisions, La Forest, *Rights of Landowners in New Brunswick respecting Water in Streams on or adjoining Their Lands*, (1957) 10 U.N.B. Law Jo., 21.

9. (1921) 11 Geo. V, c. 16.

tenant-Governor in Council for any works in water that might impede the flow of any stream or lake (driving dams on brooks or small streams and water-supply reservoirs being excepted).¹⁰ Similarly today, the Water Storage Act provides that no dam, boom or other work impounding or holding back water is to be constructed until approved by the Lieutenant-Governor in Council.¹¹

A further restriction on common law riparian rights had its genesis in an Act of 1884¹² which provided that in all future Crown grants there should be reserved a strip of land four rods (66 feet) in width adjacent to certain rivers named therein and such other rivers, lakes and streams as might be declared by proclamation, together with the riparian ownership of the streams. At the present time, by virtue of section 60 of the Crown Lands Act, the Crown reserves in full ownership a strip of land three chains (198 feet) in depth from each bank of any river or lake in the province on or adjoining lands granted after the passing of the Act.¹³

The New Brunswick Electric Power Commission, established in 1920 on the recommendation of the Water Power Commission set up in 1918, has authority to develop various water powers in New Brunswick.¹⁴ Other bodies that play important roles in relation to water power in the province are the recently established Water Resources and Pollution Control Board¹⁵ and the New Brunswick Water Authority.¹⁶ The ten-member board is empowered to study and make recommendations in relation to the use of the water resources. One of its prime duties is to conduct surveys of the major water-sheds in the province to determine the sources of and the degree of pollution therein and the effects of such pollution on public health, fish, wildlife, agriculture, re-

10. But the construction of a driving dam does not give an automatic right to water powers. Thus, where by reason of a dam erected by a stream-driving company, any fall or water power is created, the company shall in no wise have any claim or title to the use of such water. On this point, see Stream Driving Companies Act, R.S.N.B. 1952, c. 219, s. 35.
11. R.S.N.B. 1952, c. 248, s. 1.
12. 47 Vict., c. 7.
13. See R.S.N.B. 1952, c. 53. The increase to three chains (198 feet) was made in section 62 of the Crown Lands Act in 1927 (R.S.N.B. 1927, c. 30). For the history of the successive amendments to the Act of 1884, see La Forest, Rights of Landowners in New Brunswick respecting water in Streams on or adjoining Their Lands (1957) 10 U.N.B. Law Jo. 21, at pp. 28-30.
14. (1920) 10 Geo. V, c. 53, s. 9. See, also, R.S.N.B. 1952, c. 71, s. 8.
15. Water Resources and Pollution Control Act, (1956) 5 Eliz. II, c. 14, s. 1 (1).
16. An Act to Amend the Water Resources and Pollution Control Act, (1958) 7 Eliz. II, c. 23, s. 4.

creation and electric power development.¹⁷ The Water Authority, with a minimum of three members and a maximum of five, has the task of enforcing regulations promulgated under the Water Resources and Pollution Control Act.¹⁸

(b) Quebec

The Quebec Civil Code provides that a riparian owner on a running stream not forming part of the public domain may make use of it as it passes for the utility of his land, but he must not exercise this right in such a manner as to prevent the exercise of the same right by those to whom it belongs. This provision is made subject to chapter 51 of the Consolidated Statutes for Lower Canada¹⁹ and other special enactments. A riparian owner whose land is crossed by such stream may use it within the whole space of its course through the property, but subject to the obligation of allowing it to take its usual course when it leaves his land.²⁰

Conversely, lands on a lower level are subject towards those on a higher level to receive such waters as flow from the latter naturally and without the agency of man. In line with this principle, the proprietor of the higher land can do nothing to aggravate the servitude of the lower land.²¹

The Crown has extensive rights in Quebec streams. Thus, navigable and floatable rivers and streams and their banks are considered as being dependencies of the Crown domain. The same rule applies to all lakes and non-navigable and non-floatable rivers and streams and their banks bordering on lands alienated by the Crown after February 9, 1918.²²

The Water-Course Act²³ provides that no floodgate, flume, embankment, dam, dyke or other similar work that will affect public or private property rights shall be constructed or maintained in a watercourse except with the approval of the Lieutenant-Governor in Council.²⁴ Similar approval is required for the construction and maintenance of reservoirs for the storage of the

17. (1956) 5 Eliz. II, c. 14, s. 2(1).

18. (1958) 7 Eliz. II, c. 23, s. 5.

19. Now the Water-Course Act, R.S.Q., 1941, c. 98.

20. Quebec Civil Code, Article 503.

21. Quebec Civil Code, Article 501.

22. Quebec Civil Code, Article 400. For further information on Crown rights to hydraulic power in the Province of Quebec, see statistical Year Book, Quebec, 1956-57, p. 398 and Encyclopedia Canadiana, Vol. 10, pp. 284-285, Ottawa, 1958.

23. R.S.Q., 1941, c. 98.

24. *Ibid.*, ss. 6 and 9.

water of lakes, ponds, rivers and streams.²⁵ Projects are submitted for approval through the Department of Hydraulic Resources.²⁶

The Quebec Streams Commission, created in 1910,²⁷ was authorized to develop and exploit the water powers of the province, to make recommendations regarding the control of water resources, and to construct certain storage dams and operate them so as to regulate the flow of streams. The Commission was abolished as from April 1, 1955 and its functions transferred to the Department of Hydraulic Resources.²⁸ One way in which the Commission and its successor have assisted power companies has been by the regulation of the flow of the principal power streams through the construction of storage dams; in respect of these dams the cost of operation only is charged annually to the interested companies or persons.²⁹

The Quebec Hydro-Electric Commission established in 1944³⁰ has authority regarding the generation of power³¹ and may, with the authorization of the Lieutenant-Governor in Council, acquire by expropriation any undeveloped water power.³² Authority of the Legislature is required for the expropriation of a developed water power of more than 200 H.P.³³

Under the Exportation of Hydraulic Power Act, every sale, lease or grant of water powers belonging to the province must contain a clause prohibiting the exportation of electric power out of Canada,³⁴ but the Lieutenant-Governor in Council has power to suspend the prohibition.³⁵ Prohibitions and restrictions in relation to the alienation of hydraulic power within Quebec are found in the Act respecting the Hydro-Electric Resources of the Province.³⁶

25. *Ibid.*, ss. 57 and 61.

26. Hydraulic Resources Department Act, (1945) 9 Geo. VI, c. 32; also cited as R.S.Q. 1941, c. 97A.

27. See R.S.Q. 1941, c. 98, s. 68.

28. (1954-55) 3-4 Eliz. II, c. 32.

29. R.S.Q. 1941, c. 98, ss. 68-85; see also The Canada Year Book 1955, pp. 563-564.

30. An Act to establish the Quebec Hydro-Electric Commission, (1944) 8 Geo. VI, c. 22. This Act provides for the insertion in R.S.Q. 1941 of Chapter 98A, the Quebec Hydro-Electric Commission Act, section 4 of the latter providing for the establishment of the Commission.

31. R.S.Q. 1941, c. 98A s. 29.

32. *Ibid.*, s. 33.

33. *Ibid.*

34. R.S.Q. 1941, c. 100, s. 1.

35. *Ibid.*, s. 6.

36. (1955-56) 4-5 Eliz. II, c. 27.

(c) Maine

In Maine the common law doctrine of riparian rights applies to the use of streams although, as elsewhere, the doctrine is modified by statutory provisions.³⁷

Subject to constitutional restrictions upon interference with property rights, the state has dominion and control, in its sovereign capacity, over the waters within its boundaries. However, with respect to matters affecting interstate and foreign commerce and the control and improvement of navigation, the regulatory power of the state is subject to the paramount authority of the Federal Government.³⁸

In so far as non-navigable streams are concerned, the riparian owner has the right to erect and maintain milldams and to divert water by canal for mills,³⁹ subject to payment of compensation for damages to other persons.⁴⁰ No special authorization appears to be required for works upon such streams with the exception of dams erected upon streams whose waters ultimately reach the ocean at a point wholly outside the territorial limits of the United States. In the latter case, the dams must be authorized by act of the legislature or by a decree of the Public Utilities Commission made after public notice and hearing on petition for such authorization.⁴¹

Prior to the erection of a dam for the purpose of developing any water power in Maine, or the creation or improvement of a water storage basin or reservoir for the purpose of controlling the waters of any of the lakes or rivers of the state, plans and other data must be filed with the Public Utilities Commission⁴² which is charged with collecting information relating to water powers of the state.⁴³

The Fernald Act whereby the export of power was formerly prohibited has now been repealed.

II. Federal Law

(a) Canada

A Federal licence is required for the construction, operation and maintenance of improvements in international rivers. These are defined in section 2 of the International Rivers Improvements

37. 56 Am. Jur., Waters, s. 284. As to riparian rights in general, see 93 C.J.S. ss. 5-14; 56 Am. Jur., Waters, s. 273 *et seq.*

38. 56 Am. Jur., Waters, ss. 198 and 402.

39. R.S. Maine 1954, c. 180, s. 1.

40. *Ibid.*, s. 5 *et seq.*

41. *Ibid.*, s. 33.

42. R.S. Maine 1954, c. 44, s. 11.

43. *Ibid.*, s. 9.

Act⁴⁴ as "water flowing from any place in Canada to any place outside Canada." An international river improvement means, according to the Act, "a dam, obstruction, canal, reservoir or other work the purpose or effect of which is (i) to increase, decrease or alter the natural flow of an international river, and (ii) to interfere with, alter or affect the actual or potential use of the international river outside Canada."⁴⁵ In the case of the Saint John River Basin, the most obvious examples of international rivers within the meaning of the Act are some of the trans-boundary tributaries flowing from Quebec into Maine. Other rivers falling within the definition are those tributaries of the Saint John River that flow from the Canadian side into the main stem where it flows along the boundary. One such tributary is the St. Francis⁴⁶ which rises in Quebec, becomes a boundary water between New Brunswick and Maine, and finally discharges into the Saint John River at a point where the latter starts its course along the international boundary between New Brunswick and Maine. Part of the waters that come from the Quebec section of the St. Francis flow into that part of the St. Francis lying within the State of Maine where the river courses along the boundary. Therefore, before dams could be erected on the St. Francis or on Boundary Lake in Quebec, it would appear necessary to obtain a Federal licence under the International Rivers Improvements Act. More difficult cases are afforded by tributaries such as the Madawaska which flows from a point in Quebec, through New Brunswick, before emptying into the Saint John River at a point where the latter courses along the international boundary. One commentator has submitted that whether or not such a river would be considered as an international river for the purposes of the Act

... would depend on whether it would be held that water leaving the tributary and entering the Saint John becomes a part of the Saint John immediately on entry, or whether a current coming out of the tributary would retain its identity until it becomes thoroughly merged. In the latter case, it might be argued that water in a current flowing out of the tributary and across the international boundary would be water flowing to a place outside Canada. I think this highly unlikely, but possible.⁴⁷

A somewhat less subtle approach to this situation may be possible and it may not be necessary to apply the identity-of-water rule in order to attract the application of the Act under consid-

44. (1955) 3-4 Eliz. II, c. 47 See also, International Rivers Improvements Regulations, SOR/56-9, P.C. 1955-1899.

45. (1955) 3-4 Eliz. II, c. 47, s. 2.

46. For a discussion of the status of the St. Francis River under the International Rivers Improvements Act, see Ryan, Saint John River Power Development: Some International Law Problems, (1958) 11 U. N. B. Law Jo. 20, at pp. 24-25.

47. *Ibid.*, at p. 25.

eration. According to testimony given by the Honourable Jean Lesage, former Minister of Northern Affairs and National Resources, before the External Affairs Committee of the House of Commons in 1955, "the tributaries that flow into the St. John river from New Brunswick, into that part of the St. John river which is a boundary water between New Brunswick and the United States, are definitely covered by this Act."⁴⁸ By Section 7 (b) of the Act, only the boundary waters themselves are excluded from its operation, and that is because, as will be seen, they come under the jurisdiction of the International Joint Commission.

The effect of the Exportation of Power and Fluids and Importation of Gas Act⁴⁹ is that power generated in the Canadian portion of the Saint John River Basin cannot be exported except under licence and subject to such terms and conditions as the Governor in Council may approve.⁵⁰ In that Act, "export" means "with reference to power, to send from Canada by a line of wire or other conductor."⁵¹ A licence is obtained through the Minister of Trade and Commerce,⁵² and is not valid for more than one year.⁵³ Power lines or other conductors for the exportation of power may not be constructed except under the authority of, and in accordance with, a licence granted under the Act.⁵⁴ A licence to export power may provide that the quantity of power to be exported shall be limited to the surplus remaining after due allowance has been made for distribution to customers for use in Canada during the period of the licence.⁵⁵ The price charged by a licensee for power exported by him must not be lower than the price at which power is supplied by him or his supplier in similar quantities and under similar conditions of sale for consumption in Canada.⁵⁶

Lastly, as many sections of the Saint John River Basin located in Canada are navigable, no work may be constructed in the navigable portions without approval of the Governor in Council under the Navigable Waters Protection Act.⁵⁷

48. Canadian House of Commons, Standing Committee on External Affairs, 22nd. Parl., 2nd. Sess., 6 Minutes of Proceedings and Evidence, p. 192 (March 18, 1955).

49. (1955) 3-4 Eliz. II, c. 14.

50. *Ibid.*, s. 3 (1).

51. *Ibid.*, s. 2 (a).

52. Exportation of Power and Fluids and the Importation of Gas Regulations, P.C. 1955-907, sections 2 (f) and 5 (1).

53. *Ibid.*, s. 7 (1).

54. (1955) 3-4 Eliz. II, c. 14, s. 6 (3).

55. *Ibid.*, s. 32.

56. Exportation of Power and Fluids and the Importation of Gas Regulations, P.C. 1955-907, s. 9.

57. R.S.C., 1952, c. 193.

(b) - United States

The Federal Government, by virtue of its constitutional power to regulate interstate and foreign commerce, has paramount control, for that purpose and to the extent necessary, of all the navigable waters of the United States, the regulatory authority of the states being subject to such Federal control for the purpose and to the extent stated.⁵⁸

In the United States, hydro-electric projects on Federal Government lands or on navigable waters of the United States must be licensed by the Federal Power Commission, which is an independent body organized in its present form by an Act approved on June 23, 1930.⁵⁹ The navigable portions of the Saint John River Basin in Maine would appear to come under the jurisdiction of the Commission.

As to the export of electric energy, the Federal Power Act provides that no person shall transmit such energy from the United States to a foreign country without first having been authorized to do so by the Federal Power Commission. Such order will be issued if the Commission finds that the proposed transmission will not impair the sufficiency of electric supply within the United States or impede or tend to impede the coordination in the public interest of facilities subject to the jurisdiction of the Commission.⁶⁰ The construction, operation, maintenance, or connection, at the borders of the United States of facilities for the transmission of electric energy between the United States and Canada requires a permit by the Commission with the concurrence of the Secretary of State and the Secretary of Defence. If they cannot agree, the application for a permit is submitted to the President for approval or disapproval.⁶¹

It may be added that the civil works programme of the Corps of Engineers of the United States Army includes such activities as waterways improvement, flood control, regulation of the use of navigable waters of the United States, approval of plans for construction of bridges and issuance of permits for other works upon navigable waters, and power and irrigation developments.⁶² Some of these activities could involve consultation with the Corps of Engineers in relation to the Saint John River Basin.

58. 56 Am. Jur., Waters, s. 198.

59. 46 Stat. 797.

60. Federal Power Act, as amended up to June 1, 1955, s. 202 (e) (49 Stat. 847, 16 U.S.C. 824a (e)).

61. Executive Order 10485 of September 3, 1953.

62. United States Government Organization Manual 1957-58 (Revised as of June 1, 1957), p. 142. United States Government Printing Office, Washington.

III. International Law

The chief international instruments affecting the Saint John River Basin are the Webster-Ashburton Treaty of 1842,⁶³ the Treaty of Washington of 1871⁶⁴ and the Boundary Waters Treaty of 1909.⁶⁵ These must now be considered.

(a) Webster-Ashburton Treaty, 1842

Article III of the Webster-Ashburton Treaty of 1842 provides that where the Saint John River forms the boundary line between the territories of the contracting parties, navigation shall be free and open to both. Produce of the forest or of agriculture grown in such parts of Maine as might be watered by the river or its tributaries are to have free access into and through the Saint John and its tributaries having their source within Maine, to and from the seaport at the mouth of the river, and to and around the falls of the river, by boats, rafts or other conveyance. While within New Brunswick the produce from Maine is to be treated as if it were New Brunswick produce. Produce from the territory of the upper Saint John in Canada is to receive similar treatment where the river runs wholly through Maine. Neither party has the right to interfere with any regulations not inconsistent with the terms of the treaty and made by the Governments of Maine and New Brunswick where both banks belong to the same party.

(b) Treaty of Washington, 1871

The Treaty of Washington of 1871 (which is noteworthy because it established freedom of navigation of the St. Lawrence River for citizens of the United States) contains, in Article XXXI,

63. Webster-Ashburton Treaty. Signed at Washington, August 9, 1842; entered into force October 13, 1842; 8 Stat. 572; TS 119; I Malloy 650; *Treaties and Agreements Affecting Canada, in Force between His Majesty and the United States of America 1814-1925*, pp. 18-22, King's Printer, Ottawa, 1927.
64. Treaty for an amicable settlement of all causes of differences between the two countries (Treaty of Washington). (Arts. I-XVII and XXXIV-XLII have been executed; Arts. XVIII-XXV, and XXXII terminated July 1, 1885; Arts. XXVIII and XXIX not considered in force.) Signed at Washington, May 8, 1871; entered into force June 17, 1871. 17 Stat. 863; TS 133; I Malloy 700; *Treaties and Agreements Affecting Canada, in Force between His Majesty and the United States of America 1814-1925*, pp. 37-49, King's Printer, Ottawa, 1927.
65. Boundary Waters Treaty, 1909. Signed at Washington January 11, 1909; ratification advised by Senate March 3, 1909; ratified by Great Britain March 31, 1910; ratified by President April 1, 1910; ratifications exchanged at Washington May 5, 1910; proclaimed May 13, 1910. 36 Stat. 2448; TS 548; III Redmond 2607; *British Treaty Series 1910*, No. 23; *Treaties and Agreements Affecting Canada, in Force between His Majesty and the United States of America*, p. 312, King's Printer, Ottawa, 1927.

an engagement by Great Britain to urge upon the Parliament of the Dominion and the Legislature of New Brunswick that no export or other duty be imposed on lumber cut in that part of Maine drained by the Saint John River and its tributaries and floated down the river to the sea, when such lumber is shipped to the United States from the Province of New Brunswick.

(c) Boundary Waters Treaty, 1909

(i) *Summary of Provisions*

The Boundary Waters Treaty of 1909 is concerned with three classes of waters: (1) boundary waters; (2) waters flowing from boundary waters or waters at a lower level than the boundary in rivers crossing the boundary; and (3) waters on one side flowing through natural channels across the boundary or into boundary waters.

Boundary waters are defined as:

... the waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and the Dominion of Canada passes, including all bays, arms, and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers, and waterways, or waters flowing from such lakes, rivers, and waterways, or the waters of rivers flowing across the boundary.⁶⁶

Uses, obstructions and diversions of such waters are dealt with in Article III of the Treaty. According to Article I, navigation of all navigable boundary waters is free and open to the inhabitants of Canada and the United States.

As to waters flowing from boundary waters or waters at a lower level than the boundary in rivers crossing the boundary, Article IV of the Treaty provides rules relating to works, dams and other obstructions in such waters that would have the effect of raising the natural level of the waters on the other side of the boundary.

We come now to waters on one side flowing through natural channels across the boundary or into boundary waters. Under Article II of the Treaty, the federal governments and the appropriate state and provincial governments have "exclusive jurisdiction and control over the use and diversion, whether temporary or permanent," of all such waters on their own side of the line. Parties injured by such use and diversion may claim legal remedies. Moreover, if interference with, or diversions of such waters on one side of the boundary would be productive of material injury to the navigation interests on the other side, the Contracting Party concerned may object.

66. Preliminary Article.

The Treaty provides for an International Joint Commission, composed of three United States and three Canadian members, which is called upon to play various roles in relation to the waters just mentioned.⁶⁷ In relation to boundary waters and waters flowing therefrom, the Commission performs judicial functions and can hand down binding decisions.⁶⁸ In the case of trans-boundary waters, or those flowing into boundary waters, the Commission has an investigative role only.⁶⁹

The parties to the Treaty have, each on its own side of the boundary, equal and similar rights in the use of boundary waters.⁷⁰ The Treaty establishes an order of precedence in the uses of boundary waters, uses for domestic and sanitary purposes being ranked first, those for navigation, second, and uses for power and irrigation, third.⁷¹

In exercising its judicial power, the Commission has authority—sometimes permissive and sometimes mandatory—to look after injured interests. Thus it may, in its discretion, “make its approval in any case conditional upon the construction of remedial or protective works to compensate so far as possible for the particular use or diversion proposed, and in such cases may require that suitable and adequate provisions, approved by the Commission, be made for the protection and indemnity against injury of any interests on either side of the boundary.”⁷²

But where the natural level of waters on either side of the line is elevated “as a result of the construction or maintenance on the other side of remedial or protective works or dams or other obstructions in boundary waters or in waters flowing therefrom or in waters below the boundary in rivers flowing across the boundary, the Commission shall require, as a condition of its approval thereof, that suitable and adequate provision, approved by it be made for the protection and indemnity of all interests on the other side of the line which may be injured thereby.”⁷³

(ii) *International Joint Commission and the Saint John River Basin*

With the foregoing summary of the relevant provisions of the treaty in mind, an examination of its application to the Saint John River Basin by the International Joint Commission may now be made. The Commission has had before it in relation to the basin cases arising under Articles III, IV and IX of the treaty.

67. Article VII.

68. Articles III, IV and VIII.

69. Article IX.

70. Article VIII.

71. *Ibid.*

72. *Ibid.*

73. *Ibid.*

*Article III — Larivière Dam*⁷⁴

The only case on the Saint John River Basin involving the application of Article III had its origin in 1933 when Jean Larivière, a Quebec farmer, built a small dam on the international section of the Saint John River between Quebec and Maine. Technically, this was an obstruction of a boundary water and therefore subject to the approval of the International Joint Commission under Article III of the Treaty. It was only in 1935 that Larivière became aware of the fact that he required approval of the Commission for the dam. Accordingly, he applied for, and was given approval. The order of approval was subject to the mandatory provision, required by Article VIII in the case of the elevation of a boundary water, that the applicant would indemnify riparian owners for damage caused by flooding consequent upon the construction of the dam.

*Article IV — Grand Falls Power Dam (Saint John River)*⁷⁵

The construction of the power development at Grand Falls, New Brunswick, was made possible by the approval of the International Joint Commission given under Article IV of the Treaty in 1925 and 1926. This development is located on the Saint John River, about three miles below the point where the river leaves the international boundary. The effect of placing a dam at that point was to pond the water back for about thirty-two miles, twenty-nine of which were on the international section of the river between New Brunswick and Maine. In these circumstances, Article IV applied and it was necessary for the applicant, the New Brunswick Electric Power Commission, to go before the Commission for approval of the project.

This case marks the first occasion on which the International Joint Commission was seized of a claim of an upstream country to a right to share power added at a site in a downstream country through raising the level of the water at and above the boundary (i.e., in Maine). The theory advanced by the United States was that the flow of water along the twenty-nine miles of the international section multiplied by the fall of sixteen feet along that section was a potential power to which the two governments had equal rights. Thus, if the 16-foot fall were added to the rest of the fall at Grand Falls and were, therefore, removed from the boundary section, the United States had the right to claim a half share in the amount of power corresponding to the flow past the international boundary multiplied by the fall along the

74. International Joint Commission. Docket No. 33. For summaries of this and other IJC dockets referred to herein, see Bloomfield and FitzGerald, *Boundary Waters Problems of Canada and the United States (The International Joint Commission 1912-1958)* (Toronto, Carswell, 1958).

75. IJC Docket No. 19. See also IJC Docket No. 22.

international section. Canada and New Brunswick denied this claim. The Commission did not have to decide the issue because the applicant agreed to furnish 2,000 H.P. for use in the State of Maine at a price which was in effect not to be greater than that charged to like consumers of power in the Province of New Brunswick. The Commission noted this agreement and reserved the right of the parties to reopen the question if the 2,000 H.P. should ever cease to be available for use in the United States; the applicant was reserved the liberty to apply to the Commission at any time for relief from its undertaking.⁷⁶

As to the question of injury, the applicant was ordered to make suitable and adequate provision, to the satisfaction of the Commission, for the protection and indemnity against injury of all other interests on either side of the boundary; and the applicant and all parties having claims for injuries in respect of the works (other than parties to certain agreements covering such claims entered into by the applicant) were given the right to apply for such further order, direction or action with reference to such claims as might seem proper.⁷⁷

It only remains to add that in 1926 the Saint John River Power Company, having had transferred to it by the Act to Incorporate the Saint John River Power Company⁷⁸ the property rights, powers and privileges of the New Brunswick Electric Power Commission in respect of the Grand Falls project, sought and obtained the approval of the International Joint Commission to carry out the project.

Article II — Madawaska Company ⁷⁹

The relation of the International Joint Commission and the Grand Falls Dam did not end with the orders of approval in 1925 and 1926. In 1932 the Commission heard a complaint of the Madawaska Company as to the alleged effects of the Grand Falls Dam on the company's plant located on the international section of the Saint John River at Van Buren, Maine. The Madawaska Company requested the Commission to give the Saint John River Power Company, owner of the Grand Falls Dam, directions concerning maintenance of levels in the ponded area behind the dam. The chief interest in this case for the lawyer

76. International Joint Commission - In the Matter of the Application of the New Brunswick Electric Power Commission for Permission to Construct and Operate Certain Permanent Works in and Adjacent to the Channel of the River St. John, in the Province of New Brunswick, at a Point on the Said River known as Grand Falls - Order of Approval, Application — Hearings 1925, p. 3, Government Printing Office, Washington, 1926.

77. *Ibid.*

78. (1926) 16 Geo. V, c. 45. See, also, IJC Docket No. 22.

79. IJC Docket No. 31.

is that the Madawaska Company, being a private citizen was denied the right to appear before the Commission, since it had not gone through its government.⁸⁰ Of additional interest are the arguments adduced by the Canadian side: To accede to the application of the Madawaska Company would amount to issuing an order in the nature of a mandatory injunction against a Canadian citizen with respect to the use by him of waters entirely within Canada and to the operation of plants wholly within Canada. The Commission had no competence to issue such an order. For the Commission to accede to the application would amount to a review of its order in the Grand Falls case. If it had such a power the conditions of an order would not be definite, and no party would consider constructing a work approved, unless it knew where it stood. If further conditions could be added through revision of the order, this would be directly opposed to the object of the Treaty, which is the better solution of boundary waters problems.

Article IX

Article IX of the Boundary Waters Treaty contains an agreement to refer to the International Joint Commission any other questions or matters of difference arising between Canada and the United States involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other along the common frontier. Where such a reference is made, the Commission performs an investigative function and makes recommendations to the two governments. This function has been exercised in at least two references involving the Saint John River Basin directly, and in two involving it indirectly.

*Article IX—Pollution of Boundary Waters*⁸¹

In 1913, in connection with an investigation by the Commission of the pollution of all boundary waters between Canada and the United States, sanitary experts studied this problem on the Saint John River between Edmundston and Grand Falls. The report of the experts was addressed to the Commission under date of January 16, 1914.⁸² The Commission eventually drafted a treaty on the subject, but it was not implemented.

80. See IJC Rule 6 (b). For a discussion on this point, see Bloomfield and FitzGerald, *Boundary Waters Problems of Canada and the United States (The International Joint Commission 1912-1958)* (Toronto, Carswell, 1958), pp. 58-59.

81. IJC Docket No. 4.

82. *Water Resources of the Saint John River Basin - Quebec - Maine - New Brunswick - Interim Report to the International Joint Commission (Under the Reference of 7 July, 1952) by the International Saint John Engineering Board, 6 April 1953, p. 17.*

*Article IX — Water Resources of the Saint John River Basin, Quebec, Maine and New Brunswick*⁸³

In a reference made in 1950, and amended in 1952, the Governments of Canada and the United States requested the International Joint Commission to recommend in its judgment what projects for the conservation and regulation of the waters in the Saint John River system above tidewater near Fredericton, New Brunswick, would be practical in the public interest. The Commission made an interim report to the two governments early in 1954. A feature of this report is the attention paid to development of resources of the basin as a whole without undue regard being paid to the international boundary. At the same time, the Commission indicated that a number of storage and power development possibilities in the basin have international aspects which may require consideration by it if and when definite proposals are made for construction and operation. Since 1954, the Commission has received annual reports from the International Saint John River Engineering Board covering subsequent developments in the area.

*Article IX—Passamaquoddy Tidal Power Reference*⁸⁴

This reference is concerned with the question of the development of the international tidal power potential of Passamaquoddy Bay. The Passamaquoddy project is of interest in considering the Saint John River Basin, since proposed storage and power sites in the latter could provide auxiliary power for firming up power from the former. One of these sites is, of course, Rankin Rapids in Maine.

(iii) *Rules governing upstream use and diversion of trans-boundary waters and waters flowing into boundary waters*

Introduction

As indicated earlier, Article II of the Treaty provides upstream governments with "exclusive jurisdiction and control over the use and diversion, whether temporary or permanent" of waters on their own side of the line in the case of trans-boundary waters and waters flowing into boundary waters.

As early as 1841 a dam and canal were constructed in Maine to divert the run-off from some 240 miles of the upper part of the Allagash River to the Penobscot River. This diversion was detrimental to log-driving interests on the lower Allagash and Saint John Rivers and was the subject of protests from Canada

83. IJC Docket No. 63.

84. IJC Docket No. 72. See also, an earlier reference to the International Joint Commission in IJC Docket No. 60.

and interests in Maine, but it was nevertheless continued.⁸⁵

As further use or diversion of this type could theoretically, take place in the Saint John River Basin, it may be useful to examine Article II which has been much considered in discussions on the Columbia River Basin where Canada, the upstream state, argues that it is in a position to divert.⁸⁶ This examination will bear on the right of the upstream State to exclusive use and diversion and the legal remedies provided for downstream parties injured by the exercise of that right.

Right of the upstream State to exclusive use and diversion

In regard to the right to exclusive use and diversion, Article II provides as follows:

Each of the High Contracting Parties reserves to itself or to the several State Governments on the one side and the Dominion or Provincial Governments on the other as the case may be, subject to any treaty provisions now existing with respect thereto, 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 waters; but it is agreed that any 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 such diversion or interference occurs; but this provision shall not apply to cases already existing or to cases expressly covered by special agreement between the parties hereto.

It is understood, however, that neither of the High Contracting Parties intends by the foregoing provision to surrender any right, which it may have, to object to any interference with or diversions of waters on the other side of the boundary the effect of which would be productive of material injury to the navigation interests on its own side of the boundary.

The Canadian position in regard to the proposed Columbia diversion has been that this language embodies the principle that there is no limitation on the right of an upstream state to divert water while in its own territory, save for the limitation in the case of navigation. The non-limitation principle was stated by Attorney-General Harmon of the United States, in 1895, at a time when the diversion of the water of the Rio Grande by the United States, the upstream state, was questioned by Mexico.⁸⁷ The

85. Water Resources of the Saint John River Basin - Quebec - Maine - New Brunswick — Interim Report to the International Joint Commission (Under the Reference of 7 July, 1952) by the International Saint John River Engineering Board, 6 April, 1953, p. 17.

86. Canada has proposed to divert the Kootenay River into the Columbia, and the Columbia into the Fraser with a consequent diminution of flow downstream in the United States.

87. (1895) 21 Opinions of Attorneys-General, 274.

Canadians argue that Article II alone is the law between the two countries on the matter to which it refers,⁸⁸ and that the principle of territorial sovereignty set forth therein was included in the treaty on the insistence of the American negotiators.⁸⁹ The Canadian position has been stated on many occasions in recent years⁹⁰ and has also received support from many commentators⁹¹ on Article II.

On the other hand, the Americans, being in a downstream position on the Columbia River and threatened with a proposal for diversion upstream in Canada, have attacked Article II of the Treaty as no longer embodying a sovereign right of a State to divert, on the following grounds:

- (1) the doctrine of riparian rights should apply and thus the United States as the downstream state would receive undiminished the natural flow of the river;⁹²
- (2) the doctrine of prior appropriation for beneficial use whereby appropriation first in time is first in right should apply, it being argued that the United States has been first in the use of the waters;⁹³
- (3) the doctrine of "equitable apportionment", which requires that the benefits of river waters within an area or system be shared equitably between states exercising jurisdiction over the system or area, should apply;⁹⁴

88. Martin, *The Diversion of Columbia River Waters*, Proceedings of the American Society of International Law (1957), p. 5.

89. McNaughton, *Problems of Development of International Rivers on the Pacific Watershed of Canada and the United States*, 5th World Power Conference, p. 4. Vienna, 1956. Section O, Paper 182 0/4; Letter of Sir Wilfrid Laurier in Gibbons Papers, C., Vol. 1; Sir Wilfrid Laurier, Debates, House of Commons, December 6, 1910, cols. 911-912.

90. In particular, by General A. G. L. McNaughton, Chairman, Canadian Section, International Joint Commission.

91. See, especially, Bourne, *International Law and the Diversion of the Columbia River in Canada*, Publication of the University of British Columbia Lecture Series, No. 27 (1956), pp. 17-25 and Ladner, *Diversion of Columbia River Waters in International Law, Rivers and Marginal Seas*, Publication of the University of British Columbia Lecture Series, No. 27 (1956), pp. 1-16.

92. Martin, *The Diversion of Columbia River Waters*, Proceedings of the American Society of International Law (1957), p. 4. In this regard, it is observed that the doctrine of riparian rights exists in New Brunswick, Quebec and Maine.

93. *Ibid.* The law of appropriation whereby a person on the banks of a stream has the right to consume or divert the water for a beneficial use is what was applied in the case of the Allagash diversion.

94. Martin, *The Diversion of Columbia River Waters*, Proceedings of the American Society of International Law (1957), p. 4.

- (4) the United States has, in its treaties, provided for the equitable apportionment of waters in international rivers;⁹⁵ for example, in the Treaty with Mexico of 1944 on the Utilization of the Waters of the Colorado Tijuana and Lower Rio Grande Rivers, the doctrine of unlimited rights has in no sense applied. The equitable claims of both nations were fully respected;⁹⁶
- (5) municipal courts have applied the doctrine of equitable apportionment, and have rejected, in interstate cases, the Harmon doctrine;⁹⁷
- (6) the Harmon doctrine was expressly repudiated by Mr. Clayton, counsel for the American Section of the International Boundary Commission, before the Senate Foreign Relations Committee in 1945;⁹⁸
- (7) the Harmon doctrine is not a principle of international law and Article II must be interpreted in the context of current international law governing the use of the waters of international rivers.⁹⁹

95. *Ibid.*, p. 5.

96. U.S. Treaty Series 994, 59 Stat. 1219.

97. Martin, *The Diversion of Columbia River Waters*, Proceedings of the American Society of International Law (1957), p. 5.

98. Hearings before Committee on Foreign Relations on Treaty with Mexico Relating to Utilization of Waters of Certain Rivers, 79th Cong., 1st sess., pt. 1, pp. 97-98 (1945).

99. For further discussions on this point, see *Legal Aspects of the Use of Systems of International Waters* with reference to Columbia-Kootenay River System under Customary International Law and the Treaty of 1909, Memorandum of the State Department, April 21, 1958, 85th Cong., 2nd sess., Senate, Document No. 118, prepared by William H. Griffin of the Department of State (United States Government Printing Office, Washington, 1958); Griffin, *The Use of Waters of International Drainage Basins under Customary International Law*, 53 A.J.I.L. 50-80, at pp. 50-55 (1959); Cohen, *Some Legal and Policy Aspects of the Columbia River Dispute*, (1958), 36 Can. Bar Rev., pp. 25-41; Laylin, *Principles of Law Governing the Uses of International Rivers: Contributions from the Indus Basin*, Proceedings of the American Society of International Law (1957), pp. 20-36; Laylin and Bianchi, *The Rôle of Adjudication in International River Disputes, The Lake Lanoux Case*, 53 A.J.I.L. 30-49, at p. 40 (1959). A wealth of material on the point is also to be found in *Principles of Law Governing the Uses of International Rivers and Lakes*, containing Resolution Adopted by the Inter-American Bar Association at its Tenth Conference held in November, 1957, at Buenos Aires, Argentina, together with Papers Submitted to the Association, 1958 (Library of Congress Catalogue Card Number 58-12112) and in *Principles of Law and Recommendations on the Uses of International Rivers*, containing a Statement of Principles of Law and Recommendations with a Commentary and Supporting Authorities Submitted to the International Committee of the International Rivers Association by the Committee on the Uses of International Rivers of the American Branch, 1958 (Library of Congress Catalogue Card Number 58-12111).

However, the American position before the International Joint Commission has not always been in line with the foregoing arguments. Thus, in the Waterton-Belly reference,¹⁰⁰ American counsel argued that, under Article II and the Harmon Doctrine, a country had exclusive jurisdiction over its waters and was not limited by an international servitude.¹⁰¹ Moreover, in the Waneta Dam case¹⁰², it was at American insistence that the order of approval of the Commission included a reservation of the right of the Americans to divert certain waters of the Pend d'Oreille River lying upstream in the United States. The question of the Chicago Diversion is too well known to require elaboration.¹⁰³

As to the extent to which the upstream state may divert, one Canadian has expressed the view that the upstream state is not limited to diverting surplus waters, but may also divert waters already dedicated to use downstream.¹⁰⁴ In the Waterton-Belly reference, United States counsel submitted to the International Joint Commission that waters upstream in the United States may be diverted even where they cannot be put to advantageous use, and he argued that the fact that the American project for the use of the waters was not economically sound was not Canada's concern.¹⁰⁵

The arguments are left in balance. But while they have had great significance in the case of the Columbia River Basin, there appears to be no indication that they will require early use in relation to the Saint John River Basin. However, if required, they are available from the stockpile of experience.

(iv) *Legal remedies under Article II*

In regard to the legal remedies of "injured parties" downstream in the event of interference or diversion upstream, Article II of the Treaty provides that:

100. IJC Docket No. 57.

101. Bloomfield and FitzGerald, *Boundary Waters Problems of Canada and the United States* (The International Joint Commission 1912-1958) (Toronto, Carswell, 1958), p. 45.

102. IJC Docket No. 66.

103. For an interesting discussion on the Chicago Diversion, see Report of the Committee on Uses of International Rivers to the Section of International and Comparative Law of the American Bar Association (May 17, 1958), pp. 1-13 (mimeographed).

104. Canadian House of Commons, Standing Committee on External Affairs, 22nd. Parl., 2nd Sess., 6 Minutes of Proceedings and Evidence (Mr. M. H. Wershof, Legal Adviser, Department of External Affairs), p. 203 (March 18, 1955).

105. Bloomfield and FitzGerald, *Boundary Waters Problems of Canada and the United States* (The International Joint Commission 1912-1958) (Toronto, Carswell, 1958), p. 45.

... any 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 legal¹⁰⁶ remedies as if such injury took place in the country where such diversion or interference occurs.

The Canadian Government was not slow to implement this provision of Article II. Thus, it is provided in section 3 of the International Boundary Waters Treaty Act of 1911^{106a} that:

Any interference with or diversion from their natural channel of any waters in Canada, which in their natural channels would flow across the boundary between Canada and the United States or into boundary waters (as defined in the said treaty) resulting in any injury on the United States side of the boundary, shall give the same rights and entitle the injured parties to the same legal remedies as if such injury took place in that part of Canada where such diversion or interference occurs.

Section 4 of the same Act provides that the Exchequer Court of Canada shall have jurisdiction to hear claims of injured parties.

But discussions in connection with the proposed Columbia River diversion have brought to light a Canadian interpretation of the legal remedies provision of Article II that would reduce it to a nullity. The argument runs as follows:

- (1) Article II provides, in effect, that where the injury takes place in the United States, the injured American party will have the same right or remedy as a Canadian would have if the injury had been inflicted in Canada.
- (2) But the position of a Canadian claiming in respect of an alleged injury suffered at a point in British Columbia between the place of a diversion of the Columbia River and

106. Why is the expression "legal remedies" used, and not merely the word "remedies"? It will be recalled that the first part of the first sentence of Article II reserves to both sides the "exclusive jurisdiction and control over the use and diversion, whether temporary or permanent, of all waters" on their respective sides of the boundary line. Under these circumstances, if the downstream party could enjoin the intended diversion upstream the reservation would be rendered meaningless. Therefore, the remedy of an injunction will not be available, and the only remedy is the *legal*, as distinguished from an *equitable* one of claiming damages. That accounts for the use of the expression "legal remedies" in Article II. See, on this point, Scott, 'The Canadian-American Boundary Waters Treaty: Why Article II?' (1958), 36 Can. Bar Rev., 511, at pp. 528-529. But see, for a broader interpretation of Article II as regards the possibility of an injunction, Canadian House of Commons, Standing Committee on External Affairs, 22nd. Parl., 2nd. sess., 6 Minutes of Proceedings and Evidence (Mr. M. H. Wershof, Legal Adviser, Department of External Affairs), pp. 209-210 (March 18, 1955).

106a. 1-2 Geo. V, c. 28.

the American border is that he would have no status to make a claim unless he were a licensed user, since, under the British Columbia Water Act, 1948 only the holder of a licence issued by the B.C. Comptroller of Water Rights has the right to the use and flow of water in any stream in the province. In the absence of such a licence (which he could hardly obtain under the B.C. Act in respect of a downstream use in the United States), the American claimant would be out of court.¹⁰⁷

The foregoing interpretation in relation to the Columbia situation has not proven to be popular since, while it purports to give a right to claim for injury, it reduces the right to a nullity. One commentator¹⁰⁸ has submitted that the interpreter is under the rules of interpretation required, if at all possible, to give significant meaning to an attempt to agree, so that where a reasonable interpretation giving an affirmative meaning is available, it will be preferred to one that produces a nullity.¹⁰⁹

On the American side, it does not appear that legislation specifically implementing Article II has ever been enacted. This raises the problem whether existing United States legislation gives American courts jurisdiction over suits under Article II, or whether the article is self-executing.¹¹⁰ One possibility for the Canadian "injured party" under Article II might be to invoke a provision of the U.S. Code which vests in the Federal District Courts jurisdiction over civil actions brought by aliens for torts in violation of the law of nations or treaty. This provision might

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107. By analogy, a party suffering injury down-stream in New Brunswick due to a diversion in Maine might be out of court if he did not have a licence from the United States Federal Power Commission which he could not in any event get in relation to a use of water at a point in New Brunswick. Similarly, an injured party in Maine would be out of court in relation to a Quebec diversion on a trans-boundary tributary of the Saint John, since he could not obtain a licence under the Canadian International Rivers Improvement Act, 1955 in relation to a use of water at a point in Maine. For a summary of the arguments on this point in relation to the Columbia River Basin, see Cohen, *Some Legal and Policy Aspects of the Columbia River Dispute* (1958), 36 *Can. Bar Rev.* 25, at pp. 36-38, and Cohen, *International Law and Canadian Practice in Canadian Jurisprudence. The Civil Law and Common Law in Canada* (Edited by Edward McWhinney), (1958) p. 343.
108. Scott, *The Canadian-American Boundary Waters Treaty: Why Article II?*, (1958), 36 *Can. Bar Rev.* 511, at p. 513.
109. *De Geoffrey v. Riggs* (1890) 133 U.S. 258, at p. 270. As to presumptions against intending what is inconvenient or unreasonable, see Maxwell on Interpretation of Statutes, 10th Ed., (1953), pp. 191-197.
110. Griffin, *Problems respecting the Availability of Remedies in Cases relating to the Uses of International Rivers*, Proceedings of the American Society of International Law (1957), pp. 38-39.

operate so as to give him a right of action for a tort committed by an upstream American user.¹¹¹

(v) *Legal remedies outside the Treaty*

It has been suggested that if it can be shown that the injuries downstream occasioned by a diversion are suffered by a sovereign, i.e., where the entity injured is not a private individual but one of the High Contracting Parties (spelled with a capital "P"),¹¹² then the injured sovereign will not be limited to the redress provided for an injured "party" (with the "p" in lower case) under Article II.¹¹³ A strong argument against this is that a High Contracting Party would be claiming an injury in respect of something in respect of which it is exercising a proprietary function and it could, therefore, hardly expect to be treated on a different footing from private individuals. A further argument is that the treaty is meant to be exhaustive of the legal rules applicable to the two High Contracting Parties in regard to the particular aspect of waters dealt with in Article II. Hence a claim could hardly be brought outside the ambit of Article II in respect of those waters.

Once more, there is no indication that the foregoing arguments will be required for early use in the case of the Saint John River Basin. But they are available if the need arises.

III.

DOWNSTREAM BENEFITS FROM UPSTREAM STORAGE

I. Introduction

General A. G. L. McNaughton, Chairman of the Canadian Section of the International Joint Commission, stated in 1957 that in the event of upstream storage at Rankin Rapids in Maine, the question of downstream benefits would automatically arise.¹¹⁴ While this subject has strong economic and engineering implications, it is not out of place to discuss it briefly here, since it often comes up in a legal context.

111. Proceedings of the American Society of International Law (1957), pp. 41-42.

112. E.g., the case of a dam located downstream owned by one of the High Contracting Parties.

113. For summaries of this argument see Cohen, *Some Legal and Policy Aspects of the Columbia River Dispute*, (1958), 36 *Can. Bar Rev.* 25, at p. 30; Scott, *the Canadian-American Boundary Waters Treaty: Why Article II?*, (1958), 36 *Can. Bar Rev.* 511, at pp. 512-513 and Bloomfield and Fitzgerald, *Boundary Waters Problems of Canada and the United States* (The International Joint Commission 1912-1958) (Toronto, Carswell, 1958), pp. 47-48, 168, 208, 219.

114. Canadian House of Commons, Standing Committee on External Affairs, 23rd. Parl., 1st. Sess., 8 Minutes of Proceedings and Evidence, p. 304 (December 16, 1957).

II. Nature of downstream benefits

It is a question of fact whether or not benefits result downstream from the regulated flow from upstream storage. If they do, then the question of appropriate recompense to the upstream state arises. The benefits and the sharing of them should be distinguished. Power benefits are transportable and can be shared in kind; flood control benefits are not transportable, but can be shared by a money payment.

As to the determination of power benefits, the following comment points out a distinction that must be made between the energy and capacity components:

It should be noted that there are two components to the power requirements of any electric utility; they are energy and capacity. The economic trend in most interconnected utilities is that hydro plants are operated at lower capacity factors to produce larger capacity components operating at the top of their load duration curves. The calculation of increase in energy component which accrues to downstream plants from upstream storage is a comparatively simple calculation and causes no problem in the development of downstream benefits; the increase in the capacity component to downstream users is the factor which causes engineers so much concern because there are so many continually changing circumstances which affect the determination of the capacity benefits which result to downstream plants from the discharge of water from upstream storage.¹¹⁵

III. Sharing of downstream benefits

In 1955, in speaking of the Columbia River Basin, the Honourable Jean Lesage, then Minister of Northern Affairs and National Resources, explained the basis for the sharing of downstream benefits as follows:

It should be noted that power made available under those particular conditions is a joint product resulting from the joint enterprise of upstream and downstream interests. The downstream areas provide the head which is certainly a valuable resource, but the upstream areas contribute the storage sites which are required to regulate the flow of water and also may permit flooding above the boundary to increase the head below. It cannot be denied that a topography favourable to storage sites is a very valuable asset which can be utilized in perpetuity. It follows therefore that when downstream and upstream areas decide to use their respective physical assets jointly for the generation of power they both have a claim on the end-product. Moreover, they make the contribution in physical terms - even though some expenditures are involved to develop the natural resources - so that they are

115. Tweeddale. Paper presented at Fredericton, N. B., to Canadian Bar Association. Section on Mines, Petroleum and Power. February 20, 1959, p. 10 (mimeographed).

both entitled to a quantity of the joint product in physical terms.¹¹⁶

A prerequisite to the sharing of downstream benefits is the establishment of the value of the additional energy generated downstream by reason of regulated flows from upstream storage. In this regard, it has been submitted that the real value of the power potential inherent in upstream storage is the cost of generating equivalent electric power by the use of steam. In making this submission to the External Affairs Committee of the House of Commons, in 1955, General McNaughton attached an important qualification:

However, since a good bargain requires that both parties should benefit substantially, it is not to be expected that the upstream state will receive the full value in cash or the equivalent. Equity, of course, requires a division of benefits and so the amount to be paid in cash or in power will be somewhere in between the "value" on the one hand and the "cost" of the storage and its operation on the other. The exact division cannot, I think, be a matter of rule but must be the result of a bargain struck in each instance.

What I do emphasize is that the "value" to be taken into account is that of "on-peak" generation by steam. . .¹¹⁷

Late in 1957, speaking of the Columbia, General McNaughton said that

. . . "recompense" to Canada for the provision of regulated flow would need to be in terms of power determined by an agreement on the basis of a "fair bargain for the value of service rendered."¹¹⁸

More recently, it has been suggested that if Canada could not immediately use all the power allocated to it as its share of the downstream benefits on the Columbia, it could sell it back to the United States with a proviso of a right to recapture it when needed.¹¹⁹ A proviso for recapture of power would imply need for

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116. Water Resource Development in the Pacific Northwest - Address by the Honourable Jean Lesage, Minister of Northern Affairs and National Resources, before the Pacific Northwest Trade Association, Vancouver, British Columbia, Monday, May 9, 1955. Reported in Upper Columbia River Development - Joint Hearings Before the Committee on Foreign Relations United States Senate, 84th Congress, 2nd. Sess., March 22, 26, 28, and May 23, 1956, pp. 375-380 at 377-378. United States Government Printing Office, Washington, 1956.
 117. Canadian House of Commons, Standing Committee on External Affairs, 22nd. Parl., 2nd. Sess., 1 Minutes of Proceedings and Evidence, p. 45 (March 9, 1955).
 118. Canadian House of Commons, Standing Committee on External Affairs, 23rd. Parl., 2nd. Sess., 6 Minutes of Proceedings and Evidence 249-250 (December 12, 1957).
 119. Cohen, *Some Legal and Policy Aspects of the Columbia River*, (1958), 36 Can. Bar Rev. 25, at p. 40.

the downstream state to prepare for the day of recapture by developing alternative sources of power whether by thermal or nuclear installations. But the proposal to share power in the Columbia River Basin is not an original one. An example of the sharing-of-power formula came up during the hearings on the *Grand Falls Power Dam (Saint John River)* held before the International Joint Commission in 1925. On that occasion, the Attorney General of the State of Maine argued as follows:

The principle on which we go is that if the property or resources of the State of Maine are used in the development of this power the State of Maine should receive its share of the power in proportion to the amount that the resources of the State of Maine contribute to the development. That is, if one square mile of the State of Maine furnished water, we will say, of the watershed, the principle is just the same whether it is one square mile or one hundred square miles.¹²⁰

In regard to this quotation, it will be recalled, from the history of the Grand Falls development given earlier, that the raising of the level of certain boundary waters in the Saint John River permitted generation of additional power downstream at Grand Falls.

In the *Grand Falls* case, counsel for the United States claimed that the United States was entitled to a certain percentage of the power to be developed at Grand Falls, and counsel for the Canadian and New Brunswick governments denied this right.¹²¹ But the International Joint Commission did not give a ruling on the claim since the applicant, the New Brunswick Electric Power Commission, agreed to furnish 2,000 H.P. for use in the State of Maine at a price which was, in effect, not greater than that charged to like consumers of power in New Brunswick.¹²² As already explained, the International Joint Commission recognized the agreement without deciding the issue.

An example of the money-payment, or sharing-of-costs, formula is found in the United States. There, under the Federal Power Act, where a licensee or other power developer benefits directly from a headwater improvement of another licensee, a permittee or the United States, the Federal Power Commission determines the equitable part of the annual charges for interest.

120. IJC Docket No. 19 - Intervention of Mr. Raymond Fellows, Attorney General, State of Maine, International Joint Commission - In the Matter of the Application of the New Brunswick Electric Power Commission for Permission to Construct and Operate Certain Permanent Works in and Adjacent to the Channel of the River St. John, in the Province of New Brunswick, at a Point on the Said River known as Grand Falls - Order of Approval, Application—Hearings 1925. p. 73. Government Printing Office, Washington, 1926.

121. *Ibid.*, p. 2.

122. *Ibid.*, pp. 2-3.

maintenance and depreciation to be paid to the owner thereof by the power developer benefitted. It is observed, however, that these provisions are concerned with the sharing of the costs of headwater improvements (i.e., the installations themselves) by those downstream riparian owners who benefit within the same country. This limited formula would not necessarily apply where two different countries are involved since it contains no element of recompense to the upstream country for the service performed or the water resources contributed.

IV. Role of the International Joint Commission in the sharing of downstream benefits

What is the role of the International Joint Commission in regard to the sharing of downstream benefits in a particular situation? May it play a judicial role and render a decision binding on the parties? Or is it restricted to making a recommendation to the parties? The answer will vary with circumstances. In the case of the *Grand Falls Power Dam (Saint John River)*¹²³ it was submitted that the Commission had jurisdiction to rule on the question of downstream benefits in its order of approval. There Article IV of the Boundary Waters Treaty applied because the downstream dam in New Brunswick raised the levels of the Saint John River in the international section upstream, thus affecting the State of Maine since it raised the water level almost to the natural high level. Since the increase in level also affected the New Brunswick side of the international section of the river, part of the increased "head" from that section was, therefore, developed in New Brunswick. In the case of that type of upstream storage, it would appear that the Commission would have judicial power in relation to downstream benefits to the extent that Article VIII specifies that in such a case the Commission shall require, as a condition of its approval of a project, that suitable and adequate provision approved by it be made for the protection and indemnity of all interests on the other side of the line which may be injured thereby.

In the case of the Columbia River Basin, the International Joint Commission will be restricted to making a recommendation to the parties in regard to the sharing of downstream benefits. Thus, pursuant to the joint reference under Article IX of the Boundary Waters Treaty made by the Canadian and United States Governments to the International Joint Commission in January 1959, that body has been requested to report specially at an early date its recommendation concerning the principles to be applied in determining:

123. IJC Docket No. 19.

(A) Benefits which will result from cooperative use of storage of waters and electrical inter-connection with the Columbia River System; and

(B) Apportionment between the two countries of such benefits more particularly in regard to electrical generation and flood control.¹²⁴

V. Downstream benefits and the proposed Rankin Rapids storage

It is too soon to predict how the question of downstream benefits will be handled in relation to the proposed Rankin Rapids storage, although General McNaughton has stated in regard to the storage that ". . . in this case we are on the paying end, but an equitable arrangement would be beneficial to both countries."¹²⁵ This concept of equity in dealing with international river systems is now enshrined in one of the principles of international law agreed upon by the International Law Association at its New York University Conference in 1958, as follows:

Except as otherwise provided by treaty or other instruments or customs binding upon the parties, each co-riparian State is entitled to a reasonable and equitable share in the beneficial use of the waters of the drainage basin. What amounts to a reasonable and equitable share is a question to be determined in the light of all the relevant factors in each particular case.¹²⁶

If the question of downstream benefits in relation to the proposed Rankin Rapids storage were to come before the International Joint Commission, then, since the storage would be located upstream wholly in Maine in waters flowing into boundary waters, the Commission could only play whatever role in the settlement of downstream benefits the parties to the Boundary Waters Treaty might wish to assign it. Hence, as in the case of the Columbia, the Commission might merely be asked to make recommendations in the exercise of its investigative role under Article IX of the treaty.

VI. Regional concept of sharing of downstream benefits

This discussion on the sharing of downstream benefits may be closed on a note of caution. A good solution for one river

124. Department of State Press Release No. 76, January 29, 1959 and Department of External Affairs Press Release No. 9, January 29, 1959. See also, editorial in *The Montreal Star*, Tuesday, February 3, 1959, p. 10, col. 1 and editorial from *The St. Louis Post-Despatch* reprinted in *The Montreal Star*, Tuesday, March 17, 1959, p. 10, col. 4.

125. Canadian House of Commons, Standing Committee on External Affairs, 23rd. Parl., 1st. Sess., 8 Minutes of Proceedings and Evidence, p. 304 (December 16, 1957).

126. International Law Association - New York University Conference (1958) - Resolution No. 1: Agreed Principle of International Law No. 4.

basin may not necessarily apply to another; and a good solution for one portion of a basin may not necessarily apply to another portion of the same basin. The International Joint Commission apparently realized this, in making its interim report of 1954 on the water resources of the Saint John River Basin, when it stated:

In the matter of headwater storage reservoirs beneficial to downstream hydro-electric plants in the Saint John River basin the Governments of the United States and Canada should, when both are concerned, consider each case *de novo* and separately on its merits, recognizing that a settlement basis adjudged satisfactory in one case might be inequitable in other cases even in the same basin, and more particularly in cases arising in other river basins along the common frontier; hence, there should be an understanding between the two Governments to the effect that decisions with respect to cases of this type in the Saint John River basin should not necessarily be regarded as precedents in the consideration and disposition of other headwater-benefits situations in that basin or in other river basins lying partly in Canada and partly in the United States along the international boundary. This statement relates only to headwater storage reservoirs located entirely within one Country or the other and to situations covered under Article III of the Treaty but not to situations which would arise under Article IV of the Treaty, this latter aspect not having been considered by the Commission in formulating this conclusion.¹²⁷

CONCLUSION

The foregoing represents an attempt to give a brief statement of legal rules that might be applied in relation to the power development of the Saint John River Basin. Some of these rules are clearly applicable to the basin. But the application of others could, as has been seen, give rise to considerable discussion. In this regard, it is, indeed, fortunate that, in the Saint John River Basin, there is such a community of interest on both sides of the boundary as could rule out serious differences of opinion with regard to legal rules applicable to a given situation. Moreover, it is safe to predict that those differences which may arise will be settled on the basis of the preservation of good neighbourly relations. God has blessed Quebec, Maine and New Brunswick with one of the world's most beautiful and useful river basins. We shall be worthy of His bounty if we continue to develop this basin in peace and amity!

127. IJC Docket No. 63 - Interim Report to the Governments of the United States and Canada on the Water Resources of the Saint John River Basin, Quebec, Maine and New Brunswick, p. 56, January 27, 1954.