THE INTERNATIONAL JOINT COMMISSION -
WITH SPECIAL EMPHASIS ON THE GREAT LAKES
WATER QUALITY AGREEMENT.
A VIEW FROM THE CANADIAN SIDE.

by

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ABSTRACT

The International Joint Commission was instituted under the Boundary Waters Treaty of 1909; it held its constitutive meeting in 1912. The prime purpose of this organization is to prevent or settle Canadian - U.S. boundary waters - and certain other - disputes. The functions and powers the Commission was given under the 1909 Treaty are divided into four categories: administrative, quasi-judicial, arbitral, and investigative and advisory. The administrative functions were restricted to a then controversial group of boundary waters in the prairies. In its quasi-judicial capacity, which accounted for the majority of its work in the first half of its existence, the Commission is empowered to grant or withhold permission for certain planned endeavours - public or private - that would affect boundary waters. Thus far, the services of the Commission in its arbitral capacity have not been called upon. In recent years most of the Commission's work has resulted from matters referred to it by the two federal Governments for investigation and advisory opinion.

In its most comprehensive endeavour yet the Commission, at the request of the two Governments in 1964, investigated and reported upon pollution in the lower Great Lakes and the international section of the St. Lawrence River. The Commission's final findings and recommendations, published in December, 1970, provided the basis for the Great Lakes Water Quality Agreement, entered into by Canada and the United States sixteen months later. The Agreement is a comprehensive and detailed
pollution abatement programme, based upon laid down water quality objectives. It gives the Commission certain, primarily surveillance powers with regard to Great Lakes pollution without, however, changing the fundamental structure of its functions and powers.

Though the clean-up of the Great Lakes is taking considerably longer than expected the two signatory countries can, according to the wording of the Agreement, hardly be held liable for breach of treaty.

A comparison with several international commissions concerned with water resources reveals that the performance record of the International Joint Commission is decidedly superior to that of the others. This can be attributed to certain extrinsic advantages which it has over its counterparts, such as the number of countries involved, their political, cultural and economic proximity, and the geographically balanced location of the boundary waters, as well as to the way in which it has conducted its business, thus building up a respectable reputation over the years.

Nevertheless, the Commission can ill afford to rest on its laurels. There remains considerable room for improvement in its operations. Moreover, major decisions concerning its future structure as well as
a reassessment of its future role will have to be made in the near future. The final part of this thesis examines

1. whether the size of the Commission itself should be increased or whether the present six Commissioners should, instead, all serve on a full-time basis; the latter is preferred;

2. whether the Commission should, or should not move towards becoming an international Great Lakes environmental administrative authority; basically, it should not;

3. the extent to which the public can participate in the work of the Commission.
ACKNOWLEDGEMENTS

I am indebted to the people of Canada who, through their Canada Council, have provided me most generously with the support that has enabled me to pursue my studies at Vancouver. My thanks go further to the Faculty of Law at the University of British Columbia, where I have benefitted greatly from the cordial atmosphere and the countless instances of individual assistance and encouragement I was accorded. Special thanks are owed to C.B. Bourne for his constant guidance (and patience!). A.R. Thompson's benevolent support is, likewise, gratefully acknowledged, as are the sessions with I.K. Fox of the Westwater Research Institute, and his assistant, D.M. LeMarquand, from which valuable insights were gained. My work was facilitated by the cooperation of the International Joint Commission; this I gratefully acknowledge. Ruth Smith (and her associates) passed up many hours of summer sunshine in order to have the manuscript ready on time. Finally, I must thank J.F. Tanguay, but for whose trust and support at the very outset this project would not have been undertaken. J.B.
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## ACKNOWLEDGEMENTS

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>iv</td>
</tr>
</tbody>
</table>

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>v</td>
</tr>
</tbody>
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## ABBREVIATIONS

<table>
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## INTRODUCTION

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<th>PAGE</th>
</tr>
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<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

## PART ONE: Origins and Functions

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

### I HISTORICAL SYNOPSIS

1. U.S. - Canadian boundary waters relations 3
2. The Boundary Waters Treaty, 1909 5

### II FUNCTIONS AND POWERS

#### A. Administrative

1. Article VI BWT 11
2. Rainy Lake Convention 13

#### B. Quasi-judicial

1. Articles III, IV, VIII 13
   a) Rainy River Improvement Company application, 1912; docket no. 1 14
   b) Greater Winnipeg Water District application, 1913; docket no. 7 15
   c) City of Seattle (Ross Dam) application, 1941; docket no. 46 15
d) St. Lawrence Power application (by both federal governments), 1952; docket no. 68.

e) Jean Larivière application, 1935; docket no. 33

2. Lake of the Woods Convention

3. a) compliance enforcement
    b) permanency of orders

C. Arbitral

1. Article X BWT

2. Article XVI Columbia River Basin Treaty

D. Investigative (and advisory),
   Article IX BWT

   a) Lake of the Woods Reference, 1912; docket no. 3

   b) Pollution of Lower Great Lakes reference, 1964; docket no. 83.

PART TWO: Great Lakes Water Quality Agreement

I POLLUTION AND GREAT LAKES - BEFORE 1964

1. Article IV BWT

2. Pollution reference, 1912; docket no. 4

3. Connecting Channels reference, 1946; docket no. 54

II DOCKET NO. 83 (1964)

1. The reference and the investigations

2. Findings and recommendations
III THE AGREEMENT
1. a) pre-negotiations contacts 36
   b) negotiations 38
2. The final document 43
   a) provisions 43
   b) Role of the IJC 47
   c) Conclusion 51
IV IMPACT OF THE AGREEMENT 52
   a) On international pollution law 52
   b) On the Commission 53
   c) On pollution abatement. 55

PART THREE: The Relative Success of the Commission; A Comparison 60

I LEGAL BASES 62
1. a) International Boundary and Water Commission 62
   b) International Rhine Pollution Commission 63
   c) Chad Basin Commission 65
2. Evaluation 67
II PERFORMANCE 80
   a) Chad Basin Commission 80
   b) International Rhine Pollution Commission 84
   c) International Boundary and Water Commission 95
III CONCLUSIONS 109
PART FOUR: The Commission and the Future

1. The Structure of the Commission
   a) The problem
   b) Option 1 - Increasing the size of the IJC
   c) Option 2 - Full time appointments
   d) Proposal

2. The IJC, an International Great Lakes Water Quality Management Agency?
   a) the problem
   b) advantages
   c) disadvantages
      (i) internal (to Commission)
      (ii) external (relationship with the Governments)
   d) Conclusion

3. Public Participation
   a) in general
   b) related to the IJC
   c) Permissible extent
      (i) active
      (ii) passive
   d) past record and future possibilities
   e) Summary

CONCLUDING REMARKS
| Appendix I  | Boundary Waters Treaty, 1909. | 147 |
| Appendix II | International Joint Commission, Rules of Procedure, 1964. | 157 |
| Appendix III | Great Lakes Water Quality Agreement, 1972. | 169 |
| Appendix IV | International Joint Commission, organizational structure and boards | 204 |
| Appendix V  | International Joint Commission, list of International projects, 1912-1975. | 205 |

FOOTNOTES  214

BIBLIOGRAPHY  248
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
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I.R.A.Sc. International Review of Administrative Sciences

J.W.T.L. Journal of World Trade Law

L.N.T.S. League of Nations Treaty Series

Malloy Treaties, Conventions, International Acts, Protocols, and Agreements Between the United States of America and Other Powers, 1776 - 1909 (see Bibliography).

McGill L. J. McGill Law Journal


Nat. Res. J. Natural Resources Journal

N.Y.I.L. Netherlands Yearbook of International Law

N.Y.U.J.I.L.P. New York University Journal of International Law and Politics

op. cit. cited work

p. page

pp. pages

para. paragraph

P.C. Privy Council

PL Public Law (U.S.)

pt. part

RAB (Great Lakes) Research Advisory Board

R.E.D.I. Revue Egyptienne de Droit International

R.S.C. Revised Statutes of Canada

s. section

ss. sections

SOR Statutory Orders and Regulations (Federal)

Stat. United States Statutes at Large
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optimis

parentibus
INTRODUCTION

For more than 160 years the northern boundary of the United States has been a peaceful one. In fact, Americans and Canadians currently benefit from a harmonious relationship which is equalled by few other neighbouring peoples in the world today. Of the various factors contributing to this comity of nations a significant one is surely the existence of the various international commissions set up by the two countries to deal with certain matters of bilateral concern, among them being the International Pacific Halibut Commission, the International Great Lakes Fisheries Commission, and the International Boundary Commission. The most noted one of these bodies, however, is undoubtedly the International Joint Commission. Though general public awareness of its activities is but recent it has been playing a role in U.S.-Canadian relations for some sixty-five years, remaining somewhat enigmatic until the period after World War II. Its relative obscurity till then can be attributed primarily to the fact that it was given most of its major, far-reaching tasks after 1945.

Its relative obscurity from the public view notwithstanding the International Joint Commission has regularly occupied the minds of scholars and professional experts, though here, too, a marked increase in recent years is obvious. At various times in its history it has been presented as a model organization for its counterparts.
around the world.\textsuperscript{6}

Despite the considerable scholastic interest in it there do not appear to have been any attempts of late to assess the utility of this Commission in light of its changing operational priorities.\textsuperscript{7} The Great Lakes Water Quality Agreement\textsuperscript{8} of 1972 is paradigmatic of the shift in emphasis with regard to the Commission's activities.

This thesis constitutes an attempt to fill that gap. It will first describe the four main functions of the Commission and briefly trace their development by means of a few selected cases, or dockets. Then the Commission's involvement with the quality of the waters in the Great Lakes, which falls entirely under its advisory role, will be examined. Emphasis will be placed on how the Commission influenced the Great Lakes Water Quality Agreement and how the Agreement has since affected the Commission. In order to better evaluate the Commission's record, especially its activities related to Great Lakes water quality, it will be compared with three other international commissions involved with water resources. As will be shown these other commissions have been chosen for their similarities as well as for certain dissimilarities, which additionally enable an assessment of external factors influencing the Commission's performance. Finally, an attempt will be made to relate the knowledge gained from this investigation to certain current questions the answers to which could appreciably affect the future activities of the Commission.
PART ONE:

ORIGINS AND FUNCTIONS
The International Joint Commission (I.J.C.) owes its existence to the Boundary Waters Treaty (B.W.T.), entered into by Great Britain on behalf of Canada and the United States of America in 1909. It was not the first such body established by two countries, nor was the B.W.T. the first agreement between the High Contracting Parties concerning their boundary waters.

I

1. First mention of water in connection with the Canada - U.S. boundary was made as early as 1783, in the Treaty of Paris, where - under the erroneous assumption that its source was near the border - it was provided that the navigation on the Mississippi River was to remain open to British subjects as well as U.S. citizens, an error later remedied by means of a subsequent provision for a survey of that area. The Jay Treaty of 1794 declared the boundary waters open to navigation and commerce by British subjects, American citizens, as well as Indians. A provision clarifying the boundary line along the middle of the St. Lawrence River was contained in the 1874 Treaty of Ghent.

Provisions of a different nature with respect to boundary waters were contained in the Rush-Bagot Agreement of 1817 - namely naval armaments limitations on the Great Lakes and Lake Champlain.

The Webster-Ashburton Treaty of 1842 contains provisions
for free navigation and commerce by citizens of both countries on the boundary waters in the Lake Superior-Lake of the Woods area as well as in parts of the St. Lawrence, Detroit and St. Clair Rivers, and in Lake St. Clair, British subjects were given the right to navigate the whole of the Columbia River in the Oregon Treaty of 1846.

The 1854 Reciprocity Treaty marked the beginning of a new development in U.S. Canadian border relations: U.S. citizens were allowed to navigate that part of the St. Lawrence River wholly within Canadian territory in return for equal rights for British subjects regarding Lake Michigan. This treaty was terminated by the United States in 1866 over differences arising from incidents involving Great Britain during the American Civil War, but similar arrangements were again agreed upon by the two parties in the 1871 Treaty of Washington. This treaty also proclaimed freedom of navigation on the Yukon, Porcupine and Stikine Rivers for Americans and Britons alike.

By this time problems involving the use of boundary waters for other than navigational and commercial purposes were becoming more prominent in U.S.-Canadian water relations. Proposed water diversions for the purpose of irrigation (St. Mary and Milk Rivers controversy), for the generation of hydroelectricity (Great Lakes and Niagara River diversion plans), and for sewage disposal (Lake Michigan-Mississippi River sewage canal for Chicago), as well
as water levels (Lake of the Woods) were very controversial in the latter part of the last century.

All this shows that, far from becoming settled with time in light of the improving relationship between the two neighbouring countries of such similar heritage, increasing populations as well as advancing technologies and the diversification of their economic endeavours were constantly creating more and different problems in urgent need of solutions.

Thus it seems to have been but a matter of time before the obvious next step in this path of developments would be openly advocated - a more permanent regime to deal with boundary waters controversies.

2. The Boundary Waters Treaty can be said to have been seeded around the middle of the 1890's. At an American Irrigation Congress in Denver, Colorado in 1894, at which Mexican and Canadian representatives were also present, a Canadian resolution calling upon the United States to appoint an "international joint commission to act in conjunction with the authorities of Mexico and Canada in adjudicating the conflicting rights which have arisen, or may hereafter arise, on streams of an international character"\textsuperscript{22} was adopted unanimously. An International Boundary Commission between the United States and Mexico had already been established in 1889, mainly to deal with Rio Grande diversions, but the Mexicans were substantially less than satisfied with its performance.\textsuperscript{23}

The following year a similar resolution was adopted - again
unanimously - at the Fourth Annual Session of the International Irrigation Congress, held at Albuquerque, New Mexico. A diplomatic initiative to this effect by the British Ambassador at Washington on behalf of the Canadian Government in 1896, however, met with little interest in Washington, so the matter rested until 1902. In that year it was the American side that took it up again with a congressional request to the President to invite the British Government to "...join in the formation of an international commission...whose duty it shall be to investigate and report upon the conditions and uses of the waters adjacent to the boundary line between the United States and Canada..." But it was not until 1905 that the Canadian Government passed concurring legislation and in that same year the International Waterways Commission was created. It consisted of three American and three Canadian Commissioners; its duties were to "investigate and report upon the conditions and uses of the waters adjacent to the boundary between the United States and Canada, including all the waters of the lakes and rivers whose natural outlets is by the river St. Lawrence to the Atlantic Ocean; also upon the effect upon the shores of these waters and the structures thereon and upon the interests of navigation by reason of the diversion of these waters from, or change in, their natural flow; and further to report upon the necessary measures to regulate such diversion, and to make such recommendations for improvements and regulations as shall best subserve the interests of navigation in these waters."
The Waterways Commission was purely an investigative body without final jurisdiction, let alone any enforcement authority. It submitted several reports to the two governments and also recommended, *inter alia*, that certain governing principles in the use of boundary waters be established, that a permanent joint commission be created "to supervise the enforcement of its recommendations, or that it be given this power itself, and that a treaty be entered into to settle the rules and principles upon which all such questions may be peacefully and satisfactorily determined as they arise." The special commission for the definition and demarcation of the Canadian-U.S. border was established pursuant to a treaty ratified in 1908.

George Gibbons, (as he then was), a Canadian member of the Waterways Commission, had first suggested the conclusion of a boundary rivers treaty in 1906, and he was subsequently entrusted with representing Canadian interests in the treaty negotiations, held in Washington, under the leadership of the British Ambassador to the United States (later Lord) Bryce, on one side and the American Secretary of State, Elihu Root, on the other. These negotiations were very difficult. One of the prime contentious issues was the very question of whether to have a permanent commission, as was preferred by the Canadian side (with initial support of the U.S. Secretary of War Taft), or merely provisions for the establishment of ad hoc commissions whenever contentious issues should arise, as Mr. Root very strongly advocated. Another major issue (and
one that has not even today been entirely settled between the two
countries), was the inclusion in any proposed treaty of the Harmon
doctrine, which stated that a sovereign state has complete and
unconditional jurisdiction over the waters within its territory.
The Americans insisted upon this while the Canadians advocated the
prohibition of these diversions that could cause public or private
injury in the other state. Although the Waterways Commission had
recommended a provision similar to the Canadian position and the
Harmon doctrine could not even at that time be said to have been
generally accepted as a principle of international law, it was
eventually accepted by Canada in a slightly modified form, in
return for American consent to a permanent commission. The treaty
drawn up in these negotiations was signed at Washington on January
11, 1909. Despite some remaining reservations it came into force,
after having been ratified by Great Britain and the United States
on March 31, 1910 and April 1, 1910 respectively, on May 5, 1910,
the day on which ratifications were exchanged at Washington. The
Treaty was confirmed by the Canadian Parliament in 1911.

The Boundary Waters Treaty, as will be shown, does not pertain
solely to boundary waters, nor is its scope restricted to issues
concerning the boundary. It has the inherent potential to provide
for the settlement of any controversy arising between the two
neighbouring countries by means of the International Joint Commission.
The aim of the Treaty was "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 common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise." Boundary waters are defined as "the waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portion 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 flowing across the boundary." Tributaries of boundary waters are completely excluded from the provisions of the treaty, as are cross-boundary waters and waters flowing from boundary waters unless projects involving the latter two affect the level or flow of boundary waters. Such projects and boundary waters works are not permitted without the prior approval of the Commission.

II

Article VII of the Treaty sets forth the establishment and maintenance of the International Joint Commission, consisting of
six commissioners, three — including a chairman — from each side of the boundary. The constitutive meeting was held in Washington on January 10, 1912. Pursuant to Article XII, which contains further administrative provisions, the Commission set up two head offices, one in Washington, the other in Ottawa, for the national sections, respectively, and each section appointed a permanent secretary. Rules of Procedure were soon adopted by the Commission and have only been reviewed once, in 1964.40

The International Joint Commission can be called upon to perform any one of four different functions — one being administrative, another quasi-judicial, the third arbitral, and the last investigative and, usually, advisory. On the following pages these separate functions will be elucidated by means of a few select cases handled by the Commission. The examples are intended to introduce the reader into the workings of the organization and to provide him with some basic information on who may deal with the Commission and in what way, what steps the Commission takes in order to reach a decision, and — briefly — some of the issues involved. The main portion of this investigation will, however, centre around the Commission and the Great Lakes Water Quality Agreement, so that an inquest in depth into the Commission's functions and problems related thereto, especially with regard to the quasi-judicial powers, though interesting, would exceed the scope of this thesis.
A.

1. The prime administrative duties of the Commission are outlined in Article VI of the Treaty; they pertain only to the St. Mary and Milk Rivers and their tributaries in Montana, Alberta and Saskatchewan. These two rivers are at one point in their respective beds all but adjacent to one another, with the St. Mary River then flowing into the Saskatchewan River, which eventually empties into Hudson Bay, and the Milk River waters flowing down to the Gulf of Mexico via the Missouri and Mississippi Rivers. The use of their waters had been a contentious issue between Canada and the United States for some time prior to the conclusion of the Boundary Waters Treaty: Both countries were planning to utilize them for irrigation in the semi-arid area through which they flowed but their limited quantities of water would in no way have sufficed for the combined projects.

It was therefore agreed upon in 1909 (Article VI, inter alia):

a) to consider the St. Mary and Milk Rivers and their tributaries in Montana, Alberta and Saskatchewan as being one stream for irrigation and power purposes;

b) to apportion their waters equally among both Parties, subject to alterations, in order to obtain a more beneficial use to each;

c) that the United States could divert waters from the St. Mary River through the channel of the Milk River on Canadian territory; and
d) that the measurement and apportionment of the waters should be carried out by reclamation officials from both countries "under the direction of the International Joint Commission." (emphasis added).

Only a few months after its initial constitutive meeting the Commission took up this problem. Yet it was many years before the issue was settled, though a completely satisfactory solution was never formally produced. A very controversial issue was whether the tributaries of the St. Mary and Milk Rivers that did not cross the boundary were included in Article VI, as the Canadian side maintained, or excluded from it, as the United States claimed, in accordance with its Harmon doctrine. The issue was eventually decided in favour of the United States, which had, incidentally, before then already proclaimed that they would not consider the Commission's pronouncement upon this question binding, mainly because they did not want to entrust the Commission in its administrative capacity with the interpretation of a treaty provision.

However, that may be, the situation now is such that, despite their original reservations, and a later bid to reopen the negotiations, which resulted in the Commission's first split on national lines, the United States have, in fact, accepted the Commission's initial order of 1921. Despite sovereign jurisdiction in general, it is difficult to envisage a change in U.S. practice, with respect to this specific question, after decades of acquiescence.
2. A special administrative function was assigned to the Commission through the Rainy Lake Convention in 1938. According to Article I of this Convention the Commission has the power to determine when an emergency situation with regard to the water of the lake exists, and to adopt appropriate control measures.

B.

1. Of the fifty odd projects handled by the Commission in the first half of its existence, approximately three quarters involved it in its quasi-judicial capacity. Its powers and obligations with respect thereto are defined in Article VIII, of the B.W.T. in conjunction with Articles III and IV. Any proposed new use, obstruction or diversion of boundary waters on either side of the line that would affect the natural level or flow of boundary waters (Art. III) - or of waters flowing across or from the boundary that would raise the level of boundary waters (Art. IV), require the approval of both the respective government having jurisdiction and the Commission. Waters flowing into boundary waters are not included in the Treaty. Exempt from the requirements are cases specially agreed upon by the two Parties, works benefitting navigation and commerce, and uses for domestic and sanitary purposes.

It becomes apparent here, and should be stressed, that it is, indeed, a unique characteristic of the International Joint Commission, that not only does it regulate relations between
governments, but it also has final jurisdiction over applications by legal as well as private persons concerning works that would affect the boundary waters of the two countries.

A brief look at a few of the cases the Commission has dealt with should elucidate this one of the Commission's several functions.

a) The very first case to be submitted to the Commission was an application by the privately owned Rainy River Improvement Company of Minnesota, for a permit to construct a dam across the American section of the Rainy River at Kettle Falls, a point at which the river forms part of the boundary. This had been approved by the Congress and the War Department. At the same time, the Ontario and Minnesota Power Company, controlled by the same interests as the Rainy River Improvement Company had received Parliamentary authority to construct a dam on the Canadian side of the river, the result of which would be one dam across the whole of the Rainy River at Kettle Falls. The Commission, in dismissing this application for lack of jurisdiction, considered itself bound by the definition of "special agreement" in Article XIII of the Treaty, which expressly includes "any mutual arrangement between the United States and the Dominion of Canada expressed by concurrent or reciprocal legislation on the part of the Congress and the Parliament of the Dominion."

According to its own Rules of Procedure the Commission is obliged to conduct a formal hearing, should it receive an objection to an application filed pursuant to Articles III, IV and VIII. At the hearing for the Rainy River Improvement Company application, the question arose whether the Commission was not already prevented
from exercising jurisdiction in this case by the free navigation clause of Article VII of the Webster-Ashburton Treaty of 1842.\textsuperscript{54} By the decision it ultimately rendered in the case the Commission was able to sidestep this issue. It has not been raised since.

b) In the fall of 1913 the Greater Winnipeg Water District, after having procured a relevant federal Order-in-Council, applied\textsuperscript{55} for permission to use the waters of Shoal Lake for domestic and sanitary purposes.\textsuperscript{56} Doubts arose at the hearings as to the character of Shoal Lake, which is closely connected with the Lake of the Woods, as a boundary water,\textsuperscript{57} thus again questioning the jurisdiction of the Commission. After the Commission had established that the waters of Shoal Lake might not always be adequate to supply the estimated needs in this case and that the waters, and subsequently the level, of the Lake of the Woods, undoubtedly a boundary water, might therefore be affected, the Greater Winnipeg Water District - upon the advice of a Commissioner - amended its application and asked for the use of the waters of Shoal Lake and the Lake of the Woods. The order of approval permitted a maximum withdrawal of 100,000,000 gallons of water daily.

c) An application\textsuperscript{58} was filed in 1941 by the City of Seattle to progressively raise the level of the Ross Dam on the Skagit River, a cross-boundary water. An initially prepared draft
order of approval, subject - in accordance with Article VII - to compensation being made to all interests concerned, was amended upon the suggestion of the City of Seattle, providing then that the dam would not be raised above a height that would back up the water beyond the boundary until a compensation agreement between British Columbia and Seattle had been concluded.

As it had done in several instances since the St. Mary's River Dam case\(^59\) of 1914, the Commission, in its order of conditional approval, called for the appointment of a board, the International Skagit River Board of Control, to make technical reports to the Commission whenever necessary.

It was not until 1967 that the City of Seattle and British Columbia finally concluded their agreement and the Board could be established.\(^61\) Still, construction to modify the dam has not yet begun.\(^62\)

d) The St. Lawrence River has, on several occasions, been the object of the Commission's attention. The most outstanding one of these was generated by the two federal Governments.

In 1952 the Governments applied\(^64\) for approval to construct and operate power development works in the international section of the St. Lawrence River. In its order of approval\(^65\) the Commission called for the creation of two boards:
- The St. Lawrence River Joint Board of Engineers, to be established by the two governments, primarily to supervise the proper construction of the works;
The International St. Lawrence River Board of Control, to be established by the Commission, to give effect to the various instructions of the Commission, issued pursuant to the order of approval, and to take over whatever obligations still remained with the Board of Engineers after completion of the works. The Board of Control is still very active today.

In this order the Commission also referred to the order of preferences for water uses as laid down in Article VIII -

"(1) Uses for domestic and sanitary purposes;
(2) Uses for navigation, including the service of canals for the purpose of navigation;
(3) Uses for power and for irrigation purposes"- granting its approval upon the condition that no injury be done by the construction and operation of the works to those existing uses with a higher priority.

It may be added here that although this order of precedence is contained within the context of regulations pertaining to applications for boundary waters uses, the Commission appears to be using it as a guide in other water-related endeavours as well. In its last Souris River reference report in 1958, for example, involving the regulation of the use and flow of the Souris River, the Commission recommended a waters apportionment based on the order of priorities in Article VIII.
e) But the Commission also receives applications of considerably more modest impact:

On September 20, 1935, a Quebec farmer, Jean Larivièrè, filed an application for approval of a dam on the upper St. John River between Quebec and Maine which he had already built two years before, then in ignorance of the law. Because the dam was built only to provide power for a small mill used for domestic purposes, the Commission considered the application without requiring the usual advertising, public hearings and document printing procedures. The construction of the dam was permitted \textit{ex post}, under the condition that riparians incurring damage due to river flooding caused by the dam be indemnified by the applicant.

2. Special jurisdiction was given to the International Joint Commission under the Lake of the Woods Convention of 1925.\textsuperscript{70}

The treaty was drafted by the Commission, at the request of the two governments, subsequent to its report on the Lake of the Woods levels reference.\textsuperscript{71}

Article XI of this treaty - \textit{lex specialis} to Article II of the Boundary Waters Treaty - prohibits any \textit{diversion} of waters from the Lake of the Woods watershed to any other watershed, except by authority of the respective governments and with the approval of the Commission.

Moreover, this treaty provides for the establishment of two boards:
(1) the Canadian Lake of the Woods Control Board, to "regulate and control the outflow of the waters of Lake of the Woods".

(2) The International Lake of the Woods Control Board, primarily to regulate the flow of water in cases where the level is above or below the maximum or minimum levels prescribed in this treaty.

The Commission has no jurisdiction over the Canadian control board, but a twofold one over the International Board:

(1) Any alteration of its own jurisdiction that the board deems necessary is subject to prior approval by the Commission.

(2) The Board must immediately refer any internal disagreement as to the exercise of its functions to the Commission for a final decision.

3.

a) To date the Commission has not been faced with the question of how to proceed upon the refusal of an applicant to comply with a pertinent order. Should the problem, however, materialize, the following would appear to apply:

The U.S. Congress approved the Treaty on March 3, 1909; ratification documents were exchanged on May 5, 1910; in Canada the "Act relating to the Establishment and Expenses of the International Joint Commission under the Waterways Treaty of
January the Eleventh, Nineteen Hundred and Nine," confirming the Boundary Waters Treaty and containing provisions for the necessary amendments and alteration of the relevant federal and provincial legislation, was assented to on May 19, 1911. Thus, the Treaty is law in both countries.

The Commission has not been empowered to enforce adherence to its orders issued pursuant to Articles III, IV and VIII of the Treaty. Should the Commission wish to enforce an order not voluntarily complied with it would, not having a legal personality of its own, be obliged to make representations to the government of the country in which the violation occurred, leaving it up to that government to decide on whether to take regular legal action or not.

On the other hand, provisions have been made to enable injured parties to apply for judicial assistance. Section 4 of the above mentioned implementation act gives the Exchequer court (now the Federal Court) jurisdiction over these matters. For lack of a special provision on the part of the United States, Article II of the Treaty would be directly applicable; it would entitle the injured party to apply to the court within the United States having regular jurisdiction.

b) Regarding the permanency of its orders the Commission is of the opinion, so far not repudiated by the two Governments, that it always has the right to reconsider its order, whether the order in question contains a clause to this effect or not. Furthermore,
that the approval of a new application could, in effect, alter a previous order of approval, is appreciated and deemed legitimate by the Commission. 75

It is clear that the Commission must be able to make its decisions in light of the facts and situations as they present themselves at the time such decisions are made. To be externally bound by its previous decisions, especially if their premises have changed over time, could gradually undercut the Commission's effectiveness. This reasoning could also be extended to justify its reconsidering of orders once issued. However, if these direct or indirect modifications of valid orders issued pursuant to Article VIII result in injury or loss to someone justly relying on their validity because the Commission, contrary to said article 76, failed to provide adequately therefor, the injured party would be compelled to appeal to the responsible national Government for relief.

C.

1. The third category of functions is assigned to the International Joint Commission under Article X of the Boundary Waters Treaty. It calls for referral to the Commission, upon agreement by the legislatures of both neighbouring countries to do so, of any "questions or matters of difference arising between the High Contracting Parties involving the rights, obligations or interests
of the United States or of the Dominion of Canada either in relation to each other or to their respective inhabitants."\(^{77}\)

The Commission is empowered to make recommendations or to render a majority decision, which would be binding and final.

Thus far the two governments have not made use of these provisions of the Treaty.\(^{78}\) Suffice it, therefore, to have mentioned this possible function of the Commission.\(^{79}\)

2. Another potential arbitration role for the Commission is provided for in the Columbia River Basin Treaty\(^{80}\), according to which differences "arising under the Treaty which the United States of America and Canada cannot resolve may be referred by either to the International Joint Commission for decision."\(^{81}\)

This provision has thus far also not been made use of by the Parties.

D.

The International Joint Commission's most time-consuming, most extensive and, indeed, their most important functions today are investigative and advisory - as set out in Article IX of the Boundary Waters Treaty. Of the fifty cases it handled from 1944 to 1975, thirty were references under Article IX. Moreover, eight out of the eleven cases submitted in the first half of this decade were such references.\(^{82}\)

According to Article IX either of the two governments can refer any "questions or matters of difference ... involving the
rights, obligations, or interests of either in relation
to the other or to the inhabitants of the other, along the
common frontier ... to the International Joint Commission
for examination and report." But: "Such reports of the
Commission shall not be regarded as decisions of the questions
or matters so submitted either on the facts or the law, and
shall in no way have the character of an arbitral award."84

Although one government may unilaterally demand that a
pertinent question be referred to the Commission, it has -
seemingly by tacit agreement - become standard practice for
both governments to agree upon the references in advance and
to issue them jointly.85 This, of course, has the advantage
of allowing them to agree in advance on the scope and restrictions
of the reference, which, in turn, would appear to enhance the
chances of the Commission's subsequent report being acceptable
to both parties. The advantage gained thereby does not seem
to be offset by the possibility that this might prevent some
important issues from being referred to the Commission.

a) The first reference transmitted to the Commission concerned
the controversial Lake of the Woods water levels. This had
been a contentious issue between the two countries since 1888,
when Americans on the Minnesota shores of the lake began to
complain that their lands were being flooded because of a dam
built at an outlet of the lake on the Canadian side. Only a few months after its constitutive meeting in 1912, the governments of Canada and the United States submitted to their respective national sections of the Commission identical letters of reference, asking the Commission to investigate various questions and to make appropriate recommendations concerning the stabilization and regulation of the Lake of the Woods water levels. Almost immediately the Commission employed engineers to carry out necessary investigations and other pertinent research under its auspices. After holding a series of public hearings, issuing an interim report, instituting a special committee to examine flood conditions, and holding several subsequent public hearings, the Commission, in May of 1917, issued its final report and recommendations. A certain maximum and minimum levels range was recommended, which should be monitored by an international board of engineers, to be appointed by the two governments and supervised by the Commission. This report later led to the already mentioned Lake of the Woods Convention of 1925.

b) In 1964 the Commission was asked to inquire into the pollution of the lower Great Lakes and the international section of the St. Lawrence River.

This reference was to involve the Commission in its most extensive and most comprehensive operation to date. The importance of this project, its results, and its consequences for the Commission merit its more detailed investigation.
PART TWO :

GREAT LAKES WATER QUALITY AGREEMENT
PART TWO:

I

1. The first sign of Canadian-United States concern for possible pollution occurring in their common boundary waters coincides with the creation of the International Joint Commission. In Article IV, paragraph 2, of the Boundary Waters Treaty the High Contracting Parties agreed that boundary and cross-boundary waters "shall not be polluted on either side to the injury of health or property on the other."

Unfortunately, this statement is neither an express prohibition, nor is it followed up by a more positive commitment, such as assigning certain explicit pollution supervisory, or even control, powers to the Commission. Yet something to this effect did, indeed, come close to being inserted into the Treaty: Although public interest in and concern for environmental - specifically water pollution - matters were dormant during the initial years of this century, the Treaty negotiators nevertheless felt a necessity for some provision with which to face this potential problem; especially in anticipation of the settlement of the western boundary area. Thus a clause that actually did prohibit pollution of trans-boundary waters, as well as a provision establishing a joint agency with relevant enforcement powers, were included in the first treaty draft. However, owing to American unwillingness to create an international agency with powers to intervene in domestic affairs, this scheme was dropped and replaced by the general
provision that was attached to the existing Article IV of the Treaty and that cannot be regarded as much more than a vigorous statement of intent. All this also explains the rather unusual location of the provision - as the second paragraph of an article to the first section of which it is - in substance - totally unrelated.

2. Insignificant though the possibility of a pollution problem with regard to boundary waters may have seemed when the Treaty was concluded, in 1909, this was to become a major issue, especially in the Great Lakes area, and to prompt a large-scale investigation by the International Joint Commission only three years later, in 1912, the very year the Commission formally took up its operations. By that time recurring outbreaks of typhoid fever were alarming various communities in the Great Lakes area. The Commission was therefore requested, on August 2, 1912, to examine and report on the causes, the location, and the extent of pollution in boundary waters, and to suggest appropriate preventive or remedial measures.

The first task of the Commission was - as it always has been in reference cases under Article IX of the Treaty - to select and solicit the services of qualified experts from both sides of the boundary, usually from the civil services, to define the fields of research and conduct the investigations, under the constant supervision of the Commission. The investigation itself, carried
out mostly by sanitary experts and engineers, was completed in slightly less than two years. It was essentially a bacteriological study of the boundary waters from Rainy Lake to the St. Lawrence River, from which more than 17500 water samples were taken and examined. Several sessions with the experts took place, a series of public hearings were held, and two interim reports were issued, all of which led to the final report, published by the Commission in September, 1918.

According to that report, inter alia,
a) most the rivers from the Rainy River to the St. Lawrence River (and part of the St. John River) were polluted and unfit for drinking without prior treatment;
b) The Great Lakes were seriously polluted at the mouths of rivers flowing into them, around major urban areas, and in shipping lanes, but other than that they were for the most part almost absolutely pure;
c) pollution was "very intense along the shores of the Detroit and Niagara Rivers"; 4
d) pollution was due, to a large extent, to the disposal of raw sewage into the rivers by riparian communities as well as shipping vessels;
e) the extreme pollution of some of the boundary waters was definitely the cause of the unusually high occurrence of typhoid fever in the Great Lakes area;
f) "conditions exist which imperil the health and welfare of the citizens of both countries in direct contravention of the Treaty."\(^5\)

The recommendations in the report contained "specifications as to the kind, location, cost, operation and maintenance of sewage purification plants and other remedial works."\(^6\) In addition the Commission advised that it be invested with jurisdiction to regulate the prohibit the pollution of boundary and cross-boundary waters.

In consequence of the report the two Governments, in 1919, asked the Commission to draft either reciprocal legislation to be enacted in the two countries or an appropriate treaty. A convention\(^7\) was formulated with the help of representatives of both governments and presented to them in 1920.

With the introduction of chlorination into municipal water systems around that time, the effect of which was the radical decline of typhoid fever, large scale investments in waste treatment facilities were no longer deemed necessary, especially since there seemed to be an unlimited supply of pure fresh water. Thus, though the Canadian Government approved the Commission's draft convention in 1921, negotiations continued only half-heartedly, with the U.S. Senate producing a counter-proposal in 1926, until the stock market crash terminated the issue in 1929.
3. Of the eight pollution references dealt with by the Commission up to 1964, the other one of considerable importance to the development of pollution control in the Great Lakes, and indeed to pollution control in general, is the Connecting Channels Reference. In 1946 the two Governments requested that the Commission inquire into the degree of pollution of the St. Clair River, Lake St. Clair, and the Detroit River; later that year the reference was extended to include the St. Mary's River. The Niagara River was added by separate reference in 1948.

The investigations in this case were carried out by a Board of Technical Advisers appointed by the Commission. Physical and chemical as well as bacteriological analyses determined the amount of domestic and industrial wastes in these receiving waters along the shores of which industrial and population explosions were having to be digested.

The Report, submitted in late 1950, stated that the connecting channels examined were in a severely polluted state, resulting mainly from domestic sewage, and industrial waste discharges, and requiring immediate action. The recommendations of the Commission marked a major innovative step in the development of pollution control measures, the main principle of which was later to be incorporated into various legal provisions, among them the U.S. Water Quality Act of 1965, the Canada Water Act of 1970 as well as the Great Lakes Water Quality Agreement of 1972.

The two Governments were urged to adopt specific Water Quality Objectives, "technical criteria to be met in order to maintain the waters in a satisfactory condition." The appointment of a
pollution control advisory board for the Superior-Huron-Erie connecting channels and one for the Ontario-Erie connecting channel to assist the Commission in the active surveillance of the pollution abatement measures in the respective channels were also recommended.

These recommendations were approved by the two Governments and subsequently incorporated to a greater or lesser degree in the respective legislations.

The Commission was asked by the Governments to continue to monitor the pollution of boundary waters through International Boards of Control which it was to appoint. It was to notify excessive polluters of their wrong-doings and - in the absence of adequate assurances of remedial intent- to make appropriate recommendations to the responsible authorities. Although the objectives were not being fully complied with in all parts of the Connecting Channels, the Commission could, however, soon note a marked improvement in the quality of those waters. For example, eight years after the Governments had approved the Objectives the total daily discharge of wastes from all industries had been reduced from 13000 to 2500 pounds of phenols, from 9000 to 4000 pounds of cyanides, from 18000 to 2500 gallons of oil, and from 3.1 to 1.6 million pounds of suspended solids. Still, as the Commission noted in 1970, its water quality objectives were not being met in all the necessary areas "because
the responsible authorities and industries have not provided sufficient treatment facilities to keep pace with the population growth and with industrial expansion."

During the 1950's and early 1960's though, the quality of the water in the two lower lakes, Erie and Ontario, was deteriorating rapidly, despite the efforts being made with regard to the connecting channels.

II
1. By 1964 the progressively increasing state of decay in the waters of the lower lakes, particularly Lake Erie, became so obvious that it could no longer be neglected or treated light-heartedly. Public pressure, especially in Ontario, and calls from the State of New York finally prompted the two federal Governments to refer the problem to the International Joint Commission. Thus, on October 7 of that year identical letters of reference were transmitted to the two national sections of the Commission requesting it to examine and report on - including making such recommendations as it deemed necessary - the origins and extent of pollution in Lakes Erie and Ontario and the international section of the St. Lawrence River.  

In 1969 a serious oil pollution incident off the coast of California, caused by an oil rig in the Santa Barbara Channel prompted the two governments to request the Commission also to
look at the potential effects of proposed drilling in the Canadian section of Lake Erie, within the existing pollution reference of 1964.

The Great Lakes, with the connecting channels, are the largest fresh water system in the world, containing almost one fifth of the world's supply of fresh, liquid surface water. They have a total area of approximately 96,000 square miles of which nearly two thirds are within the U.S. territory. Per annum they provide a shipping route for more than 350 million tons of cargo and power in excess of 50 billion kilowat hours. Of the 26 million people living in the Great Lakes Basin, seven million live in Ontario, about 90% of the province's population; the lakes are the source of 70% of the water used by 600 communities in the province. One fifth of the United States and half of the Canadian gross national product comes from this area.

Approximately 1000 miles of the international boundary between Canada and the United States runs through the Great Lakes.

Lake Erie has a surface area of 9900 square miles and a volume of 110 cubic miles. It has an average depth of 58 feet, with a maximum of 210 feet. Lake Ontario has a surface area of only 7500 square miles, but a volume of 393 cubic miles. Its average depth is 276 feet, its maximum 802 feet. The International Section of the St. Lawrence River - extending for a distance of 112 miles from Lake Ontario to Cornwall - varies in width from one to four miles.
The scope of the Commission's investigations is outlined in the final report. An impression of the magnitude of this inquiry can already be gained from these few facts: Two boards were established to edit pertinent information already gathered by agencies within the respective jurisdictions of the two nations, and to conduct other necessary research together—the International Lake Erie Water Pollution Board and the International Lake Ontario/St. Lawrence River Water Pollution Board. The Board's investigations alone totalled approximately 450 man years of work. Altogether, 600,000 samples were taken and analyzed by the various agencies involved. Several series of public hearings were held on both sides of the border. The Boards issued ten semi-annual reports, and the Commission submitted three interim reports prior to presenting its final one.

The Board's investigations were and are probably still "the most extensive water pollution study to be undertaken anywhere to date." They involved the "concerted efforts of twelve agencies from two sovereign nations and five other jurisdictions." 

2.

a) Although more than six years elapsed from the time the Commission received the reference until it published its final Report, substantial results of the inquiry were emerging far sooner. In its first interim report, published in December 1965, little more
than a year after the probe was initiated, the Commission identified phosphorus as the prime catalyst of the accelerating deterioration of the lower lakes, particularly Lake Erie, and advised the responsible Governments to take appropriate remedial action as soon as possible. These findings were not quite expected by the Governments, and the recommendations caused some grievances, particularly in the United States, the result of which was that there was no immediate official positive reaction thereto. Then, in 1970, Canada unilaterally regulated the maximum allowable concentration of nutrients in detergents, pursuant to the (then) newly enacted Canada Water Act. These regulations were revised, limiting nutrients in detergents still further in 1972. In 1971 the U.S. government was still discouraging the limitation of phosphorus in detergents, although some of the riparian states had already followed Canada's example.

The second interim report, released in August 1968, was essentially a progress report. The third interim report, dated April 1970, was submitted to the two Governments because the Commission deemed it necessary to draw their attention to what it considered urgent pollution problems: potential oil pollution, eutrophication and pollution from watercraft. The report contained six recommendations to be carried out as soon as possible. The essence of this report was later embodied in the final Report, submitted to the two Governments on December 9, 1970.
b) In its final Report the Commission found, inter alia, that:

- "the waters referred to... are being seriously polluted on both sides of the boundary to the detriment of both countries and to an extent which is causing injury to health and property on the other side of the boundary;" 30

- "the polluted waters are lakewide in extent; that the two principle causes are wastes discharged by municipalities and industries into the ...waters and their tributaries; and that pollution is taking place in all jurisdictions which share these boundary waters;" 31

- "the remedial measures include the adoption and adherence to this Commission's General and Specific Objectives 32 as a matter of urgency; immediate reduction of the phosphorus content in detergents; the prompt implementation of a vigorous programme to provide the necessary municipal and industrial waste treatment facilities..." 33

- "the safety requirements and procedures applicable to drilling and production operations in Lake Erie...if effectively supervised and properly enforced, are adequate to prevent oil escaping into the Lake so as to produce serious transboundary oil pollution conditions;" 34

- "the current methods of confining, removing, dispersing and cleaning up a major oil spill that may occur from any source are primitive and inadequate." 35
Of the Report's several remaining conclusions, the most outstanding one noted a lack of adequate national and international contingency plans.

Twenty-two specific recommendations for action by the two Governments and other jurisdictions within the respective countries were made, among them being that

- the Water Quality Objectives be jointly adopted by the two Federal Governments and recognized by Michigan, Ohio, New York, Pennsylvania and Ontario as the minimal basis for the establishment of standards for the waters in question, and

- that an agreement to implement the suggested Objectives be concluded between the two Countries, and that the Commission be given "the authority, responsibility and means for coordination, surveillance, monitoring, implementation, reporting, making recommendations to governments ... and such other duties related to preservation and improvement of the quality of the boundary waters of the Great Lakes - St. Lawrence System..."36

III

1.

a) Canadian and United States officials first met to consider Great Lakes water quality measures in the spring of 1969, soon after the release of the two Great Lakes water quality board's summary reports. Formal discussions, however, did not get under way until June 1970, though still half a year before the final
Report was published. On June 23, 1970 the first Ministerial Meeting dealing with pollution in the Great Lakes was convened at Ottawa, mainly to consider joint measures in response to the Commission's third interim report. It was attended by high-level representatives of federal, provincial and state governments. At that time, however, the representatives of the U.S. federal government did not accept the Canadian proposal, in line with the Commission's recommendations, to conclude a formal water quality agreement with regard to the Lower Lakes. A Joint Working Group, composed of senior officials from the governments taking part in the meeting, was established to ponder appropriate measures and to report to a second Ministerial Meeting.

The following year was one of considerable activity in both countries, related, to a greater or lesser extent, to Great Lakes water quality. In August 1970 the Canadian Government effected its first phosphorus regulations. New York State, Michigan and Indiana followed suit soon afterwards. In September the first Great Lakes Environmental Conference was held in Toronto, primarily involving Ontario and Great Lakes riparian states, the representatives of which emphasized the need for an international agreement. An Action Committee was established and assigned supervisory and information exchange functions which, it was hoped, would soon be transferred to the Commission. In October the Environmental Protection Agency was formally created in the United States; the Environmental Protection Act increased U.S. federal control over
pollution. In Ottawa, a similar consolidation of environment related departments and agencies was taking place, culminating in June 1971 with the institution of the federal Department of the Environment. In December 1970 the Commission's final Report was published. It was reviewed in depth by government officials on both sides of the boundary.40.

By the time the second Ministerial Meeting was held in Washington on June 10, 1971, the American federal government had changed its attitude towards a water quality agreement for the Great Lakes. The overwhelming evidence presented by the International Joint Commission, the Joint Working Group, the Great Lakes Environmental Conference and the Action Committee, as well as public pressure,41 all basically advocating the agreement, as proposed by the Commission convinced the U.S. government of the importance of such an accord.

b) Formal negotiations did not get started until the autumn of 1971, slowed somewhat by U.S. officials owing to their administration's discouragement of government phosphorus controls. Nevertheless, both sides fully appreciated the significance of what was at issue, the basic principles of the accord had already been agreed upon, and the first full negotiating session took place on December 14, 1971.

The main problem to be overcome was the result of the American insistence on an "executive agreement". Under the Constitution of the United States international treaties require the consent of the Senate, without which they cannot become the law of the
land after ratification by the President. The vast and ever-increasing number of international commitments made by the United States have led to the development of "executive agreements," valid international agreements on a lower level of importance than regular treaties (they are) concluded on behalf of the United States by the President, without Senate approval. The bypassing of the Senate, however, precludes the President from concluding any executive agreement, in which the United States is positively committed to making payments of any kind, these needing Congressional approval. It is thus obvious that an executive agreement can generally not be of as great a value to a party contracting with the United States on a matter involving the expenditure of money.

The American negotiating team insisted that such an executive agreement best served the existing situation, for bringing a treaty into force, if, indeed, it were possible at all, would take much longer than the parties could afford to wait. An executive agreement could come into force on the day it was signed.

Such an agreement can, of course, provide United States negotiators with a convenient means of either committing themselves to a far lesser degree than would normally be called for, or of receiving a firmer commitment for a lesser one in return, or even both. In the case of the water quality agreement negoti-
ations, however, the argument appeared cogent; because the Great Lakes directly affect a greater proportion of Canadians than Americans. A Great Lakes clean up scheme large enough to provide a reasonable chance of success was by no means certain to be approved by the U.S. legislators, many of whom were not interested in the Great Lakes and would probably have resented having to give the Great Lakes funding priority over some of their local projects to which they had already committed themselves.

Another deterrent on U.S. inclination toward accepting precise and broad-reaching obligations concerning the abatement of pollution in the Great Lakes was a major revision of pertinent federal legislation that was being prepared at that time. Consequently the U.S. negotiators strongly advocated an agreement every commitment of which would expressly be "...subject to the appropriation of funds by Congress..." After some strong reactions to this position by the Canadians, who questioned the basic value of such an agreement that - to them - was bare of any substance for lack of a firm unequivocal commitment, a compromise formula was eventually found, with the appropriation reservation appearing only once towards the end of the Agreement, followed immediately by a commitment to seek
- the appropriation of the required funds,
- the enactment of necessary legislation, and
pertinent State and Provincial cooperation. In this way the reservation assumes a much less prominent position in the structure of the agreement and though it remains extant its impact is distinctly reduced.

The constitutional problem Canada had been faced with in this connection, that of securing Provincial cooperation for its international commitments, had already been resolved. Fortunately, there was only one Province that Ottawa had to contend with:

On August 13, 1971, the governments of Canada and Ontario signed the Canada-Ontario Agreement on the Quality of Water in the Great Lakes. The purpose of the Federal-provincial agreement was not only to procure the provincial government's support for the planned international Agreement, but also to reach a consensus on and make provisions for its implementation. Negotiations were not easy initially, partly because of inherent suspicions of jurisdictional selfishness on both sides. These suspicions were primarily overcome by each party's making virtually all records, files and other documents available to the other side. Cooperation between Canada and Ontario has, incidentally, improved still further in the field of environmental control since the federal Ministry of the Environment established offices for a small part of its operations in the Ontario Ministry of the Environment in Toronto.

The agreement contains mutually accepted general as well as specific water quality objectives based on the Commission's 1970
Pollution Report. The essence of the agreement, however, is Ontario's pledge to accelerate construction of sewage treatment plants in the lower Great Lakes basin, the total cost of which was estimated to be $250,000,000, for which, in turn, the federal government promised to make up to $167,000,000 in loans under Part VIII of the National Housing Act available to the province. In addition, the federal government agreed to grant Ontario up to $3,000,000 under the Canada Water Act to pay for half of the province's municipal pollution abatement research costs, if they were approved by the Board of Review. The Board of Review, consisting of three officials from each of the two parties, was established to "monitor and report to the parties on the application of this agreement..

The parties agreed to amend their legislation, where necessary, to fulfill their obligations under the agreement, which was to expire on December 31, 1975.

The final text of the Agreement was agreed to in March 1972 and signed by the two heads of government and their foreign ministers at Ottawa on April 15, 1972.

The International Joint Commission was not involved with the events leading up to the Agreement at all. It neither took an active part in the negotiating process, nor was it, in spite of its expertise, invited to assist the negotiating teams in an advisory capacity. It is doubtful, however, whether this seeming
neglect of expertise, regrettable though it appears to be, had an appreciable negative effect on the end result, for as has already been suggested, albeit in a slightly different connotation, many of those persons bearing responsibilities in the various steps of the process leading up to the final text of the Agreement had taken part in the joint research and other activities carried out under the auspices of the Commission in response to the pollution reference of 1964.

Thus, despite the Commission's absence from the negotiating table many of its recommendations which were, in fact, the constant guide of the negotiators, did reappear in the Agreement. Nevertheless, the Commission did not see the final text until the day before the Agreement was signed and was therefore, contrary to some expectations, not equipped to assume its new responsibilities immediately.

2.

a) The quintessence of the Great Lakes Water Quality Agreement is found in the eighth paragraph of the preamble, in which the Parties affirm their conviction that the quality of the Great Lakes water can best be improved through

- "the adoption of common objectives" (dealt with in Article II - IV of the Agreement),
- "the development and implementation of cooperative programs and other measures" (Article V), and
"the assignment of special responsibilities and functions to the International Joint Commission" (Article VI - IX). 58

The general water quality objectives set forth in the Agreement are, in substance, identical with those proposed by the Commission, with but very few changes in the wording. The Commission's recommended specific water quality objectives were modified slightly, though not to any appreciable extent.

Similarly, most of the cooperation schemes and programs recommended by the Commission were adopted by the Parties. The most significant difference relates to the problems posed by eutrophication. The U.S. government was not prepared to give up its opposition to limiting phosphorus contents in detergents which, as has been mentioned before, Canada had already started doing in 1970. Hence, only the development and implementation of municipal sewage treatment programs and regulatory measures designed to reduce the amount of phosphorus in waste discharges were agreed to, the question of whether or not to restrict the amount of phosphorus permissible in detergents being left to the discretion of the Parties.

A noteworthy feature of the structure of this Agreement is its inherent flexibility. Amendments to it and the annexes are possible, upon agreement of the Parties, which is not unusual.

Some annexes, however, may be modified by a simpler procedure. Annex I, for instance, which sets forth the specific water quality
objectives, enables valid amendments to be made to it by way of an appropriate recommendation of the Commission to the governments and the subsequent "receipt by the Commission of a letter from each Party indicating its agreement with the recommendation."\(^{68}\)

Whereas the Boundary Waters Treaty refers only to the pollution of boundary waters\(^{69}\), from which tributary waters, inter alia, are expressly excluded\(^{70}\), the tributaries of the Great Lakes are definitively covered by the Great Lakes Water Quality Agreement, where the "Great Lakes System,"\(^{71}\) to which the Agreement applies, comprises the five Great Lakes with their connecting channels, the International Section of the St. Lawrence River, and the tributaries of these waters. It is furthermore expressly stated in the Agreement that the pollution abatement programs and measures should be designed to include tributary waters where necessary or desirable.\(^{72}\) Considering that the unrestricted validity of the Treaty is confirmed in the Agreement\(^{73}\) one might be led to suspect - with regard to Great Lakes tributary waters - an inherent contradiction in the Agreement. However, tributaries are therein not treated as a separate class of waters but rather as ancillary to boundary waters, the latter undoubtedly falling under the pollution provision of the Treaty. Therefore, despite the fact that the wording of the Treaty appears to preclude an implicit extension of its provisions to include tributary waters per se, which would also have to apply to the provisions of the Agreement, it does
appear possible to include tributary waters in any arrangement designed to minimize the pollution of boundary waters, especially if measures aimed only at boundary waters would not likely produce the desired or necessary results. Such is the case with the Agreement and the pollution of the Great Lakes.

The provisions in the Agreement that refer to tributary waters are thus not contrary to the Boundary Waters Treaty and, consequently, not to the remainder of the Agreement either.

From all this it is not difficult to endorse the opinion that the Great Lakes Water Quality Agreement is but a gloss on the pollution clause of Article IV 2 of the Boundary Waters Treaty. It may be pointed out, incidentally that this is the first attempt at U.S.-Canadian water quality management on a basin-wide level.

Despite the far-reaching degree of cooperation promulgated by the two Parties through the Agreement, it would be wrong to assume that they have thereby "pooled" their water resources. On the contrary, they have unequivocally asserted "the rights of each country in the use of its Great Lakes waters" (emphasis added) in the preamble of the Agreement.

In one instance the preamble appears to be suffering from some inconsistency. There is twice mention of restoring and enhancing water quality in the Great Lakes System; as well, the
Parties stress their intention of "preventing further pollution of the Great Lakes System" and refer to the best means for achieving improved water quality in the Great Lakes System. The second one of these phrases, preventing further pollution, is superfluous because restoring water quality is inconceivable without first stopping pollution from increasing, i.e. preventing further pollution. To avoid possible confusion it should have been omitted. This also applies to restoring and enhancing water quality, which sounds very appealing but is too elusive a phrase to be practicable. Nowhere in the Agreement is there to be found a specific goal, the attainment of which could be said to constitute the termination of the restoration process. Moreover, enhancement could be interpreted to apply to the restoration phase or to designate a phase of further improvement of the waters. Achieving improved water quality is a more neutral expression to which the specific provisions of the Agreement and the Annexes can more easily be attached. It is holistically the most appropriate one here, and for the sake of clarity and concision, it alone should have been used in this context.

b) The Parties have assigned to the Commission, which "shall assist in the implementation of this Agreement," certain
investigative and supervisory responsibilities, with a quasi-administrative impact, in addition to its functions already acquired under the Boundary Waters Treaty. The Commission has been empowered to establish a kind of central Great Lakes Water Quality data bank. It is authorized to

- collate, analyze and disseminate data concerning the quality of these waters and pollution entering them, to be provided by the federal and state/provincial riparian jurisdictions (continuing status quo report)

- collect, analyse and disseminate data concerning the progress made as a result of the programs and measures implemented. A data exchange system between the Commission and the various riparian jurisdictions as well as between the parties themselves is also provided for.

The Commission has been empowered to verify independently the data provided, which demonstrates the Parties' increased faith in its impartiality.

Furthermore, the Commission is to submit progress reports, including appropriate recommendations, to the federal and state/
provincial riparian jurisdictions at least annually; it may, in its discretion, make special reports to the mentioned governments and to the public. Indeed, it is permitted to publish any of its reports or statements resulting from "the discharge of its functions under this Agreement." This, again attests to the Commission's credibility in the eyes of the Parties, as does, to a certain extent the following.

The Commission is to function as a central Great Lakes water quality advisory and coordination agency. It is to advise the various riparian jurisdictions on appropriate measures to be carried out in the fulfilment of the terms of the Agreement, and to coordinate the various programs and other measures as well as research activities. Although this advisory role of the Commission is not an inextricable consequence of its function as a data bank, it does appear logical to give the quasi-neutral and expert advisory role to the organization which collates all the relevant data and which, moreover, has acquired great expertise in the specific field of Great Lakes water quality.

Article VII of the Agreement provides for the establishment of a Great Lakes Water Quality Board to assist the Commission in coordinating water quality surveillance and monitoring compliance with the programs and other measures, and a (Great Lakes) Research Advisory Board to advise on pertinent research activities. The members of both boards are to be appointed by the Commission after consultation with the governments concerned. The Commission is
also empowered to establish a Great Lakes Regional Office. Originally, Canada had wanted the regional office to be instituted by the Agreement, which was, however, opposed by the United States for reasons of funding and appropriation. The office has since been set up in Windsor, Ontario.

A comparison of the provisions outlined above with the Commission's original recommendations reveals that here, too, the Parties almost wholly agreed on what the Commission had suggested. Given the axiom that primary political entities, i.e. governments, constantly seem to endow independent agencies with considerably less authority and responsibility than the latter themselves usually deem essential for their own utility, this degree of consensus between the Commission and the governments might, at first glance, seem somewhat extraordinary. Upon closer scrutiny, however, credible explanations soon emerge - from both sides.

For one, the Commission's two chairmen of the time the Report was prepared and presented, Christian A. Herter, Jr., and Arnold D.P. Heeney, were skilled and politically experienced diplomats who quite obviously knew the political and jurisdictional limits which even a very benevolent sovereign government could not be induced to transcend. In addition, the Commission sought the opinions of the two federal governments on the question of institutional arrangements regarding Great Lakes water pollution abatement before the final Report was released. To conclude therefrom that the Commission, in its Report, was merely echoing the sentiments
of the governments, though, would be to thoroughly misconceive contemporary political realities as well as the Commission's own strategy. While on one hand choosing to present a politically viable concept rather than a puristic one, thereby rendering its acceptance more probable than otherwise, the Commission, on the other hand, does not appear to have hesitated unduly in taking maximum advantage of the opportunities within the given constraints and stretching its possibilities to the limits, as the negotiations leading to the Agreement outlined above, demonstrate.

On the political side it was public pressure as well as a thorough appreciation of the gravity of the issue that eventually convinced competent politicians of the prudence of the Commission's recommendations and ultimately resulted in their being accepted and implemented.  

c) Contrary to some opinions the Great Lakes Water Quality Agreement cannot be regarded as a major innovation so far as the functions and jurisdiction of the International Joint Commission are concerned. Despite the increase of responsibilities it has brought the Commission, it is merely a - admittedly very extensive - further step in a development that began with the Connecting Channels Report, in consequence of which the Commission was first authorized to continually monitor pollution activities. The legal status of the Commission was hardly altered. The Parties did not surrender any additional sovereignty to it. The scope
of its activities within the existing legal framework were expanded. The changes that the Commission underwent due to the Agreement were, for the most part, changes in fact, rather than in law.

IV

a) The Great Lakes Water Quality Agreement of 1972 represents neither an alteration nor a substantial progression in the development of international pollution law, which it does not counteract. Obviously the effect of a bilateral agreement on international law is very limited, and, in addition, the contents of the Agreement are by no means extraordinary. As has already been pointed out elsewhere pollution is a very broad and loose term that has so far defied precise definition. It cannot have been the intention of those who drafted the Agreement to devise or propose such a definition. But a new impulse in this direction was made here in that pollution was circumscribed by means of an extensive and comprehensive set of standards and objectives that can, moreover, be modified without undue constraints, taking account of new factual developments as well as further or more sophisticated research results. De lege ferenda the Agreement in general is neither inconsistent with the Helsinki Rules, nor does it conflict with the Stockholm Principles.

The Agreement is noteworthy alone for showing the international community that such a comprehensive agreement is, indeed, possible.
This might provide some encouragement for states similarly affected, although no two international water basins are alike, some similarities do exist. This would appear to pertain to Rhine pollution, for example, where - to date - but two specialized pollution agreements have been concluded, one dealing with chloride, the other with chemicals.⁹⁹

b) The most important effect of the Agreement on the Commission has been to strengthen its role as the central institutional focal point for all Canadian - U.S. endeavours aimed at minimizing pollution in the Great Lakes area.¹⁰⁰ This has clearly given the Commission a solid foundation in this field, which has enabled it to speak out more vigorously and with greater authority than before with regard to governmental slackness and procrastination in Great Lakes pollution control efforts.

The Agreement has also had a two-fold factual impact on the Commission, the effect of which was a marked expansion of its workload.

First, there is a substantial increase in regular, recurring activities, brought about by the terms of the Agreement. Whereas the Commission was, prior to 1972, primarily concerned with a variety of individual cases with the appendage of a rather unobtrusive control or surveillance board in many instances, it is now having to cope with the continual administration of the extensive additional functions related to one issue, and a substantial one at that.
The annual Great Lakes water quality reports exemplify this considerable increase in volume of business, not to forget the added tasks imposed by the activities of the Research Advisory Board and the unusually large and active Great Lakes Water Quality Board, composed of eighteen representatives of the various riparian jurisdictions. In recent years the head office staff of the Commission's Canadian Section has been substantially expanded, so as to enable the Commission to comprehend and critically review the various reports submitted to it.

Then, the importance of the quality of Great Lakes waters, the large number of people it concerned, and the rapidly increasing public awareness of and interest in the problem, to which the Commission itself contributed through its early reports, led to growing public demands for more and better information on this issue, but likewise on the role and work of the Commission as a whole. The organization has emerged from an almost half-century-long relatively obscure existence to become an institution attracting considerable public attention. Consequently it has been incumbent upon the Commission not only to make its reports and other material available to the public, but also to edit and publish them in such a manner as to make them as comprehensible to a large and diverse number of people as possible, yet, at the same time, as informative as necessary. The first annual report, on its activities in general was published by the Commission in 1975. The second annual report was clearly aimed at the interested general public, containing
a synopsis and appraisal of the Commission's activities.\textsuperscript{105}

A large portion of its public relations work is carried out by its regional office in Windsor, to which its first information officer was appointed a few years ago.\textsuperscript{106}

c) Supplementary to their pledge to jointly review each of the Commission's reports submitted in accordance with the Agreement,\textsuperscript{107} and to consult each other immediately in cases of emergency,\textsuperscript{108} the Parties agreed to "conduct a comprehensive review of the operation and effectiveness of this Agreement during the fifth year after its coming into force."\textsuperscript{109} There is no mention of a joint review, yet the fact that a review is called for suggests that at some stage before its conclusion the results of the at present separately assessing Parties will be pooled to produce a common denominator.

It has been obvious for some time already that the high expectations of the effects of the Agreement held by many, especially in the general public\textsuperscript{110} were not to be fulfilled. The proclaimed date at which the agreed programs and other measures were to be "either completed or in the process of implementation"\textsuperscript{111}, December 31, 1975, soon became obsolete and unrealistic, as far as their being completed is concerned. The Commission, which has continually pointed out areas of concern with regard to the Great Lakes pollution abatement programs,\textsuperscript{112} noted in 1976, that "progress in implementing the terms of the Agreement has been generally slow, uneven and in some cases disappointing."\textsuperscript{113} While the Commission recognizes that sizeable programs for the construction of water pollution control facilities in the Great Lakes Basin are currently in progress in
the United States and Canada, it nevertheless perceives that these efforts must be strengthened and in fact accelerated if the water quality objectives of the Agreement are to be achieved by the end of this century." (emphasis added).

"The cities of Detroit and Cleveland continue to be the two largest sources of municipal pollution in the Basin. The Commission cannot emphasize too strongly, the need to complete these two major municipal projects on the highest level priority base." In the 1975 report sixty-three specific areas were identified as "problem areas", where the water quality objectives were not being met.

Recently the Commission submitted a Special Report to the Parties and the state/provincial riparian governments, in which it gave its views, gained from its experience, on several provisions of the Agreement, so as to assist those concerned in the comprehensive review; it is the best brief evaluation available to date. Inter alia, it states the following:

The basic concept of the Agreement, especially the flexibility of its provisions concerning water quality objectives, has proven to be sound, and its substance need not be altered to accommodate the necessary program modifications. Because toxic substances may pose the most serious of the problems concerning the Great Lakes waters, both Governments should implement their already enacted pertinent legislations without delay. Phosphorus also remains "a major source of concern," necessitating the expeditious completion
and efficient operation of municipal and industrial treatment facilities, particularly at Detroit and Cleveland, as well as the strict limitation of the phosphorus content in detergents used in the Great Lakes Basin. However, caution should govern the use of phosphorus substitutes to prevent them from becoming an equal menace. As funding has, at times, been irregular and resulted in unnecessary delays in program implementations it is suggested that "the Great Lakes Basin activities of the various agencies in each country under the Agreement be included as a line item in their respective budgets, rather than in various categories under the national programs as at present." Program coordination, joint activities, as well as water quality monitoring and surveillance have been found lacking and in need of rigorous amelioration. Nevertheless, on the whole the Commission found that "the concerted efforts of the Governments have in fact resulted in many successes since 1972. The Commission feels that continued efforts over at least the next five year period are vital to the ultimate success of the Agreement." 

By contrast to the high expectations mentioned above those most closely connected with the Agreement's coming into being are the least surprised by its rather modest record. Yet the analysis has, indeed, shown that although a comprehensive pollution abatement project was agreed upon by the Parties, legally the latter merely committed themselves to endeavouring to secure the fulfilment of the Agreement. This, along with the funding reservation would have made it very difficult to establish the liability of a Party,
mainly the United States, at the insistence of which this provision had been inserted for domestic reasons, for breach of treaty. However, because funds were generally appropriated by the U.S. Congress toward water pollution control, under which the Great Lakes also fell, in 1972, neither side could be excused under Article X of the Agreement for any failure to comply with its provisions.

The only definitive short-term commitment of the various ones in the Agreement, is found in Annex 4, where it was agreed to adopt certain vessel waste regulations "within one year from the entry into force of the Agreement." This provision was clearly not complied with by both Parties, as the International Joint Commission was compelled to conclude in its second annual Great Lakes water quality report early in 1974.

Whether or not the Agreement was otherwise violated rests on the meaning of "in process of implementation" in Article V; that the programs and other measures were not completed in time has already been established. This provision is conspicuous for its vagueness. A more concise specification, such as when a preliminary planning stage passes on to an implementation process, should not have been too difficult to achieve. In view of the otherwise precise provisions in the Agreement it must be assumed that this vagueness was deliberate, so as to allow for a certain amount of flexibility should either government, or both, run into unforeseen difficulties. Yet for purposes of legal clarity a line must be drawn somewhere. Making
allowances for the principle 'in dubio pro reo' the minimum requirement still acceptable if the Agreement is to be at all cohesive is that the programs and other measures provided for in Article V, in conjunction with the various annexes, must, at least, be seen to have been dealt with by the Parties in some manner, either by conducting necessary extensive research, by presenting a comprehensive remedial plan or by already taking concrete action. Mere mention of the fact that something is being done with regard to a certain program or other measure, or that the matter is being looked into cannot be deemed adequate. Given this delimitation no further breach of treaty is evident.\textsuperscript{125}

Neither the Agreement nor the Treaty of 1909 contain provisions concerning consequences of breach of treaty. Given that only a minor breach of the Agreement has so far been found to have taken place, and that it has been committed by both Parties, strengthening the assumption that neither of them will be interested in holding the other liable therefore, entering into an analysis of the relevant international law on liabilities for breach of treaty would exceed the scope of this investigation.
PART THREE:

THE RELATIVE SUCCESS OF THE COMMISSION;
A COMPARISON
PART THREE:

In the sixty-five years of the International Joint Commission's existence its services have been called upon in more than a hundred individual cases, with some of which, as has been shown, it has continued to be involved on a more permanent basis. In terms of quantity this is quite an achievement. Yet the preceding pages may have given the impression that, qualitatively, the Commission's record leaves something to be desired. On the other hand, it has so far not been established exactly what can reasonably be expected from such an organization, nor will a completely precise and totally accurate evaluation ever be possible. A comparison with several other international commissions, the main or sole functions of which concern international waters, should afford a better assessment of the performance of the International Joint Commission. For this purpose three other such organizations have been selected for scrutiny, which, apart from their involvement with international waters problems, do not have much in common. This diversity of models is deliberate in order to permit institutional arrangements and performance to be compared separately. The value of the institutional arrangements are not always directly linked to the wisdom of those responsible for producing them. More often than not natural geography plays the decisive role. Still, choices and options are possible and do influence the results.
The organizations to be reviewed and compared with the International Joint Commission here are the U.S. - Mexico International Boundary and Water Commission, the Chad Basin Commission, and the International Commission for the Protection of the Rhine against Pollution.

Emphasis in this investigation will be placed upon
- the kind and size of the water resource(s) to which the attention of the respective commission is directed,
- the objectives of the cooperation and the "substantive obligations"\(^1\) agreed to in each case,
- the structure and functions of each Commission, especially with regard to the state sovereignty principle and means by which areas for potential friction between the cooperating parties can be reduced.

In order to permit a more concise overview the examination of the work of the U.S. - Mexico International Boundary and Water Commission will be restricted to its involvement with the Rio Grande, which has taken up the majority of its time, contrary to what one might have been led to assume in recent years in light of the Colorado salinity issue,\(^2\) and which gives comprehensive insight into its workings. Likewise, the performance of the International Joint Commission shall be primarily gauged from its accomplishments vis-a-vis Great Lakes water pollution, with reference to other aspects of its work where necessary.
I.

1. a) The most senior of the commissions discussed here is the International Boundary and Water Commission of the United Mexican States and the United States of America. It was created, originally, as the International Boundary Commission, pursuant to the U.S.-Mexican Boundary Waters Convention of March 1, 1889. Various U.S.-Mexican commissions had already been in existence since the 1848 Treaty of Guadalupe-Hidalgo. In 1882 the two governments had agreed to create an international commission to be concerned with the boundary west of the Rio Grande. Because the term of this commission was extended several times there existed for several years, just before the turn of the millenium, two international boundary commissions between the United States and Mexico: one (of 1882) "for the purpose of re-surveying and relocating the existing boundary line between the two countries, west of the Rio Grande," and one to settle boundary differences between the two countries along the Rio Grande and the Colorado River. The International Boundary Commission of 1889, however, was the first permanent U.S. Mexican commission, although it also started out with only a five year mandate. But the mandate was extended several times until, in 1900, the two contracting parties agreed that the commission was to "continue in force and effect indefinitely, subject, however, to the right of either contracting
party to dissolve the said Commission by giving six months' notice to the other.\(^{10}\)

The 1889 Convention gives the commission exclusive jurisdiction to examine and decide on "all differences or questions that may arise on that portion of the frontier between the United States of America and the United States of Mexico where the Rio Grande and the Colorado rivers form the boundary line."\(^{11}\) In addition, it is the commission's function to determine the permissibility of works being constructed in either of the two mentioned boundary rivers and, if necessary, to suspend construction thereon. The commission itself is made up of two sections, each consisting of a commissioner, a consulting engineer and other necessary staff.\(^{12}\)

The decisions of the commission on any matter submitted to it is final if not rejected by at least one of the parties within one month after the decision has been pronounced.

b) The International Commission for the Protection of the Rhine against Pollution (Rhine Pollution Commission) has been in existence since 1950. Superseding a salmon commission, it was established subsequent to an exchange of notes, which constituted no more than a basic agreement to cooperate.\(^{13}\) It was not formally instituted, though, until 1963, by the Bern Convention.\(^{14}\)
entered into by the Swiss Confederation, the French Republic, the
Federal Republic of Germany, the Grand Duchy of Luxemburg, and the
Kingdom of the Netherlands. The parties agreed to cooperate in
their endeavours to abate pollution of the Rhine below the lower
lake arm of Lake Constance. Although this commission did have
a predecessor there has also been an international commission for
the control of navigation on the Rhine since 1815, which has con­siderable powers, including its own judicial tribunals.

The parties assigned the following functions to the
pollution commission,

- to prepare, have carried out, and evaluate all necessary
  investigations into the kinds, degrees and origins of
  Rhine pollution,
- to recommend to the parties appropriate measures for
  the protection of the Rhine against pollution, and
- to prepare the foundation for any relevant agreement
  between the parties.

In addition, the commission was given jurisdiction over
anything the parties would, by consensus, refer to it.

The commission is composed of national delegations, each
consisting of up to four delegates, including a chief delegate.
The delegations alternate every three years, on a rotation system,
in assuming the chair of the commission. The delegation in the
chair designates one of its delegates - preferably not the chief delegate - as president of the commission. Decisions must be made unanimously and in the presence of all delegations; a delegation votes en bloc. Cooperation with other relevant international commissions is provided for.

c) In 1964 the Federal Republic of Cameroun, the Republic of Chad, the Republic of Niger and the Federal Republic of Nigeria established the Chad Basin Commission. The purpose of the agreement was to

- provide for the formulation of "principles for the utilization of the resources of the Chad Basin for economic purposes, including the harnessing of the water," and to

- intensify the parties' "cooperation and efforts in the development of the Chad Basin."

The right of each party to develop its part of the Basin was affirmed, subject however, to the limitations of present and future agreements. The Member States agreed not to undertake any measure having an appreciable effect on the waters of the Basin without prior consultation.

The agreement requires the commission

- "to prepare general regulations which will permit the full application of the principles set forth in the
present Convention and its annexed Statute, and to ensure their effective application;
- "to collect, evaluate and disseminate information on proposals made by Member States and to recommend plans for common projects and joint research programmes in the Chad Basin;
- "to maintain liaison between the Member States to ensure the most efficient use of the water of the Basin;
- "to follow the progress of the execution of surveys and works in the Chad Basin as envisaged in the present Convention, and to keep the Member States informed... ...thereon...;
- "to draw up common rules regarding navigation and transport;
- "to draw up Staff Regulations and to ensure their application;
- "to examine complaints and to promote the settlement of disputes and the resolution of differences;
- generally, to supervise the implementation of the provisions of the present Statute and the Convention to which it is annexed.26

The commission consists of two commissioners from each member state, one of whom shall be recommended by the commission
for appointment to the position of executive secretary by the heads of states and governments of the parties. The secretary-general's term of office lasts three years, with the possibility of renewal. The commissioners and the executive secretary enjoy diplomatic status. Decisions must be taken in the presence of at least one commissioner from each member state; they must be unanimous. The commissioners are not independent; they function as instructed and are controlled by national delegates.

Basically the parties have created here a commission with both consultative and executive elements. Disputes unable to be resolved by the commission are to be referred to the Commission of Mediation, Consiliation and Arbitration of the Organization of African Unity, for determination.

2. a) The largest area any of the four commissions was given as the focus of its attention is that of the International Joint Commission: the U.S. - Canadian boundary which is, including Alaska, almost 8000 km long. Moreover, the commission could, under Articles IX or X of the Boundary Waters Treaty, be asked to address itself to a large variety of matters that need not even be restricted to water per se. And indeed, as has been shown, in the sixty-five years of its existence the commission has dealt with a number of diverse issues. But because the single most outstanding problem it has dealt with in recent years was that
of environmental pollution, its Canadian chairman goes so far as to suggest that in the eyes of the general public, it is gradually assuming the role of an international environmental ombudsman.  

The activities of the International Boundary (and Water) Commission are, by comparison, somewhat more modest, both in terms of areal responsibilities and authority, being restricted purely to boundary issues. Its main concerns over the last few decades have been the salinity of the Colorado River and the administration of the water of the Rio Grande (Rio Bravo) for irrigation purposes and flood control.

At the respective times these two commissions were created the delimitation of the water resource sector they were given authority over as well as the scope of this authority (not to be confused with the degree of their powers) seemed entirely adequate in light of the problems then needing solution.

Yet despite the multitude of different problems each of these two commissions might potentially be involved with, the balance of their activities would, initially at least, be no more than the sum of individual activities. In contrast, the founders of the Chad Basin Commission defined both the subject and the object of their common concern, the 'conventional' Chad Basin as the water resource in question and its utilization in a comprehensive and cooperative manner, very broadly. The conventional Basin is an arbitrarily chosen portion, about one-sixth of the
hydrographic Lake Chad Basin. The latter, having an overall area of 2,500,000 sq. km., would appear to be completely unmanageable as a whole; the conventional basin, though still covering the vast area of 427,300 sq. km., seems eminently more suitable for a concerted water resource management effort. In spite of the size of the Basin, this dually extensive approach, basin-wide management as well as comprehensive planning of the uses of the water resource, appears prudent (much more so than if, for instance, the International Joint Commission had been set up to deal with all the boundary waters basins, which could include half of North America) for several reasons:

Lake Chad, a unique body of water, is a very large but very shallow fresh water lake in west central Africa, approximately 12.5° to 14.5° north of the equator, with a seasonally varying area of 13000 to 22000 sq. km. and an average depth of no more than 2 m. It is fed almost entirely by four rivers, the flow of only one of which, the Chari, does not dry up for part of the year. The lake does not discharge any water, most of which is lost through evaporation and transpiration. It reaches its peak volume in December. "The general level of its surface rises and falls by irregular amounts with a variable periodicity. These changes apparently depend upon the combined effect of three separate cycles: first, major cycles of which each comprises an indeterminate number of years; secondly, minor or seasonal
cycles; and thirdly, temporary, wind-induced and tidal cycles."

This easily leads to the conclusion that not even Lake Chad alone, but rather the whole of the Chad Basin is a severely limited water resource. A few uncoordinated unilateral projects could prevent alternative, perhaps equally justified and maybe even more necessary, utilization of the Basin's water resource; they could even jeopardize the ecologically most delicately balanced lake, which would almost surely enlarge the Sahel zone, currently touching the north of the lake.

In this case, therefore, regarding the Chad Basin as a unit to be managed cooperatively seems to lack an alternative. That it is at all possible is owing to the circumstances that thus far hardly any use has been made of basin waters, which, in turn, is owing to the fact that the young African states are just beginning to develop industries in their territories. This, in light of what has been said above about the limited water resources in the Basin, rather than focusing on only a few conceivable uses of its water resources. The fact that "the harnessing of water" is the only use expressly mentioned in the general outline of the aims of the parties does suggest a certain priority, though it is not specified as such; but other uses or the later adoption of other priorities regarding uses are not precluded thereby.
One major problem concerning the Chad Basin Commission seems, nonetheless, to exist, albeit latent at present. This concerns the Chari-Logone River complex; the Logone flows into the Chari a short distance before the latter empties into the lake. 94% of the surface water feeding the lake comes from the Chari-Logone system; more than half of this water originates in the Central African Republic. Thus, this country, though not a lake riparian state, is eminently important for the secure future of any Chad Basin projects. Why the Central African Republic is not a party to the 1964 Agreement could not be ascertained.

The broad approach adopted for the sparsely inhabited and hardly developed Chad Basin is, of course, not so easily taken in a densely populated and highly developed area such as central Europe. For this reason alone it is not surprising that the Rhine Pollution Commission deals only with pollution, and only if it occurs in the Rhine itself. Not only the enormous problems (increasing disproportionately to territorial expansion) that are encountered in integrating a new international agency into the diffuse and densely populated as well as administratively, judicially and, perhaps most important of all, economically sophisticated and delicately balanced state of present-day central Europe, though, suggest the feasibility of the unit of supervision chosen - the Rhine from where it flows out of Lake Constance to
where it flows into the North Sea. This is the area where the bulk of Rhine pollution originates (riparian usage), being caused mainly by industrial wastes and urban sewage. A large portion also comes from waters flowing into the river, but combatting pollution on a Rhine drainage basin scale would be, as has already been implied, virtually impossible owing to the number of jurisdictions involved, each representing a heavily industrialized state. Some tributaries are entirely within national jurisdictions, which virtually rules out international cooperation, for reasons of jealously guarded sovereign rights, while other international waters, such as Lake Constance, the Saar and the Mosel, have their own international commissions concerning themselves with pollution, and with which the Rhine Pollution Commission is, under the Bern Convention, authorized to (and should) cooperate. Moreover, from the viewpoint of controlling pollution to the mutual benefit of all Rhine riparian countries it appears sufficient (though barely) to establish control over the Rhine itself. It is then up to the other national or international agencies to react in accordance therewith. However, the scope of the Commission's activities has not been limited to trans-frontier pollution.

The Rhine is used primarily for navigation, for waste disposal, and as a source for municipal water supplies. The
long-standing and quite active International Rhine Navigation Commission handles navigation; the other two uses are dealt with by the Pollution Commission. Giving the latter added functions concerning the utilization of the Rhine's water resource is, in light of both their insignificance and the organizational difficulties mentioned above, not advisable. Similarly, it seems easier and more effective to have the two Rhine Commissions coordinate overlapping concerns, which primarily involves waste discharges from ships, than to place one commission in charge of navigation and pollution, both of which are entirely different aspects of one water resource and which, with regard to the Rhine in particular, are so intricate and of such a magnitude as to each demand the complete attention of a separate commission.

Whereas the cooperation objective of the U.S. - Mexican arrangement was, in 1889, the settlement of boundary disputes, which, at that time, appeared adequate, the U.S. went a step further with Canada two decades later: the objective there was mainly to prevent disputes (but also to settle them). The objective of the Rhine riparian states is equally clearly stated: to cooperate in their attempts at abating the pollution of the Rhine. The Chad Basin states' objectives are twofold - to develop principles for the utilization of water resources for economic purposes and to intensify cooperation in the development
of the resources - but properly defined in light of the particular political and economic situation of the region, it is especially noteworthy that the basin states did not succumb to the temptation of carrying their cooperation scheme so far as to immediately aim at a relatively federalized institutionalization of their relationship.

It is, therefore, safe to assume that both the unit of management chosen and the fundamental principles governing the scope of cooperation, i.e. the section(s) of the particular water resource which the parties agreed to develop and administer cooperatively, were at the outset suitably determined in the case of all four international arrangements.

The principle of state sovereignty has only been expressly surrendered, and only to a very limited extent, in one of the four cases examined, that of the International Joint Commission, with respect to its authority to approve the construction of work affecting boundary waters. But the Treaty permits the two Governments to set aside the Commission's jurisdiction by means of special agreements, which are defined so broadly as to include almost any pertinent mutual arrangement. Thus this paramount principle of international law has not been weakened or modified, let alone replaced, to any appreciable extent by the international cooperation arrangements examined here.
It might be argued that when creating the International Boundary and Water Commission in 1889 the United States and Mexico did indeed limit their respective sovereignty insofar as certain boundary waters issues were concerned. However, the two parties must, in fact, first agree to submit the matter in question to the commission before it can become involved in the issue, and Article VIII clearly retains ultimate government jurisdiction. The commission's authority to suspend construction of certain works can only be an interim measure; the final decisions are, again, made at the government level.

In general, the only authoritative decisions the commissions are permitted to make pertain to procedural and a few purely technical matters.

The powers a commission has been granted is one factor, though by no means the predominant one, affecting the effectiveness of such a body. Of considerable importance, as well, is the structure of the commission, i.e. its size and the status of its commissioners, as well as the international decision-making process.

Here the International Joint Commission appears to have been given a definite advantage at the outset. First, it has six commissioners, more than the U.S. - Mexican commission has, but less than are on the other two. Generally, the smaller such
an organization is, the more effective it should be. Thus the
wisdom of having a commission consisting of up to twenty persons is very much open to question. On the other hand, chances are that a two-member panel might not ventilate problems and issues as thoroughly as a group of six probably would. The latter can offer a wider range of individual thought as well as a greater variety of professional views and approaches (without, it may be added, assuming the character of an assembly). The Chad Basin Commission also seems to have an almost ideal size - two commissioners from each of its member states. Second, the International Joint Commission is the only one of the four organizations where each commissioner upon assuming office must solemnly declare, in writing, his allegiance to his new duties, thereby stressing his collegial rather than his national affiliations. Another less than optimal aspect of the set-up of the Rhine Commission is the fact that although each member country is entitled to send up to four delegates to serve on it, voting must occur en bloc, which also emphasizes the national ties very strongly at the probable expense of a more cooperative approach that could, in time, lead to a kind of "esprit de corps."

Finally, the prospects for the success of an international commission also depend on the nations involved. Here, undoubtedly, the rule is 'the smaller the better'. In the field of inter-
national relations and law, governed as it is, by the principle of absolute state sovereignty and lacking a coercive system, a decision taken by only majority vote is rarely adhered to by states truly opposed to it. In consequence, decisions affecting several countries, especially those entailing some kind of commitment to positive action rather than just a passive toleration of some other action or a status quo endorsement, must usually be supported unanimously. Most of the time such a consensus can only be reached after time consuming negotiating, hard bargaining and compromising, a process that becomes infinitely more difficult with every additional member at the negotiating table. Yet, though catering to the lowest common denominator (all the more so the larger the commission) unanimity does increase compliance, although there sometimes is the possibility that in the end there will be nothing left to comply with. The two North American Commissions, being only bilateral, have a distinct advantage in this respect over the Chad and Rhine Commissions with their four and five member states, respectively.

The quality of a commission's work will also be influenced by the quality of relations between member states. In 1889 relations between Mexico and the United States were not very bad, but they were not exceptionally good either; a state of belligerency had existed between them only a generation earlier. At the time the Boundary Waters Treaty was concluded, on the other hand, in 1909,
the United States and its neighbour to the north had not been at war with each other for almost a century. In 1963 Europe had barely survived a devastating war the likes of which had not been witnessed for at least three centuries and in which countries, now affirming their intent to cooperate in combatting pollution in the Rhine, had fought viciously against each other a scant two decades earlier. Occasionally, some latent aversions, notably on the part of the French against the Germans, still surface even today. But good working, if not exceptionally cordial, relationships among the Rhine riparian countries are facilitated by close economic ties, (within or without the E.E.C., of which Switzerland is not a member) and long-standing diplomatic and other channels of communication, all of which was almost totally lacking in the Chad Basin in 1964. The countries involved there had just emerged as independent states and had not yet established any notable degree of formal contacts with each other. All they really had in common was their antipathy toward the "European" conventions pertaining to Africa of the time around the turn of the century, which to them were "an unwelcome reminder of the colonial past."

Thus it is not surprising that the Chad Basin agreement has provided for a dispute settlement procedure involving the arbitration commission of the Organization of African Unity rather than, for instance, the International Court of Justice.
Another distinct advantage the International Joint Commission had over the other commissions from the very beginning was that it was the only such body the sponsoring states of which basically spoke the same language and had very similar social, cultural and economic backgrounds. This tends to facilitate communication between the parties as well as enabling a better general appreciation of each other. Common denominators can thus be more easily found. France and Germany, for instance, have cultural and linguistic differences; Mexico and the United States differ linguistically, culturally and economically, as do the Chad Basin states, albeit with greater economic disparity: Niger and Chad are extremely poor with hardly any potential for development, Cameroun is rather well-to-do and has a reasonably developed infrastructure, while Nigeria is one of the wealthiest nations on the continent.

In conclusion the International Joint Commission was at the outset, for a variety of reasons, in a markedly better position to succeed in what it was set up to do than were the other three commissions, even the two most recent ones. It will now have to be examined whether or not this "head start" has led to the appropriate performance record.
II. a) The youngest organization under scrutiny here, the Chad Basin Commission is multilateral, which, as has been shown, is not due to its time of creation, but to hydrography and political boundaries. So far as can be determined, the commission has only a modest record to its credit to date, which is not at all surprising, given its age and the fact that it was neither created to, nor has it since been called upon to deal with any serious problem that might have demanded immediate, perhaps even radical action. It does not exist as a response to certain concrete problems, but rather, inter alia, to anticipate them and prevent them from assuming major proportions. In 1973, the commission was, for instance, able to report that "pollution of international waters does not at the present time constitute a serious problem for the Lake Chad Basin Commission." One of the greatest difficulties the commission has had to cope with is its own lack of expertise, a dilemma that pervades newly independent Africa. Thus most of the commission's studies were conducted by or with the assistance of United Nations agencies. Lack of funds, both on the part of the countries involved and, subsequent thereto, on the part of the commission, which, moreover had to have all extraordinary expenditures specially approved, added to its difficulties.

As a result of these factors the commission, in its very early
years did little other than carry out research, usually initiated and supervised by the FAO. In 1972, however, the Heads of the member states, meeting for the first time since the signing of the 1964 Convention and Statute, established - by Agreement - the Lake Chad Basin Commission Development Fund. The commission does not appear to have played a significant role in the preparation of the agreement. The fund, into which each member state agreed to pay 1/1000th of its national annual budget, within the range of $30,000.00 to $750,000.00 per annum, was designed to finance the commission's development projects. This gave the commission added impetus and enhanced its standing. An amendment to the 1964 agreement authorized the commission to negotiate external loans. In addition to its research work, it now assumed a more active role with regard to the development of the Basin. In 1976 the commission was directly concerned with projects such as agricultural development centres (for the training of peasants in modern methods of agriculture) and livestock development projects, as well as being active in the fields of fishery, reforestation, road development, telecommunication, and trade promotion. Most of these endeavours are not specifically mentioned in the 1964 Agreement, but they can be said to fall within its general provisions. Recently the FAO was instrumental in the preparation of a draft agreement on water utilization and conservation in the
Chad Basin; it is based on the principle of equitable utilization.68

Because the Chad Basin commission has done so little entirely on its own a direct comparison of its performance with that of the International Joint Commission is hardly possible. Nevertheless, a general impression of the commission does emerge.

From the information available69 it appears that, although not yet firmly established on the central African scene as a permanent and indispensable institution with an identity of its own through a record of continuous performance in certain specific fields of work, the Chad Basin Commission is, by taking a small step at a time, slowly gaining a firm foothold in the region it was set up to serve. Young, undeveloped African states are generally unwilling to surrender even small and unimportant parts of their recently acquired and sometimes hard fought for sovereignty in favour of international cooperation agreements. This commission may possibly encounter that problem in the future, as it increases its activities and thereby becomes more involved with national policies, but as yet it has not suffered from it.

By its very existence it has increased foreign aid possibilities.70

It is thus apparent that the development of this commission has taken a different turn from that of its U.S. - Canadian
counterpart. The International Joint Commission is as closely involved with water as it ever was, whereas the Chad Commission has moved away somewhat from solely concerning itself with matters directly related to water; it also serves as a catalyst for action resulting from external assistance, a role with which the International Joint Commission should not need to concern itself in the foreseeable future. The shift in priority of activities which this African commission has achieved within the terms of the treaty setting it up, and in a relatively short time at that, displays a certain similarity to the U.S. - Canadian commission's change in emphasis from work primarily protecting the navigation of the Great Lakes system to its current preoccupation with environmental aspects of these water resources, also within the terms of its constitutive legal instrument, the Boundary Waters Treaty.

Still, a true comparison between these two bodies will not be fruitful, and should therefore be postponed, until such time in the future when the Lake Chad commission will function fully independently. 71

Here, however, a caveat is in order: The Chad and Cameroun, in addition to being parties to the Chad Basin agreements, have established a bilateral Logone Basin Commission primarily to deal with hydraulic problems of common interest. 72
This commission has, inter alia, already been involved with a feasibility study of constructing two storage dams for flood control, irrigation and electricity generation. Given the lake's dependence on the water it receives from the Logone River, the existence of these two commissions, should their work not continually be closely coordinated, could lead to grave conflicts between Chad and Cameroun on one hand, and Niger and Nigeria on the other. That need not, and should not happen.

b) A considerably more beneficial comparison is possible between the other relatively new organization under scrutiny here, the Rhine Pollution Commission, and the International Joint Commission, basically because they operate in highly developed areas and are, at present, both concerned with water pollution.

Whereas the Chad Basin Commission, for instance, virtually had to start from scratch in a largely undeveloped area, which confronted it with specific difficulties, the problems facing the International Commission for the Protection of the Rhine against Pollution are, to a large extent, of almost exactly the opposite nature: the very problem it was set up to solve was a direct result of overdevelopment. Broadly stated its initial task was one of coordination rather than of initiation. This would involve the coordination firstly of research, then of current activities,
and ultimately of measures deemed feasible (i.e., necessary as well as possible) for the attainment of the set aim: a substantial reduction of pollution in the Rhine. To the last of the aspects mentioned above would be added the task of initiating proposals of its own that would be relevant to Rhine water quality.

Since 1953 the commission has been gathering, editing and evaluating the Rhine water quality data transmitted to it by the various national sampling and testing stations situated along the river. The results are reported to the national governments and published annually. To make the results comparable uniform methods of analysis were first developed by a committee established by the commission.

In the early 1970's the commission began preparing an agreement for the reduction of chemical wastes in the Rhine (chemicals agreement) and, later, a separate one for salt reduction (chloride agreement). Progress however, was extremely slow, and it wasn't until the member states governments, late in 1972, agreed to meet regularly, at least annually, on a ministerial level, in order to expedite agreement upon and adoption of the necessary measures to combat the increasing pollution of the rivers, that some headway was made. Still, after two such meetings, one in October 1972 and the other in December 1973, there was a major impasse, which resulted in
continued postponement of the next ministerial conference. During that time the commission was asked to work out and recommend compromise solutions to various unsettled single issues, but agreement within the commission could not be reached. The ministerial meeting eventually took place in April, 1976, to be followed by another one a few weeks later, at which the major controversies regarding the two mentioned agreements were settled. The two final drafts were approved by the commission in July 1976 and signed by the governments in December of that year, along with an additional agreement granting commission membership to the E.E.C. The agreements are considered by many experts to be inadequate and too weak to have an appreciable effect on Rhine Pollution.74

At their first meeting in 1972 the ministers requested the commission to draw up a long-range pollution abatement program, arranged in order of priorities, to serve as a guideline for the governments. This program, containing detailed information on the present state of the river as well as the commission's long-range task program, was published in 1976. It is a conservative document that hardly contains anything not already known. The commission was, in 1972, also asked to recommend to the ministers, at their next meeting, in what ways its structure and modus operandi could be changed so as to render it more
effective. It was unable to comply with this request within the allotted time, so that the ministers agreed to augment the number of clerical staff in the commission's head office in Koblenz, a measure designed to accelerate the commission's performance.

The commissioners are usually high-ranking national civil servants delegated by their governments to serve on the commission in addition to performing their regular duties.

This synopsis suffices to reveal that the Rhine Commission has achieved but little since its formal incorporation, and if the initial years of its unchartered existence are not discounted its performance has been abysmal. One of the main reasons for creating the commission in the first place was to curb the - then already - menacing increase in the river's salinity. Yet from 1950 to 1970 the increase was greater than before, from 180 kg/sec to 365 kg/sec, a far cry from retaining a status quo, let alone achieving a decrease. Within that same time the commission did not seriously consider having thorough investigations carried out to determine the precise origins and causes of the various pollutants, nor did it in earnest attempt to establish a communal means of data gathering and evaluation beyond the above-mentioned initial, even then no more than cursory steps taken before 1953, which in no way have kept abreast of production developments that have occurred since that time. It is, therefore,
not surprising that in recent years the commission has only made such general and imprecise recommendations to the governments concerned as:

"The International Commission for the Protection of the Rhine against Pollution recommends to the participating governments that, pending a mutually acceptable regulation of the permissible thermal capacity of the Rhine, they take the necessary steps, when planning and constructing works that discharge heat into the Rhine, to ensure that these works can be modified to comply with such requirements as will be agreed upon."\(^78\)

Or: "The International Commission for the Protection of the Rhine against Pollution recommends that new waste treatment facilities be constructed in such a way as to permit the incorporation of the third cleansing stage (phosphate elimination)."\(^79\)

By contrast the International Joint Commission has performed relatively well. This striking dissimilarity in effectiveness appears to stem from a cumulation of several diverse causes.

The locations of the states involved in relation to the respective waters give the International Joint Commission a two-fold extrinsic advantage: Only two countries share the resources of the Great Lakes, whereas five countries (and now the E.E.C.) are involved with the Rhine Pollution Commission.\(^80\)

Furthermore, the problems posed by the Great Lakes to the two
countries are similar because the common boundary runs pretty well through the middle of the waters. The situation along the Rhine is considerably more complicated. Germany borders on all the other member states: the river is a boundary water between itself and France and Switzerland, but it is also a vital internal waterway. It is not a boundary water between France and Switzerland or between Germany and the Netherlands; it is a cross-boundary water with regard to the latter two countries. The Netherlands do not border on France or Switzerland, but being the lowermost riparians the Dutch are, of all the peoples involved, the hardest hit by the serious state the river is in.

This leads, not without a certain degree of logic, to another aspect: there is much more confusion among the parties to the Bern Convention of 1963 concerning their rights and obligations under international law in general, impeding cooperation considerably, than there is among Canada and the United States in this respect. Difficulties between the latter two countries concerning the law of international boundary waters have arisen only over the validity of the Harmon doctrine which, however, was not as problematical as may seem at first glance, for the waters affecting the common boundary flow so as to permit both countries to base respective claims on this doctrine. In time both countries have grown to appreciate this fact, so that its importance has dwindled accordingly. It does not play a role in the Great Lakes water quality
problems. The Rhine riparian countries, on the other hand, each appear to have adopted the views most suited to their geographical position with regard to the river. To complicate matters further, the official statements of some of the representatives of some of the countries concerned lack consistency. \(^{82}\)

It might be assumed that the Rhine pollution commission has an advantage over its U.S. - Canadian counterpart in that it is concerned with only one major aspect of the water resource as a whole - its quality. But even if this be the case, the commission has certainly not been able to capitalize on it so far, as much because of the policies of the member states as because of the attitudes within the commission itself.

While Canada and the United States have given their joint commission some, albeit limited, powers, the Rhine riparian countries have not seen fit to give even a most minute portion of their sovereign rights over to the commission. \(^{83}\) Such a step would, for one, be contrary to the Swiss paramount doctrine of absolute neutrality (i.e. non-alignment). \(^{84}\) Of considerably greater consequence, though, is the economic situation in Europe. The market there is so highly competitive and the national economies so very much export oriented that no government would wish to, or indeed, dare to, take initiative action for fear of placing some of its industries at a disadvantage, which could lead to grave economic
and political consequences on the domestic scene. This quasi stalemate is caused less by deep ethnic distrusts or resentments of each other - the countries involved appear to have developed a good, largely unemotional, working relationship with one another - than normal caution dictated by stiff competition. This, of course, can, and in this case does, lead to the politicization of almost every issue, instead of being the other way around, which would facilitate progress considerably. Such problems hardly exist in Canada-U.S. relations. Here too, there have certainly been boundary waters disputes resulting in protracted, laborious negotiations, the most notable of which preceded the Columbia River Treaty. But these substantial controversies usually arose 'only' out of a mutual fear of being taken advantage of, without the pressing competitive connotation, and when they were eventually solved, the reports of the International Joint Commission were always of value, as a catalyst, if nothing more.

In addition, the parties to the Rhine pollution commission have not yet assumed any basic or substantive obligations towards the reduction of pollution, whereas the United States and Canada at least agreed to the pollution provision in Article IV of the Boundary Waters Treaty, which has subsequently been given substance by the Great Lakes Water Quality Agreement. It is therefore, hardly surprising that the discussions of the Rhine
pollution commission did not lead to much, suffering, as they were, from lack of foundation and direction.  

As regards the commissions themselves, their structures and their methods, the superiority of the International Joint Commission is only too obvious. This is, not merely the result of the number of parties involved with and the number of persons serving on each commission, which was suggested earlier as a factor influencing performance, and which has been shown to be true in this case. Six individuals comprising a commission can communicate much more directly and more tersely with one another, as well as being able to develop closer personal relationships, especially if they speak the same language and come from similar countries, than a body of twenty, or more, ever could; this benefits the general working atmosphere within the commission, and, consequently, improves the result. It was hardly by coincidence that the early commissioners replaced 'decision by majority vote' with 'decision by consensus', and that all their successors have not questioned the practice. This, too, displays a certain degree of personal involvement on the part of the U.S. - Canadian commission, which the delegates of the Rhine Pollution Commission do not exhibit. The unanimity rule, the advantage of which is usually deemed to be that it is conducive to compliance because it prevents parties from being outvoted in
matters concerning them directly, in the Rhine riparian constellation can lead to parties having a veto in matters not directly affecting them. Allowing abstentions has mitigated their problem somewhat, but the presumed will to cooperate does appear somewhat stretched here. Indeed, the wisdom of requiring unanimity at all in this case is very much open to question given the relative institutional impotence of the Rhine Pollution Commission, especially the fact that their decisions are legally not at all binding.

The North American commissioners are basically independent of their respective governments. By and large they have become very interested in, involved with, and dedicated to their work with the commission. Their declaration of allegiance to the commission, which could be viewed as no more than a mere formality, appears, instead, to be taken quite seriously. On the other hand, for the European commissioners, usually delegated civil servants, their positions are often merely more work and more inconvenience. In addition, they are fully responsible to their governments, a situation that can curtail the inclination to take initiative action, and that also practically prevents them from taking a possible case to the public in an effort to pressurize idle governments into action. While the prime aim of the International Joint Commissioners is to hammer out feasible
solutions to concrete problems, the European delegates seem more concerned with trying to prevent their own governments from being burdened with costs that are considered either unfairly apportioned or unnecessary. Thus, it is hardly surprising that the Rhine Pollution Commission has not yet attempted to 'de-politicize' any issues, which could help to pave the ways towards concluding necessary agreements by, for instance, trying to consolidate the various data gathering and evaluation processes extant among member states. Not until the first ministerial meeting in 1972 could any noticeable motion with respect to Rhine pollution abatement be registered. The commission has restricted itself to being primarily a data centre. But even there it has not succeeded in establishing an acknowledged reputation that would lead other entities to look to it for relevant information; these often research on their own, which results in considerable duplication and overlapping. The International Joint Commission, in its Lower Lakes reference studies that led to the 1970 pollution report, coordinated research activities and also edited all the pertinent information obtained through major investigations carried out previously by other organizations and agencies.

There is no evidence to suggest that the current greater success of the International Joint Commission is owing to its age and experience, though its record of impartial and thorough
decisions and reports have progressively given it more of a 'credibility bonus', which has surely had its effect on the two governments' willingness to give it the functions under the Great Lakes Water Quality Agreement. But as far as the Rhine Pollution Commission is concerned, it could equally be said per argumentum e contrario that it could have benefitted considerably from the past experiences of its U.S. - Canadian counterpart which, incidentally, did not have such an advantage. However, if one compares the initial years of the two commissions one finds that they were both faced with major problems very early and that, whereas the Rhine Pollution Commission concentrated on data editing, the U.S. - Canadian commission undertook at least two major projects, which resulted in the draft convention on Boundary Waters Pollution (1920) and the Lake of the Woods Convention (1925).

c) The final commission to be examined in this section, the International Boundary (and Water) Commission is bilateral, as is the International Joint Commission. Moreover, the two commissions have one party in common, the United States. The first major U.S. - Mexican boundary waters problem to arise after the creation of the International Boundary Commission was brought about by strong Mexican protests over excessive U.S.
withdrawals of Rio Grande waters before the river reached the boundary, causing serious water shortages to Mexican riparian agriculture in the Juarez region. The Rio Grande rises in the south central Colorado mountains and follows a 1900 mile course to the Gulf of Mexico. For the lower 1200 miles it forms the boundary between Mexico and the United States. The 1889 Convention had, it may be remembered, not made any reference to water resource allocation or regulation. It was this controversy that led to the unfortunate Harmon doctrine which formed the cornerstone of the American position in pertinent negotiations for decades thereafter. Nevertheless the commission, upon request, prepared a study of the availability and regulation possibilities of the waters of the Rio Grande, in which it found that the flow of the river had been reduced by upstream diversions and that a dam was needed to regulate it. Government level negotiations, without any further involvement of the commission, followed and eventually led to the Water Treaty of 1906, which provided for the construction of the Elephant Butte Dam near Eagle, New Mexico, and the gratuitous delivery of 60,000 acre-feet of water to Mexico, subject to proportionate reductions in times of drought. This was the first time that the problem of water supply along the U.S. - Mexican boundary was dealt with. The commission was later entrusted with the administration of the delivery procedure: at the proper time the U.S.
section requests the U.S. Bureau of Reclamation to release the allotted amount from storage, and the commission (jointly) measures the amounts delivered.\textsuperscript{106}

The construction of the dam has led to a division of the river into an upper section, north of Fort Quitman, and a lower section, from the Rio Conchos confluence to the Gulf of Mexico. Over the 212 mile stretch from Fort Quitman to the Conchos confluence the river bed is usually dry.\textsuperscript{107}

However, as population and land cultivation was at that time already rapidly increasing, Mexico was not satisfied with what it felt was a meagre, entirely inadequate portion of the water resource.\textsuperscript{108} Lengthy, tough negotiations, interrupted by the Mexican Civil War, ensued, during which time U.S. - Mexican relations were somewhat strained. An International Water Commission was established to study the question of Rio Grande water allocation and regulation, but when it failed to reach agreement after several years of deliberation it was dissolved and the continuation of its investigations were referred to the Boundary Commission.\textsuperscript{109}

Despite the existing tension, though, the two countries continued to cooperate over matters concerning the Rio Grande boundary. An international flood control project,\textsuperscript{110} providing for levees and floodways on each bank of the river, to be
constructed separately through the two sections of the commission, was adopted by an exchange of notes in 1932. In 1933 a Convention for the Rectification of the Rio Grande in the El Paso-Juarez Valley was concluded. Based on studies carried out by the commission at the request of the two governments, it provided for the straightening of a 155 mile long stretch of meandering river, thereby reducing its length to 86 miles, and almost doubling its gradient in the El Paso-Juarez area. In addition, it was agreed to construct a dam, the Caballo Dam, 28 miles below the Elephant Butte Dam, about 110 miles upstream from the rectification project, to catch and store flood spills and electricity-generating water from the upstream dam. Constructions were again carried out separately under the direction of the national sections of the commission in their respective countries. Costs were apportioned 88% United States to 12% Mexico, in proportion to the estimated benefits expected. This followed a recommendation made by the commission.

Eventually compromises over the distribution of the boundary waters were reached, and in 1944 the Water Treaty was signed. This is the most extensive and perhaps the most important U.S. - Mexican agreement affecting boundary waters to date. The by then illusory dogma of free navigation was discarded in favour of a utilization preference guide with "domestic and municipal uses" and "agriculture and stockraising"
in the first and second priority positions respectively, and navigation in fifth place. 115 The part of this treaty with the greatest impact is a scheme apportioning the boundary waters to the two countries, 116 and providing for the construction of certain works, including dams for water control and regulation. The Rio Grande apportionment comprised all the waters of the basin below Fort Quitman. The other important part gives the International Boundary Commission an entirely new, though not altogether different, foundation. First of all, its name has been changed to International Boundary and Water Commission. Then, whereas under the 1889 Convention each section consisted of a commissioner, a consulting engineer and a secretary 117 the new treaty stipulates that an "Engineer Commissioner" is to head each section; there is no specified limit to the number of advisers each section is allowed to have, but only the commissioner, two principal engineers, a legal adviser and a secretary will be accorded diplomatic privileges from the opposite side. 118 As before, though, only the commissioners are empowered to make decisions.

With regard to the Rio Grande the commission's functions under the 1944 treaty include: 119

"1. Allocations of water between the two countries in accordance with the terms of the Treaty."
2. The gauging of the Rio Grande and tributaries and the keeping of records of waters belonging to each country.

3. As agents of the two Governments to construct, to operate and maintain on the main river channel of the Rio Grande:
   a) the dams required for the conservation, storage and regulation of the greatest quantity of the annual flow of the river in a way to insure the continuance of existing uses and the development of the greatest number of feasible projects within the limits imposed by the water allotments.
   b) The dams and other joint works required for the diversion of the flow of the Rio Grande.

4. The study and investigation for preliminary plans for flood control works, where and as necessary, below Fort Quitman.

5. The study and investigation and preparation of plans for hydro-electric energy development, where found feasible and in the interest of the two countries."

The new provisions concerning the validity of decisions made by the commission were expanded in detail, but
restricted in substance, compared to the appropriate provisions of the 1889 convention.\textsuperscript{121} Whereas the older agreement purported to include all decisions made by the commission, i.e. any decision concerning any boundary problem, the new treaty restricts decisions becoming effective automatically in the absence of any government's disproval to those not requiring express approval by the governments under the terms of the treaty. This, however, does not curtail any more of the commission's powers than it had already lost, such as, for instance, in the 1920's when its function of dividing shared waters was withdrawn. The commission's position was augmented, though, in that it was given direct access to the courts for assistance in the discharges of its functions and duties.\textsuperscript{122}

Despite the undeniable progress that the Water Treaty has brought with regard to the orderly distribution and administration of U.S. - Mexican boundary waters,\textsuperscript{123} Mexico was still less than satisfied with the result. There is, indeed, strong evidence to suggest that the United States took advantage of several difficulties Mexico was experiencing in the early 1940's, the main one of which was a severe drought in the Rio Colorado area, to pressurize the government to the south in a kind of "take it or leave it" attitude into settling for much less than it felt it was entitled to.\textsuperscript{124}
The construction projects carried out pursuant to the treaty were done so—as usual—simultaneously, but separately on each side of the border, under the supervision of the responsible section. There were a few procedural modifications, though. For example, the Falcon Dam complex, the first of the new storage dams, was designed by the U.S. Department of the Interior under the supervision of the commission. The construction of the dam was precisely divided up according to the cost apportionment plan of the commission, each section supervising the work done by its government. Two power plants were constructed, one on each side of the boundary, by the respective governments, again under the supervision of the national sections of the commission, which also oversee the operation and maintenance of the whole project. However, the combined costs of the power plants were halved and shared equally, and each country receives half of the generated energy.

The Anzalduas Diversion Dam was completed in 1960, the Amistad (storage) Dam in 1969. All three dams are situated south of the Pecos confluence.

Of the more recent boundary waters projects related to the Rio Grande and involving the commission, two are worth mentioning: the Chamizal boundary settlement, and the Lower Rio Grande salinity canal. The former concerned the settlement of a long-standing land claims dispute in the El Paso/Ciudad Juarez area.
by re-chanelling the river so as to transfer 823.50 acres of land back to the Mexican side of the river. The latter pertained to an increase in the salinity of the river caused by Mexican irrigation inflows, which resulted in the construction of a jointly financed 37 km. drainage canal on Mexican territory, heading straight to the Gulf of Mexico. Both projects were carried out subsequent to commission recommendations and according to its plans. Though these two issues are suggestive of a slightly more active role that the commission might be playing in boundary waters matters, which, however, cannot be substantiated at this point in time, they do not provide any further insights either into its development or its work and, therefore, need not be discussed in detail here.

The International Boundary and Water Commission obviously differs from the two recently instituted commissions reviewed here in that, unlike the Rhine Pollution Commission it does have a record of continual active involvement in its field of endeavour, boundary relations, and, unlike the Chad Basin Commission, its "field" has raised sufficient problems to have demanded its complete attention, precluding it from becoming involved with other matters only indirectly related to its "field". Its one very distinct characteristic, distinguishes it clearly from the International Joint Commission:
Along the U.S. - Mexican border national projects are developed and carried out autonomously with the commission examining merely whether or not such an endeavour would adversely effect interests on the other side; or projects of common concern to both countries are developed separately on both sides of the border but coordinated to such a degree as to enable simultaneous, parallel development. Only recently have the two countries carried their cooperative efforts a marginal step beyond these limits,¹²⁹ and then but very reluctantly, for lack of an alternative. The accent is clearly on separate, independent, perhaps parallel development that does not, if possible, interfere with the other side. The emphasis within the sphere of the U.S. - Canadian commission, however, is on cooperation and coordination, i.e. joint data gathering, joint planning, joint construction and joint operation or supervision wherever possible.¹³⁰ The International Joint Commission attempts to fuse, where the International Boundary and Water Commission, at most, attempts to match.

The degree of difference in the authority of the two commissions is considerably greater now than it was at their respective beginnings. With its quasi-judicial authority and its, still dormant, function as a binding arbitration tribunal, should both governments make an appurtenant request, the
International Joint Commission did, of course, have more powers at the outset than did its counterpart to the south. On the other hand, Article VIII of the 1889 convention gave the work of the boundary and water commission added weight, because the commission's will was done if the governments did not take a stand. This inherent mechanism for action, or reaction, is lacking in the U.S. - Canada boundary situation. Still, this authority and the general jurisdiction of the boundary and water commission were curtailed, while the functions and powers of the joint commission were increased. The one advantage the southern commission still has over its counterpart to the north is that it may examine any boundary matter which it deems worthy of its official attention. The joint commission has only recently been given this authority with regard to the quality of the Great Lakes; other than that it must wait for a matter to be referred to it by the governments.

The two main contributing factors to this discrepancy in the development of the two commissions despite their similarities in some respects appear to be found in the recent history of boundary relations as well as in the commissions themselves, with the former factor also contributing to the latter one.

Here too, as in the case of the parties to the Bern Convention of 1963, one can see the disadvantages of not having
agreed to certain substantive obligations, by which the commission could be guided in its work. Neither the 1889 Convention nor the 1944 Treaty contain such provisions.

Unlike the generally cordial relationship existing between the United States and Canada throughout this Century, the bonds between the United States and Mexico were under considerable pressure for various lengths of time during that same period. The problems started as early as the closing years of the last Century with the upper Rio Grande diversions and the Harmon doctrine. U.S. power diplomacy, while bringing about a solution of sorts, which resulted in the 1906 convention, did nothing to promote Mexican faith in U.S. fairness or to enhance mutual boundary relations. This fundamental attitude of the mighty United States towards its smaller neighbour to the south and the resulting Mexican frustration continued to dominate their common boundary politics until the early part of this decade, when the Colorado salinity issue was solved to Mexico's satisfaction. All this was not conducive to the trust and faith necessary for closer cooperation over boundary (waters) matters.

This atmosphere of mutual distrust and suspicion did not stop short of the commission. Thus the prevalent spirit within the commission has hardly been one of cordiality and "esprit de corps", which has so facilitated work within the
Joint Commission. That the commission was unable to reach agreement on the important issue of water allocation in the 1920's is, accordingly, not surprising. However, the commission's failure in that instance also points out another problem it is faced with. Its range of focus is necessarily limited, despite a supporting staff of experts. The commissioners alone are called upon to make decisions and, as has already been suggested, two persons cannot ventilate an issue as thoroughly as six can, especially in a commission such as this one where both commissioners have until 1944 usually, and since then definitely, been engineers. This suggests that the two governments regard this commission primarily as a technical advisory body. The International Joint Commission, on the other hand, is usually composed of a variety of experts ranging, for example, from lawyers, over engineers, economists and publishers to diplomats and politicians. This almost automatically leads to a more extensive approach to the problems at issue on the part of this commission than could be expected of the Boundary and Water Commission.

Another factor contributing to the greater success of the U.S.-Canadian Commission is the already stressed commissioners' unusually high degree of dedication to and personal involvement with "their" organization.

All this is not to suggest, however, that the International
Boundary and Water Commission has been a complete failure. It has, especially since the Water Treaty of 1944, maintained a steady watch over the boundary, mainly through its pairs of field offices, and has addressed itself to a variety of issues. By and large its record is fairly good, though not overwhelming. Its failure to control the numerous unauthorized withdrawals of water below the Falcon Dam, thus laying open the delicate balance of the allocation system, has been a definite shortcoming. Most of the criticism concerning international cooperation and water utilization along the Rio Grande should not be levelled at the Commission, which is but the administrative arm of the governments on the international level, although it could be argued that the Commission has not exactly sparkled with imagination. Its value as a buffer, at least, cannot be denied. That alone would justify its existence.

In the absence of unusually cordial boundary relations, such as exist between Canada and the United States, an organization such as the International Joint Commission would have great difficulties being constituted, or surviving. It has been suggested that then the International Boundary and Water Commission could serve as a model for a viable and moderately effective international water resource commission. This could well be; the concept of separate but parallel development of international
riparian projects, however, appears acceptable purely out of necessity, in light of the state sovereignty dogma, rather than being a particularly desirable one.\textsuperscript{142}

III.

The International Joint Commission has by no means lived up to all the expectations had of it over the years.\textsuperscript{143} The Skagit controversy has still not been brought to a mutually satisfactory conclusion\textsuperscript{144} - after 37 years, the Columbia issue was not handled well within the Commission,\textsuperscript{145} regardless of the value of its ultimate outcome, and pollution in the Great Lakes\textsuperscript{146} is still intolerably high, to cite but a few examples. However, this comparison has shown that the U.S. - Canadian Commission was, at the outset, better equipped for its field than were the others examined, even the more recently created ones, and that the Commission has used this advantage well. Its importance has increased considerably over the years, especially since the end of World War II. This is the result not only of the still exceptional U.S. - Canadian relations.\textsuperscript{147}

The fundamental principles of the Boundary Waters Treaty are not unreasonably or discriminatory. The Harmon doctrine, included in the treaty\textsuperscript{148} in a slightly weakened form, has hardly affected American-Canadian relations because the waters along the northern boundary of the United States do not place one country in an advantageous position over the other, as is the
The provisions of the treaty were flexible enough to enable the Commission to shift the emphasis of its work from its quasi-judicial function, which clearly dominated the first half of its existence, to investigating and reporting, and, moreover, to such matters as air quality in the Detroit-Windsor and Port Huron-Sarnia areas, an issue clearly beyond the imagination of the drafters of the treaty. The importance of the pollution provision in Article IV has been clearly shown.

The balance between state sovereignty and commission authority, more extensive here than in the other cases, has proved to be viable, although a provision similar to Article VIII of the U.S.-Mexican Boundary Waters Treaty of 1889 might have been included to cover certain of the Commission's decisions made pursuant to Article IX of the 1909 Treaty.

The structure of the Commission has been shown to be vastly superior to those of its counterparts reviewed. That data be gathered and evaluated jointly, thus minimizing friction possibilities, and that decisions be arrived at by consensus, are the results of internal developments and indicative of the Commission's vitality.

One final word may be permitted in this context. This comparative analysis, brief though it has had to be, has
elucidated the fact that whatever contributed to the success or failure of one or the other of the examined commissions was not the result of the respective parties' dedication to international law. The paramount aim of the various involved countries was to gain maximum benefits for themselves out of any international arrangements they were concerned with, if not within then without the bounds of international law. Fortunately, though, the parties to the ultimately more successful of the cooperation arrangements achieved their successes within the accepted perimeters of international law.
PART FOUR:

THE COMMISSION AND THE FUTURE
PART FOUR:

Having looked into the origins of the International Joint Commission, traced - though somewhat cursorily - its development to the present, elucidated its various functions from the original general ones of the Boundary Waters Treaty to the most recent special authorities pursuant to the Great Lakes Water Quality Agreement, and assessed its achievements as well as its utility by means of a comparative evaluation, it now remains to focus on a few select aspects regarding its future, without which this analysis would remain uncompleted. As has been suggested, the room for improving the effectiveness of the Commission, despite its relatively good performance, especially in recent years, is still considerable. Moreover, the mentioned effect that its involvement with the water quality of the Great Lakes has had on it lead to a variety of problems and questions, some of which already demand its attention and with others of which it will need to concern itself in the near future. It is not surprising, then, that all three issues touched upon here are related to Great Lakes water quality and the broadened public awareness of the existence and operations of the Commission.

1.

a) The marked increase in the work load of the Commission has compelled it to consider a compensatory modification of its structure.\(^1\) So far it has still been able to fulfil its obligations; but it is acutely aware of the problems that may arise in the near future, entailing primarily a back-log of unfinished work as well as -
what appears to be even more important - possible difficulties in finding competent, independent persons to serve on it for a worthwhile period of time.

Thus far there has been no official reaction in this respect either by the Commission or by the two Governments. Still, two main alternative approaches appear to be emerging; they bear consideration at this point:

- Either the number of Commissioners could be increased, with the Commissioners, excepting the two full-time Chairmen, serving on a part-time basis, as is presently the case, or
- the number of Commissioners would not be altered but they would all be made full-time appointments.

b) Increasing the size of the Commission seems to have the advantage that the work could be divided among more persons, spreading and thereby reducing the individual work-load, and thus permitting the organization to continue relying on the part-time services of qualified, independent professionals, a prime contributing factor to its success so far. That this can be achieved without amending the corpus of the Boundary Waters Treaty, has been demonstrated in the case of the Great Lakes Fisheries Commission, the membership of which was increased from six to eight by means of an exchange of notes attached to the Great Lakes Fisheries Convention. ²

This proposal contains the distinct possibility of a decrease in the effectiveness in decision-making, though. Increasing the
Commission in size could weaken the characteristic direct, terse style of internal communication, from which it has thus far benefitted, in direct proportion to the enlargement. Moreover, if - for example - two members were added at this time a precedent would be created which could later facilitate the addition of two further members for perhaps a lesser reason. With every new addition the Commission would gradually drift towards becoming more of an assembly and lose in concision on the way.

It may be further doubted whether this alternative would really result in the desired substantial reduction in the work-load of each Commissioner. The bulk of their work, the deliberations and the hearings, is accomplished communally. Although the hearings could be conducted in the presence of only one Commissioner from each section it should remain the policy of the Commission, wherever possible, to be present in toto at all public hearings; given that the whole Commission is called upon to deliberate and decide, second-hand reports can be but a meagre substitute for first-hand impressions. For the most part the rough drafting of the reports, after a consensus has been reached, is divided among the Commissioners. So even if only one Commissioner were to be added to each national section, the effect would be no more than a marginal reduction in the amount of work each Commissioner is called upon to carry out.

c) Appointing full-time Commissioners, although apparently better suited to cope with the increased work-load, could pose other problems. For one, this could lead to greater governmental influence
over the Commissioners. A full time Commissioner would not have a private job to which he could turn, in the event of his dissatisfaction with his government's attitude or policy toward the Commission, or vice versa; he could lack material independence, which is a very important contributing factor to intellectual independence. Given that, as has been established, the value of the Commission is dependent to a considerable extent upon the independence of its members and the 'esprit de corps' among them, the latter hardly being possible without the former, it is imperative that this independence be maintained, whatever structural alterations the organization may be subjected to. This could be accomplished by guaranteeing Commissioners an independence of position akin to that enjoyed by judges in free occidental societies with sophisticated legal systems. This is not a major innovation but rather the express confirmation of an already existing factual situation. Once in office a Commissioner would remain there until his term expired, unless he did before them; apart from that he could only be removed for quasi-impeachable conduct.

In order to further discourage Governments from being tempted to attempt to influence the operations of the Commission, a Commissioner's appointment should not be renewable. Admittedly, there could arise the odd instance where it would be in the best interests of the work of the Commission to retain the services of an exceptional Commissioner for more than just one term, however long that may be. The possible disadvantages, though, appear to be far outweighed by the benefits that would be gained by preventing government inter-
ference with the activities of the organization.

Another factor to be considered here is the prestige and the value of an appointment to the Commission. It is self-evident that the quality of the Commission's work is dependent upon the professional skill and ability of its members. Thus it is important to make an appointment to the Commission attractive to persons of the highest professional standards. Appropriate salaries would have to be offered, which should not be difficult in light of the fact that each Party would have only three such salaries to pay. The quality of past appointees coupled with suitable remuneration would appear most likely to ensure that highly qualified professionals continue to be available for these positions.

A problem closely connected with the previous two, and more important to full-time appointments than to part-time service is that of tenure. If someone is to be moved to give up a successful career elsewhere in order to serve on the Commission he must regularly be able to rely on the security of his appointment for a certain, more than just short, period of time. It will, likewise, be in the interest of the Commission to be able to count on the fidelity of its membership for a certain, beneficial term of service; one can, it appears, safely assume that nowadays, it takes approximately one and a half to two years for a Commissioner to fully comprehend and appreciate the extent and the intricacies of his position.

On the other hand, it must be appreciated that too long a term of office could lead to too close a personal involvement and identification with the Commission on the part of an individual Commissioner;
such a lack of intellectual perspective and critical distance could impair a Commissioner's judgment over the years and affect the quality of his work negatively.

A further aspect hereof concerns continuity.\textsuperscript{14} If, for example, a whole national section were to be completely replaced at one time,\textsuperscript{15} the effect would probably not only be a total rupture of the internal personal ties that transcend the boundary and that have been shown to be conducive to the atmosphere of impartiality within the Commission and, subsequently, to the value of its work, but there could also be - to a certain extent - a return to orthodox negotiating along national lines which, until overcome, could impede progress appreciably. This could be circumvented by means of an alternating replacement system, whereby only one Commissioner from each national section would be replaced at one time. The way to achieve this would be to devise a term of office divisible by three.\textsuperscript{16}

All this leads to the conclusion that the membership of the International Joint Commission should not be enlarged, but that the six Commissioners serve on it for a full-time, non-renewable term of nine years;\textsuperscript{17} one Commissioner from each national section should simultaneously be replaced every three years.

It could be argued that a term of this length would discourage a considerable number of potential candidates from accepting such an appointment because of anticipated difficulties of vocational
reintegration after an absence therefrom of almost a decade. However, given the importance of the function of a Commissioner and the qualifications it demands, not the least of which would be an abundance of professional as well as personal experience those best suited for the office would appear to be persons in a position to retire from professional life after their term with the Commission. Should the services of an exceptionally qualified younger individual be deemed desirable, though, it is submitted here that the experience gained as a Commissioner, the prestige of having been one and the exceptionality of this person, which led to his unusually early appointment in the first place, would enable him to re-enter the vocational market without difficulty.

Although there is no indication that the comparatively rigid appointment and tenure concept as outlined above would have any negative effect on the internal operations of the Commission as they are carried on today, such an effect is conceivable with regard to the political strategies of appointors. Even today Commissioners cannot, in fact, be dismissed at random, though, legally, there is not pertinent express prohibition. The advent of such appointment revisions as outlined above could lead to reconsideration of appointment policies in light of the relative permanency of such action over a certain period of time. To retain the basically non-partisan character of the Commission it should be provided that no more than two Commissioners of each section are affiliated to the same political party.

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d) The essence of the following provisions should be agreed to and supplemented to the Boundary Waters Treaty\textsuperscript{21}, perhaps by an exchange of notes:

1. a) All Commissioners of the International Joint Commission shall hold office during good behaviour for one term of nine years.

   b) A Commissioner shall not be eligible for re-appointment.

2. a) The terms of the Commissioners shall expire according to a rotational system. A Commissioner from each section shall be replaced on the first day of every third consecutive year, beginning ________.

   b) No more than two Commissioners of each national section shall be affiliated to the same political party.\textsuperscript{22}

3. a) The salary of the Chairman of the Canadian Section shall be fixed at A Canadian Dollars per annum.

   The salary of the Chairman of the United States Section shall be fixed at B United States Dollars per annum.

   The salaries of the remaining Commissioners of the Canadian Section shall be fixed at C Canadian Dollars per annum for each Commissioner.

   The salaries of the remaining Commissioners of the United States Section shall be fixed at D United States Dollars per annum for each Commissioner.

   b) These salaries shall be subject to annual adjustment according to the respective federal cost of living indices.
4. Every Commissioner shall discharge his duties independently of national governmental policies, bound, however, by the terms of any reference and in accordance with the solemn declaration as set forth in Article XII of the Treaty.  

5. No Commissioner shall, without the written approval of his Government, directly or indirectly engage in any occupation or business other than his duties to the Commission, to which he shall devote himself exclusively.

Finally it should be stressed that the Commission's functions constantly bring it into close contact with domestic and international law, so that there should be a lawyer on each section of the Commission at all times.

2.

a) The present administrative state of the activities relating to the abatement of pollution in the Great Lakes is such that each riparian jurisdiction attempts to attain the objectives of the Agreement in its own way, with some coordination - to a greater or lesser degree, depending on the individual matter - taking place, usually through informal bilateral contacts on an intermediate government level. Such consultation often occurs within the Great Lakes Water Quality Board, which consists of 18 members - one from each of the two federal governments, one from each of the eight
riparian states, four from Ontario, and one from Quebec.

This broadly outlined system is usually considered by those responsible for its administration to be the most acceptable one, particularly in light of the inherent difficulties posed by international cooperation schemes in general. To date the authorities are quite satisfied with the way it functions and are quick to stress that any other arrangement, especially one giving policy making or enforcement authority of any kind, or both, to any international organization, would not be acceptable to any federal government, which can and must be held responsible for its actions by its electorate.

Yet if progress in Great Lakes pollution abatement continues at the present, extraordinarily sluggish pace the Government may have no choice but to consider other, closer forms of cooperation in this field, provided there is no retreat from the relevant, currently valid goals as set forth in the Agreement. Indeed, several other arrangements have already been proposed, some of which advocate a role for the International Joint Commission, in varying degrees, which could best be defined as that of an international Great Lakes Management agency.

The confines of this thesis do not permit a detailed analysis of the possibilities for a closer international institutional cooperation scheme capable of attacking the problem of Great Lakes pollution more effectively than hitherto. However, it is appropriate
to utilize the knowledge acquired thus far to assess the extent to which the Commission should be a part of such an arrangement.

b) Because Great Lakes pollution is by far the most important boundary waters problem today, it would seem appropriate to entrust the Commission with the management or administration of these waters or aspects thereof, augmenting its role from a mainly reactive to a more initiatory one. The Commission's experience to date with the relevant problems could be beneficially used; this would include requiring a less far-reaching and innovative structure than would probably be necessary should an entirely new organization be established. Its reputation for impartiality as well as for thorough research and subsequent reports of high quality would seem to make its efforts credible to the general public and acceptable to the Governments; this could also lead to a decrease in political haggling, fewer stumbling blocks having to be removed, and result in accelerated development and implementation of the necessary remedial measures.

c) Yet, when one stops to consider the original reasons and factors leading to the establishment of the Commission in 1909/1912 a somewhat different picture emerges. Unfortunately, the much publicized — though not to be underestimated — role of the International Joint Commission in the campaign against Great Lakes pollution appears to have somewhat shrouded its real raison d'etre. Its main function has thus far been the prevention and the resolution of disputes
so as to preserve the important good relations between the two neighbours, Canada and the United States. (Admittedly the Commission was also given certain administrative functions, but these were of a limited and easily monitored nature as well as being within the outlined context.) It is within this framework that solutions to the Great Lakes pollution problem, so far as they involve changing the role of the Commission, should first be sought. Its fundamental functions as just emphasized should not be altered, unless it is clear that the Commission can better fulfil its purpose otherwise, i.e. under different premises, owing either to a certain issue being of such overriding importance as to necessitate an overruling of the existing structure or to the general understanding that the status quo is, in toto, no longer acceptable and should therefore be changed.

i) Though, indeed, the most important one at present, pollution in the Great Lakes is just one of several endeavours in which the Commission is involved. Some other current projects of considerable importance to U.S.-Canadian boundary relations concern the "Garrison Diversion" and the status of Point Roberts on the Pacific Coast. Both of these issues are geographically unrelated to the Great Lakes, the former involving North Dakota and Manitoba, the latter concerning British Columbia and the State of Washington; and while the former also pertains to water quality, though with a somewhat different emphasis than in the case of the Great Lakes, the latter - Point Roberts - is totally unrelated thereto, being solely a boundary
concern. This, along with the Commission's past record, shows that, in addition to being given and properly disposing of a wide variety of different matters, it has, with regard to its projects, habitually maintained a position of independent advisory neutrality: The Commission has, on one hand, never sought to cater to any governmental concepts or any political policies of the day; yet it has always been appreciative of the fact that it was, especially in so far as the now predominant functions under Article IX of the Treaty are concerned, conceived as an advisory council to the two Governments, not as a totally independent organization *sui generis*, a distinction relevant to the tenor of the reports and, subsequently, to the Government's reaction thereto; and it has thus far not become so involved with any one of its projects as to be either identified by reference to it or with a controversial opinion appurtenant thereto. The closest it has come to being so involved has been the Great Lakes pollution issue and the Great Lakes Water Quality Agreement. But even here the Commission's role remains essentially an - albeit somewhat augmented - advisory one, the Commission having been given neither policy formulating nor enforcement powers. Also the Commission has been careful not to neglect its other concerns because of this, and it has likewise not aggressively promoted any conspicuously extreme position of its own in this connection, that could have embarrassed or antagonized either or both Governments.
Increasing the direct involvement of the Commission with the Great Lakes clean-up giving it policy making or enforcement powers, or both, appears neither likely nor even particularly desirable under present political and administrative conditions. Under hardly a conceivable circumstance will politicians be persuaded to surrender any policy making functions, the essence of their existence and power, to a commission, let alone an international one. Nor, indeed, should they do so.

From a broad viewpoint, politicians, at least those in Canada and the United States, owe their offices to general policy principles which they advance to the public and upon which basis they are elected. Likewise, they will be accountable to their electorate for their actions at the polls, if not otherwise. International commissions are not so accountable. (They could, at best, be removed by the politicians, whereupon, however, these politicians will have usually exercised policy judgment, thus closing the circle, for in such a case the commission will never have had real independent policy making powers anyway).

Turning enforcement powers over to the Commission is theoretically conceivable, despite some obstacles, pertaining primarily to problems involving state sovereignty, that would first have to be overcome. But it is, at least at present, administratively not viable because the Commission lacks a monitoring and enforcement organization, i.e. a police or quasi-police force. Such a force could, of course, be constituted, or a scheme could be instituted whereby certain existing
forces would be placed at the limited disposal of the Commission. Apart from necessitating considerable bureaucratic innovations to the operation of the Commission, this solution would obviously demand substantial constitutional reforms, which are per se not only extremely difficult to obtain, but which, even if they were possible, could only be had at the price of protracted domestic negotiating and bargaining as well as significant changes in each country's administrative structure. Such a far-reaching, time and energy consuming, as well as precedent creating rupture of the status quo could only be justified by a matter of vital and urgent significance. This is not the case.

Other, less radical, changes appear possible. But even such models as granting the Commission certain policy formulating powers, subject to reversal by the responsible politicians within a certain time limit, would alter the basic concept of its role. Broadening the current general surveillance functions to include, for instance, authority for extensive monitoring en detail and for appropriate legal action, is not practicable without a sizeable permanent staff, both at headquarters and in the field. This, however, could inherently create a cumbersome bureaucracy which could affect the effectiveness of the Commission by reducing the flexibility of the currently very small organization. Moreover, it is very doubtful whether the Commission itself would then be able to retain its present size, which has been found to be preferable to an increase
in the number of its members, without the undesirable splitting up and apportioning of the Commissioners' various functions and duties amongst themselves which, on grounds of principle, should remain in the hands of the Commission in toto.

The Commission would, in these models, also have to undergo certain fundamental changes; an important case in point is that it would have to become a legal person with standing in court to sue and be sued. This could have a disruptive effect on its other activities where it would continue to function directly in lieu of the Governments, a split here not being practicable.

ii) This leads to the most important factor to be considered in this context, the Commission's position with respect to the two Governments. For one the impression could gradually evolve that the Commission's primary function is the control of Great Lakes pollution, or that this issue is simply taking up more and more of its time and resources. The Commission would then increasingly be identified with this function only, and the Governments could gradually lose sight of how otherwise its services could be utilized. Thus the Commission should at all times seek to prevent itself from being typecast by letting a matter of current overwhelming importance override its diversity of involvement not only for the present but for the foreseeable future as well. Even if no other problems that could merit the Commission's attention were apparent today, a hitherto unimaginable boundary problem could arise in the future
(who would have predicted an air pollution problem for the
Detroit-Windsor-Sarnia area in 1909?), demanding the experience
and expertise of the International Joint Commission.

All the models touched upon here would probably also result
in a greater degree of independence of the Commission from the
two Governments and a corresponding weakening of its advisory role
than is the case at present. The Commission could eventually be
compelled to openly side with one Government in a pertinent contro­
versy over an issue of fundamental importance to both sides. This
could lead to embarrassment and a hardening of positions rather
than the solution, or prevention of disputes. The Commission must
continue to be identified as a body of neutral experts, and it must
keep striking a tender balance between internal independence and
external service to the Governments. If it stepped onto too many
governmental toes its services could gradually be deemed uncomfort­
able and thus dispensable by politicians fearing embarrassment or
excessive interference with their policies and plans. That would
substantially reduce its utility compared to the status quo. It
must be remembered that the Commission was originally not set up
as a pressure group; its main function today is advising the Govern­
ments.

Authorizing the Commission to initiate and carry out studies
as it deems appropriate does not appear recommendable in light of
possible duplication with other governmental studies or conflict
with national policies and priorities; but it does appear practicable, and should be seriously considered, to give the Commission the general power to conduct preliminary probes into a matter to see if a thorough investigation would be in order.\textsuperscript{44}

It must be emphasized, however, that these comments should not be understood either as an endorsement of the status quo, so far as the functions of the Commission with regard to Great Lakes pollution control are concerned, or as the negation of the concept of Great Lakes water quality management by means of an international organization. They should merely provide convincing arguments in favour of not watering down the potential of the Commission to deal with a variety of important issues by involving it too deeply with Great Lakes pollution.

Aside from minor improvements to the present situation it would, for instance, not at all be inconceivable to augment the role of the Great Lakes Water Quality Board in order to enable it to assume the functions of an international Great Lakes water quality management agency with the International Joint Commission acting as a kind of appellate tribunal thereto.\textsuperscript{45} This should be considered in depth elsewhere, but a few tentative suggestions do not appear inappropriate here.

To prevent an overload of organizations addressing themselves to the same problem, that of Great Lakes water quality, the already existing water quality board should, if at all possible, be given
the necessary administrative powers rather than a new agency be created to deal with the matter. That the Board is less ill suited for such a role than the Commission would be appears to be suggested by the fact that the Board is composed of instructed delegates from the federal, provincial and state riparian jurisdictions. Limited policy formulation would appear to be more feasible here, as would the provisions of supervisory and enforcement personnel, which could be recruited from the respective jurisdictions under less complicated circumstances than would have to be the case with the Commission. On the whole the necessary legislative reforms would appear to be less far-reaching and more readily attainable for such a modified Board.

Instituting the Commission as a type of supervisory or appellate (or both) tribunal, whatever the configuration might demand, would provide for an additional, though limited, control over the activities of the enhanced Board, while retaining - with this mere overseer role - the Commission's neutral independence. This, in light of all that has been stated would - at first glance, appear to be acceptable, perhaps even desirable.

d) In summary, the International Joint Commission should not become substantially more directly and deeply involved in the Great Lakes clean-up than it currently is. Appreciably more than would be gained at one end of the scale thereby could be lost at the other. Some alterations concerning the Commission's functions could, however, be made. Thus, for instance, the feasibility of using the Commission
as a supervisory or an appellate tribunal (or both) over a remodelled Great Lakes Water Quality Board to which would be assigned the administration of the Great Lakes, so far as their water quality was concerned, should be investigated.

3.

The current trend toward what is most commonly described as public participation in governmental decision-making has, hardly surprisingly, not stopped short of the International Joint Commission. Opinions in support of this idea abound, not only with regard to natural resource or environmental decision-making processes in general, but also with specific reference to the work of the Commission in this field.

a) It is fitting here to examine briefly the conceptual aspects of public participation. This discussion will be limited to the reference function of the Commission pursuant to Article IX of the Boundary Waters Treaty; such a limitation appears justified because the bulk of the Commission's present work consists of references under Article IX, including its major endeavour, Great Lakes water quality, which is predominant in this thesis.

'Public participation' is not (yet) a term of art. It is currently applied to a range of activities, from passing information on to the public to direct public participation in the actual decision of issues. The term will be used here to denote any appreciable
degree of public involvement with the mentioned activities of the Commission. It will be distinguished between passive participation, by which is meant a line of communication to the receptive public, i.e. the public is given information, and active participation, which refers to any tangible input from the public to the Commission and which includes the 'mere' tendering of advice as well as the more deeply involved decision of any issue.

What is astonishing to someone becoming initially involved with the ideas concerning public participation is the apparent lack of a convincing fundamental or theoretical base from which a coherent concept could be developed.\(^48\) While some cogent thoughts have been advanced as to why public participation has become such an appealing issue at this time,\(^49\) though considerable editing of ideas still needs to be done, the few attempts at explaining why there should be public participation in the first place are markedly less than persuasive.\(^50\) To cite an example, it is stated, not substantiated, that the official decision-makers are operating from an administrative equivalent of the professorial ivory tower.\(^51\) Often enough it appears to be simply assumed, or taken for granted, that public participation in the governmental decision-making process is desirable and, indeed, even necessary as an adjunct to the democratic system of government.\(^52\) In this field considerable theoretical as well as empirical research needs yet to be done.\(^53\)
b) Still, if the general concept of 'public participation' as outlined above is accepted, it must then be related to the pertinent activities of the International Joint Commission. Despite some gradual differences the proponents of this concept appear to agree that in democracies the general public should be permitted to actively take part in governmental decision-making processes because it is the quintessence of this form of government that the people's will be done. This idea, so it seems, is made equally applicable to the work of the Commission. Its advocates in this case, however, fail to distinguish between governmental decisions and the Commission's activities. As has been pointed out in the preceding chapter the Commission is primarily an advisory council to the two Governments; its reports and recommendations do not replace the relevant decisions which must continue to be taken by the Governments. The conclusion to be derived therefrom would appear to be that public participation take place primarily at the post-Commission-report/pre-Government-decision stage, or because the terms of the references given to the Commission already represent a selection and limiting of decision options by the Governments, in the pre-reference phase.

It would be unrealistically legalistic, however, to terminate this discussion here, for although the Commission does not render a final decision, it can - and does - still have a substantial influence through its reports, over what decisions will ultimately be made by the Governments in the reference issues. This has been amply
demonstrated by the 1970 Lower Great Lakes pollution report and the Great Lakes Water Quality Agreement. Though in law it is not privileged over any person or other organization making submissions to the Governments, who remain ultimately responsible, the Commission's opinions do have a factual advantage over others because these opinions are expressly requested by the Governments and because the Commission is also given the resources necessary for thorough and comprehensive expert investigations into the respective subject matters. Thus the question of public involvement with the Commission's work merits further consideration.

The Commission was designed to serve and assist the two Governments in maintaining good relations between the two neighbouring countries, Canada and the United States. It is, strictly speaking, therefore up to the Governments to determine the extent to which the Commission is to be open to the public. Accordingly, it is to them that any fundamental criticism concerning the Commission's relationship with the public should be primarily addressed.

On the other hand neither the Governments nor the Commission can ignore the considerable increase over the last few years in general public awareness of and interest in the Commission and its work, which has expanded in magnitude and impact. This also places certain restrictions on the Government's positions in this matter. For instance, isolating the Commission from the public, were that to be deemed desirable, would, primarily for political reasons, not
be possible. Certain general patterns, which can be looked upon as broad guidelines, have evolved in this field, and can hardly be circumvented. That the two Governments have taken cognizance thereof is demonstrated in the Great Lakes Water Quality Agreement.

c) This, then, in light of what has been established above, is the framework within which any public participation in the activities of the International Joint Commission can only occur.

Given the Commission's prime function as an international dispute prevention or settlement agency it could become involved in sensitive, i.e. confidential (quasi-)diplomatic negotiations or other forms of international contacts, which, by their very nature, would necessarily preclude any tangible public participation.

The degree and extent of the general public's involvement with the remaining, usual activities carried out by the Commission pursuant to Article IX of the Treaty can best be determined by considering what the Commission can gain from the public, and vice versa.

i) The Commission compiles data, evaluates it and, upon the basis of the then emerging evidence, makes its recommendations, all of which is subsequently conveyed to the Governments. The first of these three phases is carried out under the auspices of scientists and there is but little members of the general public could contribute thereto except, perhaps, a general first impression of majority opinions and public priorities with regard to a certain issue; this might influence
the setting up of the data gathering programme. Another possible, though minor contribution from the public realm could be the occasional observation which could be of some importance to the researchers or which could even lead to slight modifications in the general data gathering programme. The second phase, data evaluation, is a purely scientific task toward the accomplishment of which no valuable contribution from the public sector can be envisaged. The third stage, at which the Commission formulates its report with the recommendations, is the one of the three to which members of the public who would be affected by any government reaction thereto could probably contribute the most. They could relate the highly technical and often sterile research results to their own daily routines and give their opinions on how possible recommendations would affect them, as individuals or as a community. This information would add an important dimension to the data from which the Commission would eventually decide on the appropriate recommendations to be made; it could even lead to considerable shifts in emphasis with respect to the results of the research activities.

It is thus apparent that in order to fulfil its mandate the Commission will generally need to ascertain the view of the respective legitimately interested public before submitting any reports to the Governments. Whether or not the public should already be consulted prior to the implementation of the first, the data gathering, phase cannot be definitively determined at this time. Laudable though
any increased input to the Commission may appear, it has yet to be established whether the marginal benefits to be expected in such cases of limited information value merit the extra effort needed therefore. A cost-benefit analysis is in this context by no means a pretext for not attempting the utmost in order to get as clear a picture as is at all possible; this is true especially in times of economic instability, when budgetary restraints are ubiquitous.

In addition to the fact that the Commission has no decision-making authority, another reason for not deeming public participation in the formulation of the Commission's reports appropriate is that through their references the Governments ask for the substantiated opinions of a panel of impartial experts, the reports being predominantly technical and scientific. *Vox populi* should be more accurately expressed by other means and more directly conveyed to the decision-making level.

In any case the Commission should endeavour to indicate in its reports the ascertainable opinions of the concerned public in the respective matters. It should be understood, though, that the opinions given to the Commission need not be indicative of the prevalent opinion on that issue. The advocates of the public on those occasions are often dedicated, well-educated and well-informed persons who, however, do not always possess the mandate to speak on behalf of the majority of those potentially affected by any
pertinent government actions. Anyone wishing or called upon to state an independent opinion or make a personal value judgment must first, at least rudimentarily, grasp the scientific or technical data, comprehend the alternatives, and their implications, weigh them and then decide. Such a process many cannot follow and others will not be bothered with after a day's work, or because of other preferences for their leisure time. It would appear, though, that given the proper information the proportion of interested persons could increase substantially. This leads into the area of passive public participation, or what the public can gain from the Commission.

ii) It is, first of all, very important that the general public be familiar with the role of the Commission in Canadian-U.S. relations, its duties, its procedures, and its limitations. Misconceptions resulting from a lack of these basic facts can, for example lead to unrealistic expectations, or the preparation and presentation to the Commission of irrelevant information, all of which can cause time-consuming and costly delays in the Commission's work as well as potential disappointments among the interested public, all of which is entirely unnecessary. Similarly, the more clearly the Commission's independence from the Governments is understood the more cooperation and the less confrontation may be presumed.

There are no reasons apparent that could support any policy opposed to making the compiled data, its evaluation and the Commission's reports available to as many people as possible at the
earliest possible point in time. Indeed, as the findings of the Commission's boards often constitute the most comprehensive, if not the only, sources of information available to those desirous of making substantiated representations to the Governments prior to their rendering their decisions, it is imperative that such information be widely distributed.

Appropriately, it deserves to be mentioned here that a policy of openness on the part of the Commission can serve to enhance public faith in its activities; but this should not be exaggerated. The Commission's reputation rests fundamentally on the quality of its work, primarily its reports, and to a substantially lesser extent on the amount of information it releases to the public. Its credibility in the eyes of the Governments is of greater primary importance than the public's faith in it is, though this should remain a hypothetical distinction.

d) Related to what has been stated above, the Commission's record of its relationship with the public is, on balance, fairly good. Though maintaining a low profile over the first decades of its existence, it did afford those who could be affected by its reports opportunities to be heard. Its first Rules of Procedure adopted in 1912, contained provisions for hearings to be held at the request of anyone interested in the subject matter. This was instituted at a time when such a procedure was by no means commonplace. The hearings are usually public.
In recent years, however, owing mainly to the growing interest in the Commission and the increasing use of its services by the Governments, this mode of limited active public involvement, which was not complimented by any appreciable degree of passive public participation, has generally been considered to be inadequate. The hearings themselves were characterized as being unnecessarily formal and subsequently too intimidating to elicit as great a response from the public as might be possible in a less formal atmosphere.

The Commission has not yet altered its formal hearing procedures to any great extent, but it has already begun examining supplementary or alternative ways of augmenting public input. Great Lakes Tomorrow, a binational private organization dedicated to the enhancement of the Great Lakes environment has been authorized to carry out a project designed to raise public awareness of and interest in the Commission's investigations of Great Lakes pollution from land use activities. The programme is centered around a series of public workshops designed to inform interested citizens and train them to comprehend and contribute to the pertinent public hearings planned by the Commission.

The Commission is also seriously considering instituting Citizen's Advisory Boards to assist its various boards in discharging their duties to the best possible extent.

These programmes seem practicable and deserve to be supported. Whether they can actually lead to substantial improvements will need to be determined after initial experiences permit first evaluations.
Several other participation programmes have been introduced in the literature, but they need not be examined here. They all merit consideration inasmuch as they can be implemented within the framework described above; this can be determined without difficulty. On the basis of the existing evidence a statement of utility, or preference of one scheme over another is not possible (at this time).

Meanwhile the Commission's tacit policy of recent times to improve passive public participation should be continued with vigour. A good example is the 1970 lower lakes pollution report. This document contains all the necessary information on the subject, presented in an intelligible and interesting style that requires only a minimum of technical or scientific expertise to be understood. Another example of the Commission's new approach, i.e. making most of its publications available to the general public rather than merely to the Governments and other concerned institutions or persons, and laying them out in a popular, generally informative and easily comprehensible fashion, is the second Annual Report for 1975. Though these publications have not revolutionized the extent of the public's knowledge of the Commission and its work, it can be assumed that they will contribute to the gradual but definite development of a thorough and accurate general public impression thereof.

Closer attention than hitherto must also be paid by the Commission to the mass media which are by and large interested in and
not unsympathetic to it, but which are, at times, not entirely accurate in their coverage. These inaccuracies are often minute, but they can suffice to implant a wrong impression into the minds of those not familiar with the subject in the first place.  

e) It can, in summing up, be said that the generally laudable aspirations of interested members of the public to assume a more active role in the events with which the International Joint Commission is concerned pursuant to Article IX of the Treaty of 1909, should primarily be directed toward those interested members of the public obtaining information from or making their opinions known to the two Governments (or both), either before a matter is referred to the Commission or before any action is taken subsequent to a report submitted by the Commission. The Commission itself has no decision-making powers, which limits public participation to that extent. Having representatives of the public assist in the formulation of the reports to the Governments is not practicable because the latter, in referring an issue to the Commission, are desirous of pertinent expert opinion. Though the Commission should also attempt to assess and convey public opinion on a given matter to the Governments in their reports wherever this can be justified, there are other, primary avenues open for the public to make their views known; these can be said to run parallel to, not through the reports of the International Joint Commission.

It should be the constant endeavour of the Commission to
illuminate itself and elucidate its acts to the general public, unless its services are called upon in a sensitive international problem demanding confidentiality.
CONCLUDING REMARKS

The International Joint Commission has since its creation been given many different responsibilities. Over the years it has, through the quality of its Reports, its non-partisanship and its ability to cope with a large variety of tasks, built up and cultivated a high reputation as an expert, impartial body, which has, in turn, enhanced its credibility and thereby its usefulness, especially to the two Governments it was primarily set up to assist. The Commission has been described as "the best of its kind anywhere"; it was and still is seen as a model for other comparable international institutions. Despite the respect it has earned, however, its success must not be exaggerated. It has achieved only limited success in several of its endeavours; most important of all, it has not been able to comprehensively abate pollution to the extent that the Commission itself has deemed urgently necessary.

In the preceding pages the development of the International Joint Commission has been traced, from its "pre-natal" stage to its options, and prospects, for the future. The prime focus has been on the Commission's involvement with the pollution of the Great Lakes, which culminated in the Great Lakes Water Quality Agreement, without, however, losing sight of its other activities, all of which contribute to its overall role of preventing or settling U.S.-Canadian boundary and other disputes. The variety of functions
it has been given make it a unique organization, elevating it from its over three hundred more or less closely related counterparts, over which it has inherent as well as acquired utility advantages.

The Boundary Waters Treaty has shown itself to be an unusually flexible instrument for the regulation of U.S.-Canadian boundary affairs. Its limits still do not appear to have been reached.79

The Great Lakes Water Quality Agreement has yet to prove itself. Early indications are that, despite some initial disappointments, it will, in time, be an equally valuable, albeit more specialized tool.

The International Joint Commission has arrived at another crossroad. Should it become more directly and more deeply involved with Great Lakes water quality, or should it remain an advisory panel to the two Governments in this matter as well? This thesis has, inter alia, endeavoured to point out the inherent hazards of the former option to the optimization of the Commission's utility to U.S.-Canadian boundary relations as a whole. The Commission must consolidate what it has so far achieved while at the same time remaining sufficiently open in its functions to deal with future, hitherto perhaps unimaginable problems.80

The very nature of the International Joint Commission strongly suggests that its operations be examined in such a way as to condense
the views taken from both sides of the boundary into one whole picture. Unfortunately, various constraints, not the least of which were dictated by quests for concision and clarity, have compelled an investigation concentrated mainly on the view from the Canadian side. American views were, nevertheless, taken into consideration wherever it was deemed indispensable to do so.

During the course of research conducted in connection with this thesis a variety of questions were encountered the pursuit of which was not possible within this context. These issues range from an examination of the Rules of Procedure⁸¹ (especially Rule 12-II), problems of standing (especially in light of the recent Burnell case⁸²) and the re-opening of the Commission's orders (Article III, IV and VIII of the Boundary Waters Treaty) to some form of judicial review, over possible revision of funding procedures to the large and hardly explored field of public participation, to name but a few. They would provide rewarding fields of endeavour to the interested researcher.
TREATY BETWEEN THE UNITED STATES AND GREAT BRITAIN RELATING TO BOUNDARY WATERS, AND QUESTIONS ARISING BETWEEN THE UNITED STATES AND CANADA

The United States of America and His Majesty the King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, Emperor of India, being equally 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 common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise, have resolved to conclude a treaty in furtherance of these ends, and for that purpose have appointed as their respective plenipotentiaries:

The President of the United States of America, Elihu Root, Secretary of State of the United States; and

His Britannic Majesty, the Right Honourable James Bryce, O.M., his Ambassador Extraordinary and Plenipotentiary at Washington;

Who, after having communicated to one another their full powers, found in good and due form, have agreed upon the following articles:

PRELIMINARY ARTICLE

For the purpose of this treaty 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.

ARTICLE I

The High Contracting Parties agree that the navigation of all navigable boundary waters shall forever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both countries equally, subject, however, to any laws and regulations of either country, within its own territory, not inconsistent with such privilege of free navigation and applying equally and without discrimination.
to the inhabitants, ships, vessels, and boats of both countries.

It is further agreed that so long as this treaty shall remain in force, this same right of navigation shall extend to the waters of Lake Michigan and to all canals connecting boundary waters, and now existing or which may hereafter be constructed on either side of the line. Either of the High Contracting Parties may adopt rules and regulations governing the use of such canals within its own territory and may charge tolls for the use thereof, but all such rules and regulations and all tolls charged shall apply alike to the subjects or citizens of the High Contracting Parties and the ships, vessels and boats of both of the High Contracting Parties, and they shall be placed on terms of equality in the use thereof.

ARTICLE II

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 of 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.

ARTICLE III

It is agreed that, in addition to the uses, obstructions, and diversions heretofore permitted or hereafter provided for by special agreement between the Parties hereto, no further or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, affecting the natural level or flow of boundary waters on the other side of the line, shall be made except by authority of the United States or the Dominion of Canada within their respective jurisdictions and with the approval, as hereinafter provided, of a joint commission, to be known as the International Joint Commission.
The foregoing provisions are not intended to limit or interfere with the existing rights of the Government of the United States on the one side and the Government of the Dominion of Canada on the other, to undertake and carry on governmental works in boundary waters for the deepening of channels, the construction of breakwaters, the improvement of harbours, and other governmental works for the benefit of commerce and navigation, provided that such works are wholly on its own side of the line and do not materially affect the level or flow of the boundary waters on the other, nor are such provisions intended to interfere with the ordinary use of such waters for domestic and sanitary purposes.

ARTICLE IV

The High Contracting Parties agree that, except in cases provided for by special agreement between them, they will not permit the construction or maintenance on their respective sides of the boundary of any remedial or protective works or any dams or other obstructions in waters flowing from boundary waters or in waters at a lower level than the boundary in rivers flowing across the boundary, the effect of which is to raise the natural level of waters on the other side of the boundary unless the construction or maintenance thereof is approved by the aforesaid International Joint Commission.

It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.

ARTICLE V

The High Contracting Parties agree that it is expedient to limit the diversion of waters from the Niagara River so that the level of Lake Erie and the flow of the stream shall not be appreciably affected. It is the desire of both parties to accomplish this object with the least possible injury to investments which have already been made in the construction of power plants on the United States side of the river under grants of authority from the State of New York, and on the Canadian side of the river under licences authorized by the Dominion of Canada and the Province of Ontario.

So long as this treaty shall remain in force, no diversion of the waters of the Niagara River above the Falls from the natural course and stream thereof shall be permitted except for the purposes and to the extent hereinafter provided.

The United States may authorize and permit the diversion within the State of New York of the waters of said river above the Falls of Niagara, for power purposes, not exceeding in the aggregate a daily diversion at the rate of twenty thousand cubic feet of water per second.
The United Kingdom, by the Dominion of Canada, or the Province of Ontario, may authorize and permit the diversion within the Province of Ontario of the waters of said river above the Falls of Niagara, for power purposes, not exceeding in the aggregate a daily diversion at the rate of thirty-six thousand cubic feet of water per second.

The prohibitions of this article shall not apply to the diversion of water for sanitary or domestic purposes, or for the service of canals for the purposes of navigation.

ARTICLE VI

The High Contracting Parties agree that the St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan) are to be treated as one stream for the purposes of irrigation and power, and the waters thereof shall be apportioned equally between the two countries, but in making such equal apportionment more than half may be taken from one river and less than half from the other by either country so as to afford a more beneficial use to each. It is further agreed that in the division of such waters during the irrigation season, between the 1st of April and the 31st of October, inclusive, annually, the United States is entitled to a prior appropriation of 500 cubic feet per second of the waters of the Milk River, or so much of such amount as constitutes three-fourths of its natural flow, and that Canada is entitled to a prior appropriation of 500 cubic feet per second of the flow of St. Mary River, or so much of such amount as constitutes three-fourths of its natural flow.

The channel of the Milk River in Canada may be used at the convenience of the United States for the conveyance, while passing through Canadian territory, of waters diverted from the St. Mary River. The provisions of Article II of this treaty shall apply to any injury resulting to property in Canada from the conveyance of such waters through the Milk River.

The measurement and apportionment of the water to be used by each country shall from time to time be made jointly by the properly constituted reclamation officers of the United States and the properly constituted irrigation officers of His Majesty under the direction of the International Joint Commission.

ARTICLE VII

The High Contracting Parties agree to establish and maintain an International Joint Commission of the United States and Canada composed of six commissioners, three on the part of the United States appointed by the President thereof, and three on the part of the United Kingdom appointed by His Majesty on the recommendation of the Governor in Council of the Dominion of Canada.
ARTICLE VIII

This International Joint Commission shall have jurisdiction over and shall pass upon all cases involving the use or obstruction or diversion of waters with respect to which under Articles III and IV of this Treaty the approval of this Commission is required, and in passing upon such cases the Commission shall be governed by the following rules or principles which are adopted by the High Contracting Parties for this purpose:

The High Contracting Parties shall have, each on its own side of the boundary, equal and similar rights in the use of the waters hereinbefore defined as boundary waters.

The following order of precedence shall be observed among the various uses enumerated hereinafter for these waters, and no use shall be permitted which tends materially to conflict with or restrain any other use which is given preference over it in this order of precedence:

(1) Uses for domestic and sanitary purposes;

(2) Uses for navigation, including the service of canals, for the purposes of navigation;

(3) Uses for power and for irrigation purposes.

The foregoing provisions shall not apply to or disturb any existing uses of boundary waters on either side of the boundary.

The requirement for an equal division may in the discretion of the Commission be suspended in cases of temporary diversion, along boundary waters at points where such equal division cannot be made advantageously on account of local conditions, and where such diversion does not diminish elsewhere the amount available for use on the other side.

The Commission in its discretion may 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 provision, approved by the Commission, be made for the protection and indemnity against injury of any interests on either side of the boundary.

In cases involving the elevation of the natural level of waters on either side of the line 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.
The majority of the Commissioners shall have power to render a decision. In case the Commission is evenly divided upon any question or matter presented to it for decision, separate reports shall be made by the Commissioners on each side to their own Government. The High Contracting Parties shall thereupon endeavour to agree upon an adjustment of the question or matter of difference, and if an agreement is reached between them, it shall be reduced to writing in the form of a protocol, and shall be communicated to the Commissioners, who shall take such further proceedings as may be necessary to carry out such agreement.

ARTICLE IX

The High Contracting Parties further agree that any other questions or matters of difference arising between them involving the rights, obligations or interests of either in relation to the other or to the inhabitants of the other, along the common frontier between the United States and the Dominion of Canada, shall be referred from time to time to the International Joint Commission for examination and report, whenever either the Government of the United States or the Government of the Dominion of Canada shall request that such questions or matters of difference be so referred.

The International Joint Commission is authorized in each case so referred to examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate, subject, however, to any restrictions or exceptions which may be imposed with respect thereto by the terms of the reference.

Such reports of the Commission shall not be regarded as decisions of the questions or matters so submitted either on the facts or the law, and shall in no way have the character of an arbitral award.

The Commission shall make a joint report to both Governments in all cases in which all or a majority of the Commissioners agree, and in cases of disagreement the minority may make a joint report to both Governments, or separate reports to their respective Governments.

In case the Commission is evenly divided upon any question or matter referred to it for report, separate reports shall be made by the Commissioners on each side to their own Government.

ARTICLE X

Any questions or matters of difference arising between the High Contracting Parties involving the rights, obligations, or interests of the United States or of the Dominion of Canada either in relation to each other or to their respective inhabitants may be referred for
decision to the International Joint Commission by the consent of the two Parties, it being understood that on the part of the United States any such action will be by and with the advice and consent of the Senate, and on the part of His Majesty's Government with the consent of the Governor General in Council. In each case so referred, the said Commission is authorized to examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate, subject, however, to any restrictions or exceptions which may be imposed with respect thereto by the terms of the reference.

A majority of the said Commission shall have power to render a decision or finding upon any of the questions or matters so referred.

If the said Commission is equally divided or otherwise unable to render a decision or finding as to any questions or matters so referred, it shall be the duty of the Commissioners to make a joint report to both Governments, or separate reports to their respective Governments, showing the different conclusions arrived at with regard to the matters or questions so referred, which questions or matters shall thereupon be referred for decision by the High Contracting Parties to an umpire chosen in accordance with the procedure prescribed in the fourth, fifth and sixth paragraphs of Article XLV of the Hague Convention for the pacific settlement of international disputes, dated October 18, 1907. Such umpire shall have power to render a final decision with respect to those matters and questions so referred on which the Commission failed to agree.

ARTICLE XI

A duplicate original of all decisions rendered and joint reports made by the Commission shall be transmitted to and filed with the Secretary of State of the United States and the Governor General of the Dominion of Canada, and to them shall be addressed all communications of the Commission.

ARTICLE XII

The International Joint Commission shall meet and organize at Washington promptly after the members thereof are appointed, and when organized the Commission may fix such times and places for its meetings as may be necessary, subject at all times to special call or direction by the two Governments. Each Commissioner upon the first joint meeting of the Commission after his appointment, shall, before proceeding with the work of the Commission, make and subscribe a solemn declaration in writing that he will faithfully and impartially perform the duties imposed upon him under this treaty, and such declaration shall be entered on the records of the proceedings of the Commission.
The United States and Canadian sections of the Commission may each appoint a secretary, and these shall act as joint secretaries of the Commission at its joint sessions, and the Commission may employ engineers and clerical assistants from time to time as it may deem advisable. The salaries and personal expenses of the Commission and of the secretaries shall be paid by their respective Governments, and all reasonable and necessary joint expenses of the Commission, incurred by it, shall be paid in equal moieties by the High Contracting Parties.

The Commission shall have power to administer oaths to witnesses, and to take evidence on oath whenever deemed necessary in any proceeding, or inquiry, or matter within its jurisdiction under this treaty, and all parties interested therein shall be given convenient opportunity to be heard, and the High Contracting Parties agree to adopt such legislation as may be appropriate and necessary to give the Commission the powers above mentioned on each side of the boundary, and to provide for the issue of subpoenas and for compelling the attendance of witnesses in proceedings before the Commission. The Commission may adopt such rules of procedure as shall be in accordance with justice and equity, and may make such examination in person and through agents or employees as may be deemed advisable.

ARTICLE XIII

In all cases where special agreements between the High Contracting Parties hereto are referred to in the foregoing article, such agreements are understood and intended to include not only direct agreements between the High Contracting Parties, but also any mutual arrangements between the United States and the Dominion of Canada expressed by concurrent or reciprocal legislation on the part of Congress and the Parliament of the Dominion.

ARTICLE XIV

The present treaty shall be ratified by the President of the United States of America, by and with the advice and consent of the Senate thereof, and by His Britannic Majesty. The ratifications shall be exchanged at Washington as soon as possible and the treaty shall take effect on the date of the exchange of its ratifications. It shall remain in force for five years, dating from the day of exchange of ratifications, and thereafter until terminated by twelve months' written notice given by either High Contracting Party to the other.

In faith whereof the respective plenipotentiaries have signed this treaty in duplicate and have hereunto affixed their seals.

Done at Washington the 11th day of January, in the year of our Lord one thousand nine hundred and nine.

(Signed) Elihu Root [Seal]
(Signed) James Bryce [Seal]
AND WHEREAS the Senate of the United States by their resolution of March 3, 1909, (two-thirds of the Senators present concurring therein) did advise and consent to the ratification of the said Treaty with the following understanding, to wit:

"Resolved further, as a part of this ratification, That the United States approves this treaty with the understanding that nothing in this treaty shall be construed as affecting, or changing, any existing territorial or riparian rights in the water, or rights of the owners of lands under water, on either side of the international boundary at the rapids of the St. Mary's river at Sault Ste. Marie, in the use of the waters flowing over such lands, subject to the requirements of navigation in boundary waters and of navigation canals, and without prejudice to the existing right of the United States and Canada, each to use the waters of the St. Mary's river, within its own territory, and further, that nothing in this treaty shall be construed to interfere with the drainage of wet swamp and overflowed lands into streams flowing into boundary waters, and that this interpretation will be mentioned in the ratification of this treaty as conveying the true meaning of the treaty, and will, in effect, form part of the treaty;"

AND WHEREAS the said understanding has been accepted by the Government of Great Britain, and the ratifications of the two Governments of the said treaty were exchanged in the City of Washington, on the 5th day of May, one thousand nine hundred and ten;

NOW, THEREFORE, be it known that I, William Howard Taft, President of the United States of America, have caused the said treaty and the said understanding, as forming a part thereof, to be made public, to the end that the same and every article and clause thereof may be observed and fulfilled with good faith by the United States and the citizens thereof.

In testimony whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

DONE at the City of Washington this thirteenth day of May in the year of our Lord one thousand nine hundred and ten, and of the Independence of the United States of America the one hundred and thirty fourth.

[seal]

Wm. H. Taft

By The President:

P.C. Knox
Secretary of State.
On proceeding to the exchange of the ratifications of the treaty signed at Washington on January 11, 1909, between the United States and Great Britain, relating to boundary waters and questions arising along the boundary between the United States and the Dominion of Canada, the undersigned plenipotentiaries, duly authorized thereto by their respective Governments, hereby declare that nothing in this treaty shall be construed as affecting, or changing, any existing territorial or riparian rights in the water, or rights of the owners of lands under water, on either side of the international boundary at the rapids of the St. Mary's River at Sault Ste. Marie, in the use of the waters flowing over such lands, subject to the requirements of navigation in boundary waters and of navigation canals, and without prejudice to the existing right of the United States and Canada, each to use the waters of the St. Mary's River, within its own territory; and further, that nothing in this treaty shall be construed to interfere with the drainage of wet, swamp, and overflowed lands into streams flowing into boundary waters, and also that this declaration shall be deemed to have equal force and effect as the treaty itself and to form an integral part thereto.

The exchange of ratifications then took place in the usual form.

In witness whereof, they have signed the present Protocol of Exchange and have affixed their seals thereto.

DONE at Washington this 5th day of May, one thousand nine hundred and ten.

Philander C. Knox [Seal]

James Bryce [Seal]
APPENDIX II

INTERNATIONAL JOINT COMMISSION

RULES OF PROCEDURE

The International Joint Commission, by virtue of the provisions of Article XII of the Treaty between the United States of America and His Majesty the King, dated the 11th day of January, 1909, hereby revokes the Rules of Procedure which it adopted on the 2nd day of February, 1912, as subsequently amended, and, in their place and stead, adopts the following Rules of Procedure:

Part I - General

Definitions

1. (1) In the construction of these rules, unless the context otherwise requires, words importing the singular number shall include the plural and words importing the plural number shall include the singular, and:

   (2) "applicant" means the Government or person on whose behalf an application is presented to the Commission in accordance with Rule 12;

   (3) "Government" means the Government of Canada or the Government of the United States of America;

   (4) "person" includes Province, State, department or agency of a Province or State, municipality, individual, partnership, corporation and association, but does not include the Government of Canada or the Government of the United States of America;

   (5) "oath" includes affirmation;

   (6) "reference" means the document by which a question or matter of difference is referred to the Commission pursuant to Article IX of the Treaty;

   (7) "the Treaty" means the Treaty between the United States of America and His Majesty the King, dated the 11th day of January, 1909;

   (8) "Canadian section" consists of the commissioners appointed by Her Majesty on the recommendation of the Governor in Council of Canada;
"United States section" consists of the commissioners appointed by the President of the United States.

Chairmen

2. (1) The commissioners of the United States section of the Commission shall appoint one of their number as chairman, to be known as the Chairman of the United States Section of the International Joint Commission, and he shall act as chairman at all meetings of the Commission held in the United States and in respect to all matters required to be done in the United States by the chairman of the Commission.

(2) The commissioners of the Canadian section of the Commission shall appoint one of their number as chairman to be known as the Chairman of the Canadian section of the International Joint Commission, and he shall act as chairman at all meetings of the Commission held in Canada and in respect to all matters required to be done in Canada by the Chairman of the Commission.

(3) In case it shall be impracticable for the chairman of either section to act in any matter, the commissioner of such section who is senior in order of appointment shall act in his stead.

Permanent Offices

3. The permanent offices of the Commission shall be at Washington, in the District of Columbia, and at Ottawa, in the Province of Ontario, and subject to the directions of the respective chairmen acting for their respective sections, the secretaries of the United States and Canadian sections of the Commission shall have full charge and control of said offices, respectively.

Duties of Secretaries

4. (1) The secretaries shall act as joint secretaries at all meetings and hearings of the Commission. The secretary of the section of the Commission of the country in which a meeting or hearing is held shall prepare a record thereof and each secretary shall preserve an authentic copy of the same in the permanent offices of the Commission.

(2) Each secretary shall receive and file all applications, references and other papers properly presented to the Commission in any proceeding instituted before it and shall number in numerical order all such applications and references; the number given to an application or reference shall be the primary file number for all papers relating to such application or reference.

(3) Each secretary shall forward to the other for filing in the office of the other copies of all official letters, documents, records or other papers received by him or filed in his office, pertaining to any proceeding before the Commission, to the end that there shall be on file in each office either the original or a copy of all official letters
and other papers relating to the said proceeding.

(4) Each secretary shall also forward to the other for filing in the office of the other copies of any letters, documents or other papers received by him or filed in his office which are deemed by him to be of interest to the Commission.

Meetings

5. (1) Subject at all times to special call or direction by the two Governments, meetings of the Commission shall be held at such times and places in the United States and Canada as the Commission or the Chairmen may determine and in any event shall be held each year at Washington in April and at Ottawa in October, beginning ordinarily on the first Tuesday of the said months.

(2) If the Commission determines that a meeting shall be open to the public, it shall give such advance notices to this effect as it considers appropriate in the circumstances.

Service of Documents

6. (1) Where the secretary is required by these rules to give notice to any person, this shall be done by delivering or mailing such notice to the person at the address for service that the said person has furnished to the Commission, or if no such address has been furnished, at the dwelling house or usual place of abode or usual place of business of such person.

(2) Where the secretary is required by these rules to give notice to a Government, this shall be done by delivering or mailing such notice to the Secretary of State for External Affairs of Canada or to the Secretary of State of the United States of America, as the case may be.

(3) Service of any document pursuant to Rule 22 shall be by delivering a copy thereof to the person named therein, or by leaving the same at the dwelling house or usual place of abode or usual place of business of such person. The person serving the notice or request shall furnish an affidavit to the secretary stating the time and place of such service.

Conduct of Hearings

7. Hearings may be conducted, testimony received and arguments thereon heard by the whole Commission or by one or more Commissioners from each section of the Commission, designated for that purpose by the respective sections or the Chairmen thereof.
Decision by the Whole Commission

8. The whole Commission shall consider and determine any matter or question which the Treaty or any other Treaty or international agreement, either in terms or by implication, requires or makes it the duty of the Commission to determine. For the purposes of this rule and Rule 7, "the whole Commission" means all of the commissioners appointed pursuant to Article VII of the Treaty whose terms of office have not expired and who are not prevented by serious illness or other circumstances beyond their control from carrying out their functions as commissioners. In no event shall a decision be made without the concurrence of at least four commissioners.

Suspension or Amendment of Rules

9. The Commission may suspend, repeal, or amend all or any of the Rules of Procedure at any time, with the concurrence of at least four commissioners. Both Governments shall be informed forthwith of any such action.

General Rule

10. The Commission may, at any time, adopt any procedure which it deems expedient and necessary to carry out the true intent and meaning of the Treaty.

Availability of Records

11. (1) The following items in the official records of the Commission shall be available for public information at the permanent offices of the Commission:

Applications
References
Public Notices
Press Releases
Statements in Response
Statements in Reply
Records of hearings, including exhibits filed
Briefs and formal Statements submitted at hearings or at other times

(2) Decisions rendered and orders issued by the Commission and formal opinions of any of the Commissioners with relation thereto, shall be available similarly for public information after duplicate originals of the decisions or orders have been transmitted to and filed with the Governments pursuant to Article XI of the Treaty.

(3) Copies of reports submitted to one or both of the Governments pursuant to the Treaty shall be available similarly for public information only with the consent of the Government or Governments to whom the reports are addressed.
(4) Reports, letters, memoranda and other communications addressed to the Commission, by boards or committees created by or at the request of the Commission, are privileged and shall become available for public information only in accordance with a decision of the Commission to that effect.

(5) Except as provided in the preceding paragraphs of this rule, records of deliberations, and documents, letters, memoranda and communications of every nature and kind in the official records of the Commission, whether addressed to or by the Commission, commissioners, secretaries, advisers or any of them, are privileged and shall become available for public information only in accordance with a decision of the Commission to that effect.

(6) A copy of any document, report, record or other paper which under this rule is available for public information may be furnished to any person upon payment of any cost involved in its reproduction.

Part II - Applications

Presentation to Commission

12. (1) Where one or the other of the Governments on its own initiative seeks the approval of the Commission for the use, obstruction or diversion of waters with respect to which under Articles III or IV of the Treaty the approval of the Commission is required, it shall present to the Commission an application setting forth as fully as may be necessary for the information of the Commission the facts upon which the application is based and the nature of the order of approval desired.

(2) Where a person seeks the approval of the Commission for the use, obstruction or diversion of waters with respect to which under Articles III or IV of the Treaty the approval of the Commission is required, he shall prepare an application to the Commission and forward it to the Government within whose jurisdiction such use, obstruction or diversion is to be made, with the request that the said application be transmitted to the Commission. If such Government transmits the application to the Commission with a request that it take appropriate action thereon, the same shall be filed by the Commission in the same manner as an application presented in accordance with paragraph (1) of this rule. Transmittal of the application to the Commission shall not be construed as authorization by the Government of the use, obstruction or diversion proposed by the applicant. All applications by persons shall conform, as to their contents, to the requirements of paragraph (1) of this rule.

(3) Where the Commission has issued an Order approving a particular use, obstruction or diversion, in which it has specifically retained jurisdiction over the subject matter of an application and has reserved the right to make further orders relating thereto, any Government
or person entitled to request the issuance of such further order may present to the Commission a request, setting forth the facts upon which it is based and the nature of the further order desired. On receipt of the request, the Commission shall proceed in accordance with the terms of the Order in which the Commission specifically retained jurisdiction. In each case the secretaries shall notify both Governments and invite their comments before the request is complied with.

Copies Required

13. (1) Subject to paragraph (3) of this rule, two duplicate originals and fifty copies of the application and of any supplemental application, statement in response, supplemental statement in response, statement in reply and supplemental statement in reply shall be delivered to either secretary. On receipt of such documents, the secretary shall forthwith send one duplicate original and twenty-five copies to the other secretary.

(2) Subject to paragraph (3) of this rule, two copies of such drawings, profiles, plans of survey, maps and specifications as may be necessary to illustrate clearly the matter of the application shall be delivered to either secretary and he shall send one copy forthwith to the other secretary.

(3) Notwithstanding paragraphs (1) and (2) of this rule, such additional copies of the documents mentioned therein as may be requested by the Commission shall be provided forthwith.

Authorization by Government

14. (1) Where the use, obstruction or diversion of waters for which the Commission's approval is sought has been authorized by or on behalf of a Government or by or on behalf of a State or Province or other competent authority, two copies of such authorization and of any plans approved incidental thereto shall accompany the application when it is presented to the Commission in accordance with Rule 12.

(2) Where such a use, obstruction or diversion of waters is authorized by or on behalf of a Government or by or on behalf of a State or Province or other competent authority after an application has been presented to the Commission in accordance with Rule 12, the applicant shall deliver forthwith to the Commission two copies of such authorization and of any plans approved incidental thereto.

Notice of Publication

15. (1) As soon as practicable after an application is presented or transmitted in accordance with Rule 12, the secretary of the section of the Commission appointed by the other Government shall send a copy of the application to such Government.
(2) Except as otherwise provided pursuant to Rule 19, the secretaries, as soon as practicable after the application is received, shall cause a notice to be published in The Canada Gazette and the Federal Register and once each week for three successive weeks in two newspapers, published one in each country and circulated in or near the localities which, in the opinion of the Commission, are most likely to be affected by the proposed use, obstruction or diversion. Subject to paragraph (3) of this rule, the notice shall state that the application has been received, the nature and locality of the proposed use, obstruction or diversion, the time within which any person interested may present a statement in response to the Commission and that the Commission will hold a hearing or hearings at which all persons interested are entitled to be heard with respect thereto.

(3) If the Commission so directs, the notice referred to in paragraph (2) of this rule, appropriately modified, may be combined with the notice of hearing referred to in Rule 23 and published accordingly.

Statement in Response

16. (1) Except as otherwise provided pursuant to Rule 19, a Government and any interested person, other than the applicant, may present a statement in response to the Commission within thirty days after the filing of an application. A statement in response shall set forth facts and arguments bearing on the subject matter of the application and tending to oppose or support the application, in whole or in part. If it is desired that conditional approval be granted, the statement in response should set forth the particular condition or conditions desired. An address for service of documents should be included in the statement in response.

(2) When a statement in response has been filed, the secretaries shall send a copy forthwith to the applicant and to each Government except the Government which presented the said statement in response. If so directed by the Commission, the secretaries shall inform those who have presented statements in response, of the nature of the total response.

Statement in Reply

17. (1) Except as otherwise provided pursuant to Rule 19, the applicant and, if he is a person, the Government which transmitted the application on his behalf, one or both may present a statement or statements in reply to the Commission within thirty days after the time provided for presenting statements in response. A statement in reply shall set forth facts and arguments bearing upon the allegations and arguments contained in the statement in response.
(2) When a statement in reply has been filed, the secretary shall send a copy forthwith to each Government except the Government which presented the said statement in reply, and to all persons who presented statements in response.

Supplemental or Amended Applications and Statements

18. (1) If it appears to the Commission that either an application, a statement in response, or a statement in reply is not sufficiently definite and complete, the Commission may require a more definite and complete application, statement in response or statement in reply, as the case may be, to be presented.

(2) Where substantial justice requires it, the Commission with the concurrence of at least four Commissioners may allow the amendment of any application, statement in response, statement in reply and any document or exhibit which has been presented to the Commission.

Reducing or Extending Time and Dispensing with Statements

19. In any case where the Commission considers that such action would be in the public interest and not prejudicial to the right of interested persons to be heard in accordance with Article XII of the Treaty, the Commission may reduce or extend the time for the presentation of any paper, or the doing of any act required by these rules or may dispense with the presentation of such statements in response and statements in reply.

Interested Persons and Counsel

20. Governments and persons interested in the subject matter of an application, whether in favour of or opposed to it, are entitled to be heard in person or by counsel at any hearing thereof held by the Commission.

Consultation

21. The Commission may meet or consult with the applicant, the Governments and other persons or their counsel at any time regarding the plan of hearing, the mode of conducting the inquiry, the admitting of proof of certain facts or for any other purpose.

Attendance of Witnesses and Production of Documents

22. (1) Requests for the attendance and examination of witnesses and for the production and inspection of books, papers, and documents may be issued over the signature of the secretary of the section of the Commission of the country in which the witnesses reside or the books, papers or documents may be, when so authorized by the Chairman of that section.

(2) All applications for subpoena or other process to compel the attendance of witnesses or the production of books, papers and documents before the Commission shall be made to the proper courts of either country, as the case may be, upon the order of the Commission.
23. (1) The time and place of the hearing or hearings of an application shall be fixed by the Chairmen of the two sections.

(2) The secretaries shall forthwith give written notice of the time and place of the hearing or hearings to the applicant, the Governments, and all persons who have presented statements in response to the Commission. Except as otherwise provided by the Commission, the secretaries shall also cause such notice to be published in the Canada Gazette and the Federal Register and once each week for three successive weeks in two newspapers, published one in each country and circulated in or near the localities which, in the opinion of the Commission, are most likely to be affected by the proposed use, obstruction or diversion of water.

(3) All hearings shall be open to the public.

(4) The applicant, the Governments and persons interested are entitled to present oral and documentary evidence and argument that is relevant and material to any issue that is before the Commission in connection with the application.

(5) The presiding chairman may require that evidence be under oath.

(6) Witnesses may be examined and cross-examined by the Commissioners and by counsel for the applicant, the Governments and the Commission. With the consent of the presiding chairman, counsel for a person other than the applicant may also examine or cross-examine witnesses.

(7) The Commission may require further evidence to be given and may required printed briefs to be submitted at or subsequent to the hearing.

(8) The Commissioners shall be free to determine the probative value of the evidence submitted to it.

(9) A verbatim transcript of the proceedings at the hearing shall be prepared.

(10) The hearing of the application, when once begun, shall proceed at the times and places determined by the Chairmen of the two sections to ensure the greatest practicable continuity and dispatch of proceedings.

Expenses of Proceedings

24. (1) The expenses of those participating in any proceeding under Part II of these rules shall be borne by the participant.

(2) The Commission, after due notice to the participant or participants concerned, may require that any unusual cost or expense to the
Commission shall be paid by the person on whose behalf or at whose request such unusual cost or expense has been or will be incurred.

Government Brief Re Navigable Waters

25. When in the opinion of the Commission it is desirable that a decision should be rendered which affects navigable waters in a manner or to an extent different from that contemplated by the application and plans presented to the Commission, the Commission will, before making a final decision, submit to the Government presenting or transmitting the application a draft of the decision, and such Government may transmit to the Commission a brief or memorandum thereon which will receive due consideration by the Commission before its decision is made final.

Part III - References

Presentation to Commission

26. (1) Where a question or matter of difference arising between the two Governments involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other along the common frontier between the United States of America and Canada is to be referred to the Commission under Article IX of the Treaty, the method of bringing such question or matter to the attention of the Commission and invoking its action ordinarily will be as set forth in this rule.

(2) Where both Governments have agreed to refer such a question or matter to the Commission, each Government will present to the Commission, at the permanent office in its country, a reference in similar or identical terms setting forth as fully as may be necessary for the information of the Commission the question or matter which it is to examine into and report upon and any restrictions or exceptions which may be imposed upon the Commission with respect thereto.

(3) Where one of the Governments, on its own initiative, has decided to refer such a question or matter to the Commission, it will present a reference to the Commission at the permanent office in its country. All such references should conform, as to their contents, to the requirements of paragraph (2) of this rule.

(4) Such drawings, plans of survey and maps as may be necessary to illustrate clearly the question or matter referred should accompany the reference when it is presented to the Commission.

Notice and Publication

27. (1) The secretary to whom a reference is presented shall receive and file the same and shall send a copy forthwith to the other secretary
for filing in the office of the latter. If the reference is presented by one Government only, the other secretary shall send a copy forthwith to his Government.

(2) Subject to any restrictions or exceptions which may be imposed upon the Commission by the terms of the reference, and unless otherwise provided by the Commission, the secretaries, as soon as practicable after the reference is received, shall cause a notice to be published in the Canada Gazette, the Federal Register and in two newspapers, published one in each country and circulated in or near the localities which, in the opinion of the Commission, are most likely to be interested in the subject matter of the reference. The notice shall describe the subject matter of the reference in general terms, invite interested persons to inform the Commission of the nature of their interest and state that the Commission will provide convenient opportunity for interested persons to be heard with respect thereto.

Advisory Boards

28. (1) The Commission may appoint a board or boards, composed of qualified persons, to conduct on its behalf investigations and studies that may be necessary or desirable and to report to the Commission regarding any questions or matters involved in the subject matter of the reference.

(2) Such board ordinarily will have an equal number of members from each country.

(3) The Commission ordinarily will make copies of the main or final report of such board or a digest thereof available for examination by the Governments and interested persons prior to holding the final hearing or hearings referred to in Rule 29.

Hearings

29. (1) A hearing or hearings may be held whenever in the opinion of the Commission such action would be helpful to the Commission in complying with the terms of a reference. Subject to any restrictions or exceptions which may be imposed by the terms of the reference, a final hearing or hearings shall be held before the Commission reports to Governments in accordance with the terms of the reference.

(2) The time, place and purpose of the hearing or hearings on a reference shall be fixed by the Chairmen of the two sections.

(3) The secretaries shall forthwith give written notice of the time, place and purpose of the hearing or hearings to each Government and to persons who have advised the Commission of their interest. Unless otherwise directed by the Commission, the secretaries shall
also cause such notice to be published in the Canada Gazette, the Federal Register and once each week for three successive weeks in two newspapers, published one in each country and circulated in or near the localities which, in the opinion of the Commission, are most likely to be interested in the subject matter of the reference.

(4) All hearings shall be open to the public, unless otherwise determined by the Commission.

(5) At a hearing, the Governments and persons interested are entitled to present, in person or by counsel, oral and documentary evidence and argument that is relevant and material to any matter that is within the published purpose of the hearing.

(6) The presiding chairman may require that evidence be under oath.

(7) Witnesses may be examined and cross-examined by the Commissioners and by counsel for the Governments and the Commission. With the consent of the presiding chairman, counsel for any interested person may also examine or cross-examine witnesses.

(8) The Commission may require further evidence to be given and may require printed briefs to be submitted at or subsequent to the hearing.

(9) A verbatim transcript of the proceedings at the hearing shall be prepared.

Proceedings Under Article X

30. When a question or matter of difference arising between the two Governments involving the rights, obligations or interests of either in relation to the other or to their respective inhabitants has been or is to be referred to the Commission for decision under Article X of the Treaty, the Commission after consultation with the said Governments, will adopt such rules of procedures as may be appropriate to the question or matter referred or to be referred.

APPENDIX III

AGREEMENT BETWEEN
CANADA AND THE UNITED STATES OF AMERICA
ON GREAT LAKES WATER QUALITY

Ottawa, April 15, 1972

In force April 15, 1972

The Government of Canada and the Government of the United States of America,

Determined to restore and enhance water quality in the Great Lakes System;

Seriously concerned about the grave deterioration of water quality on each side of the boundary to an extent that is causing injury to health and property on the other side, as described in the 1970 Report of the International Joint Commission on Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River;

Intent upon preventing further pollution of the Great Lakes System owing to continuing population growth, resource development and increasing use of water;

Reaffirming in a spirit of friendship and cooperation the rights and obligations of both countries under the Boundary Waters Treaty signed on January 11, 1909, and in particular their obligation not to pollute boundary waters;

Recognizing the rights of each country in the use of its Great Lakes waters;

Satisfied that the 1970 report of the International Joint Commission provides a sound basis for new and more effective cooperative actions to restore and enhance water quality in the Great Lakes System;

Convinced that the best means to achieve improved water quality in the Great Lakes System is through the adoption of common objectives, the development and implementation of cooperative programs and other measures, and the assignment of special responsibilities and functions to the International Joint Commission;

Have agreed as follows:
ARTICLE I
DEFINITIONS

As used in this Agreement:

(a) "Boundary Waters of the Great Lakes System" or "boundary waters" means boundary waters, as defined in the Boundary Waters Treaty, that are within the Great Lakes System;

(b) "Boundary Waters Treaty" means the Treaty between the United States and Great Britain Relating to Boundary Waters, and Questions Arising Between the United States and Canada, signed at Washington on January 11, 1909;

(c) "Compatible regulations" means regulations no less restrictive than agreed principles;

(d) "Great Lakes System" means all of the streams, rivers, lakes and other bodies of water that are within the drainage basin of the St. Lawrence River at or upstream from the point at which this river becomes the international boundary between Canada and the United States;

(e) "Harmful quantity" means any quantity of a substance that if discharged into receiving waters would be inconsistent with the achievement of the water quality objectives;

(f) "Hazardous polluting substance" means any element or compound identified by the Parties which, when discharged in any quantity into or upon receiving waters or adjoining shorelines, presents an imminent and substantial danger to public health or welfare; for this purpose, "public health or welfare" encompasses all factors affecting the health and welfare of man including but not limited to human health, and the conservation and protection of fish, shellfish, wildlife, public and private property, shorelines and beaches;

(g) "International Joint Commission" or "Commission" means the International Joint Commission established by the Boundary Waters Treaty;

(h) "Phosphorus" means the element phosphorus present as a constituent of various organic complexes and compounds;

(i) "Specific water quality objective" means the level of a substance or physical effect that the Parties agree, after investigation, to recognize as a maximum or minimum desired limit for a defined body of water or portion thereof, taking into account the beneficial uses of the water that the parties desire to secure and protect;
(j) "State and Provincial Governments" means the Governments of the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin, and the Government of the Province of Ontario;

(k) "Tributary waters of the Great Lakes System" or "tributary waters" means all the waters of the Great Lakes System that are not boundary waters;

(l) "Water quality objectives" means the general water quality objectives adopted pursuant to Article II of this Agreement and the specific water quality objectives adopted pursuant to Article III of this Agreement.

ARTICLE II

GENERAL WATER QUALITY OBJECTIVES

The following general water quality objectives for the boundary waters of the Great Lakes System are adopted. These waters should be:

(a) Free from substances that enter the waters as a result of human activity and that will settle to form putrescent or otherwise objectionable sludge deposits, or that will adversely affect aquatic life or waterfowl;

(b) Free from floating debris, oil, scum and other floating materials entering the waters as a result of human activity in amounts sufficient to be unsightly or deleterious;

(c) Free from materials entering the waters as a result of human activity producing colour, odour or other conditions in such a degree as to create a nuisance;

(d) Free from substances entering the waters as a result of human activity in concentrations that are toxic or harmful to human, animal or aquatic life;

(e) Free from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae.

ARTICLE III

SPECIFIC WATER QUALITY OBJECTIVES

2. The specific water quality objectives may be modified and additional specific water quality objectives for the boundary waters of the Great Lakes System or for particular sections thereof may be adopted by the Parties in accordance with the provisions of Articles IX and XII of this Agreement.

3. The specific water quality objectives adopted pursuant to this Article represent the minimum desired levels of water quality in the boundary waters of the Great Lakes System and are not intended to preclude the establishment of more stringent requirements.

Notwithstanding the adoption of specific water quality objectives, all reasonable and practicable measures will be taken to maintain the levels of water quality existing at the date of entry into force of this Agreement in those areas of the boundary waters of the Great Lakes System where such levels exceed the specific water quality objectives.

ARTICLE IV

STANDARDS AND OTHER REGULATORY REQUIREMENTS

Water quality standards and other regulatory requirements of the Parties shall be consistent with the achievement of the water quality objectives. The Parties shall use their best efforts to ensure that water quality standards and other regulatory requirements of the State and Provincial Governments shall similarly be consistent with the achievement of the water quality objectives.

ARTICLE V

PROGRAMS AND OTHER MEASURES

Programs and other measures directed toward the achievement of the water quality objectives shall be developed and implemented as soon as practicable in accordance with legislation in the two countries. Unless otherwise agreed, such programs and other measures shall be either completed or in process of implementation by December 31, 1975. They shall include the following:

(a) Pollution from Municipal Sources. Programs for the abatement and control of discharges of municipal sewage into the Great Lakes System including:

(i) construction and operation in all municipalities having sewer systems of waste treatment facilities providing levels of treatment consistent with the achievement of the water quality objectives, taking into account the effects of waste from other sources;
(ii) provision of financial resources to assist prompt construction of needed facilities;

(iii) establishment of requirements for construction and operating standards for facilities;

(iv) measures to find practical solutions for reducing pollution from overflows of combined storm and sanitary sewers;

(v) monitoring, surveillance and enforcement activities necessary to ensure compliance with the foregoing programs and measures.

(b) Pollution from Industrial Sources. Programs for the abatement and control of pollution from industrial sources, including:

(i) establishment of waste treatment or control requirements for all industrial plants discharging waste into the Great Lakes System, to provide levels of treatment or reduction of inputs of substances and effects consistent with the achievement of the water quality objectives, taking into account the effects of waste from other sources;

(ii) requirements for the substantial elimination of discharges into the Great Lakes System of mercury and other toxic heavy metals;

(iii) requirements for the substantial elimination of discharges into the Great Lakes System of toxic persistent organic contaminants;

(iv) requirements for the control of thermal discharges;

(v) measures to control the discharge of radioactive materials into the Great Lakes System;

(vi) monitoring, surveillance and enforcement activities necessary to ensure compliance with the foregoing requirements and measures.

(c) Eutrophication. Measures for the control of inputs of phosphorus and other nutrients including programs to reduce phosphorus inputs in accordance with the provisions of Annex 2.

(d) Pollution from Agricultural, Forestry and Other Land Use Activities. Measures for the abatement and control of pollution from agricultural, forestry and other land use activities, including:
(i) measures for the control of pest control products with a view to limiting inputs into the Great Lakes System, including regulations to ensure that pest control products judged to have long term deleterious effects on the quality of water or its biotic components shall be used only as authorized by the responsible regulatory agencies, and that pest control products shall not be applied directly to water except in accordance with the requirements of the responsible regulatory agencies;

(ii) measures for the abatement and control of pollution from animal husbandry operations, including encouragement to appropriate regulatory agencies to adopt regulations governing site selection and disposal of liquid and solid wastes in order to minimize the loss of pollutants to receiving waters;

(iii) measures governing the disposal of solid wastes and contributing to the achievement of the water quality objectives, including encouragement to appropriate regulatory agencies to ensure proper location of land fill and land dumping sites and regulations governing the disposal on land of hazardous polluting substances;

(iv) advisory programs and measures that serve to abate and control inputs of nutrients and sediments into receiving waters from agricultural, forestry and other land use activities.

(e) Pollution from Shipping Activities. Measures for the abatement and control of pollution from shipping sources, including:

(i) programs and compatible regulations for vessel design, construction and operation, to prevent discharge of harmful quantities of oil and hazardous polluting substances, in accordance with the principles set forth in Annex 3;

(ii) compatible regulations for the control of vessel waste discharges in accordance with the principles set forth in Annex 4;

(iii) such compatible regulations to abate and control pollution from shipping sources as may be deemed desirable in the light of studies to be undertaken in accordance with the terms of reference set forth in Annex 5;

(iv) programs for the safe and efficient handling of shipboard generated wastes, including oil, hazardous polluting substances, garbage, waste water and sewage, and their subsequent disposal, including any necessary compatible regulations relating to the type, quantity and capacity of shore reception facilities;
(v) establishment of a coordinated system for the surveillance and enforcement of regulations dealing with the abatement and control of pollution from shipping activities.

(f) Pollution from Dredging Activities. Measures for the abatement and control of pollution from dredging activities, including the development of criteria for the identification of polluted dredged spoil and compatible programs for disposal of polluted dredged spoil, which shall be considered in the light of the review provided for in Annex 6; pending the development of compatible criteria and programs, dredging operations shall be conducted in a manner that will minimize adverse effects on the environment.

(g) Pollution from Onshore and Offshore Facilities. Measures for the abatement and control of pollution from onshore and offshore facilities, including programs and compatible regulations for the prevention of discharges of harmful quantities of oil and hazardous polluting substances, in accordance with the principles set forth in Annex 7.

(h) Contingency Plan. Maintenance of a joint contingency plan for use in the event of a discharge or the imminent threat of a discharge of oil or hazardous polluting substances, in accordance with the provisions of Annex 8.

(i) Hazardous Polluting Substances. Consultation within one year from the date of entry into force of this Agreement for the purpose of developing an Annex identifying hazardous polluting substances; the Parties shall further consult from time to time for the purpose of identifying harmful quantities of these substances and of reviewing the definition of "harmful quantity of oil" set forth in Annexes 3 and 7.

2. The Parties shall develop and implement such additional programs as they jointly decide are necessary and desirable for the achievement of the water quality objectives.

3. The Programs and other measures provided for in this Article shall be designed to abate and control pollution of tributary waters where necessary or desirable for the achievement of the water quality objectives for the boundary waters of the Great Lakes System.

ARTICLE VI

POWERS, RESPONSIBILITIES AND FUNCTIONS OF THE INTERNATIONAL JOINT COMMISSION

1. The International Joint Commission shall assist in the implementation of this Agreement. Accordingly, the Commission is hereby given, pursuant to Article IX of the Boundary Waters Treaty, the following responsibilities:
(a) Collation, analysis and dissemination of data and information supplied by the Parties and State and Provincial Governments relating to the quality of the boundary waters of the Great Lakes System and to pollution that enters the boundary waters from tributary waters;

(b) Collection, analysis and dissemination of data and information concerning the water quality objectives and the operation and effectiveness of the programs and other measures established pursuant to this Agreement;

(c) Tendering of advice and recommendations to the Parties and to the State and Provincial Governments on problems of the quality of the boundary waters of the Great Lakes System, including specific recommendations concerning the water quality objectives, legislation, standards and other regulatory requirements, programs and other measures, and intergovernmental agreements relating to the quality of these waters;

(d) Provision of assistance in the coordination of the joint activities envisaged by this Agreement, including such matters as contingency planning and consultation on special situations;

(e) Provision of assistance in the coordination of Great Lakes water quality research, including identification of objectives for research activities, tendering of advice and recommendations concerning research to the parties and to the State and Provincial Governments and dissemination of information concerning research to interested persons and agencies;

(f) Investigations of such subjects related to Great Lakes water quality as the Parties may from time to time refer to it. At the time of signature of this Agreement, the Parties are requesting the Commission to enquire into and report to them upon:

(i) pollution of the boundary waters of the Great Lakes System from agricultural, forestry and other land use activities, in accordance with the terms of reference attached to this Agreement;

(ii) actions needed to preserve and enhance the quality of the waters of Lake Huron and Lake Superior in accordance with the terms of reference attached to this Agreement.

2. In the discharge of its responsibilities under this Agreement, the Commission may exercise all of the powers conferred upon it by the Boundary Waters Treaty and by any legislation passed pursuant thereto, including the power to conduct public hearings and to compel the testimony of witnesses and the production of documents.
3. The Commission shall make a report to the Parties and to the State and Provincial Governments no less frequently than annually concerning progress toward the achievement of the water quality objectives. This report shall include an assessment of the effectiveness of the programs and other measures undertaken pursuant to this Agreement, and advice and recommendations. The Commission may at any time make special reports to the Parties, to the State and Provincial Governments and to the public concerning any problem of water quality in the Great Lakes System.

4. The Commission may in its discretion publish any report, statement or other document prepared by it in the discharge of its functions under this Agreement.

5. The Commission shall have authority to verify independently the data and other information submitted by the Parties and by the State and Provincial Governments through such tests or other means as appear appropriate to it, consistent with the Boundary Waters Treaty and with applicable legislation.

ARTICLE VII

JOINT INSTITUTIONS

1. The International Joint Commission shall establish a Great Lakes Water Quality Board to assist it in the exercise of the powers and responsibilities assigned to it under this Agreement. Such Board shall be composed of an equal number of members from Canada and the United States, including representation from the Parties and from each of the State and Provincial Governments. The Commission shall also establish a Research Advisory Board in accordance with the terms of reference attached to this Agreement. The members of the Great Lakes Water Quality Board and the Research Advisory Board shall be appointed by the Commission after consultation with the appropriate government or governments concerned. In addition, the Commission shall have the authority to establish as it may deem appropriate such subordinate bodies as may be required to undertake specific tasks, as well as a regional office, which may be located in the basin of the Great Lakes System, to assist it in the discharge of its functions under this Agreement. The Commission shall also consult the Parties about the site and staffing of any regional office that might be established.

2. The Commission shall submit an annual budget of anticipated expenses to be incurred in carrying out its responsibilities under this Agreement to the Parties for approval. Each Party shall seek funds to pay one-half of the annual budget so approved, but neither Party shall be under an obligation to pay a larger amount than the other toward this budget.
ARTICLE VIII

SUBMISSION AND EXCHANGE OF INFORMATION

1. The International Joint Commission shall be given at its request any data or other information relating to the quality of the boundary waters of the Great Lakes System in accordance with procedures to be established within three months of the entry into force of this Agreement or as soon thereafter as possible, by the Commission in consultation with the Parties and with the State and Provincial Governments.

2. The Commission shall make available to the Parties and to the State and Provincial Governments upon request all data or other information furnished to it in accordance with this Article.

3. Each Party shall make available to the other at its request any data or other information in its control relating to the quality of the waters of the Great Lakes System.

4. Notwithstanding any other provisions of this Agreement, the Commission shall not release without the consent of the owner any information identified as proprietary information under the law of the place where such information has been acquired.

ARTICLE IX

CONSULTATION AND REVIEW

1. Following the receipt of each report submitted to the Parties by the International Joint Commission in accordance with paragraph 3 of Article VI of this Agreement, the Parties shall consult on the recommendations contained in such report and shall consider such action as may be appropriate, including:

(a) The modification of existing water quality objectives and the adoption of new objectives;

(b) The modification or improvement of programs and joint measures;

(c) The amendment of this Agreement or any annex thereto.

Additional consultations may be held at the request of either Party on any matter arising out of the implementation of this Agreement.

2. When a Party becomes aware of a special pollution problem that is of joint concern and requires an immediate response, it shall notify and consult with the other Party forthwith about appropriate remedial action.
3. The Parties shall conduct a comprehensive review of the operation and effectiveness of this Agreement during the fifth year after its coming into force. Thereafter, further comprehensive reviews shall be conducted upon the request of either Party.

**ARTICLE X**

**IMPLEMENTATION**

1. The obligations undertaken in this Agreement shall be subject to the appropriation of funds in accordance with the constitutional procedures of the Parties.

2. The Parties commit themselves to seek:

   (a) The appropriation of the funds required to implement this Agreement, including the funds needed to develop and implement the programs and other measures provided for in Article V, and the funds required by the International Joint Commission to carry out its responsibilities effectively;

   (b) The enactment of any additional legislation that may be necessary in order to implement the programs and other measures provided for in Article V;

   (c) The cooperation of the State and Provincial Governments in all matters relating to this Agreement.

**ARTICLE XI**

**EXISTING RIGHTS AND OBLIGATIONS**

Nothing in this Agreement shall be deemed to diminish the rights and obligations of the Parties as set forth in the Boundary Waters Treaty.

**ARTICLE XII**

**AMENDMENT**

This Agreement and the Annexes thereto may be amended by agreement of the Parties. The Annexes may also be amended as provided therein, subject to the requirement that such amendments shall be within the scope of this Agreement.
ARTICLE XIII
ENTRY INTO FORCE AND TERMINATION

This Agreement shall enter into force upon signature by the duly authorized representatives of the Parties, and shall remain in force for a period of five years and thereafter until terminated upon twelve months' notice given in writing by one of the Parties to the other.

IN WITNESS WHEREOF the Representatives of the two Governments have signed this Agreement.

DONE in two copies at Ottawa this fifteenth day of April 1972 in English and French, each version being equally authentic.

EN FOI DE QUOI les représentants des deux Gouvernements ont signé le présent Accord.

FAIT en double exemplaires a Ottawa le quinzième jour d'avril 1972 en anglais et en français, les deux textes faisant également foi.

P.E. Trudeau
Mitchell Sharp
For the Government of Canada
Pour le Gouvernement du Canada

Richard Nixon
William Rogers
For the Government of the United States of America
Pour le Gouvernement des Etats-Unis d'Amerique
ANNEX I

SPECIFIC WATER QUALITY OBJECTIVES

1. Specific Objectives. The specific water quality objectives for the boundary waters of the Great Lakes System are as follows:

(a) Microbiology. The geometric mean of not less than five samples taken over not more than a thirty-day period should not exceed 1,000/100 millilitres total coliforms, nor 200/100 millilitres fecal coliforms. Water used for body contact recreation activities, should be substantially free from bacteria, fungi, or viruses that may produce enteric disorders or eye, ear, nose, throat and skin infections or other human diseases and infections.

(b) Dissolved Oxygen. In the Connecting Channels and in the upper waters of the lakes, the dissolved oxygen level should not be less than 6.0 milligrams per litre at any time; in hypolimnetic waters, it should be not less than necessary for the support of fishlife, particularly cold water species.

(c) Total Dissolved Solids. In Lake Erie, Lake Ontario and the International Section of the St. Lawrence River, the level of total dissolved solids should not exceed 200 milligrams per litre. In the St. Clair River, Lake St. Clair, the Detroit River and the Niagara River, the level should be consistent with maintaining the levels of total dissolved solids in Lake Erie and Lake Ontario at not to exceed 200 milligrams per litre. In the remaining boundary waters, pending further study, the level of total dissolved solids should not exceed present levels.

(d) Taste and Odour. Phenols and other objectionable taste and odour producing substances should be substantially absent.

(e) pH. Values should not be outside the range of 6.7 to 8.5

(f) Iron (Fe). Levels should not exceed 0.3 milligrams per litre.

(g) Phosphorus (P). Concentrations should be limited to the extent necessary to prevent nuisance growths of algae, weeds and slimes that are or may become injurious to any beneficial water use.

(h) Radioactivity. Radioactivity should be kept at the lowest practicable levels and in any event should be controlled to the extent necessary to prevent harmful effects of health.
2. Interim Objectives. Until objectives for particular substances and effects in the classes described in this paragraph are further refined, the objectives for them are as follows:

(a) Temperature. There should be no change that would adversely affect any local or general use of these waters.

(b) Mercury and Other Toxic Heavy Metals. The aquatic environment should be free from substance attributable to municipal, industrial or other discharges in concentrations that are toxic or harmful to human, animal or aquatic life.

(c) Persistent Organic Contaminants. Persistent pest control products and other persistent organic contaminants that are toxic or harmful to human, animal or aquatic life should be substantially absent in the waters.

(d) Settles and Suspended Materials. Waters should be free from substances attributable to municipal, industrial or other discharges that will settle to form putrescent or otherwise objectionable sludge deposits, or that will adversely affect aquatic life or waterfowl.

(e) Oil, Petrochemicals and Immiscible Substances. Waters should be free from floating debris, oil, scum and other floating materials attributable to municipal, industrial or other discharges in amounts sufficient to be unsightly or deleterious.

3. Non-degradation. Notwithstanding the adoption of specific water quality objectives, all reasonable and practicable measures shall be taken in accordance with paragraph 4 of Article III of the Agreement to maintain the levels of water quality existing at the date of entry into force of the Agreement in those areas of the boundary waters of the Great Lakes System where such levels exceed the specific water quality objectives.

4. Sampling Data. The Parties agree that the determination of compliance with specific objectives shall be based on statistically valid sampling data.

5. Mixing Zones. The responsible regulatory agencies may designate restricted mixing zones in the vicinity of outfalls within which the specific water quality objectives shall not apply. Mixing zones shall not be considered a substitute for adequate treatment or control of discharges at their source.

6. Localized Areas. There will be other restricted, localized areas, such as harbours, where existing conditions such as land
drainage and land use will prevent the objectives from being met at least over the short term; such areas, however, should be identified specifically and as early as possible by the responsible regulatory agencies and should be kept to a minimum. Pollution from such areas shall not contribute to the violation of the water quality objectives in the waters of the other Party. The International Joint Commission shall be notified of the identification of such localized areas, in accordance with Article VIII.

7. Consultation. The Parties agree to consult within one year from the date of entry into force of the Agreement, for the purpose of considering:

(a) Specific water quality objectives for the following substances:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Substance</th>
<th>Substance</th>
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</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>Copper</td>
<td>Oil</td>
</tr>
<tr>
<td>Arsenic</td>
<td>Cyanide</td>
<td>Organic chemicals</td>
</tr>
<tr>
<td>Barium</td>
<td>Fluoride</td>
<td>Phenols</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Lead</td>
<td>Selenium</td>
</tr>
<tr>
<td>Chloride</td>
<td>Mercury</td>
<td>Sulphate</td>
</tr>
<tr>
<td>Chromium</td>
<td>Nickel</td>
<td>Zinc</td>
</tr>
</tbody>
</table>

(b) Refined objectives for radioactivity and temperature; for radioactivity the objective shall be considered in the light of the recommendations of the International Commission on Radiation Protection.

8. Amendment.

(a) The objectives adopted herein shall be kept under review and may be amended by mutual agreement of the Parties.

(b) Whenever the International Joint Commission, acting pursuant to Article VI of the Agreement, shall recommend the establishment of new or modified specific water quality objectives, this Annex shall be amended in accordance with such recommendation on the receipt by the Commission of a letter from each Party indicating its agreement with the recommendation.

ANNEX 2

CONTROL OF PHOSPHORUS

1. Programs. Programs shall be developed and implemented to reduce inputs of phosphorus to the Great Lakes System. These programs shall include:
(a) Construction and operation of waste treatment facilities to remove phosphorus from municipal sewage;

(b) Regulatory measures to require industrial dischargers to remove phosphorus from wastes to be discharged into the Great Lakes System;

(c) Regulatory and advisory measures to control inputs of phosphorus through reduction of waste discharges attributable to animal husbandry operations.

In addition, programs may include regulations limiting or eliminating phosphorus from detergents sold for use within the basin of the Great Lakes System.

2. Effluent Requirements. The phosphorus concentrations in effluent from municipal waste treatment plants discharging in excess of one million gallons per day, and from smaller plants as required by regulatory agencies, shall not exceed a daily average of one milligram per litre into Lake Erie, Lake Ontario and the International Section of the St. Lawrence River.

3. Industrial Discharges. Waste treatment or control requirements for all industrial plants discharging wastes into the Great Lakes System shall be designed to achieve maximum practicable reduction of phosphorus discharges to Lake Erie, Lake Ontario and the International Section of the St. Lawrence River.

4. Reductions for Lower Lakes. These programs are designed to attain reductions in gross inputs of phosphorus to Lake Erie and Lake Ontario of the quantities indicated in the following tables for the years indicated.
TABLE 1

ANNUAL PHOSPHORUS LOADINGS AND REDUCTIONS IN LOADINGS TO LAKE ERIE
Including Lake St. Clair and the St. Clair and Detroit Rivers

(SHORT TONS PER YEAR)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>UNITED STATES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASELOAD</td>
<td>25,800</td>
<td>26,400</td>
<td>27,000</td>
<td>27,600</td>
<td>28,300</td>
<td>28,800</td>
</tr>
<tr>
<td>REDUCTION</td>
<td>100</td>
<td>5,200</td>
<td>9,800</td>
<td>15,100</td>
<td>16,000</td>
<td>17,300</td>
</tr>
<tr>
<td>RESIDUAL LOAD</td>
<td>25,700</td>
<td>21,200</td>
<td>17,200</td>
<td>12,500</td>
<td>12,300</td>
<td>11,500</td>
</tr>
</tbody>
</table>

| **CANADA** |        |        |        |        |        |        |
| BASELOAD | 3,300  | 3,300  | 3,400  | 3,500  | 3,500  | 3,600  |
| REDUCTION | 100    | 100    | 600    | 1,400  | 1,400  | 1,400  |
| RESIDUAL LOAD | 3,200 | 3,200  | 2,800  | 2,100  | 2,100  | 2,200  |
| INPUT FROM LAKE HURON | 2,300 | 2,300  | 2,300  | 2,400  | 2,400  | 2,400  |

| **TOTALS** |        |        |        |        |        |        |
| BASELOAD | 31,400 | 32,000 | 32,700 | 33,500 | 34,200 | 34,800 |
| REDUCTION | 200    | 5,300  | 10,400 | 16,500 | 17,400 | 18,700 |
| RESIDUAL LOAD | 31,200 | 26,700 | 22,300 | 17,000 | 16,800 | 16,100 |
# TABLE 2

ANNUAL PHOSPHORUS LOADINGS AND REDUCTIONS IN LOADINGS TO LAKE ONTARIO.

(including the Niagara River)

(SHORT TONS PER YEAR)

<table>
<thead>
<tr>
<th></th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASELOAD</td>
<td>6,900</td>
<td>7,000</td>
<td>7,200</td>
<td>7,400</td>
<td>7,600</td>
<td>7,700</td>
</tr>
<tr>
<td>REDUCTION</td>
<td>-</td>
<td>500</td>
<td>500</td>
<td>2,100</td>
<td>3,800</td>
<td>5,100</td>
</tr>
<tr>
<td>RESIDUAL LOAD</td>
<td>6,900</td>
<td>6,500</td>
<td>6,700</td>
<td>5,300</td>
<td>3,800</td>
<td>2,600</td>
</tr>
<tr>
<td><strong>CANADA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASELOAD</td>
<td>6,700</td>
<td>6,900</td>
<td>7,000</td>
<td>7,000</td>
<td>7,100</td>
<td>7,200</td>
</tr>
<tr>
<td>REDUCTION</td>
<td>400</td>
<td>400</td>
<td>1,800</td>
<td>1,800</td>
<td>1,800</td>
<td>4,600</td>
</tr>
<tr>
<td>RESIDUAL LOAD</td>
<td>6,300</td>
<td>6,500</td>
<td>5,200</td>
<td>5,200</td>
<td>5,300</td>
<td>2,600</td>
</tr>
<tr>
<td><strong>INPUT FROM LAKE ERIE</strong></td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
<td>4,800</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASELOAD</td>
<td>18,400</td>
<td>18,700</td>
<td>19,000</td>
<td>19,200</td>
<td>19,500</td>
<td>19,700</td>
</tr>
<tr>
<td>REDUCTION</td>
<td>400</td>
<td>900</td>
<td>2,300</td>
<td>3,900</td>
<td>5,600</td>
<td>9,700</td>
</tr>
<tr>
<td>RESIDUAL LOAD</td>
<td>18,000</td>
<td>17,800</td>
<td>16,700</td>
<td>15,300</td>
<td>13,900</td>
<td>10,000</td>
</tr>
</tbody>
</table>
5. Reservation. The amounts shown as "residual loads" in Tables 1 and 2 above do not constitute allocations to the two countries, but represent anticipated results of municipal and industrial waste reduction and detergent phosphorus control programs.

6. Refinement of Data. The residual loads are based upon best available data. The Parties, in cooperation with the State and Provincial Governments and with the International Joint Commission, shall continue to refine these estimates to ensure a comparable data base. These estimates are subject to revision upon agreement by the Parties to reflect future refinement of the data.

7. Objective of Programs. The objective of the foregoing program is to minimize eutrophication problems in the Great Lakes System. It is anticipated that successful implementation of these programs will accomplish the following results, which are of critical importance to the success of the joint undertaking to preserve and enhance the quality of the waters of the Great Lakes System:

(a) Restoration of year-round aerobic conditions in the bottom waters of the central basin of Lake Erie;

(b) Reduction in present levels of algal growth in Lake Erie;

(c) Reduction in present levels of algal growth in Lake Ontario, including the International Section of the St. Lawrence River;

(d) Stabilization of Lake Superior and Lake Huron in their present oligotrophic state.

It is nevertheless recognized that additional measures and programs may be required to minimize eutrophication problems in the future. Available evidence suggests that reductions in phosphorus loadings to achieve a net discharge to Lake Erie in the range of 8000 to 11,000 tons per year may be required to bring about mesotrophic conditions in this lake.

8. Reductions for Upper Lakes. The Parties, in consultation with the State and Provincial Governments and with the International Joint Commission, shall within one year from the entry into force of the Agreement determine the gross reductions in inputs of phosphorus that they agree to seek for Lake Superior and Lake Huron (including the St. Marys River). Pending such agreement, such limitations on municipal and industrial phosphorus discharges as may be required by regulatory agencies to meet loading objectives or to prevent and control eutrophication problems in Lake Superior and Lake Huron shall apply. Any more comprehensive findings resulting from the study by the International Joint Commission of water quality in these lakes shall be taken into account as soon as available.
9. Commission Recommendations. The Parties shall take into account, as soon as available, the recommendations of the International Joint Commission made pursuant to its study of pollution from agricultural, forestry and other land use activities, in order to develop and implement appropriate programs for control of inputs of phosphorus from these sources.

10. Monitoring. The Parties, in cooperation with the State and Provincial Governments and with the International Joint Commission, shall continue to monitor the extent of eutrophication in the Great Lakes System and the progress being made in reducing or preventing it. They shall consult periodically to exchange the results of research and to pursue proposals for additional programs to control eutrophication.

11. Submission of Information. The International Joint Commission shall be given information at least annually, in accordance with procedures established by the Commission in consultation with the Parties and with the State and Provincial Governments, concerning:
   
   (a) Total reduction in gross inputs of phosphorus achieved as a result of the programs implemented pursuant to this Annex;

   (b) Anticipated reductions in gross inputs of phosphorus for the succeeding twelve months.

12. Review and Modification. In connection with the first comprehensive joint review of the operation and effectiveness of the Agreement conducted in accordance with paragraph 3 of Article IX thereof, the effects of phosphorus control programs on the Great Lakes System shall be reviewed and further modifications in the programs undertaken pursuant to this Annex shall be considered.

ANNEX 3

VESSEL DESIGN, CONSTRUCTION AND OPERATION

1. Definitions. As used in this Annex:
   
   (a) "Discharge" means the introduction of oil and hazardous polluting substances, including oily bilge-water, into receiving waters and includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting or dumping; it does not include unavoidable direct discharges of oil from a properly functioning vessel engine;
(b) "Harmful quantity of oil" means any quantity of oil that, if discharged into receiving waters, would produce a film or sheen upon, or discoloration of, the surface of the water or adjoining shoreline, or that would cause a sludge or emulsion to be deposited beneath the surface of the water or upon the adjoining shoreline;

(c) "Oily wastes" means oil and mixtures containing oil such as oily ballast, tank washing and bilge slops;

(d) "Tanker" means any vessel designed for the carriage of oil or liquid chemicals in bulk;

(e) "Vessel" means any ship, barge or other floating craft, whether or not self-propelled.

2. Oil. As used in this Annex, "oil" refers to oil of any kind or in any form, including, but not limited to petroleum, fuel oil, oil sludge, oil refuse, and oil mixed with wastes but does not include constituents of dredged spoil.

3. General Principles. Compatible regulations shall be adopted for the prevention of discharges into the Great Lakes System of harmful quantities of oil and hazardous polluting substances from vessels in accordance with the following principles:

(a) Discharges of harmful quantities of oil or hazardous polluting substances shall be prohibited and made subject to appropriate penalties;

(b) As soon as any person in charge has knowledge of any discharge of harmful quantities of oil or hazardous polluting substances, immediate notice of such discharge shall be given to the appropriate agency in the jurisdiction where the discharge occurs; failure to give this notice shall be made subject to appropriate penalties.

4. Programs. The programs and measures to be adopted for the prevention of discharges of harmful quantities of oil shall include the following:

(a) Compatible regulations for design and construction of vessels based on the following principles:

   (i) each tanker shall have a suitable means of containing on board cargo oil spills caused by loading or transfer operations;

   (ii) each vessel shall have a suitable means of containing on board fuel oil spills caused by loading or transfer operations, including those from tank vents and overflow pipes;
(iii) each vessel shall have a capability of retaining on board oily wastes accumulated during vessel operation;

(iv) each vessel shall be capable of off-loading contained oily wastes to a shore facility.

(b) Compatible regulations for vessel operating procedures based on the following principles:

(i) tankers shall be provided with a means for rapidly and safely stopping the flow of cargo oil during transfer operations in the event of an emergency;

(ii) suitable deck lighting shall be provided to illuminate all cargo and fuel handling areas if the transfer occurs at night;

(iii) hose assemblies used aboard vessels for oil transfer shall be suitably designed, marked and inspected to minimize the possibility of failure;

(iv) oil transfer, loading and off-loading systems shall be designed to minimize the possibility of failure.

(c) Programs to train merchant vessel personnel in all functions involved in the use, handling and stowage of oil and in procedures for abatement of oil pollution.

5. Additional measures. The programs and measures to be adopted for the prevention of discharges of hazardous polluting substances shall use as a guide the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk of the Intergovernmental Maritime Consultative Organization (IMCO). Such programs and measures shall include design and construction features, operating procedures, and merchant vessel personnel qualification standards with respect to handling hazardous polluting substances and pollution abatement. In addition, the programs shall establish compatible regulations for:

(a) Identification and placarding of vessels carrying hazardous polluting substances as well as containers and packages containing hazardous polluting substances when carried by vessels;

(b) Identification in vessel manifests of all hazardous polluting substances carried;

(c) Procedures for notification to responsible authorities of all hazardous polluting substances carried.
ANNEX 4
VESEL WASTES

1. Definitions. As used in this Annex:
   (a) "Garbage" means solid galley waste, paper, rags, plastics, glass, metal, bottles, crockery, junk and similar refuse;
   (b) "Sewage" means human or animal waste generated on board ship and includes wastes from water closets, urinals or hospital facilities handling fecal material;
   (c) "Vessel" means any ship, barge, or other floating craft, whether or not self-propelled;
   (d) "Waste water" means water in combination with other substances, including ballast water and water used for washing cargo holds, but excluding water in combination with oil, hazardous polluting substances or sewage.

2. Compatible Regulations. The Parties shall adopt within one year from the entry into force of the Agreement regulations governing the disposal of vessel waste in the waters of the Great Lakes System in accordance with principles at least as stringent as the following:
   (a) Garbage shall not be discharged by a vessel into these waters;
   (b) Waste water shall not be discharged by a vessel into these waters in amounts or in concentrations that will be deleterious;
   (c) Every vessel operating in these waters with an installed toilet facility shall be equipped with a device or devices to contain the vessel's sewage, or to incinerate it, or to treat it to an adequate degree.

3. Critical Use Areas. Critical use areas of the Great Lakes System may be designated where the discharge of waste water or sewage shall be limited or prohibited.

4. Containment Devices. Regulations may be established requiring a device or devices to contain the sewage of pleasure craft or other classes of vessels operating in the Great Lakes System or designated areas thereof.
1. Studies. The Parties agree that studies of pollution problems in the Great Lakes System that arise in relation to shipping activities shall be undertaken for the purpose of strengthening their programs and other measures for the abatement and control of pollution from shipping sources. Responsibility for the coordination of these studies is assigned to the United States Coast Guard and the Canadian Ministry of Transport. Initially, these studies shall include the following subjects:

(a) Navigational Equipment. Determination of minimum safe standards respecting the fitting, maintenance, testing and use of navigational equipment for both normal and ice operations.

(b) Traffic Routes for Navigational Purposes. Review of the existing informal system of traffic routes and determination of their adequacy and effectiveness; determination of the need for additional traffic routes; review of track widths, shifting of tracks, limited tracks, rules of passing, speeds, and similar matters for normal and ice operations; and identification of priorities for needed remedial measures.

(c) Traffic Control. Review of existing traffic control systems and determination of their adequacy and effectiveness; determination of the need for additional traffic control systems; review of operations with respect to open waters, harbours, and channels under normal and ice conditions; and identification of priorities for needed remedial measures.

(d) Manning of Vessels. Review of existing United States and Canadian competency standards to determine acceptable minimum standards; review of existing foreign competency standards to determine whether they are adequate and effective and equivalent to the United States and Canadian minimum standards; determination of the need for certificated pilots and other officers and for improvement of existing pilot certifications, for special Manning regulations for towing vessels, for separate Manning standards for ice operations, and for separate Manning standards for vessels carrying oil and hazardous polluting substances in periods of adverse weather or in areas of high traffic density.

(e) Aids to Navigation Systems. Review of the adequacy and effectiveness of existing aids to navigation systems; determination of the need for additional aids to navigation; and identification of priorities for needed remedial measures.
(f) Waste Water. Review of problems arising from the discharge of waste waters, and recommendations for reducing the deleterious effects of such discharges.

(g) Sewage Treatment Systems for Vessels. Review of current research and development of systems for the treatment of vessel sewage.

(h) Loading and Unloading of Grain and Ore. Review of pollution problems arising from these operations.

2. Consultation. Representatives of the United States Coast Guard and Canadian Ministry of Transport together with representatives of other concerned agencies shall meet periodically in order to:

(a) Identify problems requiring further study;

(b) Apportion, as between Canada and the United States, responsibility for various aspects of the studies;

(c) Provide continuing interchange of information with respect to ongoing and proposed projects;

(d) Exchange results of completed projects.

3. Additional Studies and Results. The United States Coast Guard and the Canadian Ministry of Transport shall inform the International Joint Commission of any additional subjects that are being studied and of the results of all studies undertaken pursuant to this Annex as they become available.

ANNEX 6
IDENTIFICATION AND DISPOSAL OF POLLUTED DREDGED SPOIL

1. Definitions. As used in this Annex:

(a) "Dredged spoil" means the solid materials removed from the bottom of water bodies generally for the purpose of improving waterways for navigation; these materials may include mud, silt, clay, sand, rock and other solid materials that have been deposited from municipal and industrial discharges and from natural sources;

(b) "Confined area" means an area developed for the deposit of dredge spoil that precludes the return of the dredge spoil to open portions of the waterway; the area may be located in the waterway or on other upland sites and may consist of dikes, levees, bulkheads, cells or any other type structure that will retain the material;
(c) "Open water" means any part of the boundary waters of the Great Lakes System other than a confined area;

(d) "Polluted dredged spoil" means dredged spoil containing harmful quantities of oil, hazardous polluting substances or other deleterious substances as designated by the responsible regulatory agencies.

2. Review. Pursuant to arrangements to be made by the International Joint Commission in consultation with the Parties, a working group shall be established to undertake a review of existing dredging practices, programs, laws and regulations with the objective of developing compatible criteria for the characterization of polluted dredged spoil and recommendations for compatible programs governing the disposal of polluted dredged spoil in open water. This review shall be computed within two years from the date of entry into force of the Agreement. The working group shall conduct its study and formulate its recommendations on the basis of the following principles:

(a) Dredging activities should be conducted in a manner that will minimize harmful environmental effects;

(b) All reasonable and practicable measures shall be taken to ensure that dredging activities do not cause a degradation of water quality and bottom sediments;

(c) As soon as practicable, the disposal of polluted dredged spoil in open water should be carried out in a manner consistent with the achievement of the water quality objectives, and should be phased out.

3. Consultations. Upon completion of the review provided for in paragraph 2 above, the Parties shall consult pursuant to Article IX of the Agreement to consider and act upon the recommendations of the working group.

4. Interim Actions. Pending the development of compatible criteria and programs:

(a) Dredged spoil found by the appropriate regulatory agencies to be polluted shall be disposed of in confined areas when they are available;

(b) The responsible agencies shall continue efforts to develop sites for confined areas.
ANNEX 7

DISCHARGES FROM ONSHORE AND OFFSHORE FACILITIES

1. Definitions. As used in this Annex:

(a) "Discharge" means the introduction of oil or hazardous polluting substances into receiving waters and includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting or dumping; it does not include continuous effluent discharges from municipal or industrial treatment facilities;

(b) "Harmful quantity of oil" means any quantity of oil that, if discharged into receiving waters, would produce a film or sheen upon, or discoloration of the surface of the water or adjoining shoreline, or that would cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shoreline;

(c) "Offshore facility" means any facility of any kind located in, on or under any water;

(d) "Onshore facility" means any facility of any kind located in, on or under, any land other than submerged land.

2. Facilities. The term "facility" includes motor vehicles, rolling stock, pipelines, and any other facility that is used or capable of being used for the purpose of processing, producing storing, transferring or transporting oil or hazardous polluting substances, but excludes vessels.

3. Oil. As used in this Annex, "oil" refers to oil of any kind or in any form, including, but not limited to petroleum, fuel oil, oil sludge, oil refuse, and oil mixed with wastes, but does not include constituents of dredged spoil.

4. Principles. Regulations shall be adopted for the prevention of discharges into the Great Lakes System of harmful quantities of oil and hazardous polluting substances from onshore and offshore facilities in accordance with the following principles;

(a) Discharges of harmful quantities of oil or hazardous polluting substances shall be prohibited and made subject to appropriate penalties;
As soon as any person in charge has knowledge of any discharge of harmful quantities of oil or hazardous polluting substances, immediate notice of such discharge shall be given to the appropriate agency in the jurisdiction where the discharge occurs; failure to give this notice shall be made subject to appropriate penalties.

5. Programs and Measures. The programs and measures to be adopted shall include the following:

(a) Programs to review the design, construction, and location of both existing and new facilities for their adequacy to prevent the discharge of oil or hazardous polluting substances;

(b) Programs to review the operation, maintenance and inspection procedures of facilities for their adequacy to prevent the discharge of oil or hazardous polluting substances;

(c) Programs to train personnel to perform all functions involving the use and handling of oil and hazardous polluting substances;

(d) Programs to ensure that at each facility plans and provisions are made for appropriate equipment for the containment and clean up of spills of oil or hazardous polluting substances;

(e) Programs including compatible regulations for the identification and placarding of containers and vehicles carrying oil or hazardous polluting substances.

ANNEX 8

JOINT CONTINGENCY PLAN

1. The Plan. The Parties agree that the "Joint U.S.-Canadian Oil and Hazardous Materials Pollution Contingency Plan for the Great Lakes Region" adopted on June 10, 1971, shall be maintained in force, as amended from time to time. It shall be the responsibility of the United States Coast Guard and the Canadian Ministry of Transport to coordinate and to maintain the plan, as so amended, in written form.

2. Purpose. The purpose of the Plan is to provide for coordinated and integrated response to pollution incidents in the Great Lakes System by responsible federal, state, provincial and local agencies. The Plan supplements the national, provincial and regional plans of the Parties.
3. Pollution Incidents.

(a) A pollution incident is a discharge, or an imminent threat of a discharge, of oil or any other substance, of such magnitude or significance as to require immediate response to contain, clean up or dispose of the material.

(b) The objectives of the plan in pollution incidents are:

(i) to develop appropriate preparedness measures and effective systems for discovery and reporting the existence of a pollution incident within the area covered by the plan;

(ii) to institute prompt measures to restrict the further spread of the pollutant;

(iii) to provide adequate equipment to respond to pollution incidents.

4. Funding. Unless otherwise agreed, the costs of operations of both Parties under the Plan shall be borne by the Party in whose waters the pollution incident occurred.

5. Amendment. The United States Coast Guard and the Canadian Ministry of Transport are empowered to amend the Plan subject to the requirement that such amendments shall be consistent with the purpose and objectives of this Annex.
I have the honour to inform you that the Governments of Canada and the United States of America, pursuant to Article IX of the Boundary Waters Treaty of 1909, have agreed to request the International Joint Commission to conduct a study of pollution of the boundary waters of the Great Lakes System from agricultural, forestry and other land use activities, in the light of the provision of Article IV of the Treaty which provides that the boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health and property on the other side, and in the light also of the Great Lakes Water Quality Agreement signed on this date.

The Commission is requested to enquire into and report to the two Governments upon the following questions:

1. Are the boundary waters of the Great Lakes System being polluted by land drainage (including ground and surface runoff and sediments) from agriculture, forestry, urban and industrial land development, recreational and park land development, utility and transportation systems and natural sources?

2. If the answer to the foregoing question is in the affirmative, to what extent, by what causes, and in what localities is the pollution taking place?

3. If the Commission should find that pollution of the character just referred to is taking place, what remedial measures would, in its judgment, be most practicable and what would be the probable cost thereof?

The Commission is requested to consider the adequacy of existing programs and control measures, and the need for improvements thereto, relating to:

(a) inputs of nutrients, pest control products, sediments, and other pollutants from the sources referred to above;
(b) land use;
(c) land fills, land dumping, and deep well disposal practices;
(d) confined livestock feeding operations and other animal husbandry operations; and

(e) pollution from other agricultural, forestry and land use sources.

In carrying out its study the Commission should identify deficiencies in technology and recommend actions for their corrections.

The Commission should submit its report and recommendations to the two Governments as soon as possible and should submit reports from time to time on the progress of its investigation.

In the conduct of its investigation and otherwise in the performance of its duties under this reference, the Commission may utilize the services of qualified persons and other resources made available by the concerned agencies in Canada and the United States and should as far as possible make use of information and technical data heretofore acquired or which may become available during the course of the investigation, including information and data acquired by the Commission in the course of its investigations and surveillance activities conducted on the lower Great Lakes and in the connecting channels.

In conducting its investigation, the Commission should utilize the services of the international board structure provided for in Article VII of the Great Lakes Water Quality Agreement.
I have the honour to inform you that the Governments of Canada and the United States of America, pursuant to Article IX of the Boundary Waters Treaty of 1909, have agreed to request the International Joint Commission to conduct a study of water quality in Lake Huron and Lake Superior, in the light of the provision of Article IV of the Treaty which provides that the boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health and property on the other side, and in the light also of the Great Lakes Water Quality Agreement, signed on this date. This reference represents the response of the two Governments to recommendation No. 20 of the Commission in its final report dated December 9, 1970, on pollution of Lake Erie, Lake Ontario, and the International Section of the St. Lawrence River.

The Commission is requested to enquire into and to report to the two Governments upon the following questions:

1. Are the waters of Lake Superior and Lake Huron being polluted on either side of the boundary to an extent (a) which is causing or is likely to cause injury to health or property on the other side of the boundary; or (b) which is causing, or likely to cause, a degradation of existing levels of water quality in these two lakes or in downstream portions of the Great Lakes System?

2. If the foregoing questions are answered in the affirmative, to what extent, by what causes, and in what localities is such pollution taking place?

3. If the Commission should find that pollution of the character just referred to is taking place, what remedial measures would, in its judgment, be most practicable to restore and protect the quality of the waters, and what would be the probable cost?

4. In the event that the Commission should find that little or no pollution of the character referred to is taking place at the present time, what preventive measures would, in its judgment, be most practicable to ensure that such pollution does not occur in the future and what would be the probable cost?

The Governments would welcome the recommendations of the Commission with respect to the general and specific water quality objectives that should be established for these lakes, and the programs and measures that are required in the two countries in order to achieve and maintain these water quality objectives.
The Commission should submit its report and recommendations to the two Governments as soon as possible and should submit reports from time to time on the progress of its investigation.

In the conduct of its investigation, the Commission is requested to include consideration of pollution entering Lake Huron and Lake Superior from tributary waters, including Lake Michigan, which affects water quality in the two lakes and to enquire into and report on the upstream sources of such pollution. The Commission may utilize the services of qualified persons and other resources made available by water management agencies in Canada and the United States and should as far as possible make use of information and technical data heretofore acquired or which may become available during the course of its investigation, including information and data acquired by the Commission in the course of its investigations and surveillance activities conducted on the lower Great Lakes and in the connecting channels.

In conducting its investigation, the Commission should utilize the services of the international board structure provided for in Article VII of the Great Lakes Water Quality Agreement.
TERMS OF REFERENCE FOR THE ESTABLISHMENT
OF A RESEARCH ADVISORY BOARD

1. As used herein, "research" includes development, demonstration and research activities, but does not include regular monitoring and surveillance of water quality.

2. The functions and responsibilities of the Research Advisory Board relating to research activities in Canada and the United States concerning the quality of the waters of the Great Lakes System shall be as follows:

(a) To review at regular intervals these research activities in order to:

(i) examine the adequacy and reliability of research results, their dissemination, and the effectiveness of their application;

(ii) identify deficiencies in their scope, and inadequacies in their funding and in completion schedules;

(iii) identify additional research projects that should be undertaken;

(iv) identify specific research programs for which international cooperation will be productive;

(b) To provide advice and consolidations of scientific opinion to the Commission and its boards on particular problems referred to the Advisory Board by the Commission or its boards;

(c) To facilitate both formal and informal international cooperation and coordination of research;

(d) To make recommendations to the Commission.

3. The Research Advisory Board on its own authority may seek analyses, assessments and recommendations from other professional, academic, governmental or intergovernmental groups about the problems of the Great Lakes water quality research and related research activities.

4. The International Joint Commission shall determine the size and composition of the Research Advisory Board. The Commission should appoint members to the Advisory Board from appropriate Federal, State and Provincial Government agencies and from other agencies, organizations and institutions involved in Great Lakes research activities. In making these appointments the Commission should consider individuals from the academic, scientific and industrial communities and the general public. Membership should be
based primarily upon an individual's qualifications and potential contribution to the work of the Advisory Board.

5. The Research Advisory Board should work at all times in close cooperation with the Great Lakes Water Quality Board.
APPENDIX IV

IJC ORGANIZATIONAL ARRANGEMENT AND BOARDS
(1975)

COMMISSIONERS, UNITED STATES SECTION

Staff

CONTROL BOARDS

St. Croix River
Lake Champlain
St. Lawrence River
Niagara River
Lake Superior
Prairie Portage
Rainy & Namakan Lakes
Souris River
St. Mary & Milk Rivers
Kootenay Lake
Columbia River
Osoyoos Lake
Skagit River

INVESTIGATIVE BOARDS

American Falls
Great Lakes Levels
Roseau River Drainage
Souris-Red Rivers
Point Roberts
Richelieu River and Lake Champlain
Air quality
Michigan/Ontario
Garrison Diversion

POLLUTION SURVEILLANCE BOARDS

St. Croix River
Red River
Rainy River
Air Pollution along the Boundary

GREAT LAKES WATER QUALITY AGREEMENT

Staff

RESEARCH ADVISORY BOARD

REFERENCE GROUP
UPPER LAKES

WATER QUALITY BOARD

POLLUTION FROM LAND USE ACTIVITIES
REFERENCE GROUP

IJC REGIONAL OFFICE
**APPENDIX V**

**IJC LIST OF INTERNATIONAL PROJECTS 1912-1977**

- A or R on the chart indicates application or reference
- The year refers to the date the application or reference was submitted to the IJC
- The IJC Document number is the official identification number for the purpose of keeping track of the projects.

**Numerical Index and Capsule of IJC Dockets**

<table>
<thead>
<tr>
<th>Year</th>
<th>Docket No.</th>
<th>Title</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1912</td>
<td>1A</td>
<td>Rainy River Improvement Co. Kettle Falls Dam</td>
<td>Dismissed as covered by a &quot;special agreement.&quot;</td>
</tr>
<tr>
<td></td>
<td>2A</td>
<td>Watrous Island Boom Co. Boom in Rainy River</td>
<td>Approved. No Board.</td>
</tr>
<tr>
<td></td>
<td>3R</td>
<td>Lake of the Woods Levels</td>
<td>Completed. Resulted in the 1925 Convention. Active Board</td>
</tr>
<tr>
<td></td>
<td>4R</td>
<td>Pollution of Boundary Waters</td>
<td>Completed. Recommendations not implemented.</td>
</tr>
<tr>
<td></td>
<td>5R</td>
<td>Livingstone Channel Detroit River</td>
<td>Completed. Recommendations implemented.</td>
</tr>
<tr>
<td>1913</td>
<td>6A</td>
<td>Michigan Northern Power Co. St. Mary's River Dam (with No. 8)</td>
<td>Approved. First Board of Control. Active Board.</td>
</tr>
<tr>
<td></td>
<td>7A</td>
<td>Greater Winnipeg Water District 100 mgd from Shoal Lake for Winnipeg water supply</td>
<td>Approved. No Board.</td>
</tr>
<tr>
<td></td>
<td>8A</td>
<td>Algoma Steel Corporation St. Mary's River Dam (with No. 6)</td>
<td>Approved. Active Board.</td>
</tr>
<tr>
<td>1914</td>
<td>9R</td>
<td>St. Mary and Milk Rivers Article VI of B.W. Treaty</td>
<td>Issued Order in 1921 on method of water measurement and apportionment.</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
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<tr>
<td></td>
<td></td>
<td>(with No. 11)</td>
<td>Active board.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(with No. 10)</td>
<td>Approved. Dredging. Compensating works not constructed.</td>
</tr>
<tr>
<td>1915</td>
<td>12A</td>
<td>International Lumber Co. Boom in Rainy River</td>
<td>Approved. No board.</td>
</tr>
<tr>
<td></td>
<td>13A</td>
<td>St. Clair River Channel</td>
<td>Withdrawn in 1919.</td>
</tr>
<tr>
<td></td>
<td>15A</td>
<td>St. Lawrence River &amp; Power Co. Massena Weir</td>
<td>Approved Board was established. Works removed prior to St. Lawrence Power Project.</td>
</tr>
<tr>
<td></td>
<td>16A</td>
<td>Canadian Cottons Ltd. Milltown Dam on St. Croix River</td>
<td>Withdrawn in 1919.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Revived in Docket 68.</td>
</tr>
<tr>
<td>1925</td>
<td>19A</td>
<td>New Brunswick Electric Power Commission</td>
<td>Approved without passing on the issue of downstream benefits. No board.</td>
</tr>
<tr>
<td></td>
<td>20R</td>
<td>Rainy Lake Levels</td>
<td>Approved. No board.</td>
</tr>
<tr>
<td></td>
<td>21A</td>
<td>Buffalo and Fort Erie Public Bridge Co. Bridge over Niagara River.</td>
<td>Approved transfer of approval granted under Docket 19.</td>
</tr>
<tr>
<td>1926</td>
<td>22A</td>
<td>St. John River &amp; Power Co. Grand Falls Dam on St. John River</td>
<td>Approved transfer of approval granted under Docket 19.</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
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<tr>
<td>1927</td>
<td>23A</td>
<td>Creston Reclamation Co. Ltd. Dyking on Kootenay River in Canada and above the Lake</td>
<td>Approved. No board</td>
</tr>
<tr>
<td>1928</td>
<td>24A</td>
<td>St. Lawrence River &amp; Power Co. Raise Massena Weir</td>
<td>No action. Hearing adjourned &quot;sine die&quot;. Now inundated by St. Lawrence Power Project.</td>
</tr>
<tr>
<td></td>
<td>25R</td>
<td>Trail Smelter Fumes</td>
<td>Completed. Report not accepted by U.S. The tribunal award similar to IJC.</td>
</tr>
<tr>
<td>1929</td>
<td>26A</td>
<td>Roseau River Drainage</td>
<td>Studies proceeding after a 40-year governmental delay.</td>
</tr>
<tr>
<td></td>
<td>27A</td>
<td>West Kootenay Power &amp; Light Co. Ltd. Kootenay Lake Storage</td>
<td>Withdrawn in 1934</td>
</tr>
<tr>
<td>1932</td>
<td>29A</td>
<td>Kootenay Valley Power and Development Co. Dyking on Kootenay River in Canada near Creston</td>
<td>Approved. No board</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Docket Number assigned in error - same as above</td>
<td>Denied. Related to claims pursuant to operation under Dockets 10 &amp; 22.</td>
</tr>
<tr>
<td>1934</td>
<td>31A</td>
<td>Madawaska Company Grand Falls Dam on St. John River.</td>
<td>Approved. Active Board</td>
</tr>
<tr>
<td>1935</td>
<td>32A</td>
<td>Canadian Cottons Ltd. Milltown Dam on St. Croix River.</td>
<td>Approved. No board</td>
</tr>
<tr>
<td></td>
<td>33A</td>
<td>Jean Lariviere Private small dam on Little St. John Lake</td>
<td>Approved. No board</td>
</tr>
<tr>
<td></td>
<td>34A</td>
<td>Bruner, P.C. Dyking on Kootenay River in Canada</td>
<td>Approved. No board</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
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<tr>
<td></td>
<td>36A</td>
<td>Myrum, Geo. B. Repair of Prairie Portage Dam</td>
<td>Approved. Repair work on existing timber dam not implemented.</td>
</tr>
<tr>
<td></td>
<td>37R</td>
<td>Champlain Waterway Deep waterway from St. Lawrence to Hudson River</td>
<td>Completed. Recommended new study after St. Lawrence Seaway built.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corra Linn Dam for Kootenay Lake Storage</td>
<td></td>
</tr>
<tr>
<td>1939</td>
<td>40A</td>
<td>United States Forest Service Prairie Portage Dam</td>
<td>Approval granted to reconstruct dam. Only cofferdam built. Active board.</td>
</tr>
<tr>
<td></td>
<td>41R</td>
<td>Souris River Water apportionment</td>
<td>Governments approved interim measures recommended by IJC. Active Board of Control.</td>
</tr>
<tr>
<td>1941</td>
<td>43A</td>
<td>West Kootenay Power &amp; Light Co., Ltd.</td>
<td>Approved for one year. Active board.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional two feet of storage on Kootenay Lake</td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>44A</td>
<td>Grand Coulee Dam &amp; Reservoir Backwater raised water level in Canada</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1941</td>
<td>45A</td>
<td>West Kootenay Power &amp; Light Co., Ltd.</td>
<td>Informal request considered to be unnecessary application.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional two feet of storage on Kootenay Lake</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
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</tr>
<tr>
<td>1942</td>
<td>46A</td>
<td>City of Seattle Ross Dam, Skagit River</td>
<td>Approved. Board established when Seattle &amp; B.C. reached agreement in 1967.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>West Kootenay Power &amp; Light Co. Ltd.</td>
<td>Approved until end of war. Board active.</td>
</tr>
<tr>
<td></td>
<td>48A</td>
<td>Creston Reclamation Co. Ltd.</td>
<td>Approved. No board.</td>
</tr>
<tr>
<td></td>
<td>49A</td>
<td>State of Washington Zosel Dam at outlet of Osoyoos Lake</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1944</td>
<td>51R</td>
<td>Columbia River</td>
<td>Completed. Led to Columbia River Treaty.</td>
</tr>
<tr>
<td>1944</td>
<td>52A</td>
<td>Ontario &amp; Minnesota Pulp &amp; Paper Co. Ash Rapids Dam in Lake of the Woods</td>
<td>Approved but not built. Lake of the Woods Board of Control to supervise.</td>
</tr>
<tr>
<td>1946</td>
<td>53R</td>
<td>Sage Creek Appropriation of waters.</td>
<td>Completed. No action by Governments.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Northern States Power Co. Number assigned in error</td>
<td>Was dealt with under Docket 41.</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>57R</td>
<td>Waterton &amp; Belly Rivers</td>
<td>Further uses and apportionment of waters</td>
<td>Studies completed. IJC divided on national lines. Only Canadians reported.</td>
</tr>
<tr>
<td>58R</td>
<td>Souris &amp; Red Rivers</td>
<td>Further uses &amp; apportionment of waters</td>
<td>Completed. Board still reports on its umbrella activities.</td>
</tr>
<tr>
<td>59A</td>
<td>West Kootenay Power Co., Ltd.</td>
<td>Additional two feet of storage on Kootenay Lake</td>
<td>Approved for four years. Board active.</td>
</tr>
<tr>
<td>60R</td>
<td>Passamaquoddy Tidal Power</td>
<td></td>
<td>Completed. Government accepted apportionment of costs of further studies.</td>
</tr>
<tr>
<td>1950</td>
<td>Creston Reclamation Co., Ltd.</td>
<td>Levels of Duck Lake</td>
<td>Approved. Board active.</td>
</tr>
<tr>
<td>63R</td>
<td>St. John River</td>
<td>Water resources of the basin above Grand Falls</td>
<td>Completed.</td>
</tr>
<tr>
<td>64R</td>
<td>Niagara Falls - Preservation and enhancement of their beauty</td>
<td></td>
<td>Completed and accepted by Governments. Active Board.</td>
</tr>
<tr>
<td>1951</td>
<td>Libby Dam and Reservoir</td>
<td></td>
<td>Withdrawn.</td>
</tr>
<tr>
<td>65A</td>
<td>Consolidated Mining &amp; Smelting Co.</td>
<td>Waneta Dam on Pend'Oreille River</td>
<td>Approved. No board.</td>
</tr>
<tr>
<td>1952</td>
<td>Lake Ontario Levels</td>
<td></td>
<td>Completed. Studies concurrent with Application under Docket 68.</td>
</tr>
<tr>
<td>68A</td>
<td>St. Lawrence Power</td>
<td></td>
<td>Approved. Very active Board.</td>
</tr>
<tr>
<td>1954</td>
<td>Libby Dam and Reservoir</td>
<td></td>
<td>No decision. Problem solved by Columbia River Treaty.</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
</tr>
<tr>
<td>------</td>
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<td>--------</td>
</tr>
<tr>
<td>1955</td>
<td>71R</td>
<td>St. Croix River Use, conservation and regulation</td>
<td>Completed. Pollution aspect still under active surveillance.</td>
</tr>
<tr>
<td>1961</td>
<td>74R</td>
<td>Additional Remedial Works above Niagara Falls</td>
<td>Completed. Studies led to application under Docket 75.</td>
</tr>
<tr>
<td>1962</td>
<td>75A</td>
<td>Hepco and Pasny Remedial Works above Niagara Falls</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1962</td>
<td>76R</td>
<td>Pembina River Cooperative development of water resources</td>
<td>Completed. Recommendations not acted upon.</td>
</tr>
<tr>
<td>1963</td>
<td>77R</td>
<td>Champlain Waterway Commercial navigation</td>
<td>Completed. Negative report.</td>
</tr>
<tr>
<td>1963</td>
<td>78A</td>
<td>Power Authority State of New York Shoal Removal, Niagara Falls</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1964</td>
<td>79A</td>
<td>Lake Erie-Niagara River Ice Boom</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1964</td>
<td>80A</td>
<td>Vanceboro Dam</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1964</td>
<td>81R</td>
<td>Red River Pollution</td>
<td>Completed. Active surveillance.</td>
</tr>
<tr>
<td>1964</td>
<td>82R</td>
<td>Great Lakes Levels</td>
<td>Studies not completed.</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1966</td>
<td>84A</td>
<td>Cominco Two feet additional storage on Kootenay Lake</td>
<td>Approved for one season. Board active.</td>
</tr>
<tr>
<td></td>
<td>85R</td>
<td>Air Pollution In Detroit-St. Clair River areas</td>
<td>Completed. Governments yet to act. General observation along rest of boundary.</td>
</tr>
<tr>
<td></td>
<td>87A</td>
<td>Forest City Dam On St. Croix River</td>
<td>Approved. Order void because applicant did not agree to conditions.</td>
</tr>
<tr>
<td>1968</td>
<td>88A</td>
<td>Raisin River Diversion from St. Lawrence River</td>
<td>Approved. Board active.</td>
</tr>
<tr>
<td>1969</td>
<td>39A</td>
<td>Metropolitan Corporation of Greater Winnipeg Diversion from Shoal Lake, water for domestic purposes</td>
<td>IJC action deferred at applicant's request.</td>
</tr>
<tr>
<td></td>
<td>90A</td>
<td>Creston Valley Wildlife Management Area Duck Lake Levels</td>
<td>Approved. Active board.</td>
</tr>
<tr>
<td>1971</td>
<td>91R</td>
<td>Skagit River Environmental consequences of flooding</td>
<td>Completed.</td>
</tr>
<tr>
<td></td>
<td>92R</td>
<td>Point Roberts Socio problems of residents</td>
<td>Studies still underway.</td>
</tr>
<tr>
<td></td>
<td>93A</td>
<td>Cominco Kootenay Lake Storage</td>
<td>Withdrawn</td>
</tr>
<tr>
<td>1972</td>
<td>94R</td>
<td>Pollution of Upper Great Lakes</td>
<td>Studies underway.</td>
</tr>
<tr>
<td></td>
<td>95R</td>
<td>Pollution of Great Lakes from land use activities</td>
<td>Studies underway.</td>
</tr>
<tr>
<td></td>
<td>96R</td>
<td>St. John River Water Quality A CCMS project</td>
<td>Review and pass upon report of special U.S.-Canada Committee when submitted.</td>
</tr>
<tr>
<td>Year</td>
<td>Docket No.</td>
<td>Title</td>
<td>Action</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>--------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1975</td>
<td>99R</td>
<td>Air Quality</td>
<td>Studies underway.</td>
</tr>
<tr>
<td></td>
<td>100A</td>
<td>Toussaint Causeway</td>
<td>Application approved in 1976.</td>
</tr>
<tr>
<td></td>
<td>101R</td>
<td>Garrison Diversion Project</td>
<td>Studies underway.</td>
</tr>
<tr>
<td>1976</td>
<td>102R</td>
<td>Richelieu - Champlain</td>
<td>Studies underway.</td>
</tr>
<tr>
<td>1977</td>
<td>103R</td>
<td>Regulation of Lake Erie Levels</td>
<td>Studies underway.</td>
</tr>
<tr>
<td></td>
<td>104R</td>
<td>Great Lake Diversions and Consumptive Uses</td>
<td>Studies underway.</td>
</tr>
</tbody>
</table>
FOOTNOTES


3. It was created in 1909, but it did not constitute itself until 1912. See following chapter.

4. See list of dockets, Appendix V.

5. There are not many monographs on the IJC, but it is dealt with to some degree in numerous papers and articles. See Bibliography.

6. As early as the first half of the 1920's it was already being studied as a model for the regulation of boundary disputes elsewhere, notably between France and Germany. See BURPEE, Insurance for Peace, in: Papers Relating to the Work of the International Joint Commission, Ottawa, 1929; p. 70. JONES, the International Joint Commission of the United States and Canada, in: Papers..., p. 26; BLOOMFIELD/FITZGERALD, Boundary Waters Problems of Canada and the United States, Carswell, Toronto, 1958; p. 63.

7. See infra, Part One, II B and D.

8. See infra, Part Two, III.


17. 1 Malloy, 668

18. BLOOMFIELD/FITZGERALD, op. cit. fn. 5, p. 6; BOURNE, op. cit. fn. 10, p. 468.


20. See BOURNE, op. cit. fn. 10, pp. 469 f; CHACKO, op. cit. fn. 10, pp. 63-68.


22. BURPEE, A Successful Experiment in International Relations in: Papers, op. cit. fn. 5, p. 27. Quoted in: BLOOMFIELD/FITZGERALD op. cit. fn. 5, p. 9.

23. See infra, Part Three II c.

24. BLOOMFIELD/FITZGERALD, op. cit. fn. 5, p. 9.

27. I Malloy 815; Treaties, p. 299.
29. George Gibbons described Mr. Root to Prime Minister Laurier as "the shrewd American who wants all he can get without being particular about the manner of getting." (Quoted from BLOOMFIELD/FITZGERALD, op. cit. fn. 5, p. 12).
32. Art. II, BWT.
33. Art. VII, BWT.
34. See Appendix I.
35. Sir Wilfred Laurier, then Prime Minister, wrote on April 20, 1909 (i.e. after the signing): "If I were to follow my own inclinations at the present time we should decline the treaty. Article II has always seemed to me a very serious source of trouble, but in view of the other concessions, I have been disposed to accept." Quoted in BLOOMFIELD/FITZGERALD, op. cit. fn. 5, p. 13.
36. Appendix I.
37. Preamble, first paragraph, BWT.
38. Preliminary article, BWT.
39. See infra, II b.
40. See Appendix II.
41. For further background information see AUSTIN, op. cit. fn. 21, pp. 412 f.
42. For more detailed information on the St. Mary and Milk Rivers issues see MACKAY, The International Joint Commission between the United States, and Canada, in: Papers, op. cit. fn. 5, pp. 86-88; CHACKO, op. cit. fn. 10, pp. 209-239; BLOOMFIELD/FITZGERALD, op. cit. fn. 5, pp. 87-93.
43. See Art. VI, last sentence BWT (Appendix I).

44. Of only three altogether; see IJC Annual Report 1975, p. 1.


46. CHACKO, op. cit. fn. 10, pp. 86 ff, and BLOOMFIELD/FITZGERALD op. cit. fn. 5, pp. 17 ff, refer to them as "judicial" powers. The term "quasi-judicial" is also used, inter alia, by MACKAY, op. cit. fn. 42, pp. 72 ff; and by the IJC itself, Annual Report 1975, p. 2. Because the Commission is not a true judicial tribunal the term "quasi-judicial" is deemed to describe this particular one of the Commission's functions most appropriately and shall henceforth be used in this context. See also recent "Burnell" decision of the Federal Court, Trial Division [1976] 71 D.L.R. (3d) 725 (1977).

47. 1912-1975: 99 projects 1912-1944: 51 projects - 12 references, 39 applications. This trend was later reversed; see infra.

48. As described in the preliminary article of the Treaty.

49. The difference in permit order between Article III and IV - Article III: first government authorization, then IJC approval, then government permit - does not seem to be of any practical consequence.

50. This corresponds with the U.S. demands pursuant to their Harmon doctrine. The negative effects of this omission were most painfully felt some years after conclusion of the Treaty, when water pollution became an acute problem.

51. "Special agreement" is defined in Art. XIII of the Treaty.

52. In accordance with the principle of free navigation of the boundary waters, as proclaimed in Article I.

53. Docket no. 1. For more detailed information see WM. H. SMITH, op. cit. fn. 25, p. 115; CHACKO, op. cit. fn. 10, pp. 168-180; BLOOMFIELD/FITZGERALD, op. cit. fn. 5, pp. 69 f.

54. Supra, pp. 3 f.
55. Docket no. 7; see WM. H. SMITH, op. cit. fn. 25, pp. 123 f; BLOOMFIELD/FITZGERALD, op. cit. fn. 5, pp. 85 f; CHACKO, op. cit. fn. 10 pp. 87-90, for further details.

56. The water was requested by the applicant who had grown in size from 50,000 to 225,000 inhabitants in the first 13 years of this century and did not deem it safe to rely solely on its artesian water supply. See preceding footnote.

57. The Order in Council had stated that Shoal Lake was not a boundary water.

58. Docket No. 46; see BLOOMFIELD/FITZGERALD, op. cit. fn. 5, pp. 159 f; IJC Annual Report 1975, p. 45.

59. Docket no. 14; see WM. H. SMITH, op. cit. fn. 25, pp. 122 f; BLOOMFIELD/FITZGERALD, op. cit. fn. 5, pp. 83 f.

60. See Appendix IV.


62. The agreement between Seattle and British Columbia is, of course, not a treaty under international law. It can, at best, be regarded as supplemental to the IJC order. Another point of interest, which would merit a more detailed examination elsewhere, is whether the IJC's order in this case is binding, given that it was issued contrary to Article IV of the Treaty; this provision clearly calls for the Commission's approval of indemnification arrangements prior to the issuance of an order concerning cross-boundary waters and waters flowing from boundary waters. Though it is now generally felt that this order ought not to have been issued (see, e.g. IJC Seminar 1974, p. 10) the Commission has thus far avoided annulling the order ex tunc and re-opening the final hearing. It is suggested that the Seattle-B.C. agreement, though valid, is ineffective to validate the IJC order.


64. See BLOOMFIELD/FITZGERALD, op. cit. fn. 5, pp. 199-202.

65. See 27 Dept. of State Bull. 1019-1024 (1952) for an example of an approval order.

66. See infra, D, regarding "reference".

68. This not very large river is important for southeastern Saskatchewan, northern North Dakota and Manitoba. In North Dakota large portions of water were evaporating at wildlife refuges, a use detrimental to vital human needs in Saskatchewan but which North Dakota, in turn, under its prior appropriation principle did not feel legally obliged to make allowances for. See BLOOMFIELD/FITZGERALD at previous footnote.

69. Docket No. 33; see BLOOMFIELD/FITZGERALD, op. cit, fn. 5, p. 146.


71. Docket no. 3; 1912; final report May 1917. For further details see BLOOMFIELD/FITZGERALD, op. cit. fn. 5, p. 40 f. and 72-75.

72. Art. III.

73. 1-2 Geo. V, ch. 28.

74. See: SEIDL-HOHENVELDERN, The Legal Personality of International and Supranational Organizations, in: 21 R.E.D.I. 35 (1965). The author shows that the IJC's mere powers to "organize its internal functioning" (p. 49) is not sufficient to recognize it as having an independent legal personality of its own. This is a matter of domestic law in Canada and the United States. See also the recent Burnell case, cited supra, fn. 46.

75. J.L. MacCallum, Legal Advisor, Canadian Section IJC, personal interview, Ottawa, 22.2.1977. It was concluded by the IJC in Executive Session on Nov. 7, 1974. Information supplied by letter from C.T. Ferguson, IJC Research Assistant, 18.7.77.

76. Art. VIII, para. 7. See also: IJC Seminar 1974, p. 10.

77. Art. X, first sentence.

78. IJC Annual Report 1975, p. 3.

79. A detailed examination of the legal implications of this still dormant provision would greatly exceed the scope of this study. Please refer to MACKAY, op. cit. fn. 42, pp. 92-95; CHACKO, op. cit. fn. 10, pp. 314-335; BLOOMFIELD/FITZGERALD, op. cit., fn. 5, pp. 55 f., for more information. An interesting, hitherto apparently unexamined aspect of this article and one
that would merit closer scrutiny elsewhere is the question of priority with regard to Art. X and the jurisdiction of the International Court of Justice (formerly the Permanent Court of International Justice), the jurisdiction of which both Canada and the United States have accepted.

81. Art. XVI, first para.
82. For examples of reference texts, see the two references appended to the GLWQA Appendix 3. For a data synopsis see COHEN, The Regime of Boundary Waters - the Canadian - United States Experience, in: Recueil des Cours 1975, vol. III, pp. 219 ff.
83. Art. IX, first para.
84. Art. IX, third para.
85. IJC Annual Report 1975, p. 2. See also: COHEN, op. cit. fn. 82, p. 257.
86. BOURNE, op. cit. fn. 10, p. 470. For a more detailed account of the Lake of the Woods controversy see CHACKO, op. cit. fn. 10, pp. 247 ff.
87. This method of reference has not changed since.
88. Supra, B 2.
89. Docket no. 83.
II. PART TWO


5. Ibid.


8. Docket no. 54; see also BLOOMFIELD/FITZGERALD, op. cit. fn. I-5, pp. 172 f; IJC Pollution Report 1970, pp. 4 f; BILDER, op. cit. fn. 3, pp. 492 f.


10. Interestingly enough the draft convention reappeared and was among the suggested solutions to the problem: See also: ROSS, op. cit. fn. 1, p. 247.


13. Infra, III.


16. Ibid.

17. Text of reference (docket no. 83) in IJC Pollution Report 1970, p. 95. Though the Commission was given a mandate to continually monitor the quality of boundary waters by the two governments subsequent to the Connecting Channels report, there is no evidence to suggest any appreciable activity on the part of the IJC to bring this reference about.


19. The average depth of the western basin of Lake Erie is only 23 feet. IJC Pollution Report, 1970, p. 51.


22. Ibid., p. 15

23. Ibid.


26. SOR 72/416.


28. See infra, III 1.


30. Ibid, p. 81.

31. Ibid.

32. Described in detail in Ch. XV.

33. Ibid., p. 82. Estimated costs: $211 million for Canada, $1373 million for the U.S.
34. Ibid. However, Ohio was excluded: "The exact status of Ohio regulations is not clear."

35. Ibid.

36. Ch. XVI, p. 89.

37. The information for this section was obtained primarily from: GLWQA History, op. cit. fn. 20, pp. 12-18; Pollution Paper op. cit. fn. 27, pp. 1 ff; BILDER, op. cit. fn. 3, pp. 501 ff; also personal interviews with Canadian officials, both federal and provincial, who are or were at that time involved with U.S. - Canadian boundary waters relations.

38. See supra, II - 2.


40. It is rather doubtful whether this time consuming review procedure achieved much more than a display of sovereignty, for it must be remembered that those who reviewed were substantially the same people who had done the research on behalf of the IJC in the first place.


42. U.S.C.S. Constitution, Art. 6, cl. 2.


45. See supra, II 1.


48. Quebec was not substantially affected by the proposed agreement.

49. Text obtainable from Environment Canada or from the Ontario Ministry of the Environment.


51. S. 9 (5).

52. Early in 1976 this agreement was revised by a supplementary agreement (Agreement Respecting Great Lakes Water Quality signed March 12, 1976) which did not substantially alter the structure of the first one. Essentially the new agreement can be regarded as an updated and slightly more detailed version of the original one incorporating, in part, experiences gained in implementing the first agreement and the GLWQA.


55. See supra, III, 1 a.

56. See infra, 2.

57. Agreement between Canada and the United States of America on Great Lakes Water Quality; C.T.S. 1972, no. 12; 23 U.S.T. Pt. 1, 301 (1972); see appendix III for text.

58. Discussed infra, b.

59. Art. II.


61. Ibid., p. 86.


64. Recommended ibid., p. 89, no. 3 a.

65. Supra, 1 a.


67. Art. XII.
68. Annex 1, no. 8, last sentence.
70. Preliminary Article.
71. A new term in official U.S. – Canadian boundary waters relations.
72. Art. V, last para.
73. Art. XI.
74. C.B. Bourne, personal interview, Vancouver, 19.5.77.
75. Sixth para.
76. Second and seventh para.
77. Fourth para.
78. Eighth para.
79. Art. VI, first sentence.
80. Art. VI, no. 2/Art. XI.
81. Art. VI, no. 1.
82. Art. VIII.
83. Art. VI, no. 5.
84. Art. VI, no. 3.
85. Art. VI, no. 4.
86. Art. VI, no. 1.
87. See also infra, Part Four, 2.
88. Pollution Paper, op. cit. fn. 27. See also supra, 1 b.
89. IJC Pollution Report, 1970, ch. XVI/ch. XIII.
90. Ibid., p. 9.
91. It must be remembered that the Agreement itself is evidence of the acceptance of one of the Commission's major recommendations.
92. E.g., IJC Seminar 1975, p. 6.

93. See supra, I 3.


97. Ibid., esp. ch. 3, pp. 17 ff.


99. See infra, Part Three II.

100. Likewise BILDER, op. cit. fn. 3, p. 546.

101. See also infra, Part Four 2, at fn. 40.

102. M. Cohen, Chairman, Canadian Section, IJC, personal interview, Ottawa, 25.2.77.


105. Ibid.
106. BONNER, Public Participation, p. 2.


108. Ibid., no. 2.

109. Ibid., no. 3.


111. Art. V, no. 1 first para.


114. Ibid., p. 2.


117. Ibid., p. 4.

118. Ibid., p. 5.

119. Ibid., p. 7.

120. E.g. C.B. Bourne, personal interview, Vancouver, 17.2.77. Bourne was the chief Canadian negotiator for the Agreement.

121. Supra, III, 1 b.

122. Water Pollution Control Act, PL 92 - 500.


125. See especially the two reports supra, fn. 113.
III  PART THREE


2. For a conspectus see UTTON (ed.), Pollution and International Boundaries, United States - Mexican Environmental Problems, University of New Mexico Press, Albuquerque, 1973 (12 Nat. Res. J. no. 4 [1972]).

3. IX Bevans 877.

4. IX Bevans 791.

5. IX Bevans 850.

6. IX Bevans 871.

7. Convention (1889), Article IX, first para.

8. IX Bevans 887, 892, 896, 898, 908.

9. IX Bevans 910.

10. Ibid., art. IX, first para.

11. Ibid., second para.

12. Ibid., first sentence.


is not entirely accurate with regard hereto.

16. Ibid, art. 2.
17. Ibid., art. 3.
18. Ibid., art 4.
19. Ibid., art 6.
20. Ibid., art. 10/signature protocol re art. 10.
22. Chad Basin Convention, Preamble, fifth para.
23. Chad Basin Statute art. 1.
24. Ibid., art 3.
25. Ibid., art 5.
26. Ibid., art 9.
27. Ibid., art.12.
28. Ibid., art. 17, second para., first sentence.
29. Except those involving the executive secretary.
30. Chad Basin Statute, art. 10, second and third para.
31. SAND, Development of International Water Law in the Lake Chad Basin, in 34 ZAORV 52 (1974) at p. 65.
32. See also AGORO, The Establishment of the Chad Basin Commission, in 15 Int. and Comp. L. Qu. 542 (1966), at p. 549.
33. Chad Basin Convention, art. 7.
34. See supra, Part One II. For further examples see BLOOMFIELD/ FITZGERALD, op. cit. fn. I-5, pp. 65 ff, where dockets up to 1958 are discussed, or, for more recent projects, IJC Annual Report 1975.

36. To what degree, if at all, this has changed will be examined later. See infra, II c.


38. If not otherwise specified, the information regarding Lake Chad and its drainage basin is taken from SIKES, Lake Chad Eyre Methuen, London, 1972.


40. FAO Report, op. cit. fn. 37, p. 8.

41. Bern Convention, art. 1 and 2. The second paragraph of art. 2 can only be interpreted as being restricted to questions relating to pollution.

42. Art. 10.

43. See LAMMERS, op. cit. fn. 1, p. 101.

44. Art. III, IV and VIII BWT. See supra, Part One II B, Art. X does not surrender sovereignty; it merely provides for an orderly means of dispute settlement.

45. Art. XII. The Treaty offers no evidence in support of the claim made by AUSTIN, Canadian - United States Practice and Theory Respecting the International Law of International Rivers: A Study of the History and Influence of the Harmon Doctrine, in 37 Can. B. Rev. 393 (1959) at p. 420, that "both countries had given up a significant area of their national sovereignty."

46. Boundary Waters Convention, 1889: "...shall be submitted for examination and decision to an International Boundary Commission which shall have exclusive jurisdiction in the case of said differences or questions." See also art. V.

47. Ibid., art. V, second para.

48. See, e.g. Chad Basin Statute, art. 8, Bern Convention, art. 2 and 7 - 10.

49. Rhine Pollution Commission.
50. This, of course, in no way severs or even loosens a commissioner's national ties, it merely results in a slightly different accentuation.

51. See also infra, II b.

52. This is, of course, as the Chad Basin and the Rhine Pollution Commissions show, not always possible.


55. Chad Basin Convention, art. 7.

56. Even if the Commission had originally been created as a bilateral one between France and England before the independence of the present parties, for the possibility of which, as should quickly be added, there is no evidence, it would most likely have been dissolved by the present parties because of their mentioned distrust of their colonial heritage.


59. Chad Basin Statute, art. 16.

60. This was not at all superfluous as not much information existed on the Lake and next to nothing on the basin.


62. It seems to have escaped the drafter(s) of this agreement that in the 1964 Convention the commission was named the Chad Basin Commission, not the Lake Chad Basin Commission.
63. Agreement (1972) art. 3.

64. Ibid., art. 4, 5.

65. See SAND, op. cit. fn. 31, p. 67.

66. E.g. Survey of the Water Resources of the Chad Basin for Development Purposes, FAO Publication, 1971; Investigation and Feasibility Study of an Irrigation Project South of Lake Chad, FAO/UNDP publication, 1973; Fishery Development within the Regional Framework of the Chad Basin Commission, FAO publication 1972; Lake Chad Basin Commission, Medium Term Programme on Drought Control, FAO publication, 1974. The FAO has also drawn up a provisional draft for an "Agreement relating to the use and conservation of water in the Lake Chad Basin."

67. AKIWUMI, op. cit. fn. 53, p. 864.

68. Article V; complete text of the draft in International Law Commission Report, op. cit. fn. 57; pp. 217 ff.; For a discussion see SAND, op. cit. fn. 31, pp. 72 ff.

69. Unfortunately though hardly unexpectedly, not very much material is available on the Chad Basin Commission; it has not been possible to acquire any information on the commissioners or on the internal action and decision-making processes.

70. The UN felt that projects developed on a region-wide basis were highly preferable to national schemes and actively encouraged the creation of the commission. See FAO Report, op. cit., fn. 37, p. 1; SAND, op. cit. fn. 31, p. 65. The presence of the UN may prove to be an added advantage for the preservation of the commission's work. Recent history has shown that sudden political upheavals and regime changes do not tend to affect projects that are not carried out under the auspices of one of the world's major ideological factions.

71. In comparison with other international water resources commissions in western Africa its record is noteworthy, probably because its membership is much smaller than that of, for instance, the Niger Commission and because it started on a much more modest scale than did, for example the Senegal Commission, a body which, moreover, suffered for a time from considerable tensions between two of its member states, the Senegal and Guinea. See e.g. AKIWUMI, op. cit. fn. 53, pp. 857 f.

73. INTERNATIONALE KOMMISSION ZUM SCHUTZE DES RHEINS GEGEN VERUNREINIGUNG, Tätigkeitsbericht (series hereinafter cited as: Tätigkeitsbericht) 1972-1974 Koblenz, p. 9; Id., Langfristiges Arbeitsprogramm, Kurzfassung, Koblenz, 1976, p. 16.

74. E.g. the Province, Vancouver 4.12.76, and Le Monde, Paris 27.5.76; Ambroise-Rendu, in Le Monde also suggests that the delay in reaching the salt agreement was due to French stalling for time because the Alsatian Mines are due to run out of material in twenty years anyway. The following figures certainly appear to bear the criticism out: In 1970 the average chloride load measured at the Dutch-German border was 365 kg/sec. (LAMMERS, op. cit., fn. 1, p. 78) and increasing. The agreed amount by which this would be reduced (Chloride Agreement art. 2) is 60 kg/sec. See LAMMERS, op. cit. fn. 1, p. 92, for historical information regarding these agreements.

75. The commission consists of the delegations, including the President, and a technical-scientific secretariat, to which are attached several committees and sub-committees.

76. See also: LAMMERS, op. cit. fn. 1, p. 70; Tätigkeitsberichte 1968-1970, respective introductory chapters on personnel changes.

77. Figures taken from LAMMERS, op. cit. fn. 1, p. 78.


79. July 1, 1972; Tätigkeitsbericht 1972-1974; p. 16.

80. Even if it were argued that the E.E.C.'s and Luxemburg's membership in the commission was not absolutely necessary those of the others definitely are, which would still leave four as opposed to two in the IJC.


82. For details see LAMMERS, op. cit. fn. 1, pp. 101f.

83. Similarly, the countries have yet to consider gathering data jointly; Tätigkeitsbericht 1972-1974, p. 9.

84. Likewise: LE MARQUAND, op. cit. fn. I-63, p. 120.

86. See supra, Part Two I 1.

87. Likewise LAMMERS, op. cit. fn. 1, p. 69.

88. In the case of the IJC this is often true with regard to the boards: See IJC Pollution Report 1970, p. 15. This is another argument in support of joint gathering of information.

89. Likewise: A.D. Scott, former Commissioner, personal interview Vancouver, 26.1.77.


91. The Rhine Pollution Commission was unable to suggest how its structures and operations could be improved even after it was expressly asked to go so. Tätigkeitsbericht 1972-1974, p. 31.


93. Also: LAMMERS, op. cit. fn. 1, pp. 72 f.

94. Seminar Proposal, op. cit. fn. II-103, p. 30: "The relative absence of partisan politics within the IJC has not only facilitated its work, but it has also enhanced its overall credibility and reputation."

This however, does not mean that the Commissioners are apolitical. E.g., Victor L. Smith, a U.S. Commissioner, ran - unsuccessfully - for a seat on the Senate in the last (1976) U.S. election.

Usually the IJC Chairmen are full-time appointments. There have been recent exceptions. E.g.: Christian A. Herter, Jr., a recent Chairman of the U.S. Section, retained his high ranking post in the U.S. Department of State during his term of office.


This kind of cooperation was already provided for in art. II of the Geneva Convention Relating to the Development of Hydraulic Power Affecting More than one State, 9.12.1923; 36 L.N.T.S. 77.

97. Supra, Part Two II.

98. Ibid., b.

99. The International Boundary Commission of the United States and Mexico, the only such organization to which it could have turned, was at that time not worth emulating. See infra, c.

100. See BLOOMFIELD/FITZGERALD, op. cit. fn. I-5, p. 72. Nevertheless, the IJC was, during the first few decades of its existence, repeatedly faced with the prospect of being dissolved. Apparently the governments were not supplying it with enough work and deemed it superfluous. That the Commission survived those crucial years is owed largely to the dedication and ultimately convincing efforts of some of the former commissioners. JORDAN, op. cit. fn. 90, pp. 240 ff, provides further details.


102. At this time, incidently, Article 7 of the Peace Treaty of Guadalupe-Hidalgo, proclaiming absolute freedom of navigation on the Rio-Grande was still in effect.

103. IX Bevans 924.

104. Completed in 1915.
105. The official U.S. position, in line with the Harmon doctrine, was that this was merely an act of comity. See Articles IV and V.


107. DAY, op. cit. fn. 101, p. 12.

108. Ibid., p. 128.

109. FRIEDKIN, op. cit. fn. 106, p. 3; TECLAFF, op. cit. fn. 54, p. 159.

110. See FRIEDKIN/HERRERA JORDÁN, op. cit. fn. 106, p. 7.

111. IX Bevans, 976.

112. FRIEDKIN/HERRERA JORDÁN op. cit. fn. 106, p. 7; DAY, op. cit. fn. 101, pp. 65 ff.


114. Treaty of Guadalupe-Hidalgo, 1848, art. VII.

115. Art. 3.

116. The provisions concerning the Rio Grande - from Fort Quitman to the Gulf of Mexico - comprise art. 4 - 9.

117. Art. II.

118. Art. 2.

119. This succinct summary of the rather lengthy provisions of the treaty was taken from: FRIEDKIN, op. cit. fn. 106, p. 5.

120. Art. 25.

121. Art. VIII.
122. Art. 24 c.

123. For the first time the United States officially recognized Mexican rights to water. See TECLAFF, op. cit., fn. 54, p. 159; DAY, op. cit. fn. 101, p. 140.


125. See FRIEDKIN/HERRERA JORDÁN, op. cit. fn. 106, p. 9; FRIEDKIN, op. cit. fn. 106, p. 5; DAY, op. cit. fn. 101, p. 54.


127. DAY, op. cit. fn. 101, pp. 144 ff; FRIEDKIN/HERRERA JORDÁN, op. cit. fn. 106, p. 12.

128. DAY, op. cit. fn. 101, at p. 146, is of the opinion that the commission played a major role in the solution of the Rio Grande salinity problem.

129. E.g.: Falcon Dam; see supra, p. 102.

130. Of course, joint construction and operation are not as frequent as are joint data gathering and planning. The U.S. - Mexican Commission also does a large amount of joint data gathering and planning. But the mentioned difference in emphasis still exists and restrains the U.S. - Mexican Commission by comparison to the U.S.-Canadian Commission.


132. As has been pointed out before, they are both bilateral, they were both created close to the turn of the century, both involve the United States, and their broad investigative powers were similar.

133. See supra, p. 96.

134. See ANDERSON, op. cit. fn. 124; SMEDRESMAN, op. cit., fn. II-2, oo. 513 ff.


138. See fn. 135.

139. See FRIEDKIN/HERRERA JORDAN, op. cit. fn. 106, p. 2.

140. DAY, op. cit. fn. 101, gives a good discussion of the various problems existing today.

141. See UN, Management of International Water Resources, op. cit. fn. 72, pp. 50 ff.


144. LE MARQUAND, op. cit. fn. I- 63, pp. 79 ff.

145. See, e.g., BOURNE, Mediation, Conciliation and Adjudication in the Settlement of International Drainage Basin Disputes in 9 C.Y.B.I.L. 114 (1971) at p. 120. The raison d'etre of the IJC is to prevent or to settle disputes, not to create them.

146. See supra, Part Two IV c.

147. COHEN, Canada and the United States - Possibilities for the Futures, in 12 Col. J. of Transn. L. 196 (1973), at p. 198: "Perhaps no two countries in the world have the degree of economic and social intimacy that characterizes the day-to-day and long-term relations between Canada and the United States.

148. Art. II.


151. Likewise SMEDRESMAN, op. cit. fn. II -2.

152. Contra Piper, op. cit. fn. 137, p. 112.
PART FOUR AND CONCLUDING REMARKS

1. Thus far no literature or extensive data exist on this aspect of the Commission's work. I have had to base this assessment on the unanimous (!) opinions of past and present Commissioners as well as of members of the staff in the Ottawa offices of the Canadian section. A few figures are given by Cohen, *op. cit.* fn. I - 82, p. 268, pertaining to time spent travelling.


3. IJC Rules of Procedure, No. 7; see Appendix II.

4. See *infra*, Part Three II.


6. E.g. National Energy Board Act, R.S.C. 1970, ch. N-6, s. 3(2): "...each member...shall be appointed to hold office during good behavior..." (emphasis added. Similar: Canada Shipping Act, R.S.C. 1970, 2nd Supp., ch. 27, s. 738(1).

7. See, e.g. Canada Shipping Act, s. 738 (2).

8. Recently retired Eugene Weber was the only Commissioner to serve for a very long time - more than two decades. Although the value of his contributions to the Commission were nowhere questioned, this single case is not sufficient evidence against the reasoning advanced here.

9. This is similar to what makes a lawyer accept an appointment to the bench.

10. This is not to say that the salaries should match top executive earnings in private industry; a realistic balance must be struck between prestige and pay.


12. I.e. 'during good behaviour'.


15. This is a current possibility with regard to the American Section, where all three Commissioners, all of whom are, to a greater or lesser extent, connected to the Republican Party, may be replaced by the current Carter administration before the end of the year.


17. Though other terms may be considered they should, for the reasons mentioned above, be no less than six and no more than twelve years, with two or four year replacements, respectively.


19. BILDER, op. cit. fn. II-3, p. 550, also foresees a possible increase in the politicization of the Commission, partly as a result of the GLWQA.

20. Likewise, Nelson paper, see supra,fn. 16, at p. 13. This is by no means whatsoever to imply that neutral, independent experts do not, much less should not, serve on the Commission. A Commission consisting entirely of such persons would be a very desirable state of affairs. Yet many high-ranking public service positions nowadays are apolitical only in theory. Such is the case with respect to appointments to the bench as well as to the IJC. Outright party political patronage may be rare, but some such affinities, however loose they might be, can hardly be denied. This must be taken into account by all who attempt to develop practicable solutions for concrete problems.

21. Other issues that may be of a certain political impact, such as regional representation on the Canadian side or the question of whether or not the appointment of U.S. Commissioners should require Senate approval (see Nelson paper, supra, fn. 16, p. 13) have been excluded here, because I do not believe them to have a bearing on the work of the Commission.

22. For reasons indicated supra, footnote 11, this provision is worded in the form of a (negative) restriction rather than a (positive) obligation.

23. This is not innovative, yet it deserves to be laid down as a matter of political principle. Sources close to the Commission have conceded that a letter was played into the hands of the Canadian section which strongly suggested that there have in
the recent past been attempts to exert political pressure on the American section. The letter was a communication within the U.S. executive where the addressee was strongly advised to compel the American section to adopt and press the position of the American government with regard to a certain issue; the addressor added that this had recently been done with regard to a certain issue and should therefore be possible again.

This letter caused some embarrassment to the American Commissioners who hastened to assure their Canadian counterparts that the addressor's intentions had not materialized; as for the precedent mentioned in the letter the decision adopted as the best one in that case by the Commission happened to coincide with the official American position.

The fact, incidently, that the revelation of said letter did not cause even a minor rift within the Commission is an attribute to the trust and esprit de corps permeating it.

25. A situation like the one described by BLOOMFIELD/FITZGERALD, op. cit. fn. I-5, pp. 69 f., where for about a decade there was no lawyer on the Commission, is not acceptable. The Commission has developed a high reputation with regard to the quality of its research activities and the results obtained. There is no justification for letting the Commission's approach to the law be the weak link of an otherwise strong chain. Similar, with regard to staffing of IJC, JORDAN, op. cit. fn. I-2, p. 539.
26. Established under the GLWQA; see supra, Part Two II 2.
27. These views are based on opinions of senior advisors from Environmental Canada and the Ontario Ministry of the Environment concerned with international Great Lakes pollution abatement.
28. Supra, Part Three.
29. Supra, 1.
30. The most noteworthy model to date, proposed by the Canadian-U.S. University Seminar, would grant the IJC "the necessary policy-making and administrative authority to enable it to carry out its assigned coordinative role" (Seminar Proposal, op. cit. fn. II - 103, p. 49. See also JORDAN, Recent Developments in International Environmental Pollution Control in: 15 McGill L.J. 279 (1969) at pp. 300 f; BILDER, op. cit.
fn. II-3, pp. 518 ff. and 548 ff. Cohen's statement (in op. cit. fn. I-82, at p. 275) that the Commission has been given quasi-managerial powers under the Great Lakes Water Quality Agreement appears to be stretching the definition of "managerial" unduly.

31. Supra, 4.


33. See supra, Part One II A.

34. The Commission's report on this issue is forthcoming. A Board report is available from the offices of the IJC.

35. Dito.

36. Supra, Part One. See also list of dockets, Appendix V.

37. This theory, which is admittedly somewhat idealistic, does not at all, however, apply to international commissions.

38. Which will be commented upon in the following paragraphs.

39. The closest the IJC currently comes to such a model is apparent in Annex I, no. 8, of the GLWQA.

40. I am assuming that such activities would be carried out from a joint office, such as the IJC's regional office in Windsor. The work of the Commission has so far profited considerably from the close relationships among the Commissioners, who meet frequently and confer frankly with one another. This positive trend could be inadvertently counteracted by large staffs, who cannot communicate with their respective counterparts in that way and thus 'do their own thing'. This comment is also a caveat with regard to the above mentioned (supra, Part Two, IV b), basically laudable endeavour of the Canadian Chairman to increase the staff of the Canadian section considerably over the size it had upon his assumption to office.

41. Supra, 1.

42. Ibid.

43. Essentially art. VIII cases; see supra, Part One II B 1.

44. This has already been instituted re Great Lakes by the GLWQA. The IJC should be generally authorized to initiate limited studies on suspicion, to establish whether there is a cause for a thorough investigation. Giving the Commission the powers
to initiate comprehensive investigations, as JORDAN, op. cit. fn. I-2, at p. 539, seems to suggest, could lead to unnecessary overlapping with possible government activities.

45. Somewhat similar to its functions vis-a-vis the International Lake of the Woods Control Board.


49. A convincing argument is, for example, presented by WENGERT, op. cit. fn. 48, p. 27 f: As long as the average citizen was able to understand approximately why what decisions were made, he was content to let others decide for him. What brought about calls for more public participation was that science and technology have complicated the administrative process to such an extent that even well educated minorities often cannot understand why certain decisions were made, or why they are asked to follow course xyz.

50. SCHAFFER, op. cit. fn. 46 provides a few valuable impulses to the general discussion; but his approach - democratic elitism vs. substantial public involvement at all levels - is far too narrow to lead to viable results.

51. E.g.: GRAHAM, op. cit. fn. 46.

52. E.g.: MORLEY, op. cit. fn. 46; BONNER, op. cit. fn. II-106, esp. at p. 8.

53. Attention should also be paid to the question of overlapping of activities concerning public participation and representative democracy. It appears to me that, in some respects, representative democracy originated under similar circumstances as are present
today with regard to calls for public participation. If one were to carry this idea still further, could (if the concept of public participation should be institutionalized) a third track or strain of popular government evolve? See also HAEFELE, Representative Government and Environmental Management, in: SWAINSON, op. cit. fn. 46, pp. 115 ff.

54. Aside from that there are grave doubts, of course, about whether the Commission could even discharge its duties properly, should the implementation of such a policy be attempted.

55. Esp. art. VI, no. 4. See also supra, Part Two III 2 b, and IV b.

56. I do not deem it necessary to substantiate the - to me obvious - necessity for discretion and confidentiality in the conduct of such negotiations that can appreciably affect international relations and relationships.

57. Likewise: RAB, Proceedings... op. cit. fn. 47, p. 27.

58. This aspect should, for example, also have been touched upon by J. O'RIORDAN in his discussion of the extensive 'Public Involvement Program in the Okanagan Basin Study' in: Symposium on Public Participation, op. cit. fn. 46, pp. 177 ff.


60. See IJC Seminar 1974, p. 21.

61. As has just been explained, other reasons necessitate the release of as much of the Commission's information as is possible.

62. ...or decisions in applications pursuant to art. III, IV and VIII of the Treaty.

63. See BLOOMFIELD/FITZGERALD, op. cit. fn. I-5, appendix 3 (esp. Rule 13).

64. That this occurred largely because, at that time, the Commission viewed itself primarily as a quasi-judicial body (see SIR GEORGE GIBBONS, op. cit. fn. I-10, p. 17), does not alter the fact itself.

65. See RAB, Proceedings... op. cit. fn. 47, pp. 61 ff. COHEN, op. cit. fn. I-82, at p. 260, does not commit himself either way.

66. See GRIMA, An Assessment of the Public Hearings Held by the International Joint Commission on Great Lakes Levels Regulations 1973, University of Toronto (with supplemental paper by GRIMA/DUFournaud); also SINCLAIR, op. cit. fn. II-103; RAB,
Proceedings... , op. cit. fn. 47, pp. 45 ff; BONNER, op. cit. fn. II-106, p. 11.

67. Referred to the IJC under art. VI 1 f (i) GLWQA.

68. See FOCUS (newsletter published by IJC Windsor), April 177, p. 9; GREAT LAKES CITIZEN (tabloid published by the Great Lakes Tomorrow), Special Edition: Lake Superior and Huron - Issues and Problems.


70. VINDASIIUS, Public Participation Techniques and Methodologies - a Resume, Ottawa, 1974, pp. 20 ff; RAB Proceedings... , op. cit. fn. 47, pp. 63-91; BONNER, op. cit. fn. II-106, pp. 11-14, (Bonner's short paper updates parts of the RAB Proceedings).

71. See supra, Part Two IV b. See also COHEN, op. cit. fn. I-82, p. 269.

72. This might necessitate a revision of Rule of Procedure No. 11. See Appendix II.

73. A case in point: CBC-FM national news, Tuesday, March 3, 1977, 7 a.m. (and again at 8 a.m.) News item - Begin of IJC hearings on Garrison Diversion Board Report.

A brief history of the Garrison controversy was given. After mentioning the beginning of the project ten years ago, the fears eventually expressed by Manitoba and Canada concerning possible pollution of the Red and Souris Rivers on the Canadian side of the border, and the reassurances given by the U.S. that no waters in Canada would be polluted, the on-site (North Dakota, scene of the first hearing) CBC reporter, Tom Earl, went on to say that "the IJC then ordered a board to report on the possible effects of the project on boundary waters. The report said that..." (emphasis added):

The reporter here did not say anything wrong. It is what he omitted that is important. He did not say that the Commission first had to be asked by the two Governments to inquire into the matter before it was able to order a board report. He also did not explain the relevance of either the board's or the Commission's report. All this could lead an uninformed listener to misunderstand the role of the Commission in this controversy.

74. E.g. Representations to the local member of the responsible legislature.
75. Dito BILDER, op. cit. fn. I-1, p. 179.


77. Briand is said to have considered the IJC as a model for Franco-German boundary relations. See BURPEE, op. cit. fn. I-22, p. 70; also BLOOMFIELD/FITZGERALD, op. cit. fn. I-5, p. 63.

78. See BOURNE, op. cit. fn. I-10, p. 488; BILDER, op. cit. fn. II-3, p. 520.

79. This statement is not invalidated by individual calls for modifications of some of the Treaty's provisions which are considered to be outdated. Jordan, op. cit. fn. I-2, p. 539, for example, believes that the priorities rating of Art. VIII should be revised. The Commission has used this provision, actually pertaining only to its quasi-judicial functions, as a guideline for all of its activities, wherever applicable. Yet even if this rating is no longer reflective of modern day needs and priorities, which is by no means obvious, it does not appear to have restricted the Commission in the performance of its duties, least of all in those related to Great Lakes water quality.

80. Similar M. Cohen, who is, incidently, the first international law scholar to serve on the IJC. He sees his most important duty to the Commission as that of guiding it through this period of adaptation. Person Interview, Ottawa, 25.2.1977.

81. Appendix II. A brief summary of the Rules and some pertinent questions still pending is presented by COHEN, op. cit. fn. I-82, pp. 267 ff.

82. Supra, fn. I-46.
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Appendix I - Treaties, 312; 36 Stat. 2448; TS 548.

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Appendix V - Ibid., pp. 43 ff; updated with the assistance of C.T. Ferguson, Research Assistant, IJC, Ottawa.
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