

1969

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Recommended Citation

Waite, G. Graham (1969) "International Law Affecting Water Rights in the Western States," *Land & Water Law Review*. Vol. 4 : Iss. 1 , pp. 67 - 96.

Available at: https://scholarship.law.uwyo.edu/land_water/vol4/iss1/2

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University of Wyoming
College of Law

LAND AND WATER LAW REVIEW

VOLUME IV

1969

NUMBER 1

Water rights and water use problems created by intervening national boundaries are usually resolved by resort to international law and treaties. In this article Professor Waite considers the effect and limitations of existing United States Treaties with the bordering countries of Canada and Mexico on the power of Western States to create water rights, how existing and future individual users may be affected and how customary international law is relevant to the interpretation of these treaties.

INTERNATIONAL LAW AFFECTING WATER RIGHTS IN THE WESTERN STATES†

*G. Graham Waite**

INTRODUCTION

WATERCOURSES, watersheds, and demands to use water do not respect national frontiers. Disputes over the use of a resource common to more than one nation are resolved by application of international law, which, in addition to treaties, includes generally accepted principles limiting national sovereignty. These principles are called "customary international law" and guide the International Court of Justice, or other international tribunals, in pronouncing judgment.¹ The substance of customary international law

† The manuscript for this article was prepared under a contract with the U.S. Department of Agriculture for use in a multiple-volume work being prepared by Wells A. Hutchins on State water rights laws of the nineteen western States. Its separate publication as an article is with the permission and cooperation of the Natural Resource Economics Division, Economic Research Service, U.S. Department of Agriculture.

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1. GRIFFIN, LEGAL ASPECTS OF THE USE OF SYSTEMS OF INTERNATIONAL WATERS, STATE DEPARTMENT MEMO., S. Doc. No. 118, 85th Cong., 2d Sess. 63 (1958).

may be inferred from similar provisions in a number of treaties.² In 1958 William Griffin of the State Department analyzed over 100 treaties³ at some time governing systems of international waters and summarized the substance of customary international law as follows:⁴

Bearing in mind that as used in this study "system of international waters" refers to an inland watercourse or lake, with its tributaries and distributaries any part of which lies within the jurisdiction of two or more states, and "riparian" and "coriparian" refer to states having jurisdiction over parts of the same system of international waters—it is believed that an international tribunal would deduce the applicable principles of international law to be along the following lines:

1. A riparian has the sovereign right to make maximum use of the part of a system of international waters within its jurisdiction, consistent with the corresponding right of each coriparian.

*Comment*⁵—The doctrine of sovereignty is a fundamental tenet of the world community of states as it presently exists. Sovereignty exists and it is absolute in the sense that each state has exclusive jurisdiction and control over its territory. Each state possesses equal rights on either side of a boundary line. Thus riparians each possess the right of exclusive jurisdiction and control over the part of a system of international waters in their territory, and these rights reciprocally restrict the freedom of action of the others.

2. (a) Riparians are entitled to share in the use and benefits of a system of international waters on a just and reasonable basis.

(b) In determining what is just and reasonable account is to be taken of rights arising out of—

- (1) Agreements,
- (2) Judgments and awards, and

2. *Id.*

3. *Id.*

4. *Id.* at 89-91. The International Law Association at its Helsinki Conference in 1966 approved a statement of customary international law more detailed than that of Mr. Griffin. See INT'L LAW ASS'N REPORT, COMMITTEE ON THE USES OF THE WATERS OF INTERNATIONAL RIVERS, Helsinki, February 1966. The two statements are not in disagreement, but the ILA statement explicitly applies to underground as well as surface waters. (Article II.)

5. The Comments are those of Mr. Griffin.

(3) Established lawful and beneficial uses; and of other considerations such as—

(4) The development of the system that has already taken place and the possible future development, in the light of what is a reasonable use of the water by each riparian;

(5) The extent of the dependence of each riparian upon the waters in question; and

(6) Comparison of the economic and social gains accruing, from the various possible uses of the waters in question, to each riparian and to the entire area dependent upon the waters in question.

Comment—The foregoing is an attempt to formulate the factors which would be considered in applying the doctrine of “equitable apportionment” because whatever the situation—whether in negotiation or before a tribunal—more guidance is needed than is contained in the words “equitable apportionment.” Other factors should doubtless be included.

Perhaps an additional factor would be that the order of priority of uses of a particular system would be the relative importance of the possible different uses to the international area served by the system. It is doubtful that a statement of priority among uses of water for all systems could be made as a matter of existing law. On some systems the navigational use is of paramount importance; on others irrigation would surely come next after drinking and domestic uses.

It is believed that existing law gives priority to factors 1-3 in the order named, but not to other factors. Even so it may be difficult to balance the various factors because they would have different weights in different situations. For example, one riparian may have delayed developing uses of the part of a system in its territory much behind another riparian. On the one hand, the latter should not have its investment impaired by subsequent uses by the former; on the other hand, the former should not be deprived of the opportunity for its own development. In such a situation the benefits accruing to the latter under the priority factors would be taken into account in determining the just and reasonable apportionment of the total possible uses and bene-

fits of the system. The balancing of rights with the obtention of maximum benefits to all riparians in most situations can probably only be done by joint planning and/or construction with agreed distribution of benefits. E.g. irrigation and power.

3. (a) A riparian which proposes to make, or allow, a change in the existing regime of a system of international waters which could interfere with the realization by a coriparian of its right to share on a just and reasonable basis in the use and benefits of the system, is under a duty to give the coriparian an opportunity to object.

(b) If the coriparian, in good faith, objects and demonstrates its willingness to reach a prompt and just solution by the pacific means envisaged in article 33(1) of the Charter of the United Nations, a riparian is under a duty to refrain from making, or allowing, such change, pending agreement or other solution.

Comment—It seems clear that there is no rule of international law that a riparian must have the consent of coriparians as a condition precedent to the use and development within its territory of a system of international waters. In other words, a coriparian does not have what in effect would amount to a veto over changes in the system.

However, in current international practice no riparian goes ahead with exploitation of its part of a system when a coriparian may possibly be adversely affected, without consulting the latter and coming to an understanding with it. It is to be noted that the latter's consent need not be expressly given; having been given an opportunity to object, its silence may be taken as consent. If a coriparian frivolously objects that injury may possibly be caused in its territory, the riparian has the power to proceed. The crux of this aspect of the matter is that friendly states desirous of conducting their mutual relations in good faith under the rule of law do in fact—

seek solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice—

as envisaged in article 33(1) of the United Nations Charter.

Riparians are also doubtlessly motivated to seek agreement because of recognition that under the international law of responsibility of states, a riparian which alters the character of the bed or flow of a system of international waters is responsible if injury is thereby caused to a coriparian. The concept of injury in international law is very complex; and it is difficult to set an absolute limit beyond which the injury is sufficient to provide legitimate grounds for opposing action taken by a riparian. Moreover, responsibility means a duty to make reparation for an injury; and reparation may consist of pecuniary or specific restitution, specific performance, monetary damages, or some combination of these. It might be a vast responsibility to make pecuniary reparation or restore a status quo. Consequently, it is very important that riparians come to an agreement in advance, so that such responsibility would not arise. Their agreement upon the distribution of benefits is in effect an indemnification in advance.

The spirit of accommodation running through the principles Mr. Griffin states is a far cry from the conclusion in 1895 of then United States Attorney General Judson Harmon that because a nation has sovereignty over water found within its boundaries, even though in its natural channel the water flows into another nation, the upstream nation has no obligation to share the water with the downstream nation.⁶ It appears likely that the Harmon doctrine is an incorrect statement of international law.⁷

6. 21 OP. ATT'Y. GEN. 278 (1895).

7. INT'L LAW ASS'N REPORT, COMMITTEE ON THE USES OF THE WATERS OF INTERNATIONAL RIVERS, Helsinki, February, 1966 [hereinafter cited as the HELSINKI RULES], in Article IV states that "Each basin State is entitled to a reasonable and equitable share in the beneficial uses of the waters of the international drainage basin." The Comment to Article IV remarks that the article reflects a "key principle" of international law, that it "rejects" the Harmon doctrine, and that "The Harmon Doctrine has never had a wide following among states and has been rejected by virtually all States which have had occasion to speak out on the point." The Comment cites the dispute between Bolivia and Chile over the Lauca River and the Jordan Basin dispute between Israel and various Arab states as examples of recent water controversies in which all parties adhered to the principle of reasonable sharing. See HELSINKI RULES, p. 10.

In commenting on the Harmon Doctrine, GRIFFIN, *supra*, note 1, at 9-10, treats it as a case of special pleading, an *ad hoc* legal principle invented for convenience in dealing with claims of Mexico to share the waters of the Rio Grande. Mr. Griffin points out that even in disposing of the claims that gave rise to the doctrine, the United States did not act upon it, but instead

Treaties between nations establish by agreement of the signatory parties explicit rules by which particular problems are to be resolved. The explicit rules to some extent supplant customary international law while at the same time customary international law may be used to interpret doubtful language of the rules.

The federal government has power to enter into treaties with foreign nations,⁸ and this power is explicitly denied the states.⁹ Treaties into which the United States enters with other countries become part of the supreme law of the land¹⁰ and therefore take precedence over state law to the extent there is conflict. The Constitution contains no express reference to customary international law, but at least to the extent it is used to interpret treaty language, customary international law also supplants conflicting state law. Further than this, the possibility exists that a given problem might be deemed, as a choice of law matter, to be controlled by customary international law rather than by state or federal law.

The power of western states to create water rights is limited by treaties with Canada and Mexico. Those with Canada are the Boundary Waters Treaty of 1909,¹¹ and the Columbia River Treaty of 1961;¹² with Mexico the Rio Grande Irrigation Convention of 1906,¹³ and the Rio Grande, Colorado and Tijuana Treaty of 1944.¹⁴ The effects of each treaty will be considered in turn.

apportioned the water. Nor in the case of Canada did the United States stand upon its territorial sovereignty to deny all obligation to share the water, but, again, apportioned. At 60-61 Griffin shows the United States negotiators of the Boundary Waters treaty of 1901, *infra* note 11, did not believe the Harmon Doctrine legally sound. And see PIPER, THE INTERNATIONAL LAW OF THE GREAT LAKES 101, n.85 (1967) where Mr. Piper states the United States considers the Harmon doctrine incorrect.

8. U.S. CONST. art. II, § 2.
9. U.S. CONST. art. I, § 10.
10. U.S. CONST. art. VI.
11. Treaty with Great Britain Relating to Boundary Waters Between the United States and Canada, Jan. 11, 1909. 36 Stat. 2448 (1910), effective May 13, 1910 [hereinafter cited as BOUNDARY WATERS TREATY].
12. 15 U.S.T. 1555, T.I.A.S. No. 5638.
13. Rio Grande Irrigation Convention with Mexico, May 21, 1906, 34 Stat. 2953 (1907), T.S. No. 455, effective Jan. 16, 1907.
14. Treaty of February 3, 1944, with Mexico respecting utilization of waters of the Colorado and Tijuana Rivers and of the Rio Grande, 59 Stat. 1219 (1945), T.S. 994. A third treaty with Mexico, the Rio Grande Rectification Convention of 1933, 48 Stat. 1621 (1933), T.S. No. 864, effective Nov. 13, 1933, concerns straightening the Rio Grande river-course in the El Paso-Juarez Valley. The treaty resulted in some transfers of land parcels between the two nations and previously acquired water rights within such parcels

I. THE BOUNDARY WATERS TREATY OF 1909

The treaty defines boundary waters "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."¹⁵ Not included are "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."¹⁶ The only waters west of the Lake of the Woods coming within the definition, other than small sections of rivers, are said to be those of the Portland Canal between British Columbia and the Alaska Panhandle.¹⁷ Nonetheless, the Boundary Waters Treaty has a large potential for affecting water rights, a potential now achieved only in minor degree. As discussed hereafter, the treaty also affects use of waters flowing across the boundary. Not counting waters draining less than 100 square miles upstream from the international boundary, sixty-seven western rivers cross the boundary.¹⁸ Investigations that might be requested under the treaty could affect rights to use surface and groundwater as well.

Its preamble indicates the broad scope of this treaty. There, both the governments of Canada and the United States say they are

[E]qually desirous to prevent disputes regarding the use of boundary waters and to settle all questions which are now pending between the United States and the Dominion of Canada involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other, along their

apparently were wiped out. Article VII of the treaty states that such parcels "shall pass to each Government respectively in absolute sovereignty and ownership, and without encumbrance of any kind, and without private national titles." However, the treaty did not affect states' control of water rights pertaining to land within their boundaries; it simply changed the boundary somewhat. Hence the treaty is not pertinent to this study.

15. *Supra*, note 11, Preliminary Art., 36 Stat. 2448.

16. *Id.*

17. BLOOMFIELD & FITZGERALD, *BOUNDARY WATER PROBLEMS OF CANADA AND THE UNITED STATES* (1958). Appendix 7, at 248. The treaty provides for free commercial navigation of boundary waters by inhabitants and vessels of both countries, subject to appropriate, nondiscriminatory regulations of either country with its own territory. *Supra* note 11, Art. I, at 2449.

18. *Id.*, Appendix 8 at 250-251 lists the rivers in detail.

common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise.¹⁹

The treaty created the International Joint Commission²⁰ as the agency through which questions arising along the frontier might be resolved. The IJC, with the national government within whose territory the action is to take place, controls the establishment of any new use, obstruction or diversion of boundary waters, affecting the natural level or flow of boundary waters on the other side of the boundary,²¹ of waters flowing from boundary waters,²² and of 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.²³ The treaty states each national government on its own side of the boundary has equal and similar rights to use boundary waters,²⁴ and establishes use preferences the Commission is to follow in disposing of applications. Most preferred are uses for domestic and sanitary purposes; next are uses for navigation, including servicing canals for navigation; lowest in preference are uses for power and irrigation. A use substantially conflicting with a use of higher precedence must not be allowed.²⁵ An application may be denied if the proposed use would pollute boundary waters or waters flowing across the boundary. The treaty does not in terms place pollution problems within the Commission's judicial power. But it does declare "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,"²⁶ and the Commission treats the quoted language as a rule of general application.²⁷

The IJC also has jurisdiction to investigate "questions or matters of difference" arising between the two countries "involving the rights, obligations, or interests of either in

19. *Supra*, note 11.

20. *Id.*, Art. VII, at 2451.

21. *Id.*, Art. III, at 2449-50.

22. *Id.*, Art. IV, VIII, at 2450-52.

23. *Id.*

24. *Id.*, Art. VIII, at 2451-52.

25. *Id.*

26. *Id.*, Art. IV, at 2450.

27. Welsh & Heeney, *International Joint Commission—United States and Canada*, (Paper 217 presented at the Intl' Conference on Water for Peace, Washington, D.C., May 23-31, 1967). The authors are, respectively, the chairman of the United States and Canadian Sections of the Commission.

relation to the other or to the inhabitants of the other, along the common frontier."²⁸ This jurisdiction may only be invoked by the national governments.²⁹ Unlike its power when exercising other jurisdictions,³⁰ the Commission cannot make a binding decision of matters it investigates, but it can state its conclusions and recommendations to the two governments.³¹ Most of the Commission's work in recent years has fallen within its investigative power.³²

One portion of the treaty not within IJC jurisdiction reserves to the two national governments, or to the several state and provincial governments "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."³³ At the same time the treaty provides that "any interference with or diversion from their natural channel of such waters . . . 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."³⁴ And each nation reserves its right to object to any interference or diversion of water within the other nation that will materially injure navigation interests within the first nation.³⁵

28. BOUNDARY WATERS TREATY, Art. IX, 36 Stat. 2452.

29. *Id.* The treaty says "either" government may refer a question for investigation, but the practice of each government has been to make only those references the other government desires also. Waite, *The International Joint Commission—Its Practices and Its Impact on Land Use*, 13 BUFF. L. REV. 93 at 111 (1963).

30. See *supra* notes 21-25 and *infra* note 31.

31. BOUNDARY WATERS TREATY, Art. IX, 36 Stat. 2452. Art. X of the treaty does provide for decision by the Int'l Joint Comm'n, if the national governments request it. To date such a request has never been made. Welsh & Heeney, *supra* note 27.

32. Since 1944 its investigative power has been invoked twenty-one times compared to only thirteen times for the judicial. Welsh & Heeney, *supra* note 27.

For further discussion of the treaty and of the IJC, see BLOOMFIELD AND FITZGERALD, BOUNDARY WATER PROBLEMS OF CANADA AND THE UNITED STATES (1958); MANN, ELLIS & KRAUSZ, WATER-USE LAW IN ILLINOIS 271-276 (1964); Waite, *The International Joint Commission—Its Practices and Its Impact on Land Use*, 13 BUFF. L. REV. 93 (1963).

33. BOUNDARY WATERS TREATY, Art. II, 36 Stat. 2499.

34. *Id.* Art. II excludes from "this provision" cases existing when the treaty became law and cases expressly covered by special agreement. It is unclear whether "this provision" refers to the reservation of exclusive control or to the creation of remedies for certain injuries, or both. The existence of the Chicago diversion of Lake Michigan at the time the treaty was negotiated and the United States desire to preserve the diversion makes it probable only the remedies are excluded. See PIPER, THE INTERNATIONAL LAW OF THE GREAT LAKES (1967) at 90-102.

35. BOUNDARY WATERS TREATY, Art. II, 36 Stat. 2449.

It is hard to know what the quoted provisions mean. Does "legal remedies" exclude equitable remedies, or does the phrase simply mean "judicial remedies"? The view has been expressed that equitable remedies are excluded,³⁶ one commentator saying that otherwise the exclusive jurisdiction and control given each country over water on its own side of the boundary would be undermined.³⁷ But surely no such inconsistency arises, as the equitable remedy is enforced by a court of the country where the action complained of occurs. The most that can be said is that the exclusive control is being exercised by the judicial branch of government. If a state or provincial court is involved there still is no inconsistency—the state court simply would be enforcing a federal right. As in other such situations, its decision would be appealable to the federal courts.³⁸

When one thinks of a private citizen of one country seeking a remedy for harm caused by the government of the other country it does seem unlikely that other sovereignty would have agreed to subject itself to injunctive relief sought by a foreigner. But does it seem much more likely that it would submit to an injunction sought by one of its own people? If in some circumstances a nation does allow equitable remedies to its citizens against the national government, is it so unlikely that in similar circumstances it would allow similar relief to persons of a neighboring country? It is not necessary to interpret "legal remedies" as used in Article II restrictively in order to protect sovereign nations from injunctive relief sought by their own citizens since such protection is already provided by doctrines of sovereign immunity and Article II only calls for the "same" remedies for the foreign injury as the domestic. Furthermore, Article II contemplates remedies for injuries caused by "any" interference with or

36. MANN, ELLIS & KRAUSZ, *WATER-USE LAW IN ILLINOIS* 273 (1964); Scott, *The Canadian-American Boundary Waters Treaty: Why Article II*, 36 CAN. BAR. REV. 511, 516-517, 528 (1958).

37. Scott, *supra* note 36, at 528.

38. The statement of Secretary of State Root before the Senate Foreign Relations Committee is not inconsistent with the views set forth in the text. In speaking of Article II, the Secretary said, "This provision creates the same situation on the part of the people on either side of the line between the United States and Canada as now exists on either side of the respective lines between our State (New York) and Pennsylvania, for example." But he then illustrated the expected operation of Article II with a situation contemplating the payment of damages. Proceedings of the Senate Committee on Foreign Relations 270, 271 (Jan., Feb., 1909). Quotation in Scott, *supra* note 36, at 516.

diversion of waters, not just those caused by government. One may doubt whether a nation would subject its own private citizens to the remedy of money damages if properly sought by an alien yet protect them from injunctive relief. The meaning of "legal remedies" must remain speculative until attempts to obtain the remedies are made. No attempts had been made through October, 1967.³⁹

And what of the exclusive jurisdiction language of Article II? If it is taken literally, the Harmon doctrine appears to have been incorporated into the treaty. It has been said the Canadian negotiator, Sir George Gibbons, believed this to be so.⁴⁰ But is such incorporation consistent with preserving each nation's right to protest interference harming navigation? One student of the treaty has concluded that the American negotiator, Chandler P. Anderson, did not share this belief and that in fact Article II does not incorporate the Harmon doctrine.⁴¹ Another writer has suggested Mr. Anderson may have viewed the article as an appropriate distinction between boundary waters and tributary waters.⁴² It is also possible the article was largely prompted by American desires to protect the Chicago diversion of Lake Michigan water. The diversion existed at the time the treaty was negotiated, had already engaged the two nations' attention, and definitely was considered by negotiators of both coun-

39. PIPER, *supra* note 34, at 78; interview with William A. Bullard, Secretary to the United States Section, INT'L JOINT COMM'N, October 30, 1967.

40. PIPER, *supra* note 34, at 77.

41. GRIFFIN, *supra* note 1, at 6-61. Apparently, Mr. Anderson made no direct, written statement regarding the Harmon doctrine and its relation, or lack thereof, to Article II. Mr. Griffin reports that no mention of the Harmon doctrine in any connection appears in the letters and memoranda of Mr. Anderson to the Secretary of State or in the Secretary's correspondence with the British Ambassador. Further, in a report to the Secretary of State submitted to the Secretary in December, 1907, on the draft treaty, Mr. Anderson commented that the doctrine that boundary waters are held in common is inconsistent with the principle of absolute sovereignty of each nation up to the international boundary. Mr. Anderson went on to say that "absolute sovereignty carries with it the right of inviolability as to such territorial waters, and inviolability on each side imposes a coexistence restraint upon the other, so that neither country is at liberty to so use its own waters as to injuriously affect the other." Mr. Anderson then summarized the uses international law would permit each country to make of water on its side, as being those "which did not interfere with the coexistence rights of the other, and was not injurious to it . . ." The quotations appear in Griffin, at 60-61. Considering the quotations and the failure to mention the Harmon doctrine in correspondence, Mr. Griffin concludes that Mr. Anderson did not believe the Harmon doctrine legally sound, and that neither Mr. Anderson nor other Americans connected with negotiating the treaty intended the doctrine to be incorporated into the treaty.

42. PIPER, THE INTERNATIONAL LAW OF THE GREAT LAKES 78 (1967). Mr. Piper gives no specific reason for suspecting Mr. Anderson considered Article II expressed a distinction that should be drawn generally.

tries.⁴³ Article II excepts the remedy provision from application to "cases already existing," which is consistent with a purpose to protect the Chicago diversion if "cases" mean incidents and activities such as the diversion.⁴⁴ Elihu Root, who was Secretary of State when the treaty was negotiated, stated to the Senate Committee on Foreign Relations, that the treaty excluded the Chicago diversion.⁴⁵ A 1958 memorandum of the State Department interpreted Article II as follows:

1. The "use and diversion" in each country of waters "which in their natural channels would flow across the boundary or into boundary waters" is not subject to the consent of the other country.
2. The "use and diversion" in each country of such waters is subject to applicable principles of customary international law; except that neither country may assert through diplomatic channels, on behalf of private parties sustaining injury in its territory, the international legal responsibility of the other country if there is available to them compensation under the law of the latter country.⁴⁶

The International Joint Commission has used language inconsistent with the second portion of the quotation. In a recent official report to the governments of Canada and the United States the Commission discussed apportionment between the two countries of waters in a river crossing the boundary. It quoted the exclusive jurisdiction language as being a "principle" stated by Article II, pointed out that the river the Commission was considering crossed and recrossed the boundary, thereby making each country an upstream nation under Article II, and concluded that this circumstance required each country "to agree" to limit exercise of its jurisdiction to allow cooperative development.⁴⁷ The inference appears to be that absent such agreement, the Commission assumes each country untrammelled in its power over water within its boundaries.

43. See GRIFFIN, *supra* note 1, at *e.g.*, 7-9, 15-21, 31-33, 35-37.

44. See MANN, ELLIS & KRAUZ, *WATER-USE LAW IN ILLINOIS* 272-273 (1964).

45. U.S. Congress, SENATE COMMITTEE ON FOREIGN RELATIONS HEARINGS AND PROCEEDINGS ON TREATY BETWEEN UNITED STATES AND CANADA CONCERNING BOUNDARY WATERS, 61st Cong. 2d Sess. 3-5 (1910).

46. GRIFFIN, *supra* note 1, at 62.

47. REPORT OF THE INTERNATIONAL JOINT COMMISSION, CANADA AND UNITED STATES, ON THE COOPERATIVE DEVELOPMENT OF THE PEMBINA RIVER BASIN 48 (Comm. Print 1967) [hereinafter is cited as IJC REPORT.]

It should be noted that the exclusive jurisdiction aspect of the Article II meaning puzzle may become less important as matters are referred to the International Joint Commission for investigation. Immediately following the above mentioned language in its report, the Commission revealed that it was itself guided by customary international law in determining the water apportionment it recommended.⁴⁸ If the Commission turned to customary international law for guidance in resolving one matter—water apportionment—not covered by the Boundary Waters Treaty, it may where other matters not covered by the treaty are concerned as well. To the extent it does so, adoption of Commission recommendations by the national governments will bring each nation's activities within the customary international law limitations without regard to Article II.

Article VI⁴⁹ of the Treaty effects an apportionment of St. Mary and Milk river waters and thereby influences Montana water uses directly. The potential influence on water uses in western states of the International Joint Commission through its investigatory work is far greater. The IJC's work in the Pembina River basin of North Dakota and Manitoba shows the influence in action.

The governments of Canada and the United States on April 3, 1962, asked the IJC to "investigate and report on what measures could be taken to develop the water resources of the Pembina River in . . . Manitoba and . . . North Dakota . . . [and to] determine what plan or plans of co-operative development . . . would be practicable, economically feasible, and to the mutual advantage of the two countries."⁵⁰ The Com-

48. IJC REPORT, 48.

49. BOUNDARY WATERS TREATY Art. II, 36 Stat. 2451. Art. VI treats the two rivers and their tributaries as one for purposes of irrigation and power, and gives each country an equal share of the water. If it affords a more beneficial use to each country, either country may take more than half the water from one river and less than half from the other. Each year between April 1 and October 31, the United States receives priority to 500 cubic feet per second of Milk river water, or three-fourth of its normal flow—which ever is less—and Canada receives a similar priority to St. Mary river water. Since the time during which the priorities exist is the irrigation season, as, in fact, Article VI itself, states, it appears that the priority water may only be used for irrigation.

50. Identical letters from the Canadian Minister for External Affairs, and the United States Secretary of State addressed, respectively, to the Canadian and United States Sections of the IJC. IJC Report, 83.

The reference resulted from IJC recommendations stemming from a 1948 reference to study water uses in the Souris and Red Rivers basins, the Pembina being a tributary of the Red. IJC REPORT, 1-2.

mission, in determining the plan, was to consider "(a) domestic water supply and sanitation; (b) control of floods; (c) irrigation; and (d) any other beneficial uses."⁵¹ In addition, the Commission was to recommend an apportionment of water to achieve the benefits of the plan.⁵²

Over five and one-half years later, the Commission has recommended a plan expected to provide adequate flood control protection, water of suitable quality for municipal and industrial purposes, and irrigation for 12,800 acres in Manitoba plus 8,500 acres in North Dakota, as well as to provide one water-related recreational site in Manitoba, three in North Dakota and better recreational fishing in the area.⁵³ Either nation is free to use water apportioned to it in ways other than those envisaged by the plan so long as the works affecting both countries are built and operated according to plan, and there is no interference with the similar right of the other nation.⁵⁴

Adoption of the recommended plan by the two national governments would make it part of the federal law of the United States. Being federal law, the adopted water use plan would take precedence over any conflicting water rights based on the state law of North Dakota.⁵⁵ There are only a few water rights actually in use in the Pembina Basin,⁵⁶ and they do not conflict with the planned uses,⁵⁷ so no preemption of existing, state-based water rights will occur. But the plan leaves only a little room for state creation of water rights in the future. Of the total annual water yield of the Pembina basin above Pembilier Dam, to be built near Walhalla, North Dakota, the plan calls for reserving five percent for non-

51. IJC REPORT, 83.

52. *Id.*

53. U.S. Dept. of State *Press Release*, for release Dec. 4, 1967, 12:30 p.m.

54. IJC REPORT, 42.

55. This is true even if variations in uses form those recommended by the Commission are adopted, since the decision to vary would be made by federal authorities, not state. IJC REPORT, 42.

56. There is virtually no irrigation or industrial use. Only Neche and Pembina in North Dakota, and Altona and Gretna in Manitoba draw their water supply from the river. IJC REPORT 15-16, 19; SUMMARY OF THE REPORT TO THE IJC BY THE INTERNATIONAL PEMBINA RIVER ENGINEERING BOARD 5 (Comm. Print 1964) Dec. 1, 1964 at 5. Hereafter the Summary is cited as SUMMARY, BOARD REPORT.

57. IJC REPORT, 47, 68-69.

project uses in North Dakota.⁵⁸ North Dakota law would control the non-project uses in the United States.⁵⁹

The Commission states it was guided by customary international law in recommending an apportionment of Pembina river waters between Canada and the United States. It used the statement of principles found in the "Helsinki Rules on the Uses of Waters of International Rivers," approved by the International Law Association in 1966, as indicating the substance of customary international law. The Helsinki Rules give to each basin nation a reasonable and equitable share of the beneficial uses of the waters of an international drainage basin. Determination of what is reasonable and equitable is made in light of all factors relevant in each case, including such factors as geography, hydrology, past utilization of the waters, economic and social needs, and the avoidance of unnecessary wants. The IJC considered all the factors.⁶⁰

58. IJC REPORT, 51. Seven percent is to be reserved for non-project use in Manitoba. *Id.* The total reservation of twelve percent accords with the opinions of the Manitoba and North Dakota officials participating in the Engineering Board's study. *Id.*, 45-46.

59. IJC REPORT, 76.

60. The statements in this paragraph are drawn from IJC REPORT, 48-49. The text of Article V, HELSINKI RULES, reveals the flexibility the INT'L LAW ASS'N recommends for tackling apportionment problems. It states:

"(1) What is a reasonable and equitable share within the meaning of Article I is to be determined in the light of all the relevant factors in each particular case.

"(2) Relevant factors which are to be considered include, but are not limited to:

(a) the geography of the basin, including in particular the extent of the drainage area in the territory of each basin State;

(b) the hydrology of the basin, including in particular the contribution of water by each basin State;

(c) the climate affecting the basin;

(d) the past utilization of the waters of the basin, including in particular existing utilization;

(e) the economic and social needs of each basin State;

(f) the population dependent on the waters of the basin in each basin State;

(g) the comparative costs of alternative means of satisfying the economic and social needs of each basin State;

(h) the availability of other resources;

(i) the avoidance of unnecessary waste in the utilization of waters of the basin;

(j) the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses; and

(k) the degree to which the needs of a basin State may be satisfied, without causing substantial injury to a co-basin State.

"(3) The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is a reasonable and equitable share, all relevant factors are to be considered together and a conclusion reached on the basis of the whole."

The Comment following Article V shows the factors listed are not exhaustive but that still others would be applicable in particular cases. See HELSINKI RULES, at 11-14.

The Commission recommends apportioning about 60% of the annual water yield of the basin above Pemblier Dam to Canada, and 40% to the United States.⁶¹ This proportion coincides with the proportion found in each country of the total drainage area contributing water run-off to the river, and of the total water contributed to the river.⁶²

Although the plan, if adopted, will cause most water uses in the North Dakota portion of the Pembina Basin to be controlled by international agreement rather than state law, local views entered into the formulation of the plan. The Commission process⁶³ of investigation and study in developing the plan allows participation by officials and residents of the region. Direct participation is greater by officials than by residents, but of those officials participating, at least in the public hearings, many hold elective office in the federal, state, or provincial government.⁶⁴ To some degree the views of the local people shape those of their elected officials, and thus the region residents indirectly participate in the planning process. The Commission recommended in modified form the plan most favored by those appearing at the public hearings.⁶⁵

The development plan on which public hearings were held resulted from extensive studies of the Pembina basin by a technical board appointed by the IJC and composed of three men from each country, all engineers from appropriate agencies of the two federal governments.⁶⁶ The technical board was assisted in its work by various government agencies concerned with differing effects of land and water use on

61. IJC REPORT, 76.

62. *Id.*, 46.

63. See Waite, *The International Joint Commission—Its Practice and Its Impact on Land Use*, 13 BUFF. L. REV. 93, 110-117 (1963) for details on INT'L JOINT COMM'N investigative procedures.

64. Two public hearings were held in connection with the Pembina River Reference, one at Manitou, Manitoba; the other at Waihalla, North Dakota. The list of persons presenting briefs or testimony shows at the Manitou hearing thirteen public officials, including one Member of Parliament and six members of the Manitoba legislature, and eleven persons representing interested groups such as towns, regional water commissions, chambers of commerce, and wildlife associations. Only six persons appeared ostensibly representing only themselves. The Waihalla hearing presents the same picture: thirteen public officials, including two United States Senators and two Congressmen, the state governor, two state senators and one state representative; and eleven persons representing interested groups. Ten persons apparently represented only themselves. IJC REPORT, 88-90.

65. 65 IJC REPORT, 37, 50, 51. The chief modification is a relocation of land to be irrigated to place less in North Dakota, more in Canada. See IJC REPORT, 51 and SUMMARY, BOARD REPORT 11.

66. IJC REPORT, 405.

human life.⁶⁷ Thus, the plan reflects more than an engineering viewpoint. The study of the technical board included engineering and geologic field surveys of the Pembina basin, and reports of basin hydrology, economic development, and existing water problems.⁶⁸ Included in the latter were flood damage, drainage, irrigation and its impact on farm practices and agricultural processing industry, water supply, water pollution, recreation, game fish production, wildlife habitat, and existing water control works.⁶⁹

The activity of the Commission in the Pembina river basin suggests that Commission influence on western water law may make a positive contribution to efficient utilization of water. Contrary to the judge-made portion of water law, the allocations of water to different uses the Commission recommends reflect a detailed consideration of water resources and needs of an entire drainage basin, without regard to the happenstance of time priorities of existing uses. The international jurisdiction of the Commission avoids the disabilities state and national boundaries place on efforts of state legislatures or administrative agencies to promulgate a coherent water use regime for an entire drainage basin. The Commission allows local participation in the planning process in about the same way a state legislature does. The principal difference between Commission and state practice may be in enlarging the stage on which conflicting demands for water do battle from the state capitol to an international conference room. Even if a commission plan for river basin development were not adopted, the data the Commission gathered in the course of technical investigations may help lawyers, judges, and legislatures make law a more efficient tool for achieving optimum use of water than now it is.

67. The participating agencies were: *In Canada*, Canada Dept. of Agriculture, Prairie Farm Rehabilitation Admin., Economics Division; Canada Dept. of Energy, Mines and Resources, Inland Waters Branch; Manitoba Soil Survey; Manitoba Dept. of Highways, Water Control and Conservation Branch; Manitoba Dept. of Agriculture, Agriculture and Economics Division; Manitoba Dept. of Health; Manitoba Dept. of Mines and Natural Resources, Fisheries Branch, Game Branch and Parks Division. *In the United States*, U.S. Dept. of the Army, Corps of Engineers; U.S. Dept. of the Interior, Bureau of Reclamation, Bureau of Outdoor Recreation, Fish and Wildlife Service, Geological Survey, National Park Service, Fed. Water Pollution Control Administration; North Dakota State Water Commission; and North Dakota Dept. of Health. IJC REPORT, 87.

68. SUMMARY, BOARD REPORT 207.

69. *Id.*, 4-7.

II. THE COLUMBIA RIVER TREATY OF 1964

This treaty is of limited duration⁷⁰ and focuses on one goal—the cooperative development by the United States and Canada of the water resources of the Columbia river basin. The treaty affects water use in parts of Washington, Oregon, Idaho and Montana. The bulk of its provisions deal with engineering matters and the manner in which the various improvements are to be operated to generate hydroelectric power and to afford flood protection. Canada is to provide water storage space⁷¹ and the United States is to maintain and operate hydroelectric facilities using the water stored in Canada.⁷² Canada is to operate its storage facilities so as to achieve optimum power generation⁷³ while providing flood control beneficial to lands in the United States.⁷⁴ The detailed plans of operation are to be made by the two countries jointly,⁷⁵ with the United States having the option to cause the Canadian storage facilities to be operated to provide maximum flood control during periods when flooding is a hazard.⁷⁶ Canada is paid for benefits it confers on the United States.⁷⁷

The treaty gives the United States an option for five years from the ratification date to start building a dam on the Kootenai River near Libby, Montana, to meet flood con-

70. Unless sooner ended by ten years written notice, the treaty life is sixty years. If the ten years' notice is given, such treaty provisions as are necessary to continued operation of facilities built under the treaty remain in force during the facilities' useful life. No similar saving provision applies should the treaty end without there having been an early termination. Treaty with Canada for the Co-operative Development of the Columbia River Basin, Art. XIX, 15 U.S.T. 1555, 1570; T.I.A.S. 5638 (1964). The treaty hereafter is designated COLUMBIA TREATY.

71. COLUMBIA TREATY, Art. II, 15 U.S.T. 1558.

72. *Id.*, Art. III (1), 15 U.S.T. 1558.

73. *Id.*, Art. IV (1), 15 U.S.T. 1558-1559; Annex A, *Power* 15 U.S.T. 1573-74.

74. *Id.*, Art. IV (2), (3) 15 U.S.T. 1559; Annex A, *Flood Control* 15 U.S.T. 1572-73.

75. *Id.*, Art. IV, 15 U.S.T. 1558. Each country is to designate an entity to formulate and carry out the operating arrangements necessary to implement the treaty. (Art. XIV, 15 U.S.T. 1566-67). A Permanent Engineering Board is established of four members, two from each country, to oversee the operations of the entities. (Art. XV, 15 U.S.T. 1967-68).

76. *Id.*, Art. IV (2) (b), (3), 15 U.S.T. 1559.

77. Payment is partially in kind and partially in cash. For the increase in power generation capability in the United States created by the Canadian storage, Canada receives power equal to one-half-less certain deductions—(COLUMBIA TREATY Art. V, 15 U.S.T. 1561) of that which would be generated by the increased capability if used most effectively for power generation purposes. (Art. III, 15 U.S.T. 1558). See Art. V (2) (a) (b) (c), 15 U.S.T. 1560 for the deductions.

Canada receives cash payments for flood control provided by Canadian storage facilities built pursuant to the treaty (Art. VI (1) (2), 15 U.S.T. 1560-61), cash and electric power equal to that lost by operating other storage facilities to meet flood control needs of the United States (Art. VI

trol and other needs in the United States.⁷⁸ Benefits from the dam accrue to the country in which they occur.⁷⁹ The reservoir will lie partially in both countries, but its operation will be under United States control, consistent with International Joint Commission orders relating to levels of Kootenay Lake.⁸⁰ However, at Canadian request, the United States will consult with Canada regarding operating changes advantageous to Canada and adopt the changes if not disadvantageous to the United States.⁸¹ Canada is to prepare and make available for flooding Canadian land needed for the reservoir,⁸² but as in the case of storage operation, the United States is obliged to consider modifying the Canadian duty to provide land for flooding if Canada believes any part of the land no longer needed, and requests such reconsideration.⁸³ If the useful life of the dam endures longer than the treaty, Canada still is obliged to provide land for the storage reservoir as needed, except land Canada requires for diversion of the Kootenai River.⁸⁴

The Kootenai diversion just alluded to is the only one the treaty permits for nonconsumptive use if the manner of the diversion would alter the flow of any water as it crosses the boundary between the two nations within the Columbia River basin.⁸⁵ In broad terms, the diversion right allows Canada to transfer the bulk of Kootenai water to the Columbia headwaters, subject to restrictions designed to preserve the usefulness of Libby dam.⁸⁶ Either nation may refer dif-

(3), 15 U.S.T. 1561), and, more than sixty years following treaty ratification, cash equal to Canadian operating costs in providing the flood control plus compensation for Canadian economic losses directly caused by Canada foregoing alternative uses of the storage used to provide the flood control. (Art. VI, (4) 15 U.S.T. 1561). Canada may elect to receive electric power for any portion of the compensation for direct economic losses representing loss of hydroelectric power. (Art. VI (5), 15 U.S.T. 1561).

78. COLUMBIA TREATY, Art. XII (1), 15 U.S.T. 1563-64.

79. *Id.*, Art. XXII (2), 15 U.S.T. 1564.

80. *Id.*, Art. XII (6), 15 U.S.T. 1564.

81. *Id.*, Art. XII (5), 15 U.S.T. 1564.

82. *Id.*, Art. XVII (4), 15 U.S.T. 1564. The storage must be in full operation within seven years of the date fixed in the construction schedule for commencing construction. COLUMBIA TREATY, Art. XII (8), 15 U.S.T. 1564.

83. *Id.*, Art. XII (9), 15 U.S.T. 1564.

84. *Id.*, Art. XII (10), 15 U.S.T. 1564-65.

85. *Id.*, Art. XIII (1), 15 U.S.T. 1565. Diversion by either nation for any other nonconsumptiveness is permitted only with consent of the other evidenced by an exchange of notes.

86. If the Libby dam is built on schedule, Kootenay waters may not be diverted during the first twenty years of the treaty's life, but thereafter Canada may divert up to one and one-half million acre-feet of Kootenay water to the Columbia headwaters if such diversion reduces the Kootenay flow just downstream from the diversion no lower than 200 cubic feet per second or the natural flow. (COLUMBIA TREATY, Art. XIII (2), 15 U.S.T. 1565). Start-

ferences under the treaty to the International Joint Commission for decision,⁸⁷ or, if the IJC decision is delayed,⁸⁸ to arbitration.⁸⁹ Each country is bound to accept the decision of the IJC or an arbitration tribunal as final.⁹⁰

Either nation that breaches the treaty is liable to compensate the other,⁹¹ but neither government is liable to the other, to private persons or other entities for any injury, damage or loss occurring in the territory of the other country caused by acts, failures to act, omissions or delays under the treaty.⁹² However, each government within its own territory will try to remove the cause and lessen the effects of injuries occurring in the territory of the other.⁹³ A Protocol more clearly defining Canada's operating commitments and in-

ing sixty years after treaty ratification, and for forty years thereafter, Canada may divert to the Columbia headwaters any water which, in its natural channel, would flow in the Kootenay across the international boundary. COLUMBIA TREATY, Art. XIII (3), 15 U.S.T. 1565. The treaty language appears broad enough to authorize diversions of tributaries flowing into the Kootenay in Canada. The diversion must not reduce the Kootenay flow at the frontier below the lesser of 2500 cubic feet per second or the natural flow, COLUMBIA TREATY, Art. XIII (3), 15 U.S.T. 1565, except during the last twenty years the diversion right exists the limitation is reduced to the lesser of 1000 cubic feet per second or the natural flow. COLUMBIA TREATY, Art. XIII (4), 15 U.S.T. 1565. If the United States does not exercise its option to build the Libby dam, or, exercising it, fails to meet the prescribed timed schedule for starting construction of the dam and operation of the storage, Canada may immediately make the "any water" diversion subject to the lower limitation just started. COLUMBIA TREATY, Art. XIII (5), 15 U.S.T. 1565-66. The United States may ask Canada to vary its use of water diverted under the one and one-half million acre-feet authorization. Canada then is obliged to consult with the United States and, if Canada determines the variation would not be to its disadvantage, vary the use accordingly. COLUMBIA TREATY, Art. XII (6), 15 U.S.T. 1566. All diversions, once started, are unlimited in the time they may continue. MacNabb, *The Columbia River Treaty*, May 23-31, 1963 (Paper 357 presented at the Int'l Conference on Water for Peace, Washington, D.C.).

87. COLUMBIA TREATY, Art. XVI (1), 15 U.S.T. 1568.
88. The IJC is given three months, or such other period as the two countries may agree, in which to decide the matter. Columbia Treaty, Art. XVI (2), 15 U.S.T. 1568.
89. COLUMBIA TREATY, Art. XVI (3), 15 U.S.T. 1568. The arbitration tribunal is to be composed of three members, each country to appoint one, the third to be appointed by both. If either country fails to appoint its member, or if agreement on the third member is not reached within six weeks of the notice of arbitration, either country may ask the President of the International Court of Justice to appoint the missing member.
90. COLUMBIA TREATY, Art. XVI (4), 15 U.S.T. 1568.
91. *Id.*, Art. XVIII (1), 15 U.S.T. 1569. Breaches caused by war, strike, major calamity, act of God, uncontrollable force or maintenance curtailment are excepted. The compensation shall be either forfeiture of downstream power benefits or money not exceeding the actual loss of revenue from sale of hydroelectric power. *Id.*, Art. XVIII (5), 15 U.S.T. 1570.
92. *Id.*, Art. XVIII (2), 15 U.S.T. 1569-70. Failure of Canada to start operating its storage facilities, or of the United States to start building the Libby dam, on time is not a breach if the delay is not wilful or reasonably avoidable. *Id.*, Art. XVIII (4), 15 U.S.T. 1570.
93. *Id.*, Art. XVIII (3), 15 U.S.T. 1570.

creasing the power to which Canada is entitled was signed January 22, 1964.⁹⁴

The treaty does not in terms pre-empt state jurisdiction over any particular aspect of water law. But in requiring Canadian storage facilities to be operated for optimum power generation, subject to the needs of flood control in the United States, and in limiting diversion in Canada for nonconsumptive uses,⁹⁵ the treaty materially affects the amount of water in the Columbia available for appropriation under state-created rights. Also, the limitation of compensation available under the treaty appears to make it impossible for an appropriator whose allotment is curtailed in order to implement the treaty preference of power production to obtain compensation. It is therefore clear that the state-created rights of appropriators are not property when in conflict with activities authorized by the treaty, and a hazard of potentially severe economic losses to appropriators exists.

III. THE RIO GRANDE IRRIGATION CONVENTION OF 1906

As its title suggests, the treaty of 1906 concerns itself only with apportioning water of the Rio Grande between Mexico and the United States, to be used in both nations for agricultural irrigation. The apportionment effected by the convention applies only to the part of the Rio Grande extending above Fort Quitman, Texas.⁹⁶ Mexico is allotted 60,000 acre-feet of water each year, to be delivered in the bed of the Rio Grande by the United States to a specified point in Mexico.⁹⁷ The water is stored behind a dam near Engle, New Mexico,⁹⁸ presently known as the Elephant Butte Dam,⁹⁹ completed in 1915 when the convention measurement became operative.¹⁰⁰ All costs of storage, and delivery to Mexico are borne by the United States.¹⁰¹ Delivery is distributed through the year according to a stated schedule, which is proportionate

94. 15 U.S.T. 1579, T.I.A.S. No. 5638.

95. The treaty gives each nation the right to divert water for consumptive use. Protocol, note 94 *supra*, Section 6.

96. Rio Grande Irrigation Convention with Mexico, May 21, 1906, Art. IV, 34 Stat. 2953, 2955 T.S. No. 455. The agreement hereinafter is designated CONVENTION.

97. *Id.*, Art. I, 34 Stat. 2953-54.

98. *Id.*, Art. I, 34 Stat. 2953-54.

99. 2 WATERS AND WATER RIGHTS 474 (Clark ed.) (1967).

100. Jordan & Friedkin, *infra* note 111.

101. CONVENTION, Art. III, 34 Stat. 2954-55.

to the amounts delivered from Elephant Butte reservoir to irrigate Texas land.¹⁰² If serious drought or serious accident to the irrigation system in the United States occurs, the water delivered to Mexico may be reduced proportionately to reductions in delivery to the Texas lands.¹⁰³

Mexican protests preceding the Convention of American diversion of Rio Grande water above the point where the river became a boundary water elicited the opinion¹⁰⁴ by Attorney General Harmon that each nation through which an international river flows has complete sovereignty over the portion of the river within its territory and has no obligation imposed by international law to share such portion with the other nation.¹⁰⁵ Echoes of the opinion may appear in two articles of the Convention. Article IV disclaims recognition by the United States of any Mexican claim to the waters agreed to be delivered to her, while it recites a Mexican waiver of all claims to use water along a stated stretch of the river, and settlement or waiver of all past, present and future claims against the United States for damages caused owners of Mexican lands by American diversions of Rio Grande water.¹⁰⁶ Article V disclaims concession by the United States of any legal basis for claims by owners of Mexican land for losses to such land caused by diverting Rio Grande waters within the United States.¹⁰⁷ The article also limits application of the "arrangement" contemplated by the treaty to the part of the Rio Grande forming the international boundary from the head of the Mexican Canal above Juarez, Mexico, to Fort Quitman, Texas.¹⁰⁸

In spite of the hard language of Articles IV and V, and of the Harmon doctrine that seems to lie behind it, the Convention does apportion the water between the two countries, a fact mentioned by the State Department some fifty years later when considering the interest of the United States in an international river on which the United States was the

102. *Id.*, Art. II, 34 Stat. 2954.

103. *Id.*

104. 21 OP. ATT'Y. GEN. 279 (1895).

105. GRIFFIN, LEGAL ASPECTS OF THE USE OF SYSTEMS OF INTERNATIONAL WATERS, STATE DEPT. MEMO., SENATE DOC. NO. 118, 85th Cong., 22d Sess. 9 (April 21, 1958).

106. CONVENTION, Art. IV, 34 Stat. 2955.

107. *Id.*, Art. V, 34 Stat. 2955-56.

108. *Id.*, Art. I, V, 34 Stat. 2953-54, 2955-56.

downstream sovereign.¹⁰⁹ Because the Convention apportioned the water, it has been concluded that the Harmon doctrine was not part of the Convention.¹¹⁰

It is noteworthy that only the United States government is protected by the language of Articles IV and V—nothing is said regarding claims for damages caused owners of Mexican lands by actions in the United States of state or local governments, corporations or other organizations, or by private persons.

Administrative responsibility of the Convention has been assigned to the body today known as the International Boundary and Water Commission.¹¹¹ The Department of the Interior operates the dam and arrangements for releasing water from storage from Mexico are made with the Department through the Commission. The Commission measures and maintains records of the deliveries.¹¹²

IV. THE RIO GRANDE, COLORADO AND TIJUANA TREATY OF 1944

A. Water Allocation

The treaty allocates the water of the first two named rivers between the United States and Mexico, and provides for study and recommendations for allocating the water of the Tijuana. The allocation of Rio Grande waters applies only to the river lying below Fort Quitman, Texas,¹¹³ thereby supplementing rather than replacing the Convention of 1906. Unlike the Convention of 1906, the 1944 Treaty allocates

109. *Supra* note 105, at 9-10.

110. *Id.*, at 9.

111. Jordan & Friedkin, *The International Boundary and Water Commission—United States and Mexico*, May 23-31, 1967 (Paper 611 presented at the Intl. Conference on Water for Peace, Washington, D.C.). The authors are, respectively, Commissioners of the Mexican and United States Sections of the Commission.

The Commission is the result of merging the International Water Commission into the International Boundary Commission established in 1889 by the Boundary Convention with Mexico, March 1, 1889, 26 Stat. 1512. The merger occurred in 1932. Act of June 30, 1932, ch. 314 § 510, 47 Stat. 417; Act of July 1, 1932, Ch. 361, 47 Stat. 481, 22 USC 277 note. The present name of the Commission was created by Art. 2 of the 1944 treaty with Mexico, *infra* note 113.

112. *Id.*

113. Treaty between the United States of America and Mexico respecting utilization of waters of the Colorado and Tijuana Rivers and of the Rio Grande, Feb. 3, 1944, Preamble, 59 Stat. 1219, 1220, T.S. No. 904. The agreement hereinafter is designated "1944 TREATY".

water for storage, domestic, agricultural, stock raising, or industrial purposes¹¹⁴ rather than simply for agricultural irrigation.

As indicated in the detailed discussion that follows, implementation of the treaty is assigned to the International Boundary and Water Commission.¹¹⁵ That body consists of two sections, one from each country, with the head of each section required to be an engineer.¹¹⁶ The Commission as a whole has jurisdiction over "the limitrophe parts of the Rio Grande and the Colorado River, to the land boundary between the two countries, and to works located upon their common boundary."¹¹⁷ Each national section has jurisdiction over works "located wholly within the territorial limits of either country" that are used only to fulfill treaty obligations.¹¹⁸ Works used partly for treaty purposes and partly for other purposes are managed by a state or federal agency of the country where they are located.¹¹⁹

Rio Grande waters are divided as follows. To the United States: all the waters entering the Rio Grande from the Pecos and Devils Rivers, Goodenough Spring, and Alamito, Terlingua, San Felipe, and Pinto Creeks;¹²⁰ one-half the flow in the main channel of the Rio Grande below the major international storage dam farthest downstream, to the extent the flow is not specifically allotted under the treaty;¹²¹ one-third of all waters entering the main channel of the Rio Grande from the Conchos, San Diego, San Rodrigo, Escondido, and Salado Rivers and the Las Vacas Arroyo, provided the third shall not be less on the average in cycles of five consecutive years than 350,000 acre-feet;¹²² and one-half of all other flows occurring in the main channel of the Rio Grande, except waters from the San Juan and Alamo Rivers, and return flow

114. 1944 TREATY, Art. 1 (d), 59 Stat. 1221.

115. *Id.*, Art. 2, 59 Stat. 1222, states that "The application of the present treaty, the regulation and exercise of the rights and obligations which the two Governments assumed thereunder, and the settlement of all disputes to which its observance and execution may give rise are hereby entrusted to the International Boundary and Water Commission."

116. *Id.*, Art. 2, 59 Stat. 1222-23.

117. *Id.* at 1224.

118. *Id.*

119. 1944 TREATY Protocol, 59 Stat. 1261. See 2 WATERS AND WATER RIGHTS (Clark ed.) § 152.3 (1967) for further discussion of the Commission.

120. *Id.*, Art. 4, B (a), 59 Stat. 1226.

121. *Id.*, Art. 4, B (b), 59 Stat. 1226.

122. *Id.*, Art. 4, BB (c), 59 Stat. 1226-1227.

from land irrigated from the San Juan and Alamo.¹²³ It is said the result of the division is to give the United States about one-half of Rio Grande waters below Fort Quitman although the greater part of the water is of Mexican origin.¹²⁴ Each diversion of lower Rio Grande water actually made for use in either country must be preceded by a finding of the section of the International Boundary and Water Commission of the country in which the diverted water is to be used that water is available within that country's share for the diversion.¹²⁵

Mexico and the United States agreed to construct jointly dams required on the Rio Grande for storage and diversion of the water, the work to be done through each nation's section of the International Boundary and Water Commission.¹²⁶ Although the treaty specifies three dams to be built and their general location, the Commission may decide to build others instead, subject to the approval of the two nations.¹²⁷ Selection of the most feasible sites, determination of feasible reservoir capacities, of each nation's needs at each site for conservation capacity, and of capacity required for silt retention and flood control are all made by the Commission.¹²⁸ In determining the required conservation capacity, the Commission is to consider the "amount and regimen" of the particular nation's water allotment and "its contemplated uses."¹²⁹ Thus the Commission is placed in a position to influence powerfully the uses to which land dependent upon the stored water may be developed. Dams built pursuant to the treaty are Falcon, a storage dam located seventy-five miles below Falcon.¹³⁰ In addition, another storage dam, Amistad, is being constructed about twelve miles upstream from Del Rio, Texas, and Ciudad Acuna, Coahuila.¹³¹ Amistad dam is to be completed in April, 1969.¹³² In locating Amistad dam, the Commission used its power to depart from the sites speci-

123. *Id.*, Art. 4, BB (d), 4 A (a), 59 Stat. 1227, 1225.

124. 2 WATERS AND WATER RIGHTS 483 (1967).

125. *Id.*, at 492. 1944 TREATY, Art. 9(b), 59 Stat. 1234.

126. 1944 TREATY, Art. 5, 59 Stat. 1228.

127. *Id.*, Art. 5, II.

128. *Id.*, Art. 5, II, (a)-(e).

129. *Id.*, Art. 5, II (c).

130. Jordan & Friedkin, *supra* note 111, at 9-10.

131. Jordan & Friedkin, *supra* note 111, at 10.

132. *Id.*

fied in the treaty.¹³³ At both Falcon and Amistad dams electric power is, or is to be, generated for use in both nations.¹³⁴

Colorado waters are given to the United States except 1,500,000 acre feet which are guaranteed to Mexico,¹³⁵ plus any other quantities arriving at Mexican points of diversion.¹³⁶ In years when the United States Section of the International Boundary and Water Commission determines that water exists surplus to United States need and to the guaranteed delivery quantity, the United States will deliver additional water to Mexico. However, the total quantity delivered is not to exceed 1,700,000 acre-feet, and Mexico acquires no right by use of Colorado River waters beyond 1,500,000 acre-feet.¹³⁷ Should drought or accident make it hard for the United States to deliver the guaranteed quantity of water to Mexico, the treaty allows reduction of the required delivery in proportion to reduction of consumptive uses in the United States.¹³⁸

Who shall say when it is difficult for the United States to deliver all the water guaranteed to Mexico? The treaty does not expressly settle the question. A general treaty provision entrusts to the International Boundary and Water Commission the "application of the present Treaty, the regulation and exercise of the rights and obligations which the two Governments assume thereunder, and the settlement of all disputes to which its observance and execution may give rise."¹³⁹ Presumably the duty to make the determination in question falls within the quoted language. If so, the result is both the Mexican and United States sections of the Commission participate in the decision, which seems logical since the decision affects performance of the guaranty to Mexico.¹⁴⁰

The meaning of consumptive use may be more obscure. The treaty definition of the term includes "evaporation, plant transpiration or other manner whereby the water is consumed

133. 2 WATERS AND WATER RIGHTS (Clark ed.) 484 n.86 (1967).

134. Jordan & Friedkin, *supra* note 111, at 9. Electric power production at the international storage dams is contemplated by Article 7 of the 1944 Treaty, 59 Stat. 1231.

135. 1944 TREATY, Art. 10 (a), 59 Stat. 1236.

136. *Id.*, Art. 10 (b).

137. *Id.*

138. *Id.*

139. *Id.*, Art. 2, 59 Stat. 1222, 1223.

140. It will be recalled that the United States section alone determines that water above the guaranteed quantity exists that may be given Mexico. See *supra* note 137 and related text.

and does not return to its source of supply. In general, it is measured by the amount of water diverted less the part thereof which returns to the stream."¹⁴¹ Is evaporation from a storage reservoir created simply by damming the stream a consumptive use? The second sentence quoted above suggests not. And the treaty definition of "to divert" speaks of "taking water from any channel in order to convey it elsewhere" for various purposes,¹⁴² but it goes on to list several alternative diversion methods and among them includes "dams across the channel."¹⁴³ Since the list is in the alternative, it seems possible the above question might be answered "yes."

The Commission is to plan for flood control on the Colorado below Imperial dam, both in the United States and in Mexico.¹⁴⁴ The two governments will build such Commission recommended works as the two governments approve, each government paying for the works it builds—including operating costs after construction, supervision of construction and operation being provided by the particular country's section of the Commission.¹⁴⁵ As the works are constructed and operated to achieve flood control, an impact on private water uses results. The speed of current and the amount of water in a given reach of river a given season of the year are likely to be changed. Water uses incompatible with flood control operations will give way before the overriding treaty provision.¹⁴⁶ To enable it to divert its portion of water Mexico has built the Morelos dam at its expense about one mile below the international boundary.¹⁴⁷

141. 1944 TREATY, Art. 1 (j), 59 Stat. 1222.

142. *Id.*, Art. 1 (d), 59 Stat. 1221. (Emphasis supplied.) The purposes are domestic, agricultural, stock raising, or industrial.

143. *Id.*, Art. 1 (d). ". . . dams across the channel, partition weirs, lateral intakes, pumps, or any other methods."

144. *Id.*, Art. 13, 59 Stat. 1241, 1242.

145. *Id.* Some works may be jointly operated and maintained by the Commission as a whole, in which case the cost will be borne equally by the two governments.

146. Other articles of the treaty particularly related to the Colorado are Articles 12, 14 and 15. Art. 12, 59 Stat. 1239 outlines certain works to be built by each country. Art. 14, 59 Stat. 1242, deals with use of the All-American Canal in delivering water to Mexico and payments to Mexico to make therefor. Article 15, 59 Stat. 1243, outlines the subject matter and limits of two annual schedules the Mexican section of the Commission is to formulate each year to guide United States delivery of water to Mexico and deals with other details of delivery as well. Article 15 also limits the water to be delivered through the All-American Canal.

147. Jordan & Friedkin, *supra* note 111, at 8-9.

As for the Tijuana river, the treaty makes no precise water apportionment, calling instead for study and recommendations by the Commission for an "equitable distribution" to be approved by the two governments.¹⁴⁸ The Commission also is to recommend storage and flood control plans to promote and develop "domestic, irrigation and other feasible uses" of the water.¹⁴⁹ Presumably the uses for which the Commission plans to store water will influence the Commission's recommendations for equitable apportionment. Since the treaty expressly directs the Commission to plan for development of domestic and irrigation uses, with other uses to be included only as the Commission deems feasible, it may be expected the apportionment ultimately recommended will tend to accommodate demands for domestic and irrigation uses first, in preference to other types of use.¹⁵⁰

B. General Provisions

Several general provisions of the 1944 treaty are noteworthy. First, the Commission is given guidelines to follow in providing for joint use of international waters. Border sanitation problems are to receive first preferential attention, and any sanitary measures or works agreed upon by both governments override any conflicting water use.¹⁵¹ Following water use for sanitation the following priorities are established, listed in descending importance: First, domestic and municipal uses; 2) agriculture and stockraising; 3) electric power; 4) other industrial uses; 5) navigation; 6) fishing and hunting; and 7) any other beneficial uses the Commission may determine.¹⁵² None of the terms are defined in the treaty; to determine the classification into which a particular use falls reliance might be placed on customary international law or the internal law of the two countries. In the case of the United States this could mean largely the internal law of each of the states affected by the treaty. It would not seem proper for the Commission to place its own meaning on the classifications, since to do so would tend to frustrate the two governments' purpose to guide the Commission. Of course,

148. 1944 TREATY, Art. 16 (1), 59 Stat. 1249.

149. *Id.*, Art. 16 (2).

150. No recommendation had been made by June 1, 1967.

151. 1944 TREATY, Art. 3, 59 Stat. 1225.

152. *Id.*

in applying definitions drawn from customary international law, from internal state law, or from some other body of law, the Commission necessarily builds its own interpretation of the body of law being used, an interpretation which, being rooted in the treaty power of the federal government, is of such dignity in the United States as to override any conflicting state law.

Another interesting treaty provision shields each country from liability to the other country for damage caused by using the international rivers for the discharge of flood waters.¹⁵³ Responsibility for claims of private persons—apparently including those harmed in one country by flood waters released by the other country—is assumed by each government within whose territory the claim arises.¹⁵⁴ The claim is to be adjusted exclusively according with the responsible government's "own" laws.¹⁵⁵ In the case of a private claimant harmed within the United States, it would seem the treaty provision means the claimant's rights are controlled by federal law. Whether the "law" includes choice of law rules is another question. The treaty is silent on the point. It may be the word "own" suggests an intention that choice of law rules be excluded from consideration. This perhaps is consistent with a desire to settle claims speedily. The meaning of the treaty language is to be found in the practice of the two governments.¹⁵⁶

CONCLUSIONS

Treaties of the United States with Canada and with Mexico have not explicitly pre-empted private water rights created by the various states adjoining the two frontiers. However, by apportioning the waters of international and trans-boundary streams, and by establishing classes of pre-

153. *Id.*, Art. 17, 59 Stat. 1250.

154. *Id.*, Art. 20, 59 Stat. 1251-1252. The claim may have arisen from the construction operation, or maintenance of any works authorized by the treaty.

155. *Id.*, Art. 20.

156. Another choice of law puzzle exists with reference to the law regulating public use of lake surfaces formed by international dams. The treaty states public use is to be free and common to both countries, subject to various regulations, including "the police regulations of each country in its territory." 1944 TREATY, Art. 18, 59 Stat. 1250. Does this mean, with respect to territory within the United States, police regulations of the federal government? Or of the several states bordering the international rivers? The latter would coincide with the tradition of our nation that the police power is peculiarly within the sphere of the states.

ferred water uses, the treaties do limit state ability to create water rights. Only uses fitting within the national share of water, and within the hierarchy of uses may be effectively established by the states. Any state-based right to use water is susceptible to obliteration should it conflict with future treaty provisions. Whether the private owners of such rights are compensated for their loss depends on the terms of the treaty, or separate Congressional action—there is no constitutional requirement that they be paid. To the extent the international agencies refine the treaty-established preferences in water use the possibility exists for planning the water uses of an entire river basin, without regard to state or national boundaries.