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TOXIC SUBSTANCES AND FEDERAL WATER POLICY: APPLICATION OF KINGDON'S MODEL OF AGENDA CHANGE TO THE GREAT LAKES WATER QUALITY AGREEMENT OF 1972

VOLUME I

By

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ABSTRACT

TOXIC SUBSTANCES AND FEDERAL WATER POLICY:
APPLICATION OF KINGDON'S MODEL OF AGENDA CHANGE TO
THE GREAT LAKES WATER QUALITY AGREEMENT OF 1972

By

Jon MacDonagh-Dumler

The Great Lakes Water Quality Agreement of 1972 represented very significant change in the federal government's agenda because it provided for water pollution programs and measures for toxic substances discharged into the Great Lakes where none previously existed. The agenda change was most apparent in relation to federal water policies established under the Federal Water Pollution Control Act of 1965 that established a national policy on water pollution for the first time but gave the States primary responsibility for implementing pollution control programs. In particular, the Great Lakes States did not have effective water pollution policies for toxic substances, such as mercury or pesticides.

This research used a structured, focused comparison method to test the applicability of Kingdon's model to the Great Lakes case for toxic substances. Kingdon's "policy process streams" model postulates a set of factors and an agenda change process that determine how problems are perceived important enough for government to do something about them; policy proposals are

perceived as viable and worth supporting; and, decisionmakers view support for government action by important constituencies and government institutions. Original archival records, published government documents and the open literature were used to test the model.

The research found that, while Kingdon's model cannot be strictly applied to all aspects of the Great Lakes Water Quality Agreement case it is useful for understanding how policy issues move up in priority on the governmental agenda. Thus, the essential factors required within each policy process stream; the problems, politics and policies streams generally operated as Kingdon's model indicated they should. The major exception was the operation of the policies stream because participants from other process streams became significantly involved in developing policy proposals. The model posits that the three process streams operate independently. Thus, Kingdon's model, which is predicated on an independence among the participants of the policy process streams during the duration of the agenda change process, could not be successfully applied to any part of the process in this case study.

DEDICATION

This dissertation is dedicated to Etta. Her patience and unshakeable confidence sustained us both during many long hours so that I could fulfill these important aspirations for my life and our life together. Throughout this journey she gave witness to the lessons of scripture that teach,

"The one who fears the Lord ... and holds to the law will obtain Wisdom. She (wisdom) will feed him with the bread of understanding, and give him the water of wisdom to drink" (Sirach 15: 1,3. RSV).

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LIST OF ACRONYMS

CEQ	Council on Environmental Quality
EPA	U.S. Environmental Protection Agency
FOIA	Freedom of Information Act
FWPCA	Federal Water Pollution Control Act
GLWQA	Great Lakes Water Quality Agreement
IB	International Boards for Lower Lakes Reference
IJC	International Joint Commission
JWG	Canadian-United States Joint Working Group
NARA	National Archives and Records Administration
NEPA	National Environmental Policy Act
NRC	National Research Council
OPA	Organized Political Actor
PbPyW	Problems-Policies Window
PcPyW	Politics-Policies Window
RNC	Republican National Committee
SOCMA	Synthetic Organic Chemical Manufacturers Association

CHAPTER 1. INTRODUCTION

Concern for pollution in the Great Lakes was formalized in Article IV of the Boundary Waters Treaty of 1909 when Canada and the United States agreed that "boundary waters ... shall not be polluted on either side to the injury of health or property on the other" (IJC 1998, pg.8). However, with economic growth in the Great Lakes Basin came pollution from municipal and industrial wastes; in 1951 the International Joint Commission recommended for the first time Water Quality Objectives for Lake St. Clair, including the waters above and below the lake (IJC 1951, pp.13-22). The principal focus of these Objectives was on particular categories of toxic pollutants, such as phenolic and cyanide wastes.

Only 19 years later Lake St. Clair was again found to be polluted, this time with mercury-containing wastes from chemical plants on both sides of the border (Turney 1970; UPI 1970). Improved pollution control programs were clearly needed; thus, Canada and the United States agreed to negotiate an intergovernmental agreement for water quality applicable to all of the Great Lakes, not just to specific water bodies (State 1973).

Viewed from the framework of government policy and policymaking, the Great Lakes Water Quality Agreement of 1972 was important because it indicated that fundamental changes had occurred in the environmental agenda of the United States government (State 1973). Changes in the government's agenda were reflected in two precedents established by the Agreement, one in

international environmental law and another in pollution control of toxic substances.

As for the first aspect of agenda change, the U.S. government's interest in negotiating an agreement indicated not only growing local and regional interest in these environmental problems, but also emerging international attention, such as the United Nations Conference on the Human Environment planned for 1972 (Bilder 1971, pg.471). Also, the Agreement was described by U.S. and Canadian officials as the first environmental agreement between sovereign states with shared boundary waters and was considered to be an international model for similar agreements in the world (Smith 1971). In comparison to the dearth of experience in international cooperation and environmental law prior to 1972, the Agreement appeared to brake significant new ground (Bilder 1971, pg.472).

This research focused on the second aspect of change in the government's agenda that involved toxic substances. The provisions of the Agreement represented very significant change because they established specific water pollution programs and measures for toxic substances discharged into the Great Lakes where none previously existed. The States had not provided these programs even though they held primary responsibility for water pollution programs under the Federal Water Pollution Control Act of 1965 (33 U.S.C. 1151(b)).

Moreover, subsequent amendments to the Agreement in 1978 and 1987 expanded the number of toxic substances and that indicated continuing interest in this policy problem (United States 1978; United States 1988). Congress also

had taken a special interest in the problem of toxic substances in the Great Lakes. In 1990, Congress passed the Great Lakes Critical Programs Act that targeted these materials for special pollution control measures (United States 1991). Specifically, the Act required the Great Lakes States to adopt federal water quality criteria for toxic substances in their water pollution programs; the goal was to achieve uniform programs among the States (EPA 1995).

This continued interest among policymakers suggested that it would be important to carefully investigate the policy process, such as what factors caused the agenda to change or prevented it from doing so; what were the characteristics of the participants involved in the process of changing the government's agenda; or, what determined the importance of a particular toxic substance problem on the government's agenda? Also, it would be useful to understand how these factors contributed to the process of change when an important policy problem had been identified and proposals for alternative government action were readily available.

The Great Lakes Water Quality Agreement provided a case of significant agenda change. Most important, this case was chosen because the provisions of the Agreement clearly revealed a change in federal water policy for toxic substances. The agenda change was most apparent in relation to federal water policies established under the Federal Water Pollution Control Act of 1965. Specifically, the toxic substances' provisions in the 1972 Agreement indicated they had a higher priority on the government's agenda than those under the 1965 Act, such as for Hazardous Substances Control (33 U.S.C. 1162 (a)).

The goal of this research was to better understand how the process of agenda change operates for federal water policy concerned with toxic substances. The methodological approach involved testing the applicability of Kingdon's model of agenda change in the case of the Great Lakes Water Quality Agreement (Kingdon 1995).

The "policy process streams" model by Kingdon postulates a set of factors that advance a policy problem on the government's agenda to the point where decisionmakers are ready to take authoritative action (Kingdon 1995). These factors determine how problems are perceived important enough for government to do something about them; policy proposals are perceived as viable and worth supporting; and, decisionmakers view support for government action by important constituencies and government institutions.

CHAPTER 2. LITERATURE REVIEW

2.1. Kingdon's Model and Policy Theory

Many problems vie for attention on the government's agenda; some are acted on while others are ignored. The Kingdon model posits three independent processes – problems, politics and policies - to explain how and why policy problems and their solutions rise to prominence on the government's agenda (Kingdon 1995, pp.18-20). In addition, when decisionmakers begin to give serious attention to a problem, a policy window opens and that prepares the way for an authoritative policy decision. This policy process model adopts a conventional definition of public policy; it is simply "whatever governments choose to do or not to do" (Dye 1998, pp.1-10). Moreover, the concept of a policy process, as used in this research, includes all of the actions taken to prepare government officials to make an authoritative policy decision.

Understanding public policy processes requires analytical frameworks that can produce testable hypotheses about the causes and consequences of public policy and policy processes. Moreover, models of policymaking aim to generate reliable scientific findings which are generally relevant to other government agencies and policy contexts and hold true over repeated policy cycles. Policy analysis focuses on one or more aspects of the following: (a) content of the policy, (b) socioeconomic and political influences on policy content, (c) impact of institutions and politics on policy processes, and (d) evaluation of the intended and unintended consequences of the policy (Dye 1998, pp.13-38). The

discussion of various policy process frameworks below summarizes important concepts from the political science literature.

2.1.A. Alternative Frameworks

Institutional Theory holds that policy making occurs primarily within government institutions following "rules" which are the collection of routines, procedures, roles, organizational forms and technologies developed to guide and support political actions (Heidenheimer 1990; March 1989). A related model, Systems Theory, posits that public policy is a response to environmental inputs into the political system (Easton 1965). The system translates these inputs into authoritative decisions through interrelated institutions.

Group Theory and Group Equilibrium look at policymaking beginning with individual actors who are inside or outside of government and who share interests in joining together with others to bring their demands to the government (Truman 1951). The policy that emerges from this process represents a political equilibrium among the various group interests (Dye 1998). A related framework is Incrementalism that stresses continuation of previous policies; changes to policy occur only through incremental modifications (Lindblom 1959).

Under the Elite Theory and Elite Preference model, policymaking reflects primarily the preferences and values of elite decision makers who are relatively homogeneous in these respects. Most ordinary citizens are apathetic and not well informed about the issues so they have limited influence (Dye 1990b). Rational Theory and Maximum Social Gain view a rational policy as achieving the maximum social gain for all social, political, and economic values gained or

lost by the policy. Also, Game Theory focuses on competitive policymaking choices that depend on what other policy actors choose (Dye 1992). "Minimax" strategies optimize policy payoffs.

Public Choice Theory considers government policies a solution to certain failures of the marketplace such as in providing public goods; e.g., goods and services like national defense to which everyone must have access if any one individual is allowed to have access (Buchanan 1962). Externalities are a type of market failure which government policies address through regulations, penalties, fines, etc. This model also recognizes the divergence between the "median voter" and politicians who, along with bureaucrats, have vested interests in policymaking processes. The latter group tends to contribute to "political failure" by oversupplying public goods and services and overtaxing the public. Government policies also fail by providing "quasi-public goods" which preferentially benefit some sectors so that well-organized interest groups emerge to press for expanding or at least continuing their benefits.

2.1.B. Kingdon's Framework

In general, the policymaking process consists of: agenda setting for decisionmaking; specifying alternative policy proposals; arriving at an authoritative decision among the policy proposals identified; and, implementing the policy decision (Kingdon 1995, pp.2-4). The Kingdon framework describes the first two, agenda setting and specifying alternatives for action, as pre-decision processes (Kingdon 1995, pp.196-201). An issue on the government's agenda advances to a higher priority status when a policy window opens. Policy

windows are described below and are simply an opportunity for government action on an issue or initiative (Kingdon 1995, pp.166-195).

2.1.B.1. The Government's Agenda

It is important to differentiate among several meanings of agenda. The governmental agenda is characteristically broad and consists of the current set of issues that policy entrepreneurs in the problems and politics streams are giving serious attention to; these two streams are where and with whom agenda setting occurs.

Moreover, at any given point in time there is a subset of this agenda, the decision agenda, that has more visibility and activity and, therefore, a higher status in the policy process. A policy issue moves up onto the decision agenda when the components of all three process streams work together to couple the policy issues and politics with the alternatives for action. Obviously, decisionmakers tend to focus primarily on the decision agenda that contains the most important items for authoritative action (Kingdon 1995, pp.166-168, 172-179).

Different forces shape and direct how the governmental agenda is set and how alternatives for action are specified. Kingdon identifies three kinds of policy process streams: the problems stream identifies and defines problems for government action; the politics stream brings forward political initiatives; and, the policies stream develops alternatives for authoritative action that are applied to the problems or initiatives. These process streams are continuously at work in policymaking and they function independently of each other.

As indicated above, Kingdon's model focuses on how problems and political initiatives are coupled together with proposed alternatives for action; these items then move up onto the decision agenda where they are ready for an authoritative decision. Figure 2.1 presents a causal network showing the main features of Kingdon's model. It is worth emphasizing that the endpoint of this model is the decision agenda that holds relatively few items ready for an authoritative decision; the model attempts to explain how the policy process operates up to this point but does not go further.

2.1.B.2. Policy Entrepreneurs

The term, policy entrepreneur, does not refer solely to participants in the policies process stream; rather, it refers to all those who function within the three process streams. They bring forward a defined problem or political initiative for setting the governmental agenda, develop policy alternatives for action that can be applied to these problems and initiatives and mediate interactions among other policy entrepreneurs in the process streams (Kingdon 1995, pp.122-124). They may be located inside of government, such as in elected or appointed positions or outside of government in academia, consulting firms or interest groups. What defines this group is their readiness to invest their resources, such as time, ideas, or reputation, with the expectation of a future return.

In addition, because they advocate and promote ideas their participation prepares the larger policy community and political constituencies for new approaches to policy issues, even if it is only a unique combination of existing

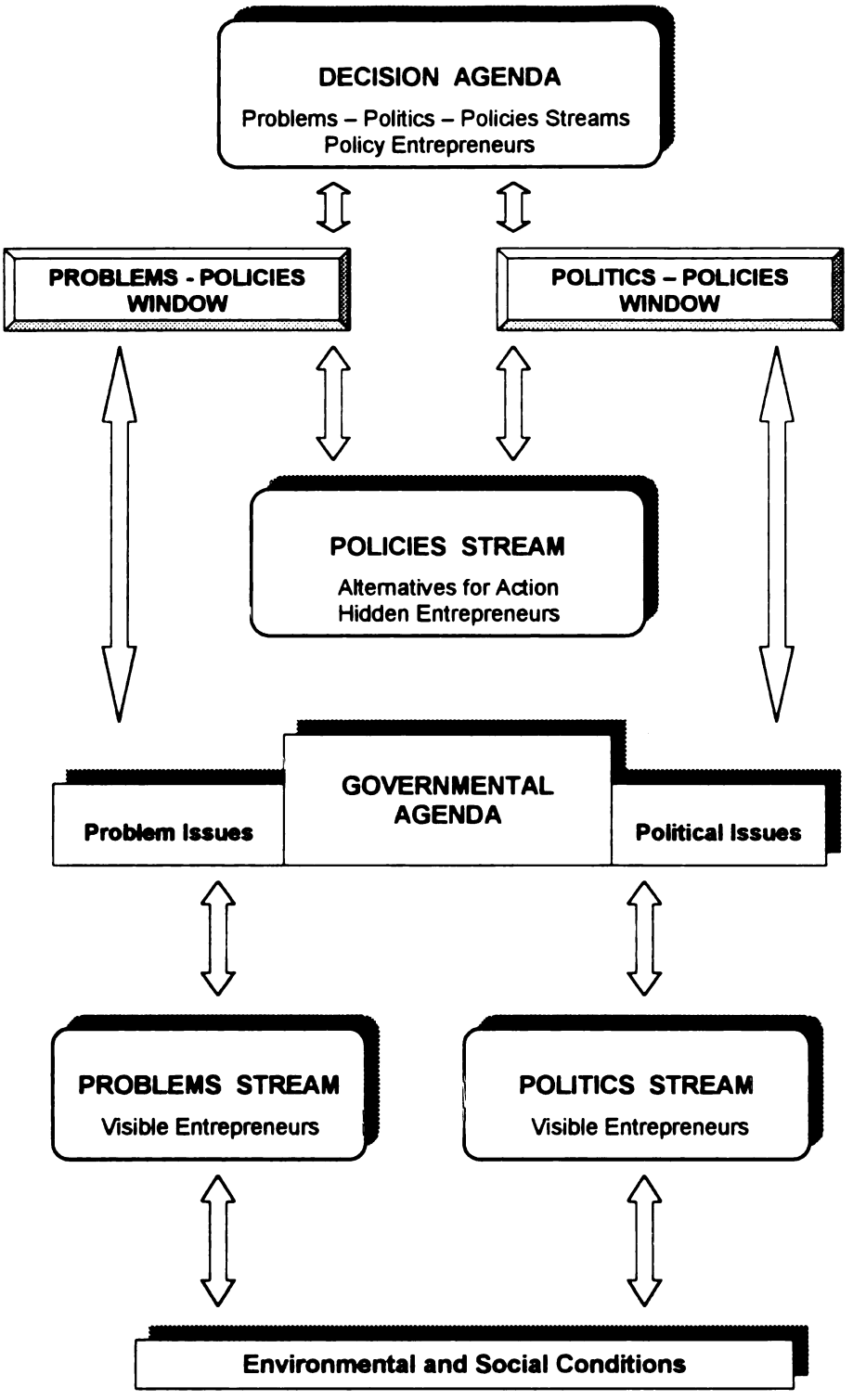


Figure 2.1 Kingdon's Model of Agenda Change.

ones (Kingdon 1995, pp.181-183, 204-205). For example, they seek to define a policy issue as one kind of problem and not another, advocate a political initiative or work to educate the general public, special interest groups or even other policy entrepreneurs about alternatives for action. Also, when opportunities arise in one of the three process streams they must be ready to take advantage of them.

Under Kingdon's model policy entrepreneurs can function in one or both of two modes depending on which process stream they operate in. "Visible" policy entrepreneurs participate in the problems and politics streams with the aim of setting the governmental agenda; that is, adding items to the agenda or moving them to a higher priority position on it. As the name implies they are easily identifiable because they are typically accessible to and often interact with the press and general public. They include the president, high-level political appointees on the White House staff or in government bureaucracies, leaders in Congress and prominent non-government figures in the media, public interest groups and lobbyists.

By contrast, "hidden" policy entrepreneurs participate behind the scenes in the policies stream with the goal of proposing credible and viable alternatives for action on policy problems that fall within their area of expertise. As problems rise in prominence on the governmental agenda they advocate for the alternatives that provide a set of effective policy choices for decisionmakers. They are primarily specialists such as career bureaucrats, policy researchers, lower level administration appointees, academics, and congressional staff who develop

ideas and share them within the policy community (Kingdon 1995, pp.68-70, 200).

Nevertheless, these distinctions are not rigid because the same individual may participate in the problems stream as a visible entrepreneur and at some other time in the policies stream as a hidden entrepreneur. They serve different roles in each process stream and are influenced by factors unique to that stream.

While these distinctions are necessary for describing the central actors within the process streams, it is essential to remember that the crucial issues for Kingdon's model are process ones. In other words, the individual actors are important because of the unique role they serve in the process stream but they are not the only factors that determine how the governmental agenda is set or alternative actions are identified. Rather, it is the processes that occur within the streams that determine these outcomes.

To maintain coherence in presenting this research the following definitions are used: **Policy Entrepreneur** refers generally to those in the three process streams who participate especially through their commitment of resources ; **Visible Entrepreneur** refers specifically to the those in the problems or politics streams who interact with others in their respective process stream or with public constituencies and institutions; and, **Hidden Entrepreneur** refers to specialists and policy elites in the policies stream, such as government bureaucrats, academics or experts in interest groups who connect through a loose network in the policy community.

Furthermore, the Kingdon model assumes that these policy entrepreneurs operate solely within their respective policy stream; e.g., visible entrepreneurs operate only in the problems or politics stream. Alternatively, the hidden entrepreneurs participate exclusively in the policies stream. Thus, this condition of the model implies that the process streams operate independently of each other. Independence of the policy process streams is a crucial criterion in the analyses presented in subsequent chapters, especially Chapter 7.

The independent policy process streams – problems, politics and policies – and their participants are discussed below followed by a description of the decision agenda and coupling of the process streams.

2.1.B.3. Problems Stream

In the problems stream government officials recognize a "problem" and work to define its salient characteristics (Lindblom 1980, pp.24-25). Conceptually, this implies that the process in the problems stream is cumulative. That is, recognition grows from simply an awareness of a social condition until there is the perception of a "problem" that people believe government should do something about; this even includes problems for which there may be no solution in hand.

Situations conducive to problem definition and articulation include changes in important social or environmental indicators, the recurring need to maintain ongoing government programs, or an incident which creates a dissonance with important social values (Kingdon 1995, pp.90-115). Comparative

policy analyses, such as between nations, are also important because these may reveal conditions of disadvantage relative to the achievements of others.

To understand the operation of the problems stream in a specific policy context it is necessary to identify those who participate in it as well as the ways and means that some problems, and not others, capture the attention of decision makers. The discussion below describes three essential aspects of this process stream.

2.1.B.3.1. Characteristics of Visible Entrepreneurs

The Kingdon model closely identifies visible entrepreneurs with the problems and politics streams (see the politics stream below) (Kingdon 1995, pp.68-70, 199). Visible entrepreneurs are typically accessible to and often interact with the press and general public; they include the president, high-level political appointees, leaders in Congress and prominent non-government figures in the media or public interest groups.

It is important to distinguish the different objectives of the two process streams even though the same visible entrepreneurs can be involved and the intermediate aim of both streams is to affect the governmental agenda. In the problems stream the visible entrepreneur focuses on identifying and defining problems for the governmental agenda. Those in the politics stream develop political initiatives that they lobby to move onto the governmental agenda. The ultimate goal of the visible entrepreneurs working in these streams is to affect the decision agenda.

Those who are identified in this research fall into at least one of three areas (Kingdon 1995, pp.180-181). One of their essential qualities is that they have a legitimate claim to be heard. For example, they may have a particular expertise about the problem at hand. Another is that they are empowered to speak for others, for example by virtue of their position as a political leader. Also, they may hold an authoritative decision-making position, such a commission chairmanship.

Other important characteristics are that the visible entrepreneur be known for his or her political connections or, alternatively, have a reputation for successful negotiation skills. The combination of these qualities is especially influential.

Persistence is perhaps the most important quality because the successful ones must expend considerable resources advancing their policy proposals in various ways and whatever forum furthers the cause. The resources they typically expend include preparing drafts of proposals, papers, speeches, meetings and letters.

2.1.B.3.2. Characteristics of the Ways That Conditions Are Perceived As Problems

Another principal concern is how environmental conditions become perceived to be problems that government should do something about (Kingdon 1995, pp.109-113, 197-198). This research considers three ways to define problems.

One approach evaluates existing environmental conditions against commonly held social values about the environment under ideal circumstances; that is, what environmental conditions ought to be. This may reveal anthropogenic threats to social values and thus indicate changes that are needed in the government's laws and regulations.

Comparison with other countries or political jurisdictions is another way that a condition becomes perceived as a problem for government. Perceived inequities or inadequacies translate into demands for governmental action to ameliorate the disadvantages between groups.

Finally, categorizing an environmental condition in a particular way enables the condition to be perceived as a problem. This is often a gradual process where the congruence between current conditions and old categories become so ambiguous or meaningless that a breakdown occurs forcing new categories to emerge. Somewhat paradoxically, government often is reluctant to make changes in existing categories because this usually poses a threat to someone's interests that are protected under laws that are in effect. In either case, changing categories or creating new ones usually requires considerable impetus.

2.1.B.3.3. Characteristics of the Means By Which Problems Gain Attention

A third area of concern is the means by which problems come to the attention of visible entrepreneurs (Kingdon 1995, pp.90-103, 197-198). This research focuses on how problems become perceived as important to

government officials who must pay attention to numerous problems, not only environmental ones.

A change in a systematic environmental indicator is one means to alert visible entrepreneurs to the magnitude of a problem or a sudden change in its status. Systematic indicators are familiar to most people, information about them is often readily available and they are used as points of reference by decisionmakers. For example, public health officials monitor the quality of a lake's water to determine whether it is safe for a community's water supply.

In addition, a focusing event, such as a crisis, disaster or threat to a powerful symbol, draws attention to the problem such that it cannot be ignored on the agenda of government decisionmakers. Symbols are effective in focusing attention on a problem because they poignantly reveal the meaning of indicators of a problem that people already sense in a vague or diffuse way.

Also, feedback from government programs or policies that are currently operating provide information to visible entrepreneurs about needed changes. They interpret this information as a problem if it indicates that implementation has not followed the guidelines of legislation or administration directives. Also, a problem is apparent if program goals are not met, such as amelioration of a situation at the anticipated cost. Finally, officials take particular notice of problems that are unanticipated consequences of a public policy.

Any one of these means by itself usually does not promote a problem to the top of the government's decision agenda where it can be authoritatively acted on. At best, one of them can change the longer-term perception of a problem.

More important, they are particularly effective when they occur along with another similar event or if they reinforce a previously held view. Thus, a problem advances on the government's agenda if it is accompanied by related policy considerations.

2.1.B.4. Politics Stream

There are a number of definitions of the terms "politics" and "political". For example, Easton's classic usage considers any activity "political" if it involves the authoritative allocation of power while Lasswell regards the assignment of benefits and costs of government decisions as key attributes of political action (Easton 1981; Lasswell 1958) . The meaning of "political" as used here is more restricted to particular kinds of actions by visible entrepreneurs; e.g., being responsive to voter behavior, currying the favor of powerful interest groups, or competing for the access to or use of power to achieve political career advancement (Kingdon 1995, pp.145-146). The principal aim of visible entrepreneurs operating in this stream is to advance political items onto the governmental agenda or increase the importance of certain ones already on it.

As noted earlier, though the same visible entrepreneurs can be involved in the politics and problems streams and their immediate goal in both streams is to affect the governmental agenda, the visible entrepreneurs in the two streams use different means to achieve this goal. In the politics stream visible entrepreneurs develop political initiatives that they lobby to move onto the governmental agenda or they advocate for higher priority status for existing ones. Those who operate in the problems stream have similar goals: they focus on identifying and defining

problems to add to the governmental agenda or on enhancing the importance of certain problems already on it. But in either case, the ultimate goal of visible entrepreneurs is to affect the government's decision agenda.

Visible entrepreneurs in the politics stream pay attention to political initiatives already on the government's agenda, or seek to add a new initiative if they perceive shifts occurring in one or more of the three main factors that influence this stream (Kingdon 1995, pp.145-159). First, visible entrepreneurs adjust their political initiatives if they detect broad or general shifts in the national mood; that is, the attitudes, preferences or demands of numerically large public constituencies that reflect how they are thinking about issues. The national mood creates a receptive environment that promotes some items on the governmental agenda while it excludes others.

The second major influence on the politics stream is a change in the makeup or composition of government. For example, an election may turn out key people in powerful leadership roles in Congress, or even switch party control in one or both houses, or force a change in administration in the executive branch. Similarly, new political appointments in government departments and agencies may also signal significant change in the government's agenda. In addition, turf battles among the branches of government may retard action on a problem because of fragmented jurisdiction. On the other hand, it may increase attention and action on an agenda item when a favorable outcome suddenly appears likely and thus sets off competition to be first with a new program. The

composition of government in terms of key actors, elections, authorities, rules and procedures greatly impacts the politics stream.

Third, visible entrepreneurs advocate change in the political initiatives on the governmental agenda if they sense new movement by particular groups known to have an interest in certain issues; one obvious strategy would then be to move with them in the same direction. Under this circumstance their agenda choices involve discerning which way the balance seems to be going; e.g., whether there is dissension among various groups or, alternatively, some level of cohesion develops around a policy proposal or new formulation of a problem.

The net effect is that those political initiatives on the government's agenda that are aligned with these factors are in a favorable position to move forward onto the decision agenda while those that are not remain stuck or drop off the list.

2.1.B.4.1. Characteristics of Visible Entrepreneurs

The visible entrepreneurs in the politics and problems streams are the same or similar participants (see the problems stream above) (Kingdon 1995, pp.68-70, 199). As before, they are typically accessible to and often interact with the press and general public; they include the president, high-level political appointees, leaders in Congress and prominent non-government figures in the media or public interest groups. To be effective in the politics stream they require the same qualities as those in the problems stream: a legitimate claim to be heard; known political connections or negotiation skills; and, persistence (Kingdon 1995, pp.180-181).

2.1.B.4.2. Characteristics of the National Mood

The visible entrepreneurs in the politics stream believe they can accurately sense what the national mood is as well as when changes occur in it because they have a lot of experience with attending to particular groups and political elites (Kingdon 1995, pp.146-149). Though not very concrete and difficult to measure, the national mood refers to the attitudes and perceptions held by broad public constituencies about social concerns or government policy and programs.

It also refers to social movements that initially may not have large numbers of supporters. However, as an issue gains support and recognition in the general public, politicians (visible entrepreneurs) sense the electoral benefit of supporting the movement and climb on the bandwagon. Items rise or fall on the governmental agenda based on their sense of changes in the national mood. In some restricted cases it is possible to draw inferences that shifts in the national mood cause changes in the governmental agenda; e.g., if there are numerous reports from various sources that are congruent with well-documented changes in the agenda.

2.1.B.4.3. Characteristics of Government Institutions

Visible entrepreneurs respond to two main categories of governmental processes that occur entirely within government (Kingdon 1995, pp.153-159). The first involves the effects of turnover of key personnel that may occur when elections lead to changes in administrations, leadership in the legislature or key political appointees in government agencies. These are key opportunities for

visible entrepreneurs to advance new items onto the agenda or to prevent others from being considered. But new items can also be moved onto the governmental agenda when an incumbent administration decides to change its priorities and push new items onto the old agenda. Alternatively, any one of these events can prevent a problem from being considered on the government's agenda.

The second category concerns governmental jurisdiction; in this case some of the more obvious effects arise from regulations, statutes, constitutions and treaties. Rules govern the institutions of government and allow visible entrepreneurs to draw boundaries so that some political initiatives are included on the governmental agenda while others are excluded. The position that a government agency takes often reflects the jurisdiction that is established by institutional rules. Thus, an existing regulation or statute may support or oppose the efforts of visible entrepreneurs to advance an initiative.

Overlap in governmental jurisdiction can also create turf disputes over emerging agenda items, such as among administrative agencies or the committees of congress. Alternatively, competition among these very same groups can enhance the opportunities for agenda change because visible entrepreneurs want to be the first to claim credit for a new policy initiative.

2.1.B.4.4. Characteristics of Organized Political Actors

The third factor influencing the politics stream deals with political actors such as interest groups or political elites (Kingdon 1995, pp.150-153). Political actors are a subset of the constituency that visible entrepreneurs pay attention to in the politics stream. Political actors influence the visible entrepreneurs in the

politics stream but otherwise do not intentionally commit their resources to affect the items on the governmental agenda. For example, a very prominent political actor during the negotiation of the Great Lakes Water Quality Agreement was U.S. Senator Edmund Muskie, Chairman of the Subcommittee on Air and Water Pollution, who was pushing legislation to amend the federal water pollution control law.

In addition, visible entrepreneurs use two general sets of criteria relating to consensus and conflict when they consider initiating or joining a coalition that is working for changes to the governmental agenda. On the one hand, they will opportunistically advocate for a political initiative on the agenda if they perceive consensus among Organized Political Actors. Typical indicators of consensus are the level of and trend in communications about the issue. On the other hand, visible entrepreneurs will not support or may even join in opposition to an issue if they perceive there is a conflict among the Organized Political Actors because they do not want to waste resources on a losing cause. The opposite could happen of course where visible entrepreneurs take up a controversial issue because it serves their purpose; each visible entrepreneur must make their own assessment of the balance between consensus and conflict.

2.1.B.5. Policies Stream

Proposals for alternative actions emerge from the policies stream in a rather disorganized way as hidden entrepreneurs inside and outside of government experiment with various concepts (Kingdon 1995, pp.116-130). Kingdon employs the metaphor of a "policy primeval soup" to explain this chaotic

process. In the network of the policy community ideas and concepts move around producing new policy combinations and innovations. Thus, it is impossible to determine the origin of a policy proposal because there are so many sources of ideas.

The discussion below examines the characteristics of the hidden entrepreneurs and the factors for reaching consensus on proposed alternative actions. Typical of all the process streams, the resources they commit enable them to effectively participate in the policymaking process. Equally important, participation promotes a cohesive policy community that can achieve consensus. And consensus among the hidden entrepreneurs is necessary if the proposed alternative actions are to survive and receive serious consideration by policy entrepreneurs in the other process streams.

2.1.B.5.1. Characteristics of Hidden Entrepreneurs

In the policies stream, hidden entrepreneurs are primarily specialists such as career bureaucrats, policy researchers, lower level administration appointees, academics, consultants and congressional staff (Kingdon 1995, pp.68-70, 200). Their work usually involves technical or specialized knowledge and attention to detail; this focus enables them to significantly influence the available set of alternative actions from which decisionmakers make authoritative choices.

Moreover, they work with others in loosely connected policy communities who share their specialization in that particular policy area. The result is a relatively cohesive and integrated network that engenders similar problem solving approaches and shared understanding of potentially viable solutions.

Nonetheless, they often come from quite diverse interests as reflected in the positions they hold in different government agencies or professions.

In addition, the hidden entrepreneurs share the same three essential qualities with policy entrepreneurs in the other process streams: they have a legitimate claim to be heard; they are known for their political connections or negotiation skills; and, they are persistent in advocating their proposals for alternative action.

2.1.B.5.2. Factors That Influence Hidden Entrepreneurs

Hidden entrepreneurs develop proposals for alternative actions for the following reasons: electoral politics that motivate the hidden entrepreneur to seek some credit for advocating credible policy proposals; material or tangible incentives that hold forth the potential for gain in wealth or in other material ways when the policy proposal is implemented; purposive incentives that occur with participation because of satisfaction derived through contributing to credible policy solutions; and, strategic incentives that come with participation because it is an opportunity to "soften up" the policy system with policy concepts and/or proposals (Kingdon 1995, pp.122-130).

2.1.B.5.3. Means For Developing Proposals

There are two categories of instruments used for developing proposals for alternative actions. Hidden entrepreneurs who are inside government and the institutional infrastructure that supports them represent one category while those on the outside represent another.

The category of instruments from inside government includes: institutions; organizations; staff in the White House and Executive Office; political appointees; career civil servants; policy network relationships; and, Congressional staff (Kingdon 1995, pp.21-44). For example, specialists on water policy and technology may serve on a task force to conduct a study that generates alternative actions for decisionmakers to consider.

In addition, the category from outside government includes: electoral leverage by interest groups on election outcomes; common action within and among interest groups; academics and consultants; and, media ability to communicate directly with the public on policy issues (Kingdon 1995, pp.45-70). For example, interest groups that provide testimony at public hearings can be a means to demonstrate to elected or high level officials that there is broad support for the proposed alternative actions.

2.1.B.5.4. Factors That Influence Reaching Consensus

The principal factors that contribute to consensus among hidden entrepreneurs include: technical feasibility which means that a policy proposal appears feasible to implement; congruence with social values which means that the policy proposal appears to anticipate public acquiescence; congruence with hidden entrepreneurs' opinions which means that the policy proposal articulates values that appear acceptable within the policy community; budget and financial concerns which means that the policy proposal appears to balance both benefit and cost; and, political currency which means that the policy proposal appears acceptable to elected decision makers (Kingdon 1995, pp.131-139).

2.1.B.5.5. Means For Reaching Consensus

Diffusion is a crucial process which helps hidden entrepreneurs achieve consensus; it functions when various proposals circulate through the policy community (Kingdon 1995, pp.139-142). This process refines the proposals over time through recombination with others and by evaluation of their conceptual content and coherence in relation to other popular policy ideas.

When consensus begins to develop around one or several ideas then a "bandwagon effect" pushes forward the most credible and viable ones. The bandwagon effect thus promotes consensus within the policy community, increases the participation of hidden entrepreneurs and also their degree of cohesion (meaning strength of their connections among each other and to the policy agenda).

2.1.B.6. The Decision Agenda

The Kingdon model uses the metaphor of "policy window" to recognize when there is an opportunity for government action (Kingdon 1995, pp.165-179). Policy windows open because there appears to be a compelling problem in need of a solution or events in the political arena create opportunities for action (Kingdon 1995, pp.194-195). Moreover, policy entrepreneurs are constantly watching for these moments to push their proposals or draw attention to a particular problem (Kingdon 1995, pp.179-183). The problems/policies window, politics/policies window and decision agenda shown in Figure 2 are discussed separately below.

Policy windows can open predictably such as when an election brings a change in administrations. This is clearly an opportunity for policy elites, and therefore a policy window, when the new set of political actors cast search for action alternatives they can couple with their untested agenda of political initiatives. Policy windows can also open quite unpredictably; e.g., when a crisis event focuses attention on the failure of a particular government policy. A crisis event sends officials scrambling for action alternatives that will solve the problem.

A policy window provides policy entrepreneurs a context from which they can either advocate their view of a problem, gain visibility for their policy proposal or leverage political forces for their advantage. The policy window is also a strong motivation for policy entrepreneurs to commit their resources to the policy process because it is likely to be worthwhile for them to do so. It also helps to prioritize the set of items on the government's decision agenda as decisionmakers weigh the likelihood of a proposal being enacted.

The policy window is an intervening variable in Kingdon's model (see Chapter 3, Measurement of Variables). Initially, the visible entrepreneurs in the problems and politics streams set the governmental agenda; they control this part of the process. The policy window is an opportunity to move an agenda item to a higher status on the governmental agenda and may occur quickly or take years. The importance of a policy window in Kingdon's model is that when it opens it creates an additional opportunity for coupling and so is an intervening event in the process. This is a necessary condition for moving the agenda item onto the decision agenda. Kingdon posits that policy entrepreneurs from the

three process streams must reach consensus that there is a credible problem, a viable alternative for action to address the problem, and these have the support of political constituencies and institutions.

2.1.B.6.1. Problems-Policies Window

Coupling between components of the problems and policies streams opens the problems/policies window (Kingdon 1995, pp.172-183). For example, when visible entrepreneurs begin to monitor a problem they also seek out viable alternatives for action in the policies stream. If there is an old problem that has simmered for a long time it may suddenly become important because new alternatives for action on problems of this kind highlight previously unrecognized risks.

The causal network in Figure 2.1 indicates that coupling between these pairs of process streams moves items up from the governmental agenda to a higher priority. Policy entrepreneurs in the streams mediate the coupling process.

2.1.B.6.2. Politics-Policies Window

By the same process, coupling between components of the politics and policies streams opens the politics/policies window (Kingdon 1995, pp.172-183). Political events, such as an election changes the set of decisionmakers and creates opportunities for matching proposals for alternative action from the policies stream with the policy initiatives brought in by the new administration who are eager to establish a track record.

The causal network in Figure 2.1 indicates the coupling process and the key role that policy entrepreneurs have.

The discussion above describes how the windows open through coupling mediated by policy entrepreneurs in the problems-policies streams or politics-policies streams. Decisionmakers pay serious attention to these high status items because agenda items that move up to the decision agenda must pass through one of these two windows (Kingdon 1995, pp.166-168). Items on the decision agenda are ready for an authoritative decision or nearly so.

As noted earlier, the problems or politics stream controls agenda setting because visible entrepreneurs from either or both streams must support a policy issue before it can move onto the governmental agenda. Similarly, the policies stream controls what appears on the decision agenda because no item moves upward from the governmental agenda unless a viable policy proposal is first coupled with (or attached to) a credible problem in the problems-policies window or to a highly visible political initiative in the politics-policies window.

One of the key concepts in Kingdon's model is that before a policy issue moves onto the decision agenda all three process streams must be coupled together. This means that there must be a credible problem, a viable alternative for action on the problem, and these have the support of political constituencies and/or institutions (Kingdon 1995, pp.178-179). The process dynamics of each stream are different and independent of the others but they all play equally important roles. Therefore, in order to understand how the government's decision agenda changes it is necessary to elucidate the factors operating within each process stream as well as the coupling of these streams.

2.2. Policy Context

2.2.A. Great Lakes Water Quality Agreement

The discussion below introduces the key factors - policy entrepreneurs, political events and policy proposals - leading up to and including the negotiation of the Great Lakes Water Quality Agreement (GLWQA). These factors figured prominently either at certain key points or for the duration of the policy process. The criteria used to assess prominent participation in the policy process were: contributions to Great Lakes reports and other essential information that policy entrepreneurs considered as the basis for their negotiations; and, contributions to the development of policy proposals through more than one cycle.

Other persons and events that are mentioned below may not be included in responses to all of the research questions in Chapters 4-6 if they did not fundamentally contribute to the policy process. For example, the President's Great Lakes Task Force played a central role for about six months during 1970 and its recommendations were the initial basis for the position of the U.S. section of the Joint Working Group (Hillenbrand 1971d, pg.4). However, due to its brief duration and overlap with the U.S. section of the Joint Working Group, the task force was not considered in all of the questions.

The research for the GLWQA begins in October 1964 when the International Joint Commission (IJC) received a Letter of Reference (hereafter referred to as the Lower Lakes Reference) from the governments of Canada and the United States (IJC 1970a, pp.161-162). From 1950 onwards, various fora had documented pollution problems in the Great Lakes (Bilder 1971, pp.501-506;

Bloomfield 1958; Evans 1957; FWPCA 1967; FWPCA 1968a; IJC 1951; Oeming 1963; Ohio 1965; Public Health Service 1960; Stein 1963). The governments responded to these growing concerns by requesting the IJC to investigate water pollution in Lake Erie, Lake Ontario and the international section of the St. Lawrence River (Bilder 1971, pp.495-501; IJC 1970a, pp.161-162; State 1964). The IJC established International Boards composed of government experts from the federal, provincial and state agencies to carry out the investigation (IJC 1970a, pg.25; State 1968).

The Lower Lakes Reference also authorized the International Boards to use expert personnel from the other technical agencies of Canada and the United States and relevant information and technical data (IJC 1970a, pg.162; State 1964). The U.S. technical agencies included the Federal Water Pollution Control Administration, Michigan Water Resources Commission, Michigan Department of Health, New York State Department of Health, Ohio Department of Health, and Pennsylvania Department of Health (IJC 1970a, pg.168). Examples of supplementary data sources included pollution studies by Canada and the United States (IJC 1970a, pp.8-9, 26).

In November 1969, the International Boards submitted a three-volume final report: "Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River: Report to the International Joint Commission" (hereafter referred to as the IB Final Report), (ILELOWPB 1969a; ILELOWPB 1969b; ILOLEWPB 1969). To facilitate evaluation of the IB Final Report, the IJC organized eight public hearings that were held in December 1969, and January

and February 1970, in New York, Ohio, Ontario and Pennsylvania (IJC 1970a, pp.28-33).

Nearly 200 persons from Michigan, New York, Ohio, Ontario and Pennsylvania gave testimony and several hundred more submitted written comments (IJC 1970a, pp.28-33, 169-174). Federal, state and municipal governments, elected officials, industry, academia, and private citizens were represented at the hearings. The IJC developed a composite view of Great Lakes concerns from these testimonies and statements (IJC 1970a, pp.169-174).

From this composite of public comments the IJC prepared its third interim report, "Special Report on Potential Oil Pollution, Eutrophication, and Pollution from Watercraft" (hereafter referred to as the IJC Special Report), and submitted it to the governments in April (IJC 1970a, pp.13-14; State 1970a). They concluded "oil pollution, eutrophication and pollution from watercraft should be brought to the attention of the two Governments as a matter of urgency"; the IJC made six recommendations that it believed "required implementation at the earliest possible date" (IJC 1970a, pg.14; IJC 1970b; State 1970a).

It should also be noted that the IJC Special Report (see APPENDIX A) was the principal topic on the agenda at key policy meetings where the strategic direction of the governments' water policy was discussed. These meetings involved high level government officials and included: June 23 1970, Ottawa - First Ministerial Meeting on Great Lakes Pollution (State Hillenbrand 1970a, Memorandum for the President, pg.2; Hillenbrand 1971f; Rogers 1970a; Schmidt

1970e; 1970b); and, September 9-10 1970, Toronto – Great Lakes Environmental Conference (OWRC 1970a; OWRC 1970b).

The IJC compiled the information from its three interim reports, as well as the IB Final Report to prepare its final report, "Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River" (hereafter referred to as the IJC Final Report); it submitted the Final Report to the two governments in December 1970. Among the report's 22 recommendations were three that addressed toxic substances: the "introduction of persistent organic contaminants such as herbicides and pesticides"; the "introduction of toxic materials from municipal and industrial wastes"; and, the "investigation of the possible adverse health and ecological effects of substitutes proposed for use in lieu of organic contaminants, toxic materials and any other substances now considered hazardous ... such as mercury and phosphorus" (IJC 1970a, pp.149-156; State 1970a). By contrast, none of these concerns were present in the IJC Special Report submitted in April (State 1970a).

But earlier in 1970 the perceptions in the United States and Canada, concerning Great Lakes water pollution issues took a sudden and dramatic turn. This occurred shortly after the IJC finished public hearings in February and several weeks before it submitted the IJC Special Report to the governments in April. The discussion below describes the rapid unfolding of this dramatic event.

At an IJC meeting on February 11 in Toronto, the Government of Canada disclosed to officials from the U.S. that they had initiated water quality studies because they were concerned about possible mercury contamination in the Great

Lakes (Senate 1970, pg.8; Turney 1970). Subsequently, on March 20 the Canadian Food and Drug Directorate informed officials of the U.S. Food and Drug Administration that Lake St. Clair fish contained high levels of mercury (Senate 1970, pg. 31; Turney 1970).

The U.S. embassy in Ottawa was informed on March 24 that the Canadian Department of Fisheries had banned commercial fishing in Lake St. Clair because of mercury contamination in effluent discharged from the Dow Chemical plant at Sarnia, Ontario (Smith 1970c). This was followed on April 2 with another ban on fishing, this time in Lake Erie, based on a study by the Ontario Water Resources Commission (Smith 1970b).

On April 2, the Great Lakes Regional Director of the Federal Water Quality Administration met in Washington with representatives from the Province of Ontario, the Government of Canada, U.S. Food and Drug Administration and other federal officials (FWQA D'Itri 1971, pp.212-213; 1970, pg.96). They exchanged information on the mercury problem; the consensus of the meeting was that "the mercury problem is serious and of international concern."

At the diplomatic level the Government of Canada responded to this incident with a formal note: "Mercury Contamination of Boundary Waters," that was delivered April 2 to the U.S. embassy in Ottawa (Senate 1970, pg.59; Smith 1970a). Canada offered its conclusion that effluent from the Wyandotte Chemical Company in Michigan was a substantial source of the mercury pollution and that under Article IV of the Boundary Waters Treaty it was requesting that the U.S. government "take immediate action to remedy the problem". The U.S.

embassy reported that when Under-Secretary Ritchie, Department of External Affairs, delivered the note, he offered:

> "his 'personal observation' that this matter is likely (to) continue (to) attract widespread public attention and interest. He noted that people are becoming very emotional about such matters in Canada and that inevitably such feelings tend to spill over into other questions such as Arctic sovereignty, cooperation in energy matters, oil quotas, and even foreign (read U.S.) ownership of Canadian industry and resources" (Smith 1970a).

The Secretary of State, William Rogers, responded to Canada's note on April 8 with a report on U.S. government actions in which he "suggested that the two governments discuss the problem of mercury pollution in all boundary waters at the earliest opportunity" (Rogers 1970c).

In addition, the Secretary of the U.S. Section of the IJC sent a letter on April 8 to the Department of State requesting the preliminary views of the U.S. government on Recommendation No. 19 of the IB Final Report (Burns 1970a). The International Boards had recommended to the IJC that the governments appoint a board that would coordinate joint international programs for water pollution control on the Great Lakes (ILELOWPB 1969a, pg.13). President Nixon responded to the IJC request by establishing the Special Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes; he directed Russell Train, Chairman of the Council on Environmental Quality (CEQ), to consider this recommendation and report back to him (Burns 1970a).

At about the same time an informal but crucial exchange took place between Daniel P. Moynihan, Counselor to the President, and Under-Secretary Ritchie (Rogers 1970b). This discussion prompted a more formal discussion with Canadian Ambassador Cadieux in Washington on April 9. Moynihan informed

Ambassador Cadieux that President Nixon had established a Special Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes; the task force would "conduct an overall review of the problems related to water quality management of Lake Erie" (Rogers 1970b). Moynihan also presented the Ambassador with the text of a draft statement on the "United States Position with Respect to Problems of Pollution Abatement In and Ultimate Restoration of Lake Erie" and, further, stated that the U.S. was interested in making a joint statement with Canada on these issues. Moreover, since both parties desired to move quickly on this problem, Moynihan explored the possibility of "establishing U.S. and Canadian task forces to examine the problems of pollution on Lake Erie" (Rogers 1970b).

Canadian officials reacted positively and President Nixon asked Russell Train to initiate discussions with the Canadians on alternative actions they could jointly undertake (CEQ 1971a, pg.29; Kissinger 1971). The parties agreed to meet on May 25 1970 in Ottawa (MacDonald 1970). Prior to the May 25 meeting the President's Task Force determined that their study would have to be expanded to include all of the Great Lakes and they received White House clearance to do so (Hillenbrand 1970a, Memorandum for the President, pg.1).

At the regional level, representatives from Ontario, Michigan and Ohio met on April 10 in Toronto to share information on how government officials were making decisions on mercury contaminated fish (D'Itri 1971, pp.213-214; FWQA 1970, pg.97; Senate 1970, pg.10; Turney 1970). Federal representatives also participated as observers. One of the decisions at the meeting was to

recommend convening a conference of Great Lakes governors and premiers. Thus, the Prime Minister of Ontario later convened the Great Lakes Environmental Conference in Toronto on September 9-10, 1970 (Towe 1970a) (Cowan 1970; OWRC 1970a; OWRC 1970b). The Governors of the Great Lakes States, state officials, as well as representatives of both federal governments and other Canadian provinces attended the September meeting (Johnson 1970; Peterson 1970b).

At the May 25 high-level meeting in Ottawa the parties focused their discussion on the IJC Special Report submitted to the governments in April (State MacDonald 1970, pg.3; Rogers 1970a; Schmidt 1970d; 1970a). Further action was clearly needed and the officials agreed that another high-level meeting should be held in June (Rogers 1971). The Canadians in particular expressed the hope that the Ministers (who would attend the June meeting) "would announce their intentions to negotiate a new agreement concerning water quality objectives" (MacDonald 1970).

The First Ministerial Meeting on June 23 formally initiated intergovernmental discussions on the broader issues of abatement of Great Lakes water pollution. The representatives to the Ministerial Meeting were all high level federal officials (State Hillenbrand 1971f; Hillenbrand 1971g; 1970b). Russell E. Train, Chairman of the Council on Environmental Quality, led the U.S. delegation that included U.S. Ambassador Adolph Schmidt and representatives of the Department of State, Department of Interior, U.S. Coast Guard and Department of Transportation (State Hillenbrand 1971f, pg.2; 1970b).

The governments agreed at the First Ministerial Meeting to establish a Joint Working Group (JWG) to "consider common water quality objectives and implementing programs for pollution control" (State Hillenbrand 1971b, pg.3; Hillenbrand 1971f, pp.1-2; 1970b). Water pollution experts from federal and provincial agencies comprised the JWG (Mansfield 1970; Towe 1970b). The U.S. section of the JWG was initially assembled from the President's Great Lakes Task Force (Hillenbrand 1971d, pg.3).

Gordon J. MacDonald, Council on Environmental Quality, chaired the U.S. section of the JWG. The U.S. section included representatives from the: Great Lakes Basin Commission; Department of the Interior; Department of State; Department of Transportation; Water Resources Council; U.S. Army Corp. of Engineers; National Council on Marine Resources and Engineering Development; Office of Science and Technology; and, Department of Health, Education and Welfare (Mansfield 1970; State 1971b). The Joint Working Group met between September 1970 and April 1971; it established ten sub-groups to work on various aspects of Great Lakes pollution (Hillenbrand 1971g, pp.7-8).

The President's Great Lakes Task Force submitted its Final Report on September 24 (see APPENDIX B), recommended that the President dissolve the Task Force and the work be reassigned to the U.S. section of the JWG (Hillenbrand 1971d, pg.2). The President approved this recommendation and two others that delegated responsibility to the Council on Environmental Quality for coordinating the position of the U.S. federal agencies on the IJC Final Report

and for preparing the United States position for negotiations with Canada in the JWG (Hillenbrand 1971d, pg.5).

In April 1971, the JWG finished its work and approved the draft final report: "Final Report of the Canada-United States Joint Working Group on Great Lakes Pollution" (hereafter referred to as the JWG Final Report; see APPENDIX E) (Hillenbrand 1971b, pg.3). It recommended the governments conclude an intergovernmental agreement with annexes to identify specific water quality objectives, commitments for developing water quality standards and the programs necessary to achieve these objectives (Hillenbrand 1971g, pg.19). In addition, the JWG reviewed its Final Report with the IJC in May and submitted it to the governments at the Second Ministerial Meeting on June 10, 1971 (Hillenbrand 1971g).

The two delegations at the meeting accepted the JWG Final Report that contained the basic framework of an intergovernmental agreement on Great Lakes water quality (Hillenbrand 1971g). With this framework as a basis the governments agreed to negotiate an intergovernmental agreement (State 1971a; State 1971b).

The framework of the proposed agreement generated considerable enthusiasm; Russell Train described it as "an historic first" with provisions that were "unprecedented in scope" (Smith 1971). Mitchell Sharp, Canada's External Affairs Secretary, agreed and added that "the agreement was the most far reaching ever signed by two countries in the environmental field" (Smith 1971).

The United States structured their negotiating team in two levels with the Department of State assigned overall responsibility (Burns 1971). The first level team was concerned with the basic agreement and supervision of the negotiations; it included high level representatives from the Department of State, Environmental Protection Agency (EPA), U.S. Coast Guard, CEQ, and Army Corps of Engineers (Burns 1971). The second level team was responsible for negotiating the technical annexes to the basic agreement (Burns 1971). This second team, numbering about fifty, included representatives of eight additional federal agencies or departments (Johnson 1971a). Frederick O. Rouse, Chairman, Great Lakes Basin Commission, and William Marks, Chief of Water Resource Planning, Michigan Water Resources Commission, served liaison roles between the negotiating team and the Great Lakes States (Johnson 1971c; Nef 1971a; Nef 1971b).

Prime Minister Pierre Trudeau and President Nixon signed the Great Lakes Water Quality Agreement in Ottawa on April 15, 1972 (State 1972).

2.2.B. Federal Water Pollution Control Act of 1972

Water quality was deteriorating in many areas of the U.S. when the IJC received the Lower Lakes Reference from the governments in late 1964 (Davies 1970; Grad 1985, pp.68-72; IJC 1970a, pp.161-162). Efforts to address these water quality problems at the federal level began somewhat earlier when the Senate Committee on Public Works appointed a Subcommittee on Air and Water Pollution in 1963 with Senator Edmund Muskie of Maine as chairman (Grad 1985, pp.68-72). The subcommittee held extensive hearings on the Federal

Water Pollution Control Act, specifically the 1956 and 1961 amendments (Pub. L. 87-88) (33 U.S.C. 466). The hearings documented the slow pace of pollution abatement efforts and the public health problems this was creating (House Committee on Public Works 1965; President's Science Advisory Committee 1965; Senate Committee on Public Works 1963a; Senate Committee on Public Works 1963b). Congress concluded the states were not moving quickly enough on these water pollution problems (Senate Committee on Public Works 1971, pp.1-7).

Thus, Congress drafted major changes to the federal water law and passed the Water Quality Act of 1965 (Pub. L. 89-234); President Johnson signed it into law on October 2 (Barry 1970, pp.1114-16). The Act established for the first time a process for setting water quality standards and required that the states submit their standards for federal approval by June 1967 (33 U.S.C. 1160 (c)(1) ; Davies 1970; Grad 1985, pg.71). It also gave the federal government improved enforcement capabilities against polluters of interstate waters whereby the U.S. could pursue legal action if a polluter violated the states' standards for interstate waters (33 U.S.C. 1160 (b)). Under the earlier law the state had to give its consent before the federal government could take violators to court (Barry 1970, pp.1107-114).

Most important, Congress for the first time declared a national policy that the federal government would assert leadership on an environmental pollution issue. The 1965 Act stated that "The purpose is ... to enhance the quality and value of our water resources and to establish a national policy for the prevention,

control, and abatement of water pollution" (33 U.S.C. 1151(a) ; Grad 1985, pp.68-72). When it came to implementation, however, Congress maintained that the states held primary responsibility for water pollution control in their jurisdictions and that the federal government would limit its involvement to providing financial and technical assistance (33 U.S.C. 1151(b)).

But the all too familiar problems reappeared after passage of the 1965 Act, the most critical being the lack of effective enforcement at the state level. Not only were the states slow in getting their water quality standards approved, but they were reluctant to enforce them and where pollution control agencies had been established they often were dominated by industry representatives whose manufacturing plants discharged a significant share of the pollutants (Grad 1985, pg.71). Another factor was the protracted enforcement conference procedure that could take two years or more for the effective abatement of a pollution source. Thus, the enforcement process was still so cumbersome under the 1965 Act that it impeded any effective action.

Congress responded to some of the enforcement problems and passed the Water Quality Improvement Act of 1970 (Pub. L. 91-224); President Nixon signed it into law on April 3, 1970 (Barry 1970, pg.1117-1124; United States 1970e, pp.97-127 & 2691-2750). The substantive provisions concerned pollution control for oil (Section 11), hazardous substances (Section 12), marine sanitation devices (Section 13), and federal facilities (Section 21) (33 U.S.C. 1161-1163 & 1171 respectively). It was clear that the 1970 Act would not address all the pollution concerns and that further legislation would be needed. This became

very evident when the mercury contamination situation (discussed above) emerged dramatically in April and May (Senate 1970; Turney 1970). The mercury situation provided a significant impetus for President Nixon to issue Executive Order No. 11574 in December 1970 that established a pollution permit program under the Refuse Act (United States 1970c).

The Senate Subcommittee on Air and Water Pollution, under Senator Edmund Muskie took up hearings on the 1965 Act as soon as Congress convened in February 1971 (Senate 1971). Again, enforcement was a major problem that the subcommittee identified in its report of October 28:

> "The EPA Administrator may begin action to abate pollution only when:
> 1. Water quality of interstate waters is reduced below the established standards;
> 2. Pollution originating in one State is endangering the health or welfare of persons in another State downstream; or,
> 3. The Governor of the State in which the pollution is originating consents to the proposed action" (Senate 1970, pg.5).

Because the States had the principal responsibility for enforcement of their standards and the federal government was restrained from acting except under a narrow set of circumstances, "a critical delay of enforcement for interstate water quality result(ed)" (Senate 1970, pg.5). Ineffective enforcement was the obvious conclusion. For example, only one abatement action had been successfully brought in the 22 years since the very first federal water pollution law was passed, Federal Water Pollution Control Act of 1948 (Barry 1970, pg.1119). After extensive hearings in the spring and followed by executive sessions of the Public Works Committee in the fall, the Senate unanimously approved their bill, Federal Water Pollution Control Act Amendments of 1971 (S. 2770), on November 2 and sent it to the House (Barfield 1972a; Wagner 1971a).

Likewise, the House Committee on Public Works under Representative John Blatnik of Minnesota started hearings in May that continued through the summer taking testimony from hundreds of witnesses (Barfield 1972a). By November 2 when the Senate sent over their bill the House Public Works Committee had finished hearings but had not yet reported a bill to the full House. The Nixon administration was strongly opposed to the Senate bill, S. 2770. They managed to convince the House Public Works Committee to reopen hearings for four days, December 7-10 (Anonymous 1971; House Committee on Public Works 1972, Ruckelshaus Testimony, pp.147-171; Senate Committee on Public Works 1971, pp.1-10; Wagner 1971b). The committee finally reported a bill, H.R. 11896, to the full House on December 15 (Barfield 1972b). The bill was passed on March 29, 1972 and went to a conference committee to resolve differences in language (House 1972).

The Senate Conference Report was issued on September 28 (United States 1972b, pp.3776-3834). Both chambers passed the bill on October 4, 1972. Included were authorized expenditures of 18 billion dollars for municipal waste treatment facilities over three years; President Nixon had proposed six billion dollars (Whitaker 1976, pp.79-88). The new legislation exceeded Nixon's plans for the federal budget and so he vetoed the bill. Congress overrode his veto on October 18 and the Federal Water Pollution Control Act Amendments of 1972 became law (United States 1972c, pg.1057).

CHAPTER 3. RESEARCH DESIGN AND METHODS

3.1. Kingdon's Framework and the Research Hypotheses

The principal focus of this research is on evaluating the applicability of Kingdon's model to the decision process for the government's agenda on Great Lakes environmental policies. Under this model, the agenda of government is set within the problems and/or politics streams (Kingdon 1995, pp.16-20). How social or environmental conditions become perceived and defined as problems and how government policymakers prioritize resources they apply to the problem's solution are important questions for the problems stream. In addition, the national mood of public constituencies and the support of government institutions are key factors influencing the politics stream.

Finally, the policy stream generates proposals for alternative actions to address the policy problems. Groups of policy elites or specialists figure prominently in this stream. Cohesion among these groups increases through formation of networks in the policy community; this, in turn, significantly impacts the external perceptions of agenda stability and of fragmentation (or lack thereof) in their policy proposals. Most important, the proposals the policy elites are likely to support must be viewed as technically sound and politically viable.

According to Kingdon, a problem moves up on the decision agenda when the three streams operate together or components of them couple (Kingdon 1995, pp. 178-179). Coupling occurs when policy entrepreneurs in all three process streams agree that there is a credible problem, it has a viable solution

available and there is either strong support for or minimal political opposition to government action (Kingdon 1995, pp.166-168). The policy decisions concerned with persistent toxic substances in the Great Lakes provide a useful case to test Kingdon's model.

The concept of a policy window recognizes that there are times when there is a window of opportunity for government policy action (Kingdon 1995, pp.165-179). Policy windows open because visible entrepreneurs in the problems or politics streams first perceive a compelling problem or events in the political arena create opportunities for action (Kingdon 1995, pp.194-195). Then they search for viable alternative actions to take and seek out hidden entrepreneurs who may be able to provide one. If they are successful then the agenda item moves to a higher status; in this case the policy window functions as an intervening variable in the policy process (see Chapter 2, The Decision Agenda).

For testing purposes, the model has been defined in terms of an overall hypothesis for the decision agenda and three sub-hypotheses for the policy process streams. The notation for the decision agenda hypothesis is HDA whereas numbers identify each sub-hypothesis as follows:

HDA: Coupling among the policy process streams changes the government's decision agenda when there is a credible problem, a viable alternative for action on the problem, and these have the support, or at least the absence of strong opposition, of political constituencies and/or institutions.

The hypotheses for the critical operation of the policy process streams are:

H1: The problems stream affects the governmental agenda when visible entrepreneurs perceive that there is an important and credible problem government should do something about.

H2: The politics stream affects the governmental agenda when visible entrepreneurs perceive that there is broad support for changing the government's agenda that includes public constituencies, government institutions and organized political actors.

H3: The policies stream affects the set of alternatives for policy action when hidden entrepreneurs commit their resources to participate in the process, and a cohesive policy community arrives at a consensus about the reliability and/or viability of the policy proposals.

3.2. Research Design

The research design uses the structured, focused comparison method that is a systematic approach for performing a single case study (George 1985). The comparison is "structured" because criteria for the observations are defined prior to gathering the data and the research questions provide a standardized format for the analysis. The method is "focused" because only variables that are relevant to the research objectives are selected for the analysis and testing of Kingdon's model. The "comparison" is between Kingdon's model and the Great Lakes Water Quality Agreement case.

3.2.A. Phases of the Research Design

The research design follows the approach of George and McKeown (1985) for theory-oriented case studies and includes four basic phases.

Phase 1 specifies the research problem and research objectives. The principal focus of this research is to test the ability of Kingdon's model for the decision agenda to explain how environmental policies for the Great Lakes develop. The research objectives focus on the interactions of key factors within and among the policy process streams posited by Kingdon.

Phase 2 analyzes the case study on the basis of the criteria developed for the variables identified in the research questions. The case analysis attempts to explain how the decision agenda changed.

Phase 3 draws the implications for the model using the logic of analytic generalization to evaluate whether the empirical results are consistent with the predictions of the theory (Yin 1994, pp. 30-32).

Phase 4 presents the results of the investigation including the research dilemmas encountered and how they were resolved.

3.2.B. General Research Design Issues

The research design addresses the problem of an indeterminate design (King 1994, pp. 118-124). This problem arises when there are more inferences than observations or when at least two independent variables are collinear (i.e., one independent variable covaries with one or more other independent variables). To address this potential problem, as many implications of the model

as possible were examined and, if necessary, the number of independent variables was reduced.

Another potential concern is bias in the analysis from omitted variables that are correlated with the independent and dependent variables (King 1994, pp. 168-182). The problem arises when estimating the strength of the relationship between dependent and independent variables. The estimate of strength is not reliable if the research design does not control for this covariance.

In addition, the research design addresses issues of validity and reliability in several ways (Yin 1994, pp. 32-38). First, the design uses the correct procedures for the measurement of the variables and this maintains construct validity. Two commonly used procedures involve converging the research findings from multiple sources of evidence and establishing a chain of evidence that documents the source and interpretation of the measurements. A third procedure that relies on key informants to review a draft of the case study report was not used due to resource limitations.

Second, the design investigates causal relationships between dependent and independent variables identified by the model and this ensures internal validity. Three analytic tactics that do this are: pattern matching that compares the pattern of measurements on the variables with theoretical predictions; explanation building that uses a series of iterations on the case to develop a narrative description of causal links; and, complex time series that evaluates the observed events against Kingdon's model.

Third, the design identifies the domain to which the research findings can be generalized and this establishes external validity. The research design relies on analytical generalization to generalize the results to Kingdon's broader theory.

Finally, the design documents as many of the research procedures as possible so that others could repeat the study and this assures reliability.

3.3. Measurement of Variables

The hypotheses to test Kingdon's model posit relationships between variables; there are observable implications of these relationships such that when independent variables take on a certain value, the model predicts a specified value for the dependent variable. Causal inferences are stronger when the observable implications of the model are concrete; then it is clear what would demonstrate the accuracy of the model and also what would differentiate it from alternative theories (King 1994, pp. 109-112).

The dependent variable is the decision agenda that changes with the Great Lakes case. Intervening variables are the problems-policies and politics-policies windows (see Chapter 2, The Decision Agenda) created by coupling between the policy process stream and the problems and politics streams, respectively. The research questions and the independent variables posited for each policy process stream are described in more detail below.

The research design includes control variables in the analysis when appropriate. If sufficient data were available a range in values of the control variable were used to reexamine the bivariate relationships posited by Kingdon's model. Including a third (control) variable in the bivariate analysis tests for four

possible outcomes: non-spuriousness where there is no change in the posited relationship between independent and dependent variables; spuriousness where there is no causal relationship found between the independent and dependent variables but there is a relationship between either just the dependent and control variables or all three; interaction where the control variable acts as an intervening variable by specifying the relationship between the independent and dependent variables; and, finally, joint causation where the both the independent and control variables are correlated with the dependent variable (Meier 1997, pp. 263-285). In the latter three cases the control variable is included in the analysis.

The evaluation of Kingdon's model involves relating the empirical and the theoretical so that theory makes sense of the data and the data improves theory. This requires that "... comparable objects of research be established so that boundaries (are) ... placed around measurement operations" (Ragin 1992).

The measurements for the dependent, independent, and control variables focus on units. The unit is either an object of measurement, such as a policy problem identified for government action, or a subject of measurement, such as a government official. Note that there could be multiple measurements on a given unit. These fundamental units of analysis are the basis for researching relationships among the higher level units of analysis such as the policy process streams. Observations refer to the values of the variables for each of the units identified by the model.

The government's decision agenda is the dependent variable. The variable has a nominal measurement that is dichotomous and straightforward to

observe; that is, the government's decision agenda either did or did not change (Meier 1997, pp. 118-120). for this policy issue. The values of the independent variables were nominal; e.g., measurements on the type of and role for policy entrepreneurs involved in the policy process.

3.4. Research Questions and Variables

The research questions explore the policy process to determine how some problems rise to prominence and receive attention on the government's agenda while others are ignored. Three sets of questions try to determine how the independent process streams – problems, politics and policies – operate. A fourth group of questions investigates whether the decision agenda process was a necessary and sufficient condition to move the persistent toxic substance problem onto the government's decision agenda for Great Lakes environmental policies.

Since the important concepts from Kingdon's model were discussed in Chapter 2 and, these along with the hypotheses above, provide the necessary background for the research questions and their variables below, the material is not repeated here.

3.4.A. Problems Stream

The research questions for the problems stream investigate the visible entrepreneurs who identified, defined and advanced Great Lakes environmental policy issues that moved onto the governmental agenda. The questions also try to determine how environmental conditions in the Great Lakes became perceived to be problems that government should do something about. Finally, they ask

how the Great Lakes environmental problems became perceived to be important; e.g., was there a significant change in an environmental indicator or was there some other means by which attention was focused on these problems? Table 3.1 provides the specifications for the variables in terms of concrete and observable measures. The research questions are:

H 1.1: Which visible entrepreneurs perceived the problem as important and became involved in changing the government's agenda?

H 1.2: How did environmental conditions become perceived by visible entrepreneurs to be a problem?

H 1.3: How did environmental problems become perceived by visible entrepreneurs to be important?

Table 3.1 Variable Specification for Problems Stream.

Research Question	Measurement Type	Variable Description	Variable Code
H 1.1	Nominal	Visible Entrepreneurs: public officials; opinion leaders. Characteristics: legitimate claim to be heard; known political connections and/or negotiation skills; persistence.	VEPB
H 1.2	Nominal	Environmental Conditions: comparison against social values; comparison against other political jurisdictions; categorizing in a particular way.	ECPB
H 1.3	Nominal	Environmental Problems: change in a systematic indicator; focusing event; feedback from government programs and policies.	EPPB

3.4.B. Politics Stream

The research questions for the politics stream investigate the visible entrepreneurs who perceived that there was broad support for changing the government's agenda. The questions also try to determine how the visible entrepreneurs perceived that there was support from public constituencies, government institutions and organized political actors for changing the government's agenda. Table 3.2 provides the specifications for the variables in terms of concrete and observable measures. The research questions are:

H 2.1: Which visible entrepreneurs perceived that there was broad support for changing the government's agenda?

H 2.2: How did visible entrepreneurs perceive the support by public constituencies for changing the government's agenda?

H 2.3: How did visible entrepreneurs perceive the support by government institutions for changing the government's agenda?

H 2.4: How did visible entrepreneurs perceive the support by organized political actors for changing the government's agenda?

3.4.C. Policies Stream

The research questions for the policies stream investigate the hidden entrepreneurs who develop proposals for action alternatives that are considered for the government's agenda. The questions also evaluate the factors that influence their participation in the policy process and the means for doing so.

Table 3.2 Variable Specification for Politics Stream.

Research Question	Measurement Type	Variable Description	Variable Code
H 2.1	Nominal	Visible Entrepreneurs: public officials; opinion leaders. Characteristics: legitimate claim to be heard; known political connections and/or negotiation skills; persistence.	VEPC
H 2.2	Nominal	National Mood: trend in the attitudes and perceptions of the public about government policies or programs.	NMPC
H 2.3	Nominal	Government Institutions: turnover of key personnel; governmental jurisdiction.	GIPC
H 2.4	Nominal	Organized Political Actors: consensus or conflict about changing the agenda.	OPAPC

In addition, the questions explore the factors that influence the consensus process and several means to achieve it. Table 3.3 provides the specifications for the variables in terms of concrete and observable measures. The research questions are:

H 3.1: Which hidden entrepreneurs developed proposals for alternative actions?

H 3.2: Why did hidden entrepreneurs develop proposals for alternative actions?

H 3.3: What were the means used to develop proposals for alternative actions?

H 3.4: Why did hidden entrepreneurs reach consensus?

H 3.5: How did hidden entrepreneurs reach consensus?

Table 3.3 Variable Specification for Policies Stream.

Research Question	Measurement Type	Variable Description	Variable Code
H 3.1	Nominal	Hidden Entrepreneurs: specialists connected through policy networks. Characteristics: legitimate claim to be heard; known political connections and/or negotiation skills; persistence.	HEPY
H 3.2	Nominal	Factors of Influence: electoral politics; material or tangible incentives; purposive incentives; strategic incentives.	FIPY
H 3.3	Nominal	Instrumental Means: instruments from inside government; instruments from outside government.	IMPY
H 3.4	Nominal	Factors of Consensus: technical feasibility; congruence with social values; congruence with policy entrepreneurs; budget and financial concerns; political currency.	FCPY
H 3.5	Nominal	Means of Consensus: diffusion; bandwagon effect.	MCPY

3.4.D. Decision Agenda

The research questions for the decision agenda process focus on the coupling that occurs in the process streams. The questions try to determine which pairs of policy problems and action alternatives were coupled in the problems window; similarly, which political events and action alternatives were coupled in the politics window. Finally, they ask which problems, political events and action alternatives coupled so that the government's decision agenda changed; that is, a governmental agenda item was added to the decision agenda. Table 3.4 provides the specifications for the variables in terms of concrete and observable measures. The research questions are:

HDA 4.1: Which pairs of policy problems and action alternatives were coupled in the problems-policies window?

HDA 4.2: Which pairs of political initiatives and action alternatives were coupled in the politics-policies window?

HDA 4.3: Which policy problems, political events and action alternatives were coupled in the decision agenda process?

Table 3.4 Variable Specification for Decision Agenda.

Research Question	Measurement Type	Variable Description	Variable Code
HDA 4.1	Nominal	Problems-Policies Window: policy problems; action alternatives.	PBPYW
HDA 4.2	Nominal	Politics-Policies Window: political events; action alternatives.	PCPYW
HDA 4.3	Nominal	Decision Agenda Change: policy problems; political events; action alternatives.	DAC

3.5. Data Collection Instruments and Methods

The research design for data collection involved reviewing documents and records in various forms. The published open literature included relevant academic sources and also publicly available information such as newspapers, government reports, etc. In addition, several open-ended and focused interviews were conducted where key actors could be located.

According to the National Archives and Records Administration (NARA), the agencies of the federal government are required by law to follow a 25-year record retention requirement for most of the memoranda, letters, reports and

other similar materials created in the course of conducting government business. Thus, the author found that government departments were still retaining their records dated from about 1973 to 1990. There were additional reasons why these materials were not available.

Most federal agencies and departments, such as the Environmental Protection Agency and Department of State, do not make their records, such as letters, internal reports and memoranda, available to the public except through a Freedom of Information Act (FOIA) request. The FOIA request procedures require that the researcher provide dates, names and other detailed information for the document they wish to review. This creates an obvious dilemma because the purpose of the research is to discover this kind of information. Finally, a FOIA request typically takes at least one to two years to process because few government resources have been made available to handle these requests and the backlog is such that there is usually about a one year waiting period before the agency even begins to process the request. Therefore, the FOIA route was not pursued.

However, it was fortuitous that records pertaining to the 1972 Great Lakes Water Quality Agreement had been recently archived by NARA. Archived documents from a number of government departments, such as the Department of State and Council on Environmental Quality, were researched at the NARA facility in College Park, Maryland. Similarly, the Nixon Presidential Materials were available at the same facility and these provided numerous memoranda, policy analyses, letters and other documents.

Key to this part of the research design is the data triangulation strategy (Yin 1994, pp. 78-101). Using multiple sources of evidence corroborates, or triangulates, findings and controls for sources of selection bias. It addresses construct validity by providing multiple measurements on the units of Kingdon's model.

The data from the various sources were catalogued in a database to provide reliability for this study. A chain of evidence was established by organizing and categorizing the observations and measurements in a complete and retrievable manner.

3.6. Data Collection Process

This part of the research design could introduce investigator-induced selection bias (King 1994, pp. 132-135). So it is important to note that the options for choosing what units to study were usually limited because either access to data sources was restricted or the resources to gain access to data were limited. The resulting selection process made bias unavoidable. It was therefore important to document the data collection process; this information was used to estimate the direction and magnitude of bias during the analysis process.

A further concern is the selection process for control variables; by definition, a control variable is any independent variable that is not specified by Kingdon's theory. The selection process for addressing bias is based on two criteria. The first criterion recognizes that there would be no bias in the analysis if a control variable correlates only with the dependent variable. Though it would obviously be difficult to predict future values of the dependent variable, the

analysis of the relationships between independent and dependent variables as specified by the model would not be biased. These control variables were therefore not selected for the analysis but were included, where appropriate, in the discussion of needed revisions to Kingdon's theory.

The second criterion recognizes that there is bias in the analysis if a control variable is causally prior to and also correlates with an independent variable. The aim is to select control variables for inclusion in the analysis, where appropriate, and then estimate the direction and magnitude of the bias if enough observations could be made. The analysis would also include the new theoretical status of the variables.

The selection criteria for data collection were recorded as the information was entered into the data log tables. Potential biases in the data were evaluated before the analysis was started (King 1994, pp. 150-167).

Control of the independent variables is usually not possible with this research design so it was important to understand and document the sources and background of the unit measurements. For example, the origin and location of documents and archival records were noted because the reasons for creating and retaining these were not always clear from the record and these factors were relevant to the evaluation of potential bias issues. Nonetheless, because the sources and types of data were often limited and small in number, the data were intentionally selected to be consistent with the research objectives and strategy.

3.7. Data Analysis

The test of Kingdon's model guided development of the "epistemological strategy" (George 1985). The most important strategic issue of this research design is theory testing. Other strategic issues include significant control variables during evaluation of the hypotheses about causal processes. Also, the research design must include a careful analysis of the reasons for dependence among the variables to eliminate the possibility of a confounding effect by omitted variables that correlate with the independent variables.

CHAPTER 4. PROBLEMS STREAM ANALYSIS

Background information related to the principal events and policy entrepreneurs for the GLWQA was presented in Chapter 2. Refer to that information and the research questions discussed in Chapter 3 to follow the analyses below.

The analysis below discusses visible entrepreneurs and the operation of the problems stream. But first it is essential to emphasize key points from the discussion on policy entrepreneurs in Chapter 2. The emphasis of the analysis is on the process occurring within each stream; that is, even though it is important to recognize who the visible entrepreneurs are, the principal interest is the way that people operated within the problems stream to maximize their influence on setting the governmental agenda. The model also posits that they might fulfill more than one role in the overall policy process; for example, those who are identified as visible entrepreneurs in this stream may serve as hidden entrepreneurs in the policies stream.

4.1. Which visible entrepreneurs perceived the problem as important and became involved in changing the government's agenda?

Table 4.1 H 1.1 Variable Specification.

Research Question	Measurement Type	Variable Description
H 1.1	Nominal	Visible Entrepreneurs: public officials; opinion leaders. Characteristics: legitimate claim to be heard; known political connections and/or negotiation skills; persistence.

4.1.A. Research Data

In October 1964 the Governments of Canada and the United States prepared the Lower Lakes Reference in which they directed the International Joint Commission to investigate water pollution in Lake Erie, Lake Ontario and the international section of the St. Lawrence River (IJC 1970a, pp.161-162). The IJC kept the governments informed with three interim reports over the course of the six year investigation (IJC 1970a, pp.11-14).

The IJC established International Boards composed of experienced government scientists and engineers from the federal, provincial and state agencies to carry out the Lower Lakes Reference (IJC 1970a, pg.25). The Reference also authorized the International Boards to use expert personnel from the other technical agencies of Canada and the United States (IJC 1970a, pg.162). These technical agencies included the Federal Water Pollution Control Administration, Michigan Water Resources Commission, Michigan Department of Health, New York State Department of Health, Ohio Department of Health, and Pennsylvania Department of Health (IJC 1970a, pg.168).

The International Boards kept the IJC informed with semi-annual reports and two interim reports (ILELOWPB 1969a, pg.4). Finally, they submitted the three-volume IB Final Report to the IJC in November 1969 (ILELOWPB 1969a; ILELOWPB 1969b; ILOLEWPB 1969).

To facilitate evaluation of the IB Final Report, the IJC released a preliminary summary to the public in October (IJC 1970a, pg.13). Then, the IJC conducted public hearings in December 1969, and January and February 1970,

in New York, Ohio, Ontario and Pennsylvania (IJC 1970a, pp.28-33). Nearly 200 persons from Michigan, New York, Ohio, Ontario and Pennsylvania gave testimony and several hundred more submitted written comments (IJC 1970a, pp.28-33, 169-174). Federal, state and municipal governments, elected officials, industry, academia, and private citizens were represented at the hearings.

The IJC developed a composite view of Great Lakes concerns from these testimonies and statements (IJC 1970a, pp.169-174). The IJC prepared its third interim report, "Special Report on Potential Oil Pollution, Eutrophication and Pollution from Watercraft," from this composite and submitted it to the governments in April 1970 (IJC 1970a, pp.13-14). The Special Report was a principal topic of discussion at key policy meetings of high level government officials that included: May 25 1970, Ottawa – Meeting with Canadians on Joint Task Force Options (MacDonald 1970, pg.3; Rogers 1970a; Schmidt 1970d); June 23 1970, Ottawa - First Ministerial Meeting on Great Lakes Pollution (State Hillenbrand 1970a, Memorandum for the President, pg.2; Hillenbrand 1971f; Rogers 1970a; Schmidt 1970e; 1970b); and, September 9-10 1970, Toronto – Great Lakes Environmental Conference (OWRC 1970a; OWRC 1970b).

The IJC finished the investigation for the Lower Lakes Reference and submitted the IJC Final Report with recommendations to the Governments in December 1970 (IJC 1970a). Secretary of State William Rogers described the final report as "a major objective study of the water pollution problem, ... (that) is expected to serve as a cornerstone of governmental efforts" (Rogers 1971, pg.3). Similarly, Russell Train, Council on Environmental Quality (CEQ), observed that

"this is a significant report which warrants prompt consideration and action upon its recommendations" (Train 1971). The United States announced acceptance of the final report and recommendations at a press conference on January 14 1971 (Hillenbrand 1971a). Under a procedure approved by President Nixon, the State Department disseminated copies of the report to federal government departments and agencies and state governments for them to evaluate its contents and respond to the recommendations (Hillenbrand 1971a). The Council on Environmental Quality was charged with reconciling the differences in the responses before the United States transmitted its position to the Government of Canada (Train 1971).

At the beginning of April 1970, President Nixon formed the Task Force on the Problems of Pollution Abatement in and Ultimate Restoration of Lake Erie (Salmon 1970, pg.3). The group was directed to "conduct an overall review of the problems related to water quality management of Lake Erie" (Rogers 1970b). But then it was decided to "more broadly cover mechanisms for joint U.S.-Canadian coordination and implementation throughout all the Great Lakes" (Hillenbrand 1970a, Memorandum for the President, pg.1; Salmon 1970, pp.1-2; Train 1970d). Accordingly, the group was later known as the Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes; hereafter referred to as the President's Great Lakes Task Force (Hillenbrand 1971b, pg.2; Rogers 1970b).

The President directed Russell Train to lead the task force (Salmon 1970, pp.1-3). It included representatives from the Office of Science and Technology,

Federal Water Pollution Control Administration, State Department, Department of Interior, U.S. Coast Guard, and Department of Transportation (State Hillenbrand 1971f; 1970b). The President's Great Lakes Task Force submitted its final report to the President on September 24 1970; the report was used as the basis for the U.S. position in the Joint Working Group that developed the framework of an intergovernmental agreement with the Canadians (Hillenbrand 1971d, pg.4).

Shortly after the President's Great Lakes Task Force was formed in early April a crucial exchange took place between Daniel P. Moynihan, Counselor to the President, and a representative of Canada, Ambassador Ritchie, regarding the problems of pollution in Lake Erie (Rogers 1970b). This discussion prompted a more formal exchange several days later with Canadian Ambassador Cadieux in Washington on April 9. Moynihan informed Ambassador Cadieux that President Nixon had established a Task Force on the Problems of Pollution Abatement in and Ultimate Restoration of Lake Erie (Salmon 1970). Moynihan explored the possibility of "establishing U.S. and Canadian task forces to examine the problems of pollution on Lake Erie" (Rogers 1970b).

Canadian officials reacted positively and the parties agreed to meet on May 25 1970 in Ottawa (MacDonald 1970). At the May meeting the parties focused their discussion on the Special Report that the IJC had submitted to both governments in April. Further action was clearly needed and the officials agreed that a meeting at the ministerial level should be held in June (Rogers 1971).

Thus, the governments of Canada and the United States held the First Ministerial Meeting on Pollution of the Great Lakes in Ottawa on June 23, 1970

(State Hillenbrand 1971f; 1970b). This meeting formally initiated intergovernmental discussions on a range of issues dealing with pollution abatement and Great Lakes water quality. The representatives to the Ministerial Meeting were all high level federal officials (State Hillenbrand 1971f; Hillenbrand 1971g; 1970b). Russell Train led the U.S. delegation that included U.S. Ambassador Adolph Schmidt and representatives of the State Department, Department of Interior, U.S. Coast Guard and Department of Transportation (State Hillenbrand 1971f, pg.2; 1970b). The governments agreed at the First Ministerial Meeting to establish a Joint Working Group (JWG) to "consider common water quality objectives and implementing programs for pollution control" (State Hillenbrand 1971b, pg.3; Hillenbrand 1971f, pp.1-2; 1970b).

The Joint Working Group included water pollution experts from federal and provincial agencies (Mansfield 1970; Towe 1970b). The U.S. section of the JWG was initially assembled from the President's Great Lakes Task Force that had just finished a review of Great Lakes water quality management problems (Hillenbrand 1971d, pg.3).

Russell Train assumed additional responsibilities for providing the overall direction for the U.S. section of the JWG; Gordon MacDonald, a scientist at the CEQ, chaired the group (Hillenbrand 1971d, pg.3; Mansfield 1970). The U.S. section representatives included the Great Lakes Basin Commission, Department of the Interior, State Department, Department of Transportation, Water Resources Council, U.S. Army Corp. of Engineers, National Council on

Marine Resources and Engineering Development, Office of Science and Technology, and Department of Health, Education and Welfare (Mansfield 1970).

Concerns were also growing at the regional level and that prompted action by the Great Lakes provinces and states. The Prime Minister of Ontario convened the Great Lakes Environmental Conference in Toronto on September 9-10, 1970 (Towe 1970a) (Cowan 1970; OWRC 1970a; OWRC 1970b). The Governors of the Great Lakes States, state officials, as well as representatives of both federal governments and other Canadian provinces attended the meeting (Johnson 1970; Peterson 1970b). Commissioners of the IJC and representatives of the JWG also attended. State and provincial officials perceived that there was a crisis because discharges of municipal and industrial wastes into the Great Lakes were not adequately controlled. Officials at the conference agreed that immediate remedial measures had to be taken while Canada and the United States completed their negotiations (Peterson 1970a). The conference confirmed the concerns of government officials about the causes and consequences of pollution in the Great Lakes and its recommendations were included in the Circular 175 package of May 1971 that provided the basis for requesting approval to negotiate an executive agreement with Canada (Hillenbrand 1971e).

The Governor of Michigan, William Milliken, hosted a second meeting, the Conference of Great Lakes Governors and Premiers, the following year on August 16-17 (Johnson 1971b). The conference resolutions reaffirmed regional perceptions of Great Lakes problems and solutions and urged Canada and the

United States to develop a strong water quality agreement "at the earliest possible date" (Anonymous 1971).

Meanwhile, the Joint Working Group held its first planning meeting in September 1970 and organized ten sub-groups to address pollution control management issues (Hillenbrand 1971g, pp.7-8). The representatives of the federal agencies in the U.S. section of the JWG reviewed the recommendations of the sub-groups (Rogers 1971, pg.3). A final report was drafted and approved at the second meeting of the JWG in April 1971 (Hillenbrand 1971g, pg.8).

The Second Ministerial Meeting was convened two months later in June, where the JWG Final Report was presented to the governments. Russell Train led the U.S. delegation at the June meeting as he had done a year earlier (Johnson 1971c).

The policy entrepreneurs who were responsible for determining the importance of Great Lakes pollution problems and the U.S. negotiating position were identified in Circular 175: Request for Authority to Negotiate an Executive Agreement with Canada for Affirmative Action to Combat Water Pollution in the Great Lakes System (see APPENDIX C) (Hillenbrand 1971b). Numerous government officials reviewed the Circular 175 package and recommended that authority be given to begin the negotiations; it was officially approved on June 9 1971, by Under Secretary of State Johnson. The officials who reviewed the Circular 175 package included the U.S. section of the IJC, State Department, CEQ, Environmental Protection Agency (EPA), U.S. Coast Guard, U.S. Army

Corps of Engineers, Department of Transportation, and Office of Science and Technology (White House).

Similarly, as the negotiations with Canada drew to a close almost a year later the Secretary of State gave final approval in early April 1972, for the U.S. to conclude the Great Lakes Water Quality Agreement. The State Department prepared a second Circular 175 package, Request for Authority to Conclude a Great Lakes Water Quality Agreement (see APPENDIX F). The Secretary then sought comments from policy entrepreneurs involved in the 1971 review and from additional ones in the Great Lakes Basin Commission, Department of Commerce, and Department of Agriculture (Burns 1972a, pp.1-2).

The United States structured their negotiating team in two levels with the Department of State assigned overall responsibility (Burns 1971). The first level team was concerned with the basic agreement and supervision of the negotiations; it included high level representatives from the State Department, EPA, U.S. Coast Guard, CEQ, and Corps of Engineers (Burns 1971). The second level team was responsible for negotiating the technical annexes to the basic agreement (Burns 1971). This team, numbering about fifty, included representatives of the federal agencies or departments just mentioned as well as eight additional ones (Johnson 1971a). Frederick O. Rouse, Chairman, Great Lakes Basin Commission, and William Marks, Chief of Water Resource Planning, Michigan Water Resources Commission, served on the negotiating team as representatives of the Great Lakes States (Johnson 1971c; Nef 1971a).

Prime Minister Pierre Trudeau and President Richard Nixon signed the Great Lakes Water Quality Agreement in Ottawa on April 15, 1972.

4.1.B. Research Findings

Summarized in Table 4.2 are the visible entrepreneurs who held high-level leadership positions and the policy process activities they were involved in. Because there were often numerous sources of information on their activities, it was possible to thoroughly evaluate whether they exhibited the essential characteristics of Kingdon's model. Discussion of the many others who were also involved appears in the section above.

Most of those identified in Table 4.2 held high level positions that required them to interact with the media and general public. They were easily associated with the government's policies and programs on Great Lakes water pollution issues.

The most notable visible entrepreneurs were President Nixon and Secretary of State William Rogers. They were involved during the critical period of 1969-1970 when the International Water Pollution Boards and the International Joint Commission defined Great Lakes problems in the reports. They also increased their involvement when the governments convened the ministerial meetings in 1970 and 1971. Also, the cumulative effect of their activities demonstrated persistence in bringing the Great Lakes issues onto the governmental agenda and eventually to the decision agenda in 1971 and 1972. They used their negotiating skills to resolve differences on issues with Canada and combined these with leadership skills for keeping the basic Great Lakes

agreement in line with evolving U.S. water pollution law and the politics of the region and nation.

In addition, Russell Train held key positions of responsibility during this period that clearly established the legitimacy of his roles and the political connections necessary to be effective in them. He had a crucial role in the early meetings where problems were identified and defined for the governmental agenda and at later ones where the most important decision agenda items were identified for authoritative action.

Other visible entrepreneurs used primarily their political skills such as Moynihan, Herter, Springsteen, Johnson and the Great Lakes governors and Canadian premiers. Experts who had a legitimate claim to be heard were Poston, Hillenbrand, MacDonald and Burns. As identified in Table 4.2 and discussed above, they were responsible for critical activities in the problems stream that helped to define and advance Great Lakes pollution problems onto the government's decision agenda.

Table 4.2 Visible Entrepreneurs and Problems Stream Activities.

H.W. Poston, Regional Director, Great Lakes Region, Federal Water Pollution Control Admin. **Chairman of U.S. Section – both Boards**: International Lake Erie Water Pollution Board, and International Lake Ontario – St. Lawrence River Water Pollution Board; **Report to the International Joint Commission**: Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River
Christian A. Herter, Special Assistant to the Secretary for Environmental Affairs, Bureau of International Scientific and Technological Affairs, Department of State **Chairman of U.S. Section**: International Joint Commission **IJC Special Report to the Governments**: Special Report on Potential Oil Pollution, Eutrophication and Pollution from Watercraft **IJC Final Report to the Governments**: Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River
Daniel P. Moynihan, Counselor to the President **Initiated Intergovernmental Discussions** with Canada on Great Lakes Water Quality
Russell E. Train, Chairman of Council on Environmental Quality **Chairman of Task Force**: President's Great Lakes Task Force **Head of U.S. Delegation**: Canada and United States Task Force Meeting **Head of U.S. Delegation**: First Ministerial Meeting on Great Lakes Pollution **Head of U.S. Delegation**: Second Ministerial Meeting on Great Lakes Pollution
Martin J. Hillenbrand, Assistant Secretary for European Affairs, State Department **Circular 175**: Request for Authority to Negotiate an Executive Agreement with Canada, 1971
Gordon J. MacDonald, Council on Environmental Quality **Chairman of U.S. Section**: Joint Working Group
John P. Robarts, Prime Minister of Ontario **Conference Convener**: Great Lakes Environmental Conference Delegates - Great Lakes Governors: Michigan (Milliken), Illinois (Ogilive), Minnesota (Anderson), Ohio (Gilligan), Wisconsin (Lucey), and Lt. Governor of Indiana (Folz); State and Provincial Officials
William Milliken, Governor of Michigan **Conference Convener**: Conference of Great Lakes Governors and Premiers Delegates: Premier Davis, Ontario; Minister Goldbloom, Quebec; Great Lakes Governors: Minnesota (Anderson), Ohio (Gilligan), Wisconsin (Lucey), and Lt. Governor of Indiana (Folz); State and Provincial Officials
Douglas F. Burns, Legal Adviser, European Affairs, State Department **Circular 175**: Request for Authority to Conclude an Executive Agreement with Canada, 1972
George S. Springsteen, Deputy Assistant Secretary for European Affairs, State Department **Head of U.S. Team**: U.S. Negotiating Team Deputy Head of U.S. Team: William M. Johnson, Director, Office of Canadian Affairs
President Richard M. Nixon **William P. Rogers**, Secretary of State **Signatories**: Great Lakes Water Quality Agreement

4.2. How did environmental conditions become perceived by visible entrepreneurs to be a problem?

Table 4.3 H 1.2 Variable Specification.

Research Question	Measurement Type	Variable Description
H 1.2	Nominal	Environmental Conditions: comparison against social values; comparison against other political jurisdictions; categorizing in a particular way.

4.2.A. Research Data

The First Ministerial Meeting between Canada and the United States convened on June 23, 1970 to discuss the IJC Special Report that had been submitted to the governments in April. The report had focused on the problems of "potential oil pollution, eutrophication and pollution from watercraft" and included recommendations that they "should be brought to the immediate attention of the Governments as a matter of urgency" (Hillenbrand 1971f, pg.2; State 1970a; State 1970b). These problems were the main concerns that were identified at the public hearings organized by the IJC earlier in the year (see Chapter 2). They also had been previously reported and were recognized by federal and state officials (FWPCA 1968b; FWQA 1970a; FWQA 1970b; GLBC 1969; IJC 1967; Ohio 1965; PHS 1965). The officials at the meeting agreed that further action was needed to address the problems in the IJC Special Report and established a Joint Working Group to investigate these and report back to the governments (Hillenbrand 1971f; State 1970a; State 1970b).

In addition, officials at the First Ministerial Meeting extended the scope of their actions beyond the IJC Special Report when they also agreed that spills of hazardous materials should be included in a new joint contingency plan for the Great Lakes (State Hillenbrand 1971f; 1970b). Under U.S. law, section 12 of the Water Pollution Control Act of 1970 defined hazardous materials as:

> "elements and compounds which, when discharged in any quantity into or upon the navigable waters of the United States ... present an imminent and substantial danger to the public health or welfare"
> (33 U.S.C. 1162(a) ; United States 1970e, pp.106-108).

Within the framework of U.S. laws and federal regulations, toxic and hazardous substances referred to the same materials (CEQ 1971b, pp.17-21). A series of crucial events took place in 1970 that helped to change U.S. officials' perceptions of hazardous substances.

In the early spring of 1970 Russell Train, Chairman of the Council on Environmental Quality, headed an advisory group concerned with toxic substances. Their purpose was to investigate the environmental issues of "metals and synthetic organic chemicals which might endanger human health and the environment ... and (also) the great uncertainty about a number of key aspects of the whole area of toxic substances" (CEQ 1971b, pg.iii). The advisory group's report, "Toxic Substances," that was issued in December 1970 noted that "recent incidents of mercury and other contamination of the environment and the diversity and quantities of toxic and potentially toxic substances entering the environment indicate the extent of this growing national problem" (CEQ 1971b, pg.vii). The report was the basis for President Nixon's legislation, Toxic Substances Control Act of 1971; the mercury situation in particular was used to

pressure Congress into action on the legislation (Corrigan 1970a). In fact, the CEQ's Second Annual Report observed that "the mercury problem might have been recognized much earlier had the Toxic Substances Control Act been law" (CEQ 1971a, pg.17).

The CEQ observed in the First Annual Report: Environmental Quality that effects of toxic substances released into the environment were "not fully understood (and thus) constitute a mounting concern ... mercury pollution has become a serious national problem" (CEQ 1970, pg.52). In particular, trace amounts of toxic substances in water supplies could impact human health and "health authorities (showed) increased concern over their potential effects" (CEQ: Council on Environmental Quality 1970, pg.40).

Train also organized a Mercury Pollution Conference that convened on July 7 with representatives from the State Department, Departments of Interior and Health, Education and Welfare, and Office of Science and Technology (Train 1970b). The purpose was to determine what was known about mercury pollution and identify alternative actions the administration might need to take (Corrigan 1970a).

In addition, there were several incidents of mercury contamination in Great Lakes fish and other wildlife that were discovered by the Canadians and later confirmed by U.S. officials (Corrigan 1970a; RSC 1971; Senate 1970; Turney 1970). As discussed in Chapter 2 the mercury contamination incident in Lake St. Clair was followed by a great deal of diplomatic activity that quickly involved Secretary of State William Rogers (Corrigan 1970a). The United States

suggested the parties meet to discuss alternatives for intergovernmental action, Canada agreed and planning commenced for a high level meeting.

Also, evidence quickly mounted to reveal the scope of the mercury problem in the Great Lakes. On April 21 Secretary of the Interior Walter J. Hickel announced a massive cleanup operation for Lake Erie and directed the Federal Water Quality Administration to broaden its investigation of water quality throughout the United States (FWQA 1970, Appendix VI, pp.94-108).

Congress scheduled hearings in May on the "Effects of Mercury on Man and the Environment" that focused first on the Great Lakes; they continued into the summer (Senate 1970). U.S. Senator Philip Hart of Michigan, who chaired the hearings, observed that whereas initially "we were dealing with a water pollution problem confined to the Great Lakes ... we may now be experiencing one of the greatest environmental crises in our history. It has been reported that at least 17 States now are afflicted with unsafe mercury levels in water" (Senate 1970, pg.93). The hearings revealed that government officials were not looking for a mercury pollution problem; e.g., the Bureau of Water Hygiene in the Department of Health, Education and Welfare carried out a survey in 1969 of public water systems but did not include mercury in it (Corrigan 1970a).

In addition, these same officials were unaware that bacteria converted inorganic forms of mercury into the highly toxic methyl mercury form (Corrigan 1970a; Senate 1970, pp.435-457). The hearings also established that federal agencies had not worked with the states to adopt specific water criteria for waterborne mercury under the Federal Water Pollution Control Act of 1965 (Pub.

L. 89-234) and neither did they have the authority to quickly respond to contamination of water and food supplies (Corrigan 1970a). Finally, the government could halt discharges of municipal and industrial wastes containing mercury only by resurrecting provisions of the Rivers and Harbors Act of 1899 (Senate 1970, pp.435-457).

All of these events occurred before the First Ministerial Meeting or were unfolding by late June as the officials gathered in Ottawa. Equally important, these events directly or indirectly involved the visible entrepreneurs of the U.S. delegation.

Toward the end of 1970 the IJC completed the assessment of Great Lakes environmental conditions guided by Articles IV and VIII of the Boundary Waters Treaty of 1909. The rivers and lakes shared by Canada and the United States along their border are protected under Article IV that states: "boundary (waters) shall not be polluted on either side to the injury of health or property on the other" (IJC 1998, pg.8). The uses of the waters were prioritized by Article VIII that states: "The following order of precedence shall be observed among the various uses ... for these waters ...: (1) uses for domestic and sanitary purposes; (2) uses for navigation ...; (3) uses for power and for irrigation purposes" (IJC 1998, pg.10).

It was possible to perceive a threat because each designated use assumed a legitimate social value when it was recognized as such under the Treaty and obviously required a certain condition of water quality to be able to serve that use (Bilder 1971, pp.480-484, 511-517). The IJC's assessment

compared the designated uses against actual experiences of using Great Lakes waters to determine if there were impairments due to pollution. Thus, the social values associated with the designated uses of water were perceived as threatened by "the grave deterioration of water quality" (State 1973, pg.1).

In fact, the IJC Final Report documented ten specific categories of impairments to the designated uses of Great Lakes waters (IJC 1970a, pp.34-51). Two of these categories, Organic Contaminants and Toxic Materials in Trace Amounts, threatened public water supplies, commercial and sports fisheries and wildlife that feed upon the fish (IJC 1970a, pp.43-47 and 49-51, respectively). Examples included the effect of the pesticide DDT on Lake Michigan fisheries and mercury contaminated fish in Lake St. Clair (IJC 1970a, pp.93-107; NRC 1971; Turney 1970).

Another problem was toxic substances in wastes discharged by municipalities and industry either directly into the Great Lakes or into tributaries that drained the Great Lakes Basin (IJC 1970a, pg. 72-79 and137). The IJC was primarily concerned about public water supplies because the health effects of these toxic substances were largely unknown (IJC 1970a, pp.50-51).

Finally, the governments accepted the Joint Working Group Final Report at the Second Ministerial Meeting on June 10, 1971 and this provided the framework for the negotiation of an intergovernmental agreement that began several days later (Hillenbrand 1971g; State 1971b). The report recommended that compatible standards for water quality be developed for mercury, heavy metals and persistent organic contaminants, along with many other measures for

addressing the Great Lakes problems identified in the IJC Special Report (April 1970) and IJC Final Report (December 1970) (Hillenbrand 1971g, pp.2, 9-12).

4.2.B. Research Findings

Officials at the First Ministerial Meeting focused their discussions on the recommendations in the IJC Special Report and agreed to move three items; oil pollution, eutrophication and pollution from watercraft, higher up on the governmental agenda. In effect, they agreed with the IJC that these problems either had impaired a designated use that was recognized under the Boundary Waters Treaty or had a high potential to do so and that urgent action was required. Environmental conditions, such as discharges of municipal and industrial wastes that contained phosphate nutrients that accelerated eutrophication of lakes impaired designated uses of the waters. These were perceived to be Great Lakes problems for the governmental agenda because they conflicted with social values, specifically the designated uses under the Boundary Waters Treaty.

A significant item that was added to the governmental agenda at the Ottawa meeting was spills of hazardous materials. This was significant because hazardous materials were not mentioned in the IJC Special Report that had been submitted to the governments only two months earlier. Hazardous substances appear to have been added to the governmental agenda because of several crucial events that occurred shortly before or at about the same time as the First Ministerial Meeting and that involved most of the visible entrepreneurs of the U.S.

delegation. One very significant incident already discussed in Chapter 2 involved mercury contamination of fish in Lake St. Clair.

Another was Train's involvement in the toxic substances advisory group and Mercury Pollution Conference that expanded his understanding of toxic substances that were of concern throughout the U.S., such as the scientific, social, political, and legal ones for pesticides. Also, the strengths and weaknesses in the Nixon administration's ability to effectively act on these problems became clearer. Interactions with the Canadians from the onset of these problems enabled Train to compare the social, economic, legal and political factors that determined how either nation could respond to hazardous substance problems. Thus, it was inferred that Train perceived hazardous substances were a problem because he had categorized these materials in a new way and had compared the abilities of both governments to respond through their laws and programs.

Similarly, the reactions of visible entrepreneurs to the mercury contamination incident revealed how an environmental condition became identified as a problem when it was placed in a new category. The impetus to create a new category for mercury was the realization that important information for protecting public health was known to a relatively few individuals but that did not include, unfortunately, the government officials who were charged with public health responsibilities.

Essentially all of those who were concerned about water quality and public health were surprised to learn that mercury could attain levels in fish that are

toxic to humans by a previously unknown route. Bacteria in aquatic environments were found to convert common inorganic forms of mercury to highly toxic organic ones that could subsequently reach toxic levels in fish. Equally important, as the understanding of mercury contamination grew, particularly where and how it was occurring it became clear that not only was the government not looking out for these problems, they also did not have effective policy tools to deal with them. Thus, all of these factors converged to create a new category for mercury and other toxic substances released into the environment.

The final result was that a year later the decision agenda of the governments did include persistent toxic substances. The JWG Final Report recommended that compatible standards be developed for mercury, toxic heavy metals and persistent organic contaminants.

4.3. How did environmental problems become perceived by visible entrepreneurs to be important?

Table 4.4 H 1.3 Variable Specification.

Research Question	Measurement Type	Variable Description
H 1.3	Nominal	Environmental Problems: change in a systematic indicator; focusing event; feedback from government programs and policies.

4.3.A. Research Data

Most of the events and visible entrepreneurs discussed below were introduced in the previous question, H 1.2. Refer to that material and Chapter 2 where appropriate.

Mercury contamination in Great Lakes fish and other wildlife was first reported by the Canadians and later confirmed by U.S. officials (RSC 1971; Senate 1970; Turney 1970). A great deal of diplomatic activity followed that resulted in a high level meeting on May 25 with Canadian officials; the U.S. delegation was led by Russell Train. Interest in the mercury problem expanded on April 21 when Secretary of the Interior Walter J. Hickel directed the Federal Water Quality Administration to begin a cleanup program for Lake Erie and investigate other water bodies throughout the United States (FWQA 1970, Appendix VI, pp.94-108).

Finally, Congress began hearings on May 8 on the "Effects of Mercury on Man and the Environment" that focused on the Great Lakes; the hearings continued into the summer (Senate 1970). The Senate hearings indicated a mercury contamination problem not only in Great Lakes states but also in 17 states around the country (Senate 1970, pg.93). This contamination problem was not part of the official agenda at the May 25 meeting but the Canadian and U.S. delegations agreed that intergovernmental action was required on a number of issues and that they would meet again on June 23.

The First Ministerial Meeting was held on June 23, 1970 and officials discussed the IJC Special Report that focused on the problems of "potential oil

pollution, eutrophication and pollution from watercraft" (Hillenbrand 1971f, pg.2; State 1970a; State 1970b). These were the principal problems identified at the public hearings organized by the IJC earlier in the year (see Chapter 2). The officials at the meeting agreed that spills of hazardous materials should be included in a new joint contingency plan for the Great Lakes (State Hillenbrand 1971f; 1970b).

Several other events in 1970 drew attention to toxic substances and mercury contamination in particular. Russell Train headed an advisory group that investigated the environmental issues of toxic substances released into the environment (CEQ 1971b, pg.iii). The group's final report was the basis for legislation proposed by President Nixon and focused attention on mercury and other contamination incidents that were appearing with increasing frequency (CEQ 1971b, pg.vii). Train also held a Mercury Pollution Conference in July to assess the mercury problem and what the administration could do to effectively respond (Train 1970b).

Toward the end of 1970 the IJC finished its assessment of Great Lakes environmental problems for the Lower Lakes Reference. Articles IV and VIII of the Boundary Waters Treaty guided the assessment; the IJC identified all current designated uses of Great Lakes waters by both countries and focused on those that were being impaired by water pollution (IJC 1998, pg.8 and 10). The IJC Final Report documented ten specific areas where designated uses were impaired (IJC 1970a, pp.34-51). Two of these areas, Organic Contaminants and Toxic Materials in Trace Amounts, impaired or threatened to impair public water

supplies, commercial and sports fisheries and wildlife (IJC 1970a, pp.43-47 and 49-51, respectively). The IJC Final Report focused concern on public water supplies because little was known about the health effects of many toxic substances that were being discharged in municipal and industrial wastes (IJC 1970a, pp.50-51).

The JWG Final Report generally agreed with the findings of the IJC Final Report. The report recommended the governments act quickly to eliminate all sources of mercury and other toxic heavy metals and to limit those sources that accumulate persistent pesticides, herbicides, and other organic contaminants in the Great Lakes (Hillenbrand 1971g, pp.11-12). The report also recommended that both governments set water quality standards for mercury, heavy metals and persistent organic contaminants (Hillenbrand 1971g, pp.2, 9-12).

4.3.B. Research Findings

It is important to remember that mercury contamination, in either the Great Lakes or the United States generally was not on the governmental agenda before 1970. Its promotion onto the governmental agenda and rise in relative importance occurred in a matter of several months; by comparison, other agenda items, such as eutrophication were moved onto the governmental agenda by 1964 when the governments sent the Lower Lakes Reference to the IJC. Thus, the suddenness with which the mercury contamination incident unfolded makes it all the more important to clearly distinguish between those factors that put it on the agenda that are discussed in the previous question and those that enhanced its importance which are the main concern of this question.

The mercury contamination situation exhibited all of the factors that push a problem to the top of the governmental agenda. For example, impacts on commercial and sports fisheries were real losses in the near term and potential losses in the long term if the situation continued. Thus, there was a very unambiguous change in a systematic indicator, the economy of the Great Lakes fisheries. Also, the incident became a focusing event because it surprised many people, including experts, that inorganic forms of mercury could easily become part of the aquatic food chain. Mercury contamination took on added meaning because symbols of major importance in the Great Lakes, commercial and sports fisheries and even the Great Lakes as a water resource were seriously threatened. Finally, officials at the federal and state levels quickly learned that the policy tools they had available left them ill equipped to deal with toxic substances in the Great Lakes. They also learned that the problem was not isolated to the Great Lakes States and the deficiencies in government programs and policies served to reinforce views about the need for change. Therefore, these factors were quite effective at increasing the importance of toxic substances and bringing them in line for authoritative policy decisions.

Similarly, decisions and actions at the First Ministerial Meeting reflected the interaction of all three factors. The governments agreed with the IJC Special Report that had shown uniformly negative changes in systematic indicators for eutrophication, especially of Lake Erie, and pollution from both commercial and recreational watercraft. The joint contingency plan addressed concerns for potential oil spills in the Great Lakes. Also, the IJC Special Report revealed the

scope of the problems in terms of how effectively government was responding; government programs were found deficient. Finally, the mercury contamination situation was a focusing event for the meeting because it brought the governments together to discuss Great Lakes problems and it only served to underscore the importance of the report's recommendations.

Moreover, it was inferred that Train's roles with the toxic substances advisory group and Mercury Pollution Conference vis-à-vis his other key roles for addressing Great Lakes problems permitted several factors to increase the importance of toxic substances. These factors are found in the purposes of two activities that provided important information on changes in systematic indicators and feedback on government policies and programs; this information would be very relevant to the meetings in which Train had a key role preceding the GLWQA negotiations.

First, the IJC Final Report provided the essential working document for the Joint Working Group that would draft the framework of an intergovernmental agreement. The report revealed how water pollution impacted uses of Great Lakes waters and that helped to define and draw attention to Great Lakes problems. The assessment in the report documented changes in systematic indicators related to water quality and uses of the waters and the analysis of this information provided feedback on government programs.

Second, it is obvious that the same reasoning applies to the JWG Final Report because it was largely based upon the IJC Final Report. While the factors of systematic indicators and feedback were important here as well, so

was the fact that many of the same visible entrepreneurs had been involved a year earlier in the principal focusing event, the mercury contamination of Great Lakes fisheries.

4.4. Problems Stream Summary

The principal visible entrepreneurs who perceived Great Lakes water pollution problems as important were President Nixon and two of his appointees, William Rogers and Russell Train. They possessed the highest legitimacy in the Executive Branch for being heard on these issues with respect to effectuating change on the governmental agenda, were well connected and skilled politically and, particularly in the case of Train, persisted in concluding a comprehensive Great Lakes agreement. Other visible entrepreneurs, including political appointees, state governors, etc. contributed to the perception that these problems were important either because they had a legitimate claim to be heard and spoke out; e.g., Governor Milliken of Michigan or were skilled politically, such as Patrick Moynihan.

The conditions of water quality in the Great Lakes, especially eutrophication in Lake Erie were perceived to be a problem because the quality had deteriorated to the point of impairing designated uses of the waters. This was perceived as a problem for the governmental agenda because the Boundary Waters Treaty formally recognized these designated uses; thus, establishing their social value and the governments bore some responsibility for maintaining the uses of the waters.

In addition, it became clear that the conditions of water quality were affected by the discharge of toxic and hazardous substances in municipal and industrial wastes, such as mercury from chemical operations. This became a problem when comparisons among political jurisdictions in the U.S. revealed the weak capability of local and state governments to abate these practices.

The mercury contamination situation further emphasized the serious and poorly understood nature of these conditions because it was discovered that many forms of mercury common in industrial waste discharges could become highly toxic methyl mercury that contaminated commercial and sports fisheries. This discovery provided the opportunity to create a new category for the problem of mercury-containing wastes discharged into the Great Lakes and, more generally for the problems of toxic substances discharged by municipal and industrial sources. Finally, the mercury situation revealed that there were no effective policy tools available to government jurisdictions at the state or federal levels for dealing with a specific contamination problem in public water supplies, commercial and sports fisheries, or Great Lakes waters in general.

The cumulative effect of these problems was to draw attention to changes in a number of systematic indicators and that revealed how significant the impairment of the uses of Great Lakes waters had become. Thus, Great Lakes water quality was perceived as a very important problem. The mercury contamination situation in particular was a focusing event that produced economic losses to commercial and sports fisheries. In this case, there were clear changes in systematic indicators; that is, economic and ecological ones that

revealed problems with Great Lakes water quality. In addition to the symbolic importance of the Great Lakes and its fisheries resource, feedback showed that government jurisdictions on both sides of the boundary were not equipped to handle contamination caused by the discharge of toxic substances. This was the conclusion of high-level discussions by the Premiers and Governors at the Great Lakes Environmental Conference in Toronto.

Visible entrepreneurs also perceived the water quality problems as important as reflected in other venues and events. These included the First Ministerial Meeting, IJC Special Report, IJC Final Report, JWG Final Report and Circular 175 package that demonstrated changes in systematic indicators and provided feedback on government policies established to handle them.

CHAPTER 5. POLITICS STREAM ANALYSIS

Background information related to the principal events and policy entrepreneurs for the GLWQA was presented in Chapter 2. Refer to that information and the research questions discussed in Chapter 3 to follow the analyses below.

The analysis discusses visible entrepreneurs and the operation of the politics stream. However, two key points from the discussion on policy entrepreneurs in Chapter 2 are worth repeating. First, the emphasis of the analysis is on the process occurring within each stream; that is, even though it is important to recognize who the visible entrepreneurs are, the principal interest is the way that people operated within the politics stream to maximize their influence on setting the governmental agenda. Second, the model also posits that they might fulfill more than one role in the overall policy process; for example, those who are identified as visible entrepreneurs in this stream may serve as hidden entrepreneurs in the policies stream.

5.1. Which visible entrepreneurs perceived that there was broad support for changing the government's agenda?

Table 5.1 H 2.1 Variable Specification.

Research Question	Measurement Type	Variable Description
H 2.1	Nominal	Visible Entrepreneurs: public officials; opinion leaders. Characteristics: legitimate claim to be heard; known political connections and/or negotiation skills; persistence.

5.1.A. Research Data

President Nixon was proactive in setting the administration's environmental agenda that sought to expand the power of the federal government over air and water pollution control programs (Corrigan 1970b; Corrigan 1970c). This was a major policy shift from earlier laws where Congress had delegated the primary role to the states. A legislative task force assembled by the President in August 1969 found that after they finally agreed that the principal problem was unchecked pollution, there was no dissention over drafting legislation expanding the federal government's power (Corrigan 1970c).

It was a politically popular set of issues that generated fierce competition among the Nixon administration, Republicans and Democrats in Congress (Corrigan 1970b). Several weeks after presenting the traditional State of the Union speech to Congress, President Nixon delivered a Message on the Environment in February 1970 that permitted him to focus just on those agenda items (CEQ , pp.254-271).

For example, the President proposed the Clean Waters Act that would authorize funds for waste treatment facilities. Equally important, the legislation proposed new state-federal water quality standards for industrial and municipal waste dischargers that would involve "precise effluent requirements". The President explained the basis for the new "effluent limitations" approach was a "profoundly significant principle: the nation's waterways belong to us all, and (the dischargers) should (not) be allowed to discharge wastes into those waterways beyond their capacity to absorb the wastes without becoming polluted" (CEQ

1970, pp.258-259). In another message to Congress on April 15 the President announced plans to propose legislation that would stop dumping of dredge spoils in the Great Lakes (Nixon 1972, pp.141-143).

The President was confronted with numerous other policy problems emanating from the Great Lakes. The International Boards had submitted the Final Report with recommendations to the IJC the previous November; the IJC was beginning to seek feedback from the governments (ILELOWPB 1969a). With the IB Final Report as a basis, the IJC submitted a third interim report, the IJC Special Report, to the governments in early April (IJC 1970a, pp.13-14; State 1970a). The IJC made recommendations "as a matter of urgency" that it believed "required implementation at the earliest possible date" (IJC 1970a, pg.14; IJC 1970b; State 1970a). Also, on April 8 the IJC requested that the U.S. government provide preliminary views on Recommendation No. 19 of the IB Final Report that recommended the governments appoint a board to coordinate joint international programs for water pollution control on the Great Lakes (Burns 1970a; ILELOWPB 1969a, pg.13).

President Nixon established the Special Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes, put Russell Train in charge and directed the group to consider this recommendation and report back to him (Burns 1970a).

Initially, the task force was supposed to "conduct an overall review of the problems related to water quality management of Lake Erie" (Rogers 1970b). But they quickly determined that the review had to be expanded to include all of

the Great Lakes; the President approved the broader scope (Hillenbrand 1970a, Memorandum for the President, pg.1).

Simultaneously, officials were responding to discoveries of mercury contamination in Great Lakes fish that had been revealed by Canadian studies (see Chapter 2). The U.S. formally responded to the situation in a report to the Government of Canada and suggested a meeting to discuss mercury pollution in the Great Lakes. After receiving a favorable reply President Nixon asked Russell Train to meet with Canadian officials. At the May 25 meeting the President's Great Lakes Task Force met with their Canadian counterparts in Ottawa and agreed that there were serious problems. They also agreed to hold another high level meeting in June. Canada sought a more formal approach and proposed the negotiation of an intergovernmental agreement.

Russell Train became fully engaged coordinating U.S. activities in subsequent intergovernmental meetings with Canada. In addition to the May meeting he led the U.S. delegation at the First Ministerial Meeting in June 1970 (State Hillenbrand 1971f; Hillenbrand 1971g; 1970b). The officials agreed to establish a Joint Working Group to "consider common water quality objectives and implementing programs for pollution control" (State Hillenbrand 1971b, pg.3; Hillenbrand 1971f, pp.1-2; 1970b). However, Train did not agree to negotiate an intergovernmental agreement as the Canadians had earlier hoped.

On September 1 the United States informed the IJC that they supported Recommendation No. 19 in the IB Final Report (Burns 1970a). The Government of Canada told the IJC on September 3 that they did not support the

recommendation under the current circumstances because they "would not wish to consider or support any specific proposed institutional changes or arrangements until such time as programs ... become more clearly defined" (Burns 1970b). Their view was that the way to define the programs was to negotiate an intergovernmental agreement with the United States.

Russell Train submitted the Final Report of the President's Great Lakes Task Force on September 24; the President approved the report on October 1 (Hillenbrand 1971d). The report recommended that the Council on Environmental Quality coordinate the U.S. position of the federal agencies on the IJC Final Report that was to be issued at the end of the year. It also recommended that the CEQ prepare the United States position for negotiations with Canada in the JWG; it was silent on Canada's request to negotiate an intergovernmental agreement (Hillenbrand 1971d, pg.5).

In November the Department of State reviewed the appropriateness of a formal agreement with Canada and decided that a formal treaty would not be necessary. But they did recommend that an executive agreement be authorized pursuant to Circular 175 procedures to implement the recommendations of the President's Great Lakes Task Force Final Report and those that were anticipated to be part of the IJC Final Report (Burns 1970c). By the end of December when the IJC submitted the Final Report to the governments the U.S. was in favor of an executive agreement; but the U.S. had not finalized a decision to proceed with concluding one (MacDonald 1970).

The IJC submitted the Final Report with recommendations to the Governments in December 1970 (IJC 1970a). Under a procedure approved by President Nixon, Russell Train coordinated and reconciled the different responses of the federal departments and agencies and state governments before the United States transmitted its official position to the Government of Canada (Hillenbrand 1971a; Train 1971). Secretary of State William Rogers described the final report as "a major objective study of the water pollution problem, ... (that) is expected to serve as a cornerstone of governmental efforts" (Rogers 1971, pg.3). The United States announced acceptance of the Final Report and recommendations at a press conference on January 14 1971 (Hillenbrand 1971a).

In April 1971, the JWG finished its work and approved the draft final report: "Final Report of the Canada-United States Joint Working Group on Great Lakes Pollution" (Hillenbrand 1971b, pg.3). The JWG Final Report recommended the governments conclude an intergovernmental agreement using the framework developed in the Final Report (Hillenbrand 1971b, pg.4). The framework included provisions that implemented essentially all of the recommendations in the IJC Final Report as well as those in the Final Report of the President's Great Lakes Task Force (State Hillenbrand 1971b, pg.4; 1971a).

Before the Second Ministerial Meeting was held in June, the Department of State prepared an authorization to negotiate an executive agreement with Canada pursuant to the Circular 175 procedures (Hillenbrand 1971b). As for the option of a formal treaty they observed that Article IV of the Boundary Waters

Treaty of 1909 basically committed each nation not to pollute the boundary waters in ways that would injure the health or property of either party. Because the United State intended to further the implementation of these commitments, the new agreement "should not be viewed independently of it" which would likely be the case if another treaty were negotiated (Hillenbrand 1971b, pg.6).

In June, Russell Train led the U.S. delegation to the Second Ministerial Meeting where the two governments accepted the JWG Final Report and recommendations and agreed to negotiate an intergovernmental agreement with Canada (State 1971b).

5.1.B. Research Findings

The governmental agenda for Great Lakes environmental policies began to change markedly in late 1969 when the International Boards submitted a Final Report to the IJC. Several months later as the IJC was about to complete the Lower Lakes Reference the mercury situation surfaced dramatically first in the Great Lakes and then spread across many states and the Province of Ontario. This appeared to couple policy initiatives for the Great Lakes agenda with those demanding attention in the rest of the nation such as water pollution.

President Nixon was a very prominent visible entrepreneur immersed in gauging support for Great Lakes environmental policies and obviously national ones as well. The federal policy apparatus had never dealt with environmental issues on this scale before; its powers to address them were generally weak. Thus, changes in this policy arena required careful assessments of the support

for them. It was inferred that the President made thorough assessments when introducing pieces of environmental legislation, such as the Clean Waters Act.

Equally important, the President signaled high level support of the Executive Branch for moving environmental policy initiatives onto the governmental agenda when he delivered a special Message on the Environment to Congress in February. To underscore this point the Message was delivered separately from all the other agenda items traditionally offered in the State of the Union Speech. The same approach was used when the President delivered another message to Congress in April that introduced legislation specifically to halt the dumping of dredged spoil into the Great Lakes. Thus, it was inferred that the administration was keenly aware of the sources of support for making water pollution policies a high priority on the governmental agenda.

Early in 1970 President Nixon had to address a series of Great Lakes policy issues. First, the mercury situation became an international incident because the problem was discovered in the boundary waters of the Great Lakes. Second, the IJC submitted a request for the views of the United States government on establishing a joint board for coordinating international water pollution control programs. Third, the IJC submitted a Special Report to both governments that required urgent attention. The President's response was to establish the Great Lakes Task Force that would develop policy proposals for these issues and hold meetings with officials of Canada. Specifically, the President directed Russell Train, Council on Environmental Quality, to coordinate the key policy initiatives for Great Lakes issues. It was inferred that the

President, as a visible entrepreneur assessed the support for undertaking all of these Great Lakes policy initiatives on the governmental agenda.

In many of the key policy activities Russell Train was given a leadership role and was able to evaluate intergovernmental and intragovernmental support for policy proposals. These assignments included the President's Great Lakes Task Force, First and Second Ministerial Meetings, coordination of the U.S. response to the IJC Final Report, and oversight of the Joint Working Group that developed recommendations for an intergovernmental agreement. Moreover, Train's evaluation of support for policy proposals would be very suasive because it could include different perspectives gained from these roles.

5.2. How did visible entrepreneurs perceive the support by public constituencies for changing the government's agenda?

Table 5.2 H 2.2 Variable Specification.

Research Question	Measurement Type	Variable Description
H 2.2	Nominal	National Mood: trend in the attitudes and perceptions of the public about government policies or programs.

5.2.A. Research Data

By the beginning of 1970 the environment was the major political issue for the election year; the "Environmental Decade" was a popular phrase heard in Congress (Corrigan 1970b). To some observers, however, it was already clear that President Nixon "obviously regards the environment as a vote-getting subject" (Corrigan 1970b). For example, the President formed the Environmental

Quality Council and the Citizen's Advisory Committee on the Environment by Executive Order 11472 on May 29 1969 (CACEQ 1971, Appendix A, pp.47-49; Whitaker 1976, pg. 27). Also, after delivering the State of the Union address in January the President traveled to Indianapolis and Chicago to see environmental problems first-hand (Corrigan 1970b).

In addition, President Nixon's special Message on the Environment to Congress on February 10 appeared to be an attempt to take away "the cause of environmental quality from the Democrats" (Corrigan 1970b). The President declared that "these 37 measures represent actions ... that can move us dramatically forward toward what has become an urgent common goal of all Americans: the rescue of our nation's habitat as a place both habitable and hospitable to man" (Anonymous 1970). The election year competition between the Republicans and Democrats would reveal to voters which party was more dedicated to tackling pollution problems; thus, it was a major issue.

The next year the President refined and extended the administration's environmental priorities in a second message to Congress on February 8 1971 (Nixon 1972, pg.140). He stated that:

> "The course of events in 1970 has intensified awareness of and concern about environmental problems. The news of more widespread mercury pollution (and other crises) ... have dramatized with disturbing regularity the reality and extent of these problems. No part of the United States has been free from them, and all levels of government – federal, state, and local – have joined in the search for solutions. ... There can be no doubt about our growing national commitment to find solutions. ... We must have action to meet the needs of today if we would have the kind of environment the nation demands for tomorrow"
> (Nixon 1972, pp.172-173).

Similarly, Russell Train was an advocate for addressing environmental policy issues early in Nixon's administration. He chaired the President's Task

Force on Environmental Quality that was established just after the elections in November 1968 (Train 1970a). Early in 1969 the President implemented the task force recommendation to form the Cabinet Committee on the Environment.

In January 1970, while he was still Under Secretary of the Interior, Train described the establishment of the Council on Environmental Quality as "the most widely publicized and discussed story of 1970. It is obvious that public interest and expectations are intense" (Train 1970c).

National interest in Great Lakes issues was evident to Train from the beginning. At the White House press conference in January 1970 announcing that Train would be the Chairman of the Council on Environmental Quality, the very first question he was asked by reporters was: "How long will it take you to clean up Lake Erie?" (OWHPS 1971a, pg.825).

In addition, in the Great Lakes Task Force Final Report that was approved by the President on October 1 1970; Russell Train observed that "wide public concern has been generated recently for improving the quality of the Great Lakes" (Hillenbrand 1971d, pg.2). Train held the same view about the environment in public speeches. For example, in remarks delivered at a business conference in December Train stated that "the environment is not a fad. Indeed, public interest in the environment is rising at a faster rate than for any other issue" (Train 1970a).

As the negotiations of the GLWQA drew to a close Train declared that "In terms of public opinion polls, Congressional and public correspondence and

statements by Great Lakes' Governors; it is clear that cleaning up the Great Lakes is a priority political issue" (Train 1972).

In addition, the White House carefully studied a report prepared in May 1971 by the Research Division of the Republican National Committee (RNC) entitled "Public Opinion Concerning the Environment" that summarized all the known polls on the subject (Strachan 1971). A White House memorandum to Russell Train, John Ehrlichman and others concluded: "All polls agree that the environment has become one of the 'most important problems' we face. Only crime and the economy rate higher than the environment as a major domestic issue" (Whitaker 1971d).

The RNC research report also observed that the environment achieved a high political profile very rapidly (Whitaker 1971d). A Harris Poll in 1970 remarked that "the most dramatic shift in priorities has been those of environmental control." A Gallup Poll noted that whereas "in 1969 pollution was not mentioned; by May of 1970, pollution ranked second to crime ... (and) in February 1971 pollution ... was still listed third by U.S. leaders."

The White House responded by contracting with the Opinion Research Corporation to conduct another survey (Whitaker 1971a; Whitaker 1971b; Whitaker 1971c). The new poll found that "pollution/ecology" was among the "four leading domestic issues." It also found that while "media attention to the environment has dropped considerably in 1971 over 1970 ... the polls show the issue getting even stronger." The assessment of the survey's author was that

"the pollution/ecology issue is the strongest trend line aside from war and peace and the pocketbook issue that I've ever seen in 25 years in the business."

Several months later the President's Domestic Council under John Ehrlichman commissioned a Lou Harris poll (Whitaker 1971e). The results of the Harris Poll "clearly show that the environment is a very solid, strong 'middle America' issue even when the tough environment versus jobs trade off questions are asked in these polls."

5.2.B. Research Findings

The data indicate that President Nixon and Russell Train, as well others in the Executive Office, perceived the strong demands by the public for government action on environmental problems. The President's legislative proposals signaled the high priority placed on these issues. Likewise, Train's advocacy for Great Lakes and other environmental political initiatives demonstrated a keen awareness of the strong public support for vigorous government action. Thus, it was inferred that these two key visible entrepreneurs understood the national mood and adjusted their priorities accordingly.

5.3. How did visible entrepreneurs perceive the support by government institutions for changing the government's agenda?

Table 5.3 H 2.3 Variable Specification.

Research Question	Measurement Type	Variable Description
H 2.3	Nominal	Government Institutions: turnover of key personnel; governmental jurisdiction.

5.3.A. Research Data

The analysis below first follows the key events from 1968 to 1971 as the executive branch reorganized itself in response to the growing environmental policy demands. Then the analysis turns to the issues of governmental jurisdiction that impacted change in the government's agenda.

5.3.A.1. Government Reorganization

The 1968 national election placed Richard Nixon, a Republican, in the White House and left both chambers of Congress in the hands of the Democrats (Corrigan 1970b). One day after the election Nixon formed the Task Force on Environmental Quality to make recommendations on political initiatives for the environment (Train 1970a). The President approved one of the task force recommendations and by Executive Order 11472 established the Environmental Quality Council on May 29, 1969 (42 U.S.C. 4321 ; Corrigan 1970b). The Environmental Quality Council was renamed the Cabinet Committee on the Environment on March 5 1970 by Executive Order 11514 (42 U.S.C. 4321). This differentiated it from the newly formed Council on Environmental Quality and reflected that it was primarily a forum for the discussion of environmental issues among the President and Cabinet officers (OWRC 1970a).

At the end of 1969 Congress passed the National Environmental Policy Act (NEPA) that established the Council on Environmental Quality (CEQ) (Wagner 1970). President Nixon signed the legislation on January 1, 1970 and implemented it by Executive Order 11514 (42 U.S.C. 4321). In a statement on January 29 the President announced the nomination of Russell Train as the first

Chairman and described the CEQ as "parallel in responsibility to the Council of Economic Advisers" (Wagner 1970).

Two of the five basic functions of the Council relevant to this research were: to "develop new environmental programs and policies ... (by investigating) new problems for which little government policy now exists"; and, to "coordinate the wide array of Federal environmental programs" (OWHPS 1971b). For example, the Council coordinated and monitored programs for 24 federal departments and agencies; under NEPA it was also required to "formulate and recommend national policies to promote the improvement of the quality of the environment" (Train 1970e). Also, Train headed up the Great Lakes Task Force that prepared policy recommendations for the President on pollution control management problems; and, in early 1971, he coordinated the responses of government agencies to the IJC Final Report (Hillenbrand 1971a; Hillenbrand 1971d; Train 1971).

In addition, Train and the CEQ served crucial roles in addressing new political initiatives for President Nixon. These responsibilities included the President's Great Lakes Task Force, the May 25 meeting of the Task Force with Canadian officials followed by the First Ministerial Meeting in June, Toxic Substances Advisory Group, Mercury Pollution Conference, and organization of the U.S. delegation for the Joint Working Group. All of these roles and situations are discussed in other research questions.

During this same time period the President's Advisory Council on Executive Reorganization, also known as the Ash Council, was studying a

number of options for improving government operations, one of which concerned an agency for environmental matters (Whitaker 1976, pp.52-56). There were 44 federal programs spread throughout five separate federal departments responsible for natural resources and the environment. Rather than reorganizing the federal departments the President decided to pull together the various programs and form a new agency, the Environmental Protection Agency (EPA) (CEQ 1970, pp.24-27; Whitaker 1976, pp.52-56). He submitted Reorganization Plan No. 3 of 1970 to Congress on July 9, Congress concurred on October 2 and the new EPA was scheduled to begin operations on December 2 (42 U.S.C. 4321 ; Whitaker 1976, pp.52-56).

On November 6 the President nominated William D. Ruckelshaus as the first Administrator of EPA (OWHPS 1970). The White House held a press conference where Ruckelshaus explained that the primary responsibility of the new EPA was enforcement. Russell Train was also present and added that while EPA was mainly responsible for the administration and enforcement of anti-pollution programs, the CEQ's responsibilities included "the development of policy covering the entire range of environmental concerns for the President" (OWHPS 1970).

5.3.A.2. International Jurisdiction

The international issues were complicated when the GLWQA was being negotiated because control over water pollution programs resided largely in state, provincial, and local jurisdictions. The laws and regulations were a complex mixture and were not always consistent. The inconsistencies created

significant barriers to efforts intended to address Great Lakes problems (Bilder 1971, pg.478).

At least formally the Governments of Canada and the United States addressed Great Lakes pollution problems under the aegis of the Boundary Waters Treaty of 1909. The rules that guided their joint efforts include Article IX that authorizes the International Joint Commission (IJC) "to examine into and report upon the facts and circumstances of the particular questions and matters referred (to it), together with such conclusions and recommendations as may be appropriate" (IJC 1998, pg.11). References to the IJC are not automatic and may be refused by either government (Bilder 1971, pp.507-511). Another guiding rule is Article IV that specifically prohibits pollution: "It is further agreed that the ... boundary waters shall not be polluted on either side to the injury of health or property on the other" (IJC 1998, pg.8). The Department of State concluded that this "provision established no new customary international law rule at variance with existing principles" (Ganzt 1972).

These two articles provide the framework for pollution references to the IJC. For example, the Lower Lakes Reference stated:

> "... the Governments ... have been informed that the waters of Lake Erie, Lake Ontario, and the International Section of the St. Lawrence River are being polluted by sewage and industrial waste discharged into these waters. Having in mind the provision of Article IV of the Boundary Waters Treaty ... the two Governments have agreed upon a joint Reference of the matter to the International Joint Commission, pursuant to the provisions of Article IX of said Treaty" (IJC 1970a, pg.161).

Alternatively, the problems of transboundary pollution could be adjudicated before the International Court of Justice (Bilder 1971, pp.511-517). The only example where this has occurred was the *Trail Smelter Arbitration* that

was undertaken in 1935 to resolve claims by the United States that air pollution from a Canadian smelter operation had caused damage on the U.S. side (Rubin 1971). The legal precedence for water conflicts was even more limited; researchers noted that up until about 1960 many international river treaties that contained provisions concerning pollution were not based on any "general rules of international law" (Lester 1967, pp.89-123). Regardless of the precedential basis, adjudication would have been a legitimate option for either party because they were on record as having accepted the International Court's jurisdiction (Bilder 1971, pp.513-514).

However, neither Canada nor the United States has pressed an international claim over a water pollution problem under the provisions of Article IV (Bilder 1971, pp.511-517). One of the main reasons for this is illustrated by the extensive five-year investigation for the Lower Lakes Reference; it revealed how difficult it can be to determine cause and effect in such large water bodies. The IJC concluded that:

> "It is difficult to establish positively that the concentration of a particular pollutant on one side of the boundary in the lakes is due to a specific source on the other side. However, ... there is no doubt that contaminants originating in one country do move across the boundary and degrade the quality of the waters in the other country. It follows that these boundary waters are being seriously polluted on both sides of the boundary to the detriment of both countries" (IJC 1970a, pp.70-71).

Because the IJC found it impossible to apportion responsibility for transboundary pollution the governments chose to establish institutional arrangements and cooperative measures, such as international advisory boards to address these problems (Lester 1967, pp.104-105).

The Article IX approach provides advantages for both countries while minimizing the risks (Bilder 1971, pg.517). Under this article the conclusions and recommendations of the IJC "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" (IJC 1998, pg.11). This permits either party to maintain control over their foreign policy decisions because neither is bound by the IJC conclusions and recommendations. It also allows both parties to negotiate flexible programs that balance their interests.

This does not imply there is a vacuum in legal doctrine for these issues. As a practical matter, any doctrine that claims unlimited rights for one riparian state such that it that disregards the interests of other states, violates international legal principles and undermines international cooperation in the use of natural resources (Lester 1967, pp.96-97). Another widely recognized principle of international law is *sic utere tuo ut alienum non laedas* – "one should use his own property in such a manner as not to injure that of another" (ILA Black 1990, pg.1380; 1967, pg.793; Lester 1967, pg.96). The *Trial Smelter* case used this principle when the Tribunal concluded "no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another ... when the case is of serious consequence and the injury is established by clear and convincing evidence" (ILA 1967, pp.793-794; Lester 1967, pp.99-102).

Other sources of legal doctrine include the *Helsinki Rules* on the Uses of the Waters of International Rivers; the *Rules* generally apply to international

drainage basins, such as the Great Lakes. The Articles of the *Helsinki Rules* were adopted in 1966 by the International Law Association (ILA 1967, pp.779-830). Article II of the *Rules* defines an international drainage basin to be "a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus" (ILA 1967, pg.780).

Other extant *Rules* that apply to the negotiation of the GLWQA concern the equitable utilization of the waters (Chapter 2, Articles IV-V) and pollution (Chapter 3, Articles IX-XI) (ILA 1967, pp.782-787 and 791-802, respectively). Article IV reflects the fundamental principle of international law concerning "equitable utilization" that "every basin state ... has the right to the reasonable use of the waters of the drainage basin" (ILA 1967, Article IV, pg.782).

Most especially, Article XI provides that:

> "In a case falling under the rule stated in paragraph 1(b) of Article X, if a State fails to take reasonable measures, it shall be required promptly to enter into negotiations with the injured State with a view toward reaching a settlement equitable under the circumstances" (ILA 1967, pg.798).

And paragraph 1(b) of Article X states:

> "1. Consistent with the principle of equitable utilization of the waters of an international drainage basin, a State ... (b) should take all reasonable measures to abate existing water pollution in an international drainage basin to such an extent that no substantial damage is caused in the territory of a co-basin State" (ILA 1967, pg.793).

The intent of Article X relates to any "use that causes pollution to the extent of depriving a co-basin State of an equitable share ... (and thereby) conflicts with the community of interests of all basin States in obtaining maximum benefit from the common resource" (ILA 1967, pg.795). In effect this defines "substantial

damage", such as the effects of pollution that "materially interferes with or prevents a reasonable use of the water" (ILA 1967, pg.796).

Similar legal protections are available, at least in principle, under the provisions of the Boundary Waters Treaty. Specifically, Articles IV and VIII determine the apportionment of the liability for pollution control depending on how they are interpreted. Article IV that prohibits pollution by either party was discussed above. Article VIII provides that the "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" (IJC 1998, pg.10). From Canada's perspective the scope of this legal concept was especially important because a vital use of Great Lakes waters for them was its ability to assimilate wastes discharged by municipalities and industries (Bilder 1971, pp.528-531).

On May 17 1970, just days before the May 25 meeting between the President's Great Lakes Task Force and Canadian officials, Joseph J. Greene, Canada's Minister for Energy, Mines and Resources, delivered a speech in Buffalo, New York. While Greene acknowledged Canada's contribution to Great Lakes pollution he emphasized that the U.S. contributed most of it. Minister Greene said this was a concern to Canada because:

> "... it is evident that in many Lower Lakes and river areas, pollution from the more heavily populated and industrialized United States shore is causing damage to Canadian waters. Thus, in these areas, ... Canada's share of these lakes and rivers is being used to assimilate waste from municipalities and industries on the other side. In effect, the assimilative capacity of a considerable part of Canadian waters is being used to serve the needs of the United States. As you know, Canada and the United States possess roughly equal shares of these Lower Lakes and connecting rivers, under historic treaty arrangements. In these days of great anxiety about environmental problems, it may be expected that Canadians will become increasingly sensitive about transboundary pollution which causes damage to Canadian waters" (Schmidt 1970b; Schmidt 1970c).

A month later government officials held the First Ministerial Meeting on Great Lakes Pollution to discuss the IJC Special Report and other concerns, such as mercury contamination in Great Lakes fish (Hillenbrand 1971f). Russell Train, who led the U.S. delegation, reported to President Nixon on July 2 that:

> "... the Canadians were especially interested in obtaining an agreement that the U.S. and Canada would equally divide the assimilative capacity of the Great Lakes in terms of the amounts of pollutants that could be discharged into them by either country. Their position is that such a division is required under the Boundary Waters Treaty of 1909 between the U.S. and Canada, an interpretation the State Department disputes. Because of the predominance of industry and population on the U.S. side, the practical effect of such a division would restrict U.S. growth or require extremely high levels of treatment ...." (Hillenbrand 1970b).

Train continued his report to the President by exploring the policy options:

> "... the policy of both nations should be on positive pollution abatement rather than on dividing up pollution. ... We can expect a period of difficult negotiations with the Canadians as long as their current position continues. Our strategy should be to shift the focus of the negotiations from dividing up the Great Lakes' assimilative capacity to working toward agreement on an institutional arrangement to monitor implementation of joint U.S.-Canadian water quality programs" (Hillenbrand 1970b).

Later that year Minister J. J. Greene delivered another speech that claimed "the Boundary Waters Treaty gives the international sections of the Great Lakes equally to the U.S. and Canada, including the water's ability to assimilate waste" (Schmidt 1970a). Greene argued the U.S. was taking "to itself 80 percent of that property of the Great Lakes ... (with the result that) Lake Erie may die and other Great Lakes are threatened, and our ability in the future to further settle and industrialize our shoreline is threatened" (Schmidt 1970a).

Canada argued that it should be able to continue discharging wastes until the levels of pollutants reach those of U.S. discharges (Bilder 1971, pp.528-531). Though Canada recognized some obligation to reduce waste discharges, the

practical effect of Canada's position would be to require the U.S. to carry essentially the entire burden for waste reduction. For its part the U.S. held that the "equal and similar rights" concept in Article VIII was not relevant to pollution but pertained to designated uses such as flows and diversions for hydropower projects (Bilder 1971, pp.528-531). Further, the United States interpreted Article IV as providing that neither country had a right to pollute the boundary waters; thus, it was pointless to discuss the division of pollution between them. Both points of view were included in the preamble to the final GLWQA juxtaposed between one of the most fundamental principles of international relations:

> "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 ...
> Reaffirming in a spirit of friendship and cooperation the rights and obligations of both countries under the Boundary Waters Treaty ... and in particular their obligation not to pollute boundary waters;
> "Recognizing the rights of each country in the use of its Great Lakes waters;" (State 1973, pg.302).

5.3.A.3. U.S. Federal Jurisdiction

Until 1972 an important source of U.S. federal authority over pollution in the Great Lakes was the treaty power. Under the treaty power of Article VI "all Treaties made ... under the Authority of the United States shall be the supreme Law of the Land; thus, the nation's interests would preempt those of the Great Lakes states (Sanitary District of Chicago v. U.S. 266 U.S. 405 & 425-426 (1925) ; U.S. Constitution. Article VI). In the particular instance of the Great Lakes, Article IV of the Boundary Waters Treaty of 1909 affirmed the nation's interests in pollution problems; thus, pollution was a legitimate concern of U.S. foreign policy in the region (IJC Bilder 1971, pg.477; 1998, pg.8).

An additional source of federal authority arose from earlier references that the governments directed to the International Joint Commission. For example, in 1946 the governments requested the IJC investigate pollution problems in the St. Clair River, Lake St. Clair, the Detroit River, and the St. Marys River; hereafter referred to as the Connecting Channels Reference (IJC 1951). The Reference was extended to include the Niagara River in 1948. The IJC concluded that the waters were "being polluted on either side of the boundary to the injury of health and property on the other side." It recommended that the governments adopt "Objectives for Boundary Waters Quality Control ... as the criteria to be met in maintaining boundary waters in satisfactory condition, as contemplated in ... Article IV of the Boundary Waters Treaty" (IJC 1951, pp.20-21). The IB Final Report and the IJC Final Report provided the most contemporary and relevant examples for the GLWQA: "The Water Quality Objectives ... be recognized as the minimal basis for the establishment of standards for these waters" (IJC: International Joint Commission 1970a, pg.149).

As regards the GLWQA, there were limits imposed on the U.S. negotiators because the Nixon administration decided to negotiate an executive form of agreement (Hillenbrand 1971i). Thus, they had to watch carefully that the commitments in the proposed agreement were consistent with government programs authorized and already in force and Administration positions on water quality legislation. For example, the draft agreement set forth requirements for "the substantial elimination of discharges ... of mercury and other toxic heavy metals, and persistent organic contaminants" (Rice 1972). The existing

programs that allowed the U.S. to fulfill these commitments were the Refuse Act Permit Program and enforcement conferences under the Federal Water Pollution Control Act of 1965 (Pub. L. 89-234) (33 U.S.C. 407 ; 33 U.S.C. 1160 ; Rice 1972; Stein 1971; United States 1970c). Further details on the limits to federal authority for negotiating an executive agreement are discussed below.

Under Article II of the U.S. Constitution the President is authorized to conduct foreign relations, such as concluding agreements with other nations (U.S. Constitution. Article II). As discussed earlier in Question H 2.1, President Nixon appeared to approve the recommendation by the Department of State that the government conclude a "formal executive agreement" with Canada rather than a treaty (Burns 1970c, pg.5). The U.S. had three options with this form of agreement; they could negotiate an executive agreement that was previously authorized either by the Congress or a Senate-approved treaty, or that invoked the independent powers granted to the President under the Constitution (Senate 1975, pp.248-249; U.S. Constitution. Article II , Annotations - International Agreements Without Senate Approval).

The Department of State addressed these and other political and legal issues in guidelines that were established in 1953, known as the Department Circular 175 Procedure (Senate 1975, pp.248-252 and 279-301). The Circular 175 Procedure provided "specific criteria" that had been developed within the Department for determining when a treaty form should be used rather than an executive form of agreement.

Specifically, the treaty form would be used if: the subject matter had traditionally been dealt with by treaty; it was not "wholly within" the powers of Congress or the President; the agreement was to have the force of law and the action was not within the President's independent constitutional authority; the agreement involved commitments for the nation as a whole; or, it was decided that the agreement should be given "utmost formality." The Circular 175 Procedure guided the GLWQA negotiating team in following relevant U.S. law so that none of these criteria would apply and a treaty, along with Senate approval would not be necessary.

Another key function of the Circular 175 Procedure was to provide a coherent U.S. perspective within the negotiation process (Senate 1975, pp.279-301). For example, the procedure recommended that a draft of the international agreement be included with the request for authority to negotiate. The draft agreement provided a firm basis for achieving consensus among the negotiating team and maintaining some control of the negotiation process. The strategic importance of the draft, of course, was to direct discussions to "your text (which) is the functional equivalent of setting the agenda" (Erickson 1995, pg.118 and Note 287).

Over the years the President accrued considerable power to conclude agreements without congressional authorization, and this became widely accepted (Hyman 1983, pg.806). The decision to negotiate executive agreements was often made in the absence of "clear, binding and agreed upon criteria" and that gave the President considerable leeway for executive discretion

(Hyman 1983, pg.834). Even though the Circular 175 Procedure tried to address these needs the precedents had already been set by the mid 1950s. For example, from the day President Nixon took office through May 1, 1972 nearly 90 percent of international agreements were of the executive form (Senate 1975, pg.249). Other Presidents frequently used the executive form for international agreements; the overall average from 1945-1972 was over 90 percent (Hyman 1983, Note 47, pg.816).

Before the Second Ministerial Meeting in June 1971 the Department of State circulated a Memorandum of Law to the delegates who would attend; the memorandum presented the legal arguments for negotiating the GLWQA as an executive agreement (see APPENDIX D) (Hillenbrand 1971i). Under the Circular 175 Procedure (see discussion below) other documents were included that supported the argument and other aspects of the negotiation process (Hillenbrand 1971b). The memorandum observed that under Section 102 of the National Environmental Policy Act (NEPA) federal agencies should "lend appropriate support to initiatives, resolutions and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's environment" (42 U.S.C. 4332 (102)(2)(e)). Also, the proposed agreement concerned the pollution of boundary waters that are covered under Article IV of the Boundary Waters Treaty of 1909. Thus, the Memorandum concluded "the provisions of NEPA ... (and) the Boundary Waters Treaty would appear to sanction the making of the agreement ... an Executive Agreement with

Canada for the recognition of common water quality objectives" (Hillenbrand 1971i, pg.1-2).

A year later the Department of State prepared a Memorandum of Law for another Circular 175 package that requested the authority to conclude the executive agreement with Canada (see APPENDIX G) (Burns 1972c, pp.1-3). As to the question of whether the President had the authority to conclude this agreement without congressional authorization or ratification, the memorandum repeated the earlier citations of Section 102 of NEPA and Article IV of the Boundary Waters Treaty of 1909. However, this time the argument appeared to focus on the concept that the President's power derived from the Treaty: "Since the Agreement is basically designed to implement Article IV of the Boundary Waters Treaty, the Executive Agreement form would appear more appropriate than treaty form" (Burns 1972c, pg.3). This time there was no mention of NEPA in the memorandum's concluding remarks.

This reasoning also seemed to provide the basis for White House public statements at the signing of the GLWQA in Ottawa on April 15, 1972. The Question & Answer fact sheet prepared for the media gave three reasons for negotiating the GLWQA as an executive agreement (Eliot 1972b, Q & A, pg.2). First, the Boundary Waters Treaty of 1909 already contained a basic agreement not to pollute the boundary waters; the GLWQA "prescribes effective measures for implementing that commitment." Second, the water quality objectives portion of the GLWQA were consistent with programs already legislated by Congress. Wherever the Treaty authorized new institutional items in the agreement, such as

programs and measures that required funds to implement them then these must be approved and appropriated by Congress, the same as a treaty. Third, both governments wanted to implement these provisions as soon as possible, and also to be able to easily amend them in the future.

It has already been noted that since the Agreement was negotiated as an executive agreement the President could not commit the United States to actions that were not already authorized by U.S. laws (Burns 1972c, pg.3). Every provision of the proposed agreement had to be analyzed to determine the authority of the Executive Branch to act. The analysis below discusses the main points in law; the "institutional rules" that controlled negotiations of the various provisions related to toxic substances; Table 5.4 summarizes these.

The water quality objectives, such as the "five freedoms" in the General Objectives were not legally binding, but "merely precatory" and so they were not an enforceable commitment (Burns 1972c, pg.3; Eliot 1972a). The water quality standards were enforceable under the Federal Water Pollution Control Act of 1965 (FWPCA) so the United States could ensure compliance with Article IV (Burns 1972c, pg.6). Similarly, the program commitments in Article V were supported by both the FWPCA and the Rivers and Harbors Act of 1899 (Burns 1972c, pg.7-15). Finally, under the terms of Article X the governments agreed to three commitments which were important but nonetheless precatory: seek the funds required to implement the agreement; seek to enact additional legislation that may be necessary to implement the programs and measures of Article V;

Table 5.4 Federal Authorities for Toxic Substances Provisions.

Provision in the Agreement		U.S. Federal Authority for the Provision
Proposed Draft of 04/27/71	Final Draft of 03/17/72	
Article II. Common Water Quality Objectives	Article II. General Water Quality Objectives Article III. Specific Water Quality Objectives	U.S. Recognizes Objectives Under Previous IJC References (e.g., Connecting Channels Reference)
Article III. Compatible Water Quality Standards	Article IV. Water Quality Standards and Other Regulatory Requirements	Federal Water Pollution Control Act: Sec. 10 (c)(2). (33 U.S.C. 1160(c)(2)) Federal Water Quality Standards; or, Seek Additional Legislation
Article IV. Programs		Federal Water Pollution Control Act: Sec. 10 (d). (33 U.S.C. 1160(d)) Enforcement Conferences; or, Implementation by Constitutional Processes (e.g., additional legislation)
	Article V. Programs for Pollution Control of Municipal and Industrial Sources; Hazardous Polluting Substances Article X. Implementation	Federal Water Pollution Control Act: Sec. 3. (33 U.S.C. 1153) Comprehensive Programs; Sec. 8. (33 U.S.C. 1158) Construction Grants; Sec.10. (33 U.S.C. 1160(c-d)) Federal Water Quality Standards and Enforcement Conferences; Sec. 12. (33 U.S.C. 1162) Hazardous Substances Control Rivers and Harbors Act; Sec. 13. (33 U.S.C. 407) Corps of Engineers Permit Program Implementation by Constitutional Processes (e.g., additional legislation)

and, seek the cooperation of state and provincial governments (Burns 1972c, pg.17; Eliot 1972a).

5.3.B. Research Findings

A basic assumption in the analysis for this question was that the visible entrepreneurs, especially President Nixon and Russell Train were aware of and understood the major controlling institutions; e.g., laws, rules, circulars, etc.

5.3.B.1. Government Reorganization

President Nixon actively pursued the opportunities for changing the government's political agenda as environmental concerns rapidly emerged in 1969-1970. This was a unique opportunity that combined appointments of new officials with a major reorganization of government.

One opportunity was the Cabinet Committee on the Environment that the President created so he could meet with the Cabinet to discuss environmental issues. Another was the Council on Environmental Quality established under NEPA; President Nixon appointed Russell Train, CEQ Chairman and he fulfilled many key roles from 1970 through the final negotiations of the GLWQA. Also, EPA was created from numerous and previous administratively separated programs to address the nation's environmental problems from one agenda, at least in principle.

Given the cumulative record of major administrative and policy changes for federal environmental policies it was concluded that President Nixon perceived a broad base of support for his political initiatives.

5.3.B.2. International Jurisdiction

Substantial international law and doctrine provided support for undertaking the negotiation and for apportioning the burden of remedial programs. The Great Lakes had clearly become a situation in dispute with liability on both sides. The *Helsinki Rules* and the doctrine of *sic utere tuo,* among others clarified the obligations of the parties and suggested approaches to resolve their problems.

The Boundary Waters Treaty more directly guided the development of key concepts in the agreement, such as programs that prohibit pollution by municipal and industrial sources. In fact, much of the GLWQA appeared to be based upon Article IV, the only provision in the Treaty that specifically prohibits pollution. However, a potential weakness in jurisdiction appeared when Canada raised the question of "equal and similar rights in the use of the waters" under Article VIII; the question remained unanswered through 1972.

On the basis of available international law as well as the Boundary Waters Treaty it was inferred that President Nixon perceived a broad base of support for the negotiation of the GLWQA.

5.3.B.3. U.S. Federal Jurisdiction

Article IV of the Boundary Water Treaty and Article VI of the U.S. Constitution established U.S. national interests in Great Lakes pollution, vis-à-vis the States and, equally important provided the authority for President Nixon to conclude the GLWQA without Senate approval. The importance of these to changing the government's agenda cannot be overstated.

The water quality objectives recommended by the IJC in earlier pollution references supported those developed for the GLWQA. Because the objectives were recognized as the minimal basis for the governments to determine their legally enforceable standards it was inferred that they became quasi-institutional rules.

An extremely important process support for the GLWQA was the Circular 175 Procedure. The Circular 175 required a Memorandum of Law to provide guidelines for the form of agreement that the United States could negotiate and requisite documentation to identify the legal boundaries for the provisions to be negotiated. Equally important, the memorandum presented the supporting laws and legal argumentation for determining the basis for the authority to proceed.

Thus, it was inferred that President Nixon and Russell Train perceived the support of the substantial federal law and administrative procedures that were available and used these to support the administration's changes in the government's agenda.

5.4. How did visible entrepreneurs perceive the support by organized political actors for changing the government's agenda?

Table 5.5 H 2.4 Variable Specification.

Research Question	Measurement Type	Variable Description
H 2.4	Nominal	Organized Political Actors: consensus or conflict about changing the agenda.

5.4.A. Research Data

The Organized Political Actors (OPAs) considered for this analysis fell into two groups. First, there were those who, based on the evidence, had a general effect on federal water pollution policies or related issues, such as hazardous substances. These OPAs did not directly create consensus or conflict with the water pollution issues that were being negotiated in the GLWQA. Rather, they were important primarily because the policies they focused on affected the general perception of consensus or conflict on federal water pollution law and the issues directly related to the law. This was a key factor because the GLWQA was being negotiated as an executive agreement and that meant it had to conform to the pertinent federal laws; consensus or conflict surrounding these federal laws obviously would have implications for the GLWQA. The most notable case (discussed extensively below) was Congress and amendments to the Federal Water Pollution Control Act of 1965 that occurred during 1971-1972 while Canada and the United States were developing the Great Lakes agreement.

Second, there were those OPAs who created consensus or conflict with the water pollution issues that were being negotiated in the GLWQA. This group had an obviously direct effect on the issues being negotiated in the agreement. For example, the public hearings held by the IJC in late 1969 and early 1970 involved a large number of OPAs (see below).

In either case, however, the OPAs did not directly commit their resources to developing and concluding the GLWQA. Thus, the OPAs could influence the

policy process through direct interactions with the visible entrepreneurs, such as those who participated in the IJC public hearings or in indirect ways, such as members of Congress who drafted major revisions to federal water law. In both cases, the visible entrepreneurs in the politics stream maintained an awareness of the consensus and conflict among the OPAs on issues that could affect the GLWQA.

5.4.A.1. General

One year after taking office President Nixon chose as his "first official act of the decade" to sign the National Environmental Policy Act (Pub. L. 91-190) into law on January 1, 1970; the new law revealed a general consensus that was emerging in the United States for changing the environmental priorities on the governmental agenda (CEQ 1970, pg.viii; United States 1969). On February 10 the President sent a Message on the Environment to Congress that "presented a 37-point action program, with special emphasis on strengthening our fight against water and air pollution" (CEQ 1970, pg.ix). In fact, the President made his proposed water pollution legislation the focal point of the message to Congress (Whitaker 1976, pg.79).

Later in August the Council on Environmental Quality reflected the administration's water quality priorities in 18 policy recommendations to improve water pollution control in the First Annual Report to Congress (CEQ 1970, pp.55-59). For example, several recommendations recognized that the state water quality standards have only "general criteria on toxic materials"; this presented problems because "specific limits on such products as pesticides have not been

spelled out. Nor have definitive measures for implementing standards been detailed" (CEQ 1970, pg.45).

The growing consensus was very apparent to the President throughout 1970. On February 8, 1971 he observed in the Message on the Environment to Congress that:

> "The course of events in 1970 has intensified awareness of and concern about environmental problems. The news of more widespread mercury pollution ... (has) dramatized with disturbing regularity the reality and extent of these problems. No part of the United States has been free from them, and all levels of government ... have joined in the search for solutions. ... There can be no doubt about our growing national commitment to find solutions. ... We must have action to meet the needs of today if we would have the kind of environment the nation demands for tomorrow" (CEQ 1971, pg.4).

In 1972 President Nixon shared his refined perception of an "environmental awakening" that had become more discernible during 1970 and 1971. In each of his Messages on the Environment that the President shared with Congress, he expressed sentiments such as this one on February 8, 1972: "The new cast of the public mind (that) had to be translated into new legislation. ... Broadly-based problems – such as air pollution, water pollution and pesticide hazards – had to be dealt with first" (CEQ 1972, pg.3). The President perceived that the American people believed that:

> "man commands (not only) his own destiny. What has dawned dramatically upon us in recent years ... is a new recognition that ... man commands as well the very destiny of this planet ... and the destiny of all life upon it. ... This is the environmental awakening" (CEQ 1972, pg.3).

The response of government to the environmental problems of pesticide and toxic substance contamination discussed below signaled further changes for the governmental agenda.

5.4.A.2. Pesticides

Consensus on specific issues on the environmental agenda became apparent soon after President Nixon took office in January 1969; one issue concerned the potential environmental contamination problems of pesticides. The basis for consensus was laid several years earlier when the U.S. Department of Agriculture requested that the National Research Council (NRC) conduct an investigation on the "significance of (pesticide) residues ... on the safety of our food supply and on the safety of man and our environment" (NRC 1969). The NRC released the report in May 1969 and concluded that:

> "... little is known concerning amounts of persistent pesticides and of their degradation products that are stored in the biosphere. ... Present methods of regulating the marketing and use of persistent pesticides ... do not appear to insure the prevention of environmental contamination. ... Contamination of the biosphere resulting from the use of persistent pesticides is an international problem" (NRC 1969, pg. 28-29).

In addition, the Secretary of Health, Education and Welfare established a Commission on Pesticides and Their Relationship to Environmental Health in April 1969 to evaluate the risks and benefits of using pesticides (HEW 1969). The Commission issued a report in December 1969. A principal conclusion was that:

> "the field of pesticide toxicology exemplifies the absurdity of a situation in which 200 million Americans are undergoing lifelong exposure, yet our knowledge of what is happening to them is at best fragmentary and for the most part indirect and inferential" (HEW 1969, pg.37).

Also, the report recommended 14 government actions that included: elimination of all uses of the persistent pesticides DDT and DDD with exceptions limited to those "essential to ... human health or welfare"; restriction of certain persistent pesticides, including aldrin, dieldrin, endrin, heptachlor, chlordane,

benzene hexachloride, lindane and compounds containing arsenic, lead or mercury to "specific essential uses which create no known hazard to human health or to the quality of the environment"; and, "increase participation in international cooperative efforts to promote safe and effective usage of pesticides" (HEW 1969, pp.7-19).

At the same time, attention turned to potential pesticide contamination in the Great Lakes. A situation developed that involved contamination of a new and important commercial fishery by the persistent pesticide DDT (Senate 1970, pg.1-2). Events unfolded dramatically when the U.S. Food and Drug Administration seized commercially caught Coho salmon from Lake Michigan that contained unacceptably high levels of DDT (Senate 1970, pp.25-26). Congress convened a series of hearings in May and September 1969 on the "Effects of Pesticides on Sports and Commercial Fisheries" because DDT threatened the commercial fishery in the short term; it also posed a long term threat because DDT appeared to interfere with the normal development of small fish fry (Senate 1969a; Senate 1969b).

The government took additional actions on the use of pesticides as reported in a November 1969 White House press release (OWHPS 1969). The Secretary of Agriculture would cancel all of the registered uses of DDT by December 31 1970; beginning in March 1970 other persistent pesticides would have the same criteria applied as for DDT. Also, the Department of State would notify other countries of U.S. actions and the basis for these.

In a separate announcement Secretary Hickel, Department of the Interior, issued a new policy in June 1970 that banned DDT, mercury-containing compounds and other persistent pesticides from use on any lands managed by the Department or in any of their programs. The ban affected approximately 70 percent of all federal lands (Interior 1970).

In addition, the Environmental Protection Agency cancelled the registered uses of many pesticides such as DDT, Mirex, aldrin, dieldrin, and mercury-based pesticides (CEQ 1972). In his Message on the Environment in February 1971 President Nixon informed Congress that he would submit legislation, the Federal Environmental Pesticide Control Act of 1971, to replace the existing law (CEQ 1971a, pp.15-16 and 284-308). Congress included the President's proposals in the new bill that was passed in October 1972 (United States 1972a, pg.4001).

5.4.A.3. Toxic Substances

Toxic substances also emerged as a concern for the nation's environmental agenda. In early 1970 Russell Train, Chairman of the Council on Environmental Quality, headed an advisory group that investigated the environmental issues of toxic substances and "the great uncertainty about a number of key aspects of the whole area of toxic substances" (CEQ 1971b, pg.iii). The advisory group's report, "Toxic Substances," that was issued in December 1970 concluded that:

> "recent incidents of mercury and other contamination of the environment and the diversity and quantities of toxic and potentially toxic substances entering the environment indicate the extent of this growing national problem" (CEQ 1971b, pg.vii).

The report was the basis for President Nixon's legislation, Toxic Substances Control Act of 1971; the mercury situation in the Great Lakes and elsewhere was used to pressure Congress into action on the legislation (Corrigan 1970a).

In addition, during the early part of 1970 the mercury contamination situation was unfolding on the Great Lakes (see Chapter 2) (Turney 1970). Congress scheduled hearings in May on the "Effects of Mercury on Man and the Environment"; they continued into the summer (Senate 1970). The hearings revealed that: there was a widespread mercury contamination problem in the nation's waterways, not just the Great Lakes; government officials were not looking for a mercury pollution problem and federal agencies had not worked with the states to adopt specific water criteria for waterborne mercury; and, the government did not have the authority to quickly respond to these problems (Senate Corrigan 1970a; 1970). President Nixon issued Executive Order No. 11574 on December 23, 1970 that halted the discharge of municipal and industrial wastes containing mercury (United States 1970c). The order resurrected the permit provisions of the Refuse Act, Section 13 of the Rivers and Harbors Act of 1899 (Senate 33 U.S.C. 407 ; 1970, pp.435-457).

In August 1970, the CEQ observed in the First Annual Report to Congress that effects of toxic substances released into the environment were "not fully understood (and thus) constitute a mounting concern ... mercury pollution has become a serious national problem" (CEQ 1970, pg.52). In particular, trace amounts of toxic substances in water supplies could impact human health and

"health authorities (showed) increased concern over their potential effects" (CEQ 1970, pg.40).

5.4.A.4. Water Pollution

5.4.A.4.a Water Quality Act of 1970

Congress introduced legislation early in 1969 to amend the Federal Water Pollution Control Act. The House bill, H.R. 4148, was passed in both chambers the end of March 1970 (United States 1970d). President Nixon signed the Water Quality Improvement Act (Pub. L. 91-224) into law on April 3, 1970 (United States 1970e). The Act affected two policy issues relevant to this analysis.

First, Section 12(g) of the Act moved hazardous substances pollution control onto the governmental agenda. The President was to develop and implement regulations that identify hazardous substances and establish methods for their cleanup in the event of a spill (United States 1970e, pg.106-108).

The President was also to submit a report to Congress with recommendations for additional legislation to address spills of hazardous substances. The law required that the report include consultations with the public and private groups who would be affected. The President issued Executive Order No. 11548 on July 20, 1970 that directed the Department of Transportation to prepare the report in consultation with the Department of the Interior (United States 1970b). The Department of Transportation held a public symposium in New Orleans that was attended by nearly 400 representatives of oil, chemical, transport and other industries, conservationists, academia, and various government entities (USGS 1971).

President Nixon issued the report in a Message to Congress, "Control of Hazardous Polluting Substances," with recommendations that represented "the views of the panels and participants at the symposium" (USGS 1971, Letter of Transmittal). A major finding in the report was that:

> "Consensus gained from consultation with the public and private interests was that spills and deliberate discharges of hazardous substances into our waters are a present problem of considerable magnitude and furthermore pose the threat of catastrophic consequences. The consensus favored legislative and executive action now rather than awaiting ... disaster or the larger term impact of restricted water usage" (USGS 1971, pg.I-3).

After reviewing state and federal legislation that concerned hazardous substances the report also concluded that:

> "... we cannot yet state that the policy of the United States is that there may be no discharge of contaminants into the navigable waters because our economy is still geared to free use of our water as the universal solvent and to our waterway system as a principal waste disposal mechanism. It is now time for us to state that it is the national policy that there shall be no discharges except those conforming to established water quality standards, and that accidental spills and deliberate nonconforming discharges shall no longer be tolerated" (USGS 1971, pg.I-2).

Second, Section 15 of the Water Quality Improvement Act, "Pollution Control in Great Lakes," moved abatement and remediation onto the governmental agenda (33 U.S.C. 1165 ; United States 1970e, pp.113-114). Congress appropriated 20 million dollars for projects that demonstrated the feasibility of removing or preventing "any polluting matter from entering into the Great Lakes."

5.4.A.4.b Great Lakes Water Quality Agreement

The visible entrepreneurs in the development and negotiation of the GLWQA were restricted to U.S. officials; those in leadership roles were primarily from the Council on Environmental Quality and Department of State. A notable

exception occurred when the IJC, under the Rules of Procedure conducted public hearings in December 1969, and January and February 1970, in New York, Ohio, Ontario and Pennsylvania (IJC 1970a, pp.28-33; IJC 1998, pp.17-29). Representatives of federal, state and municipal governments, elected officials, industry, academia, and private citizens gave testimony and several hundred more submitted written comments (IJC 1970a, pp.28-33, 169-174).

The consensus from these public hearings provided the basis for the IJC Special Report submitted to the governments in April 1970 (IJC 1970a, pp.13-14). The Special Report was a principal topic of discussion at key policy meetings of high level government officials that included: May 25 1970, Ottawa – Meeting with Canadians on Joint Task Force Options (MacDonald 1970, pg.3; Rogers 1970a; Schmidt 1970d); June 23 1970, Ottawa - First Ministerial Meeting on Great Lakes Pollution (State Hillenbrand 1970a, Memorandum for the President, pg.2; Hillenbrand 1971f; Rogers 1970a; Schmidt 1970e; 1970b); and, September 9-10 1970, Toronto – Great Lakes Environmental Conference (OWRC 1970a; OWRC 1970b).

By contrast, a year later as the GLWQA was being negotiated a prominent group of OPAs tried to participate in the politics stream. Representatives of industry approached the Department of State indicating a "strong desire for the Department to hold public meetings on the agreement" (Johnson 1971d). In fact, George Springsteen, Head of the U.S. Negotiating Team, specifically turned down this kind of request from the Synthetic Organic Chemical Manufacturers Association (SOCMA) (Bissinger 1971). He pointed out to SOCMA that the IJC

had already held extensive public hearings in late 1969 and early 1970, and the United States has "an international obligation to assure that pollution of this character ceases at the earliest possible moment" (Springsteen 1971a). The Department of State, as visible entrepreneurs appeared to perceive broad support for the government's agenda on the negotiations and risked a situation of conflict with industry, a prominent group of OPAs.

5.4.A.4.c. Federal Water Pollution Control Act of 1972

There were conceptual developments related to passage of the Federal Water Pollution Control Act of 1972 that included the visible entrepreneurs who were involved in developing and negotiating the Great Lakes Water Quality Agreement. The legal basis for the GLWQA at the time it was being negotiated was the 1965 Act but with the imminent passage of the 1972 Act the U.S. negotiating team including the President had to be aware of the implications of any changes in the law. The analysis below explores the key OPAs and important events that the visible entrepreneurs were involved in; further background is provided in Chapter 2.

The water pollution problems experienced in 1970, such as the mercury contamination situation that emerged dramatically in the Great Lakes provided a significant impetus to implement a federal pollution permit program (Senate 1970; Turney 1970). In fact, the Refuse Act was the basis for federal law suits brought in 1970 to stop industrial discharges of mercury into navigable waters (Stein 1971). President Nixon issued Executive Order No. 11574 in December 1970 that established such a program under the Refuse Act which is Section 13

of the Rivers and Harbors Act of 1899 (33 U.S.C. 407 ; Senate 1970, pp.435-457; United States 1970c).

The authority for the permit program would extend to "all foreign substances and pollutants apart from those 'flowing from streets and sewers and passing therefrom in a liquid state' into a watercourse" (United States v. Standard Oil Co. 384 U.S. 224-238 (1966)). The permit program requires that a permit be obtained for all discharges of refuse into navigable waters; any violation of the conditions would be unlawful and, in that sense, the prohibition is absolute (Stein 1971). This kind of permit controls the material as it is discharged into the navigable waters and is an entirely different regulatory mechanism from the water quality standards under the Water Quality Act of 1965 that control the condition of the navigable waters after the discharge has occurred. Enforcement under the permit is straightforward while the water quality standards approach requires proof that the discharge "endangers the health or welfare of any persons" before abatement can be enforced (33 U.S.C. 1160 (a)).

During the hearings by the Subcommittee on Air and Water Pollution in the spring of 1970 Senator Muskie began a search for a common basis on which standards could be set for all the nation's waters (Barfield 1972a). The administration submitted legislative proposals that called for establishing water quality goals for designated uses of waterways on a regional basis (Barfield 1972a). But the Senate committee under Muskie's leadership was determined to establish national goals.

The White House had little contact with the subcommittee before the first draft bill was published on August 6 (Barfield 1972a). They became alarmed at the high level of appropriations in the bill and the "swimmable/fishable" national standard preferring a regional approach for designating the uses of waterways and water quality. Russell Train and others quickly got involved in planning legislative strategy.

Soon thereafter the Senate Committee on Public Works met in executive session to consider the subcommittee's bill (Barfield 1972a). Consensus developed for the idea that rather than controlling the water quality of a waterbody, the swimmable/fishable standard, the better approach would be to control and eventually eliminate the pollutant source.

Muskie underwent a conversion to the "no discharge" concept when he became convinced that "the use of the so-called natural assimilative capacity of the receiving water is little more than a use of the nation's rivers as part of the waste-treatment process itself" (Barfield 1972a). Even the committee's Republican membership supported the idea. Before the committee reported S. 2770 to the full Senate they moved the "no discharge" provision from the operative section in Title III to the preamble in Title I thus making it a goal. On November 2 when the Senate debated the bill Muskie stated that "achieving 'no discharge' of pollutants is a policy objective. It is not locked in concrete. It is not enforceable" (Barfield 1972a).

Irregardless of which approach was taken, the permit program or "no discharge", a fundamental issue to resolve was the division of authority between

the federal government and state agencies. The administration supported delegating most of the program authority back to the states but retaining sufficient federal power to be able to go after big polluters (Barfield 1972a). However, it was not possible to write discriminatory legislation that would partially delegate authority so the committee decided to give all the power to the Environmental Protection Agency and they could decide what should be delegated.

Nonetheless, the administration was particularly opposed to the "no discharge" provision because it was "unnecessary, undesirable and uneconomic" and "fail both to take into account variations in the assimilative capacity of receiving waters and to distinguish among bodies of water according to their uses" (Anonymous 1971; Whitaker 1971f). The administration organized a coalition of industry and states to seek changes in the legislation (Barfield 1972b). Industry joined with the administration in focusing on the "no discharge" goal in the preamble of the bill. The President had established the National Industrial Pollution Control Council by Executive Order No. 11523 in April 1970 to provide advice on pollution issues (United States 1970a). Along with the National Association of Manufacturers and trade associations they effectively lobbied the House to reopen hearings on their bill, H.R. 11896.

While the states looked forward to receiving federal revenues for waste treatment facilities they were adamantly opposed to losing power over their pollution permit programs (Barfield 1972b). In addition to opposing transfer of all

power to EPA as called for in the Senate bill, the states had not settled their differences on this issue with the administration either.

The House Committee on Public Works held the special reopened hearings December 7-10 (Barfield 1972b). The Senate bill was changed and used for the discussions; the states, industry, environmentalists and the administration each had one day to present their views. The administration team was led by Russell Train; they argued that the "no discharge" goal was "an unworkable standard system that would cost the nation billions of dollars without necessarily achieving the goal of clean water" (Barfield 1972b). The industry representatives basically argued that the costs far exceeded the benefits. The states maintained that they needed significant federal assistance and wanted the main role in enforcing water quality standards. Environmentalists argued to keep the "no discharge" provision and strengthen some others.

Rep. Blatnik, the only member of Congress from a Great Lakes state with a leadership role in the water legislation, suffered a heart attacked on November 16 and was not present for the special hearings (Barfield 1972b). However, he was actively involved in getting the bill ready to report out to the full House.

The GLWQA was being negotiated during the summer of 1971 through March of 1972, the same time that the Senate and House were preparing their bills. Visible entrepreneurs, such as Russell Train could utilize the multiple sources of information gathered in various roles to guide development of policy initiatives. This was crucial for the negotiation process; e.g., George Springsteen, the head of the U.S. negotiating team, emphasized "the problems

faced by the U.S. Government and the need to make the Agreement compatible with the Administration's position on the Muskie water quality bill" (Springsteen 1971b).

5.4.B. Research Findings

5.4.B.1. Consensus – General

The President's annual Message on the Environment to Congress revealed a progression in consensus. In February 1970 the focal point of the message was proposed water pollution legislation; it was inferred that he believed there was broad support for a specific issue which was to amend the water pollution law. Also, in the First Annual Report to Congress in August 1970 the CEQ made 18 policy recommendations to improve water pollution control. This was a further indication that the administration perceived the Congress would be accepting of these recommendations for a specific policy issue.

In 1971 the President's Message on the Environment to Congress focused on the growing consensus that occurred in 1970 because there was a more intense awareness of and concern about environmental problems. Again, it was inferred that the President and perhaps also the members of Congress shared widely held perceptions about this growing consensus.

Finally, in 1972 President Nixon spoke of an "environmental awakening" in the Message on the Environment. The President believed this to be a new recognition among people about the effect humankind was having on the biosphere and that it had become more discernible during 1970 and 1971.

Thus, the President's annual message to Congress revealed a progression in consensus; that is, the consensus with Congress moved from a rather specific legislative initiative to a more general philosophical view of human nature.

An additional general issue concerned the visible entrepreneurs who utilized multiple sources of information gained from participating in varied initiatives that allowed them to determine which political initiatives had broad support and which were associated with conflict. It was inferred that visible entrepreneurs who were actively involved, such as Russell Train perceived the OPAs' support for changing the governmental agenda.

5.4.B.2. Consensus – Pesticides

Pesticides provided many examples of consensus about the environmental contamination problems of these substances. Fundamental studies in 1969 clarified what was known about the characteristics of pesticides in the environment, the implications of these and consensus about what should be done. Similarly, contamination incidents, such as with Great Lakes fisheries indicated the scope of the problem and produced consensus for government action. Cancellation of registered uses of pesticides or voluntary bans on their use by government agencies also revealed the support among OPAs for changing the governmental agenda. Finally, cooperation between Congress and the President on new pesticide legislation clearly showed consensus for this initiative.

5.4.B.3. Consensus – Toxic Substances

President Nixon's advisory group on Toxic Substances produced a report that indicated the boundaries of the environmental problems. The CEQ also dealt extensively with toxic substances in the annual report to Congress. Neither of these did much to generate consensus beyond the administration as suggested by the lack of congressional action on the Toxic Substances Control Act of 1971 that was proposed by the President.

By contrast, there was a great deal of consensus for government action on mercury contamination: talks with Canada were begun; congressional hearings were held; a federal pollution permit program was started.

5.4.B.4. Consensus – Water Pollution

The public hearings held by the IJC in late 1969 and early 1970 were a notable incident that involved OPAs and Great Lakes water policy issues. Their input was very significant for the IJC Special Report and provided visible entrepreneurs key support for advocating change in the governmental agenda.

Similarly, under the Water Quality Improvement Act of 1970 the President ordered a study of and report on hazardous polluting substances for the Congress. The basis for the report was a public symposium where OPAs provided information on the issues. The report indicated the consensus among them.

The Act also appropriated funds for pollution control demonstration projects on the Great Lakes. This was a measure of the support for these issues on the governmental agenda.

Finally, in response to serious contamination, such as mercury in the Great Lakes a Federal Pollution Permit Program was established under the Refuse Act. This indicated the support for Great Lakes needs and adjusting the governmental agenda to address those needs. It also indicated the support for more direct enforcement to abate pollution and, thus, suggested the weaknesses with the Water Quality Act of 1970.

5.4.B.5. Conflict – Water Pollution

The Department of State would not allow industry representatives to participate in the negotiations of the GLWQA because opportunities had been provided earlier for input from OPAs. It was inferred that this particular group did not support changing the governmental agenda; nonetheless, the visible entrepreneurs were sufficiently supported by the Circular 175 procedures that they could endure the conflict the OPAs created.

The strategy of the visible entrepreneurs, primarily President Nixon and Russell Train was to take up the controversial issues with the Senate bill S. 2770, the Federal Water Pollution Control Act of 1971. Where the Senate bill sought a common basis for a national standard the administration wanted the states to develop water quality standards, with federal approval that reflected their particular circumstances and needs; the states supported the administration's position. Where the Senate bill declared a goal of "no discharge" of pollutants the administration wanted to set effluent limitations that reflected the assimilative capacity of the individual waterbodies; the states and industry supported the administration's position. Where the Senate bill gave all of the regulatory

authority to the EPA for them to later delegate as appropriate the administration wanted to hold back some of that authority to go after egregious polluters; the states vigorously opposed the Senate bill. The visible entrepreneurs could clearly perceive where there was and was not support for changing the governmental agenda, especially for issues that affected negotiations of the GLWQA.

5.5. Politics Stream Summary

The principal visible entrepreneurs who perceived broad support for changing the government's agenda were President Nixon and Russell Train. They possessed the same attributes in the politics stream as in the problems stream; legitimate claim to be heard; known political connections and/or negotiation skills; and, persistence.

President Nixon prepared numerous legislative initiatives to address environmental concerns and these indicated he perceived there was broad support from public constituencies. Train also showed through advocacy for environmental proposals that there was public support to move these items up on the governmental agenda.

The rapid changes in the government's agenda during the environmental decade of the 1970s demanded a great deal of government institutions. President Nixon perceived where and how to tap institutional support and oversaw a major federal reorganization that included turnover of personnel and realignment of agencies; e.g., the Environmental Protection Agency was created. International law supported the President's negotiation of an executive

agreement with Canada. Also, the U.S. Constitution and federal law provided the basis for the President's authority to conduct and later implement the provisions of the GLWQA. Thus, it was inferred that President Nixon perceived strong institutional support for the GLWQA.

True to the character of this time there appeared to be strong support from OPAs for changing the government's agenda; it appeared that the more change there was the better. While differing in the early years with Congress on the specifics President Nixon perceived support for his statements on the environment and pesticide policies. The President also perceived support in 1969 and through most of 1970 for initiatives on hazardous substances and water pollution permits. OPA support began to shift in late 1970 and this continued into 1971; e.g., the President's legislation on toxic substances and water pollution control stalled in Congress. OPA support eroded further in 1972 as the House moved ahead on legislation to amend the Federal Water Pollution Control Act; e.g., the administration was alarmed at the "no discharge" provision that the Senate had approved and decided to battle with the House for changes in its legislation, H.R. 11896. It was inferred that the President perceived these shifts in support away from his initiatives for changing the governmental agenda on environmental issues.

CHAPTER 6. POLICIES STREAM ANALYSIS

Background information related to the principal events and policy entrepreneurs for the GLWQA was presented in Chapter 2. Refer to that information and the research questions discussed in Chapter 3 to follow the analyses below.

The analysis below discusses hidden entrepreneurs and the operation of the policies stream. But first it is essential to emphasize key points from the discussion on policy entrepreneurs in Chapter 2. The emphasis of the analysis is on the process occurring within each stream; that is, even though it is important to recognize who the hidden entrepreneurs are, the principal interest is the way that people operated within the policies stream to maximize their influence on proposed alternatives for authoritative decisions. The model also posits that they might fulfill more than one role in the overall policy process; for example, those who are identified as hidden entrepreneurs in this stream may serve as visible entrepreneurs in the problems stream.

6.1. Which hidden entrepreneurs developed proposals for alternative actions?

Table 6.1 H 3.1 Variable Specification.

Research Question	Measurement Type	Variable Description
H 3.1	Nominal	Hidden Entrepreneurs: specialists connected through policy networks. Characteristics: legitimate claim to be heard; known political connections and/or negotiation skills; persistence.

6.1.A. Research Data

Under Article VII of the Boundary Waters Treaty of 1909, the President of the United States appoints three commissioners to the U.S. section of the International Joint Commission (IJC 1998, pg.9). President Nixon appointed Christian A. Herter, in March, 1970 to serve as the chairman of the U.S. section. Herter also held the appointment of Special Assistant to the Secretary for Environmental Affairs in the Bureau of International Scientific and Technological Affairs of the Department of State (Bevacqua 2000; Herter 1970; Johnson 1971c). He led the U.S. section when the IJC submitted key recommendations to the governments, from early in 1970 through the adoption of the GLWQA in 1972. For example, the IJC Special Report recommended urgent action by the governments on oil pollution, eutrophication and pollution from watercraft (IJC 1970a, pp.13-14). Also, the IJC Final Report and recommendations to the Governments were perceived to be "a major objective study of the water pollution problem, ... warrants prompt consideration and action upon its recommendations and (will) serve as a cornerstone of governmental efforts" (IJC 1970a; Rogers 1971, pg.3; Train 1971).

Two International Boards carried out the investigation for the Lower Lakes Reference on water pollution in Lake Erie, Lake Ontario and the international section of the St. Lawrence River (ILELOWPB 1969a, pp.xi-xiv). Federal and state officials served on the U.S. section of the International Boards (IJC 1970a, pp.165-166).

The President's Great Lakes Task Force reviewed water quality management problems for Lake Erie in early April 1970. After a brief review the administration decided to "more broadly cover mechanisms for joint U.S.-Canadian coordination and implementation throughout all the Great Lakes" (Hillenbrand 1970a, Memorandum for the President, pg.1; Train 1970d). The administration also proposed to "conduct its study separately or cooperatively with a counterpart task group established by the Government of Canada" (Salmon 1970). On September 24 1970 the task force submitted its final report and recommendations to the President; these were the basis for the U.S. positions in the Joint Working Group that developed the framework for the negotiation of an intergovernmental agreement with Canada (Hillenbrand 1971d, pg.4).

The Governments of Canada and the United States agreed at the First Ministerial Meeting in June 1970 to establish a Joint Working Group (JWG) to "consider common water quality objectives and implementing programs for pollution control" (State Hillenbrand 1971b, pg.3; Hillenbrand 1971f, pp.1-2; 1970b). Some members of the President's Great Lakes Task Force joined the JWG (Hillenbrand 1971d, pg.3). In addition, the U.S. section of the JWG recruited from federal agencies with experts in various aspects of water pollution control (Mansfield 1970; Towe 1970b). The JWG used the IJC Final Report to identify the principal Great Lakes problems and formed ten sub-groups that undertook "detailed consideration of major elements which might be included in new cooperative arrangements" (Rogers 1971, pg.2). The sub-groups were

structured to address issues such as Water Quality Objectives and Standards, Handling of Hazardous Materials on Water, Legislation Relating to Great Lakes Pollution, and Handling of Hazardous Materials at On-Shore and Off-Shore Facilities (Hillenbrand 1971g, pp.7-8).

In June 1971, the governments received the JWG Final Report, primarily a policy document, that recommended they negotiate an intergovernmental agreement on programs and measures for pollution control (Hillenbrand 1971g). The report included proposals for the Content of the Agreement with specific items the agreement should provide or contain (Hillenbrand 1971g, pp.9-38). Thus, its recommendations provided the policy basis for U.S. federal agencies to negotiate an agreement with Canada on Great Lakes programs (Hillenbrand 1971g, pp.7-8; MacDonald 1970; Rogers 1971, pg.3).

6.1.B. Research Findings

Summarized in Table 6.2 are the hidden entrepreneurs who were recruited from their respective areas of expertise on water policy and the policy process activities they were involved in. While their participation in the major activities was noted in publications and archived records there was a paucity of information relating specifically to activities where policy proposals were developed, such as recommendations in a report. At best it could only be inferred whether and how they contributed to the policies stream.
The titles of their positions, where available, allowed a stronger inference to be made that these actors had a legitimate claim to the expertise that others appeared to recognize. Their positions also appeared to give them the

Table 6.2 Hidden Entrepreneurs and Policies Stream Activities.

Commissioners - U.S. Section of International Joint Commission: Chairman of U.S. Section: Christian A. Herter Commissioners: Charles R. Ross, Eugene W. Weber, Matthew E. Welsh **IJC Special Report** to the Governments: Special Report on Potential Oil Pollution, Eutrophication and Pollution from Watercraft **IJC Final Report** to the Governments: Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River
International Lake Erie Water Pollution Board: Chairman: H.W. Poston, Regional Director, Great Lakes Region, FWPCA Federal Water Pollution Control Administration: Regional Director, Great Lakes Region; International Affairs Officer Ohio State Department of Health: Chief Sanitary Engineer Michigan Water Resources Commission: Executive Secretary New York State Department of Health: Deputy Commissioner Pennsylvania Department of Health: Director, Bureau of Sanitary Engineering **International Lake Ontario – St. Lawrence River Water Pollution Board:** Chairman: H.W. Poston, Regional Director, Great Lakes Region, FWPCA Federal Water Pollution Control Administration: Regional Director, Great Lakes Region; International Affairs Officer New York State Department of Health: Deputy Commissioner; Sanitary Engineer Director, Public Health Service **IB Final Report** to the International Joint Commission: Pollution of Lake Erie, Lake Ontario And the International Section of the St. Lawrence River. Vols. 1-3
President's Great Lakes Task Force: Chairman: Russell E. Train Council on Environmental Quality: Russell E. Train; Alvin Alm Office of Science and Technology: Warren A. Hall Federal Water Pollution Control Administration: John Hendrickson Department of State: Steven C. Nelson **Final Report of the Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes**
Joint Working Group: Chairman: Gordon J. MacDonald Council on Environmental Quality: Gordon J. MacDonald; Alvin Alm; Heyward Isham Great Lakes Basin Commission: Frederick O. Rouse, Chairman Department of Interior: Reinhold W. Thieme Department of State: Douglas F. Burns; William H. Mansfield; William Salmon Department of Transportation: Capt. F. W. Heyward Water Resources Council: John B. Roose U.S. Army Corps of Engineers: C. H. Paquette; Lt. Col. Frank Walter National Council on Marine Resources and Engineering Development: Robert Kay Office of Science and Technology: Warren Hall Department of Health, Education and Welfare: Frank A. Bell **JWG Final Report** to the Governments: Final Report of the Canada–United States Joint Working Group on Great Lakes Pollution

necessary connections within the policy network to effectively evaluate and advocate proposals for alternative actions. Finally, persistence was a characteristic that could not be assessed with the information available in archived government records and the open literature.

The chairman of the U.S. section of the International Joint Commission was something of a bifunctional type of policy entrepreneur. The chairman and the other two commissioners functioned as hidden entrepreneurs within the Great Lakes region when they responded to the governments' Lower Lakes Reference. The governments specifically requested that they develop proposals for alternative actions, such as the recommendations in the IJC Final Report. The opportunity to influence the governmental agenda existed but was not assured because under the terms of the Boundary Waters Treaty the governments could ignore the IJC recommendations.

Another significant opportunity to influence the policy process lay in the chairman's role as Special Assistant to the Secretary for Environmental Affairs where the chairman could function as a visible entrepreneur who advocated for items on the governmental agenda. This was clear from the chairman's involvement in high level planning sessions in the State Department and at key meetings where the IJC Special Report and IJC Final Report were discussed by decisionmakers.

Similarly, the hidden entrepreneurs on the International Boards had a clear mandate from the IJC to conduct their investigation and submit a final report with recommendations. Their instructions did not allow for advocacy on

the governmental agenda even though this may have been their role in the federal and state agencies from which they came.

The members of the President's Great Lakes Task Force were hidden entrepreneurs during its brief existence before the Joint Working Group subsumed its responsibilities. But it should be noted that Russell Train, a visible entrepreneur, directed the activities of the task force and that his primary role was to manage the governmental agenda for the Great Lakes issues. The task force final report and recommendations was the only published record of its work and that did not allow for an in-depth analysis here.

The members of the U.S. section of the Joint Working Group were all hidden entrepreneurs including the chairman. Their principal goal was to develop proposals for problems that the governments could negotiate.

6.2. Why did hidden entrepreneurs develop proposals for alternative actions?

Table 6.3 H 3.2 Variable Specification.

Research Question	Measurement Type	Variable Description
H 3.2	Nominal	Factors of Influence: electoral politics; material or tangible incentives; purposive incentives; strategic incentives.

6.2.A. Research Data

The governmental agenda began to shift in 1963 because Congress thought the states were not moving quickly enough on water pollution problems (Davies 1970; Grad 1985, pp.68-72; Senate. Committee on Public Works 1971,

pp.1-7). Shortly after the International Boards started their investigations for the Lower Lakes Reference in 1964 Congress passed the Water Quality Act of 1965 (Pub. L. 89-234). The executive branch also added to the shift in agenda focus because the objectives of the Lower Lakes Reference were generally consistent with the environmental agenda of President Johnson's administration, especially as regards water pollution (President's Science Advisory Committee 1965).

A key factor that the states understood very well was their dependence on federal funding. For example, the Water Pollution Control Act of 1956 authorized significant funds to the states for waste treatment facilities but President Eisenhower withheld the appropriated funds (Davies 1970). In a marked turnabout the Kennedy and Johnson administrations supported these expenditures and the flow of federal funds began in 1961 and continued during the 1960s.

The International Boards finished their investigation in 1969; the IB Final Report reflected the above factors and others as well that influenced the proposals that were developed. The majority of the report's 19 recommendations to the IJC addressed regional or local programs for control or regulation of municipal and industrial sources of pollution (ILELOWPB 1969a, pp.10-13). These included: phosphorous control levels and programs; transportation, disposal and control of spills of oil and toxic or deleterious substances; vessel wastes; disposal of dredged materials and solid wastes; control of pollution from herbicides and pesticides; control of municipal and industrial wastes; control of discharges from power plants.

In addition, the intergovernmental character of the International Boards provided a distinct context for developing policy proposals. For example, the IB Final Report specifically mentioned that over the considerable period of time from 1964-1969 the members developed personal and professional relationships characterized by "cooperation ... mutual regard and desire to proceed in concert" and that they "appreciate(d) the opportunity to be of assistance to the Commission" (ILELOWPB 1969a).

The Commissioners based their recommendations for the IJC Special Report and IJC Final Report on the IB Final Report and the public hearings at which it was reviewed; the recommendations were very similar. For example, the IJC recommended that Canada and the United States agree "to develop, as a matter of urgency, compatible and coordinated programmes, in concert with provincial and state agencies," for the purposes of: control of persistent organic substances; control of toxic materials in municipal and industrial waste discharges; and, thorough investigation of substitutes for toxic materials such as mercury and phosphorus (Hillenbrand 1971c, pg.3; State 1973, pp.5-8).

The JWG Final Report recommended an intergovernmental agreement on water quality objectives that would guide programs and measures for pollution control. This recommendation addressed one of the three principal questions in the Lower Lakes Reference: "what remedial measures would, in its (IJC) judgment, be most practicable from the economic, sanitary and other points of view ...?" (IJC 1970a, pg.161). An important stipulation in the agreement was to include supporting annexes that "contain the details concerning water quality

objectives (that would be) agreed to from time to time ... (by) the appropriate authorities" (Hillenbrand 1971g, pg.19). These recommendations raised very important legal and fiscal considerations (Hillenbrand 1971g; Nef 1971a).

The legal concerns arose from the powers granted to the states under the Federal Water Pollution Control Act of 1965 (Pub. L. 89-234) to "abate pollution" and determine their water quality standards; these powers were important to the states (33 U.S.C. 1160 (b) ; 33 U.S.C. 1160 (c)(1) , respectively). Also, the Act granted the federal government the power to preempt state authority which provided a rationale for ensuring that the Great Lakes, as a body of contiguous interstate waters, were regulated under the same water quality standards (33 U.S.C. 1160 (c)(2-3)). Finally, the Act authorized the President to identify and regulate the removal of hazardous polluting substances; e.g., in the event of accidental spills (33 U.S.C. 1162 (a)).

There were fiscal concerns because the federal agencies and states realized that remediation of Great Lakes' water quality problems would require expenditures of over two billion dollars in a relatively short period of time (Hillenbrand 1971b, pp.6-7). The costs of modernizing and building new waste treatment facilities would depend on Congressional support to appropriate a significant share of the necessary funds. The hidden entrepreneurs had to achieve consensus on the policy proposals and a unified position on funding requests to present to Congress.

An underlying concern of the hidden entrepreneurs on the JWG was that the policy proposals would effectively address the problems identified. This

concern was based primarily on the public perception of these problems, mainly alarm, that officials at all levels of government had come to recognize (IJC Burns 1972b, pg.4; Hillenbrand 1971b, pp.1-4; 1970a, pp.28-33).

6.2.B. Research Findings

It is especially important to note that visible entrepreneurs had leadership roles in each of the major activities in Table 6.2. The implication is that there may have been a very close relationship between developing proposals for alternative actions and the Great Lakes problems as they were added to the governmental agenda or others that were pushed upward in priority on the list. A further and more important implication is that the independence posited by Kingdon's model for the process streams, such as the policies and problems ones, could not be maintained under these circumstances.

Federal and state hidden entrepreneurs had significant strategic incentives for being involved in the policy process on the International Boards because Congress was drafting revisions to the law. After the Water Pollution Control Act was amended in 1965 it was clear that state powers over water resources were shifting into federal hands. This further emphasized the strategic importance of hidden entrepreneurs developing the recommendations in the IB Final Report; it was their ideas for solutions to local and regional problems that were likely to be implemented in an intergovernmental agreement.

In addition, the costs for waste control facilities were well understood and the hidden entrepreneurs had material incentives to make recommendations on potential solutions to costly problems. Also, it was inferred that decisions about

the programs described in the recommendations of the IB Final Report would consider the exchange on agency resources for the electoral advantage of receiving credit for credible policy proposals. Finally, the hidden entrepreneurs had purposive incentives for being involved in the Lower Lakes Reference because of the relationships that developed.

The federal agencies and the Great Lakes Basin Commission, as a representative for the states, had three primary incentives to participate in the Joint Working Group. First, the states had a strategic incentive to maintain, insofar as possible, the powers to "abate pollution" granted them under the Federal Water Pollution Control Act of 1965. The federal government had a strategic incentive to ensure that the Great Lakes, as a body of contiguous interstate waters, were regulated under the same water quality standards. Second, both groups were faced with material incentives related to not only the costs of modernizing and building new waste treatment facilities but also seeking Congressional support to appropriate the necessary funds. Involving the appropriate hidden entrepreneurs in policy processes ensured consensus on the policy proposals and a unified position on funding requests before Congress. Third, the federal agencies and states had an electoral incentive to develop policy proposals that meaningfully addressed the problems.

6.3. What were the means used to develop proposals for alternative actions?

Table 6.4 H 3.3 Variable Specification.

Research Question	Measurement Type	Variable Description
H 3.3	Nominal	Instrumental Means: instruments from inside government; instruments from outside government.

6.3.A. Research Data

The IJC used the institutional powers granted to it under the Boundary Waters Treaty of 1909 and the specific terms of the Lower Lakes Reference to deploy federal and state resources (IJC 1970a, pp.161-162; IJC 1998, pg.11). It also relied upon its institutional role that had been established by the governments over the years and numerous policy network relationships that were developed in earlier pollution references such as the Connecting Channels Reference of 1946 (IJC Bilder 1971, pp.305-315; 1951, pp.13-15). For example, it participated in Great Lakes conferences and meetings; the critical ones were discussed in Chapter 2 (Hillenbrand 1971f; Hillenbrand 1971g; OWRC 1970a; OWRC 1970b). A second example was when the IJC reviewed the JWG Final Report before it was submitted to the governments at the Second Ministerial Meeting on June 10, 1971 (Hillenbrand 1971g).

The International Boards that investigated the Lake Erie – Lake Ontario – St. Lawrence River pollution reference committed agency expertise from within government (IJC 1970a, pp.7-27). Specifically, the U.S. sections of the boards

were delegated from the Federal Water Pollution Control Administration, Michigan Department of Health, Michigan Water Resources Commission, New York State Department of Health, Ohio Department of Health, and Pennsylvania Department of Health. The federal and state officials were either political appointees or career civil servants (IJC 1970a, pp.165-168; ILELOWPB 1969a, pp.99-103; ILELOWPB 1969b, pp.279-282; ILOLWWPB 1969, pp.293-296). Finally, the Federal Water Pollution Control Act of 1965 sanctioned the participation of the hidden entrepreneurs on the International Boards. Under this legislation Congress recognized that the states held primary responsibility for water pollution control in their jurisdictions and that the federal government would assist them in these efforts (33 U.S.C. 1151).

In addition, high level officials agreed at the First Ministerial Meeting to establish a Joint Working Group to study Great Lakes pollution problems (State Hillenbrand 1971f, pp.1-2; 1970b). The instruments included the officials in their roles as political appointees and career civil servants that served on the Joint Working Group and the policy networks these actors developed in their various capacities. As with the International Boards discussed above, the participation of the hidden entrepreneurs on the JWG was legally sanctioned under the Federal Water Pollution Control Act of 1965 (33 U.S.C. 1151).

6.3.B. Research Findings

As discussed in the previous question, visible entrepreneurs had leadership roles in each of the major activities listed in Table 6.2. The very close interactions among the different types of policy entrepreneurs could have

influenced the instrumental means used by those operating in the policies stream.

The IJC Commissioners, members of the International Boards, and the Joint Working Group used means from inside government that involved institutional powers, intergovernmental roles and policy network relationships. The principal difference among them was the legal or statutory basis for their activities; otherwise, they executed their responsibilities with very similar means.

6.4. Why did hidden entrepreneurs reach consensus?

Table 6.5 H 3.4 Variable Specification.

Research Question	Measurement Type	Variable Description
H 3.4	Nominal	Factors of Consensus: technical feasibility; congruence with social values; congruence with policy entrepreneurs; budget and financial concerns; political currency.

6.4.A. Research Data

The International Boards submitted a Final Report with recommendations to the IJC at the end of 1969. The three volumes of the report included the Summary Report, the Pollution of Lake Erie, and the Pollution of Lake Ontario and the International Section of the St. Lawrence River (ILELOWPB 1969a; ILELOWPB 1969b; ILOLEWPB 1969). Three key results were found in the report and recommendations.

First, the overall conclusion was that the lakes were being polluted. For example, DDT contamination of commercial catches of Lake Michigan salmon and the persistence of pesticide residues in water and fish were a "matter of

serious concern not only for the fishery resource but also for human health" (ILELOWPB 1969a, pg.40). Equally important, the investigation found that the "levels of polluting materials are remarkably uniform throughout extensive areas of each lake" and are caused by waste sources in both countries (ILELOWPB 1969a, pp.7-9). On these two conclusions "the Advisory Boards can readily find unanimous agreement" because under Article IV of the Treaty "the boundary waters ... shall not be polluted on either side to the injury of health or property on the other" (IJC 1998, pg.8; ILELOWPB 1969a, pg.9). This was an important conclusion because it addressed the first and presumably highest priority question that the governments wanted answered in the Lower Lakes Reference (IJC 1970a, pg.161).

Second, nearly the same conclusions appeared in the three volumes except for some inconsistencies on water quality problems. The Summary Report described organic contaminants as a "continuing threat" because of their persistence and potential toxicity in the environment (ILELOWPB 1969a, pg.39). Organic contaminants included persistent compounds found in municipal and industrial wastes, insecticides, herbicides and other agricultural chemicals. By contrast, the Lake Erie and Lake Ontario reports described these substances in nearly identical terms as the Summary Report but reached a different conclusion, instead they were a "growing threat" (ILELOWPB 1969b, pg.247; ILOLEWPB 1969, pg.265). It was not clear whether the International Boards found that organic contaminants were an actual threat that was ongoing as the Summary

seemed to conclude or a potential threat that was emerging as suggested in the other two reports.

Third, the International Boards included technical recommendations for pollution control programs. For example, they recommended that: "compatible and coordinated programs designed to effectively control pollution from herbicides and pesticides be implemented by 1972 and that substitutes be found for persistent toxic chemicals and their use encouraged"; and, a program of phosphorous control be implemented (ILELOWPB 1969a, pg.10-12). The reports did not, however, provide an evaluation or discussion of the technical details of pollution control programs for organic contaminants.

There were important developments during 1970 that contributed to the IJC reaching consensus first on the IJC Special Report in April and then the IJC Final Report and recommendations submitted to the governments in December. First, the IJC agreed with the three-volume IB Final Report: the Lower Lakes were polluted and persistent toxic substances were a "matter of serious concern not only for the fishery resource but also for human health" (IJC 1970a, pp.7-16, 151; ILELOWPB 1969a, pg.40). Second, the IJC held a series of public hearings on a summary of the IB Final Report. On the basis of these hearings they submitted the IJC Special Report to the governments that included "as a matter of urgency" high priority recommendations on oil pollution, eutrophication and pollution from watercraft (IJC 1970a, pp.14-15). Third, the focus of discussions at the First Ministerial Meeting on Pollution of the Great Lakes was the IJC Special Report. The governments "expressed deep concern about the

critical situation in the Great Lakes" and agreed to undertake corrective actions that included further meetings and consultations (State Hillenbrand 1971b, pg.3; Hillenbrand 1971f; 1970b). Fourth, the IJC presented its Special Report to the Great Lakes Environmental Conference of Governors and Premiers; the Conference agreed to several immediate actions to address mercury contamination and to other measures (Cowan 1970; OWRC 1970a; OWRC 1970b). Fifth, it discussed the IJC Special Report at the first meeting of the Joint Working Group; this meeting identified the work plan and agenda items that the JWG would address (Hillenbrand 1971g, pp.7-8).

The Joint Working Group appeared to reach consensus on the Final Report and its recommendations. For example, the JWG Final Report that was presented to the governments at the Second Ministerial Meeting "emphasized the urgent need for reducing phosphorus ... in view of the serious problem of accelerated eutrophication" (Hillenbrand 1971g, pg.3). By June 1971 phosphorous nutrients had become a widely recognized problem contributing to eutrophication and recommendations to reduce them were politically popular. But more important, other policy entrepreneurs observed that the Joint Working Group's proposed intergovernmental agreement and Common Water Quality Objectives were aligned with the recommendations of the President's Great Lakes Task Force and implemented "substantially all" of the recommendations contained in the IJC Final Report (Hillenbrand 1971b, pp.4-5). Also, "the contents of the agreement (proposed by the JWG) have been generally agreed

during extensive discussion among the Governments concerned over the past months" (State 1971a).

6.4.B. Research Findings

As noted in previous questions for the policies stream, the major activities involving hidden entrepreneurs were led or otherwise controlled by visible entrepreneurs. This very close relationship could have impacted consensus in at least three ways. First, the hidden entrepreneurs' perception of social values pertaining to Great Lakes problems could have been influenced by these visible entrepreneurs' different perceptions and priorities because they operated in the problems and politics streams for the most part. Second, these visible entrepreneurs who were all from the federal level may have dominated budget and financial considerations especially as regards proposals that required financing waste treatment facilities. Third, the visible entrepreneurs who were active in the politics stream, such as Russell Train could have influenced the perceptions of hidden entrepreneurs regarding the political currency of the IB Final Report and recommendations. Any one or all of these circumstances could have impacted the relative contribution of the factors of consensus. It was not possible to assess their impact but they must be recognized in the subsequent analysis.

The IB Final Report and recommendations appeared to be congruent with the social values that were being articulated for pollution of the Great Lakes, especially with respect to Article IV of the Treaty and, thus, it was inferred that the International Boards reached consensus. The case for congruence of values

among the hidden entrepreneurs was weak concerning toxic substances because the conclusion in the Summary Report, Volume 1 provided a different emphasis than the other two reports, Volumes 2 and 3. At best, the documents suggest that the hidden entrepreneurs reached consensus on proposals to address a threat that was perceived as real even if not completely understood. Finally, it was inferred that the International Boards reached consensus on the technical feasibility of their recommendations on available control programs and technologies.

The IJC appeared to reach consensus because the social values in the Final Report and recommendations were congruent with those in the IB Final Report. They were also congruent with those in the IJC Special Report that was based on the input from the public hearings and those articulated in the concerns of the Governors and Premiers at the Great Lakes Environmental Conference. There also appeared to be congruence of values among the hidden entrepreneurs because: all of the IJC Commissioners agreed with the IB Final Report; the IJC Special Report was the guiding document for the governments at the First Ministerial Meeting; and, the IJC Special Report influenced the agenda at the first meeting of the Joint Working Group. Political currency appeared to be an important factor of consensus because the IJC used the extensive input received at the public meetings to prepare the IJC Special Report. It was also an important factor because the IJC participated in the Great Lakes Environmental Conference where elected officials, such as governors, expressed the concerns they were dealing with in their jurisdictions. It was

inferred that the IJC reached consensus by incorporating this body of information and experience into its Final Report and recommendations.

The Joint Working Group achieved consensus on the conclusions and recommendations of the Final Report because these appeared to be congruent with the values among the hidden entrepreneurs and these were perceived to have strong political currency for the negotiating process that the governments were about to undertake.

6.5. How did hidden entrepreneurs reach consensus?

Table 6.6 H 3.5 Variable Specification.

Research Question	Measurement Type	Variable Description
H 3.5	Nominal	Means of Consensus: diffusion; bandwagon effect.

6.5.A. Research Data

The International Boards submitted semi-annual reports to the IJC during the investigations of Great Lakes water quality from 1965 through 1969; two interim reports were also submitted in 1965 and 1968, then the three-volume final report in November 1969 (ILELOWPB 1969a, pg.4).

In addition, there were numerous government investigations already underway and the International Boards were directed to utilize these experts and available information (IJC 1970a, pp.161-162). Some of the more important types of published documents used in the IB Final Report included: IJC summary of pollution surveys (IJC 1961; IJC 1967); Conferences on the Great Lakes (CCRM 1967; EIC 1968; Ohio 1965); and, Great Lakes pollution studies

by federal agencies (FWPCA 1967; FWPCA 1968a; FWPCA 1968b; FWPCA 1968c; Public Health Service 1965).

The recommendations of the International Boards for Lake Erie and Lake Ontario were generally consistent. The Letter of Transmittal in the IB Final Report reported that there was "full cooperation of the several provincial, state and federal agencies" and they shared a "mutual regard and desire to proceed in concert ... in the joint international action that will be required" (ILELOWPB 1969a, pp.10-13).

The IJC developed its policy proposals, or 22 Recommendations for government action, on the basis of the IB Final Report. The IJC did not submit minority reports from either section even though the Boundary Waters Treaty provided that these are appropriate in the event agreement cannot be reached (IJC 1998, pg.11). U.S. officials in state and federal agencies reviewed and accepted the Final Report as submitted by the IJC including all of the Recommendations (Bilder 1971, pg.487). It should also be noted that, under the terms of the Treaty, the governments are not bound to abide by the conclusions and recommendations that the IJC submits in response to a matter referred to it (IJC 1998, pg.11).

In addition, as part of the investigation process the public was given access when the IJC held hearings and took testimony and statements (IJC 1970a, pp.28-33). Also, the IJC participated in critical policy meetings such as the Ministerial Meetings on Great Lakes Pollution and the Great Lakes

Environmental Conference (Burns 1972a; Hillenbrand 1971b; Hillenbrand 1971f; OWRC 1970a; State 1970b).

The hidden entrepreneurs in the U.S. delegation of the Joint Working Group expanded the perspectives on Great Lakes policy proposals beyond the Recommendations in the IJC Final Report. They were able to do this because the government agencies they represented also reflected the broader interests of U.S. and Nixon administration policy (see Table 4.2). Also, the U.S. federal agencies that had representatives serving on the JWG reviewed the recommendations of the ten sub-groups as they were developed (Rogers 1971). The Environmental Protection Agency even named a special assistant to "coordinate agency plans and programs with the proposals of the Working Group". In addition, the hidden and visible entrepreneurs tended to operate as one group because their activities were coordinated through the Council on Environmental Quality (Mansfield 1970).

In addition, the JWG approved a Draft Final Report and set of Recommendations on April 21-22 1971 (Hillenbrand 1971g, pg.8). When the Final Report was submitted to the governments it explicitly stated that the Canadian and United States sections had "worked in close harmony and demonstrated that there is a consensus on the programs necessary to restore and protect the Great Lakes" (Hillenbrand 1971g, pp.5-6).

Another important consensus issue for the U.S. section of the JWG was the intent of Congress to amend the Federal Water Pollution Control Act of 1965. Both chambers of Congress held extensive hearings during 1970 and 1971 and

key policy proposals surfaced that were not supported by the administration (House. Committee on Public Works 1972, Ruckelshaus Testimony, pp.147-171; Senate. Committee on Public Works 1971, pp.1-10). These policy issues are discussed further in the Politics Stream.

Nevertheless, the administration had to be mindful that any intergovernmental agreement would have to be legally consistent with the new water legislation (Burns 1972c; Hillenbrand 1971i). And the agreement would have to be flexible because of the considerable uncertainty created when the Nixon administration introduced four water bills, the Senate debated 15 bills, and the House considered two very large bills (House. Committee on Public Works 1972; Senate. Committee on Public Works 1971).

6.5.B. Research Findings

Directly or indirectly, the visible entrepreneurs in their leadership roles in the policies stream appeared to have a significant impact on the means of reaching consensus among the hidden entrepreneurs. They affected the diffusion process through support of numerous Great Lakes studies where some preceded the Lower Lakes Reference while others were contemporary with it. Also, the International Boards interim reports submitted to the IJC and those submitted by the IJC to the governments were exemplary of the effect of developing proposals over time and having them discussed and evaluated. It was inferred that the net effect of this activity was to promote consensus and influence the content of proposals.

Similarly, it was inferred that the visible entrepreneurs, such as Russell Train or the heads of federal agencies affected consensus among the hidden entrepreneurs involved in the Joint Working Group. These two groups, the hidden and visible entrepreneurs worked closely together until the JWG Final Report and recommendations were submitted at the Second Ministerial Meeting.

In addition, the law required the hidden entrepreneurs to develop proposals that were consistent with U.S. statutes; thus, their efforts had to be coordinated with the visible entrepreneurs pushing President Nixon's legislative agenda. It was inferred that this coordination affected the diffusion of policy proposals and any associated bandwagon effects for preferred alternatives.

Within the International Boards the hidden entrepreneurs were involved in a dynamic diffusion process during the investigations of Great Lakes water quality and the preparation of the final report. Both governments produced documents and reports from other Great Lakes studies that supported, and certainly did not contradict, the findings of the IB Final Report as to the extent, causes, and sources of transboundary pollution. In short, this extensive and contemporary body of information provided a great deal of support to the investigation, especially the development of proposals. Thus, it can be concluded that the International Boards achieved consensus on the Conclusions and Recommendations in the IB Final Report because information diffused through the policy network so that policy concepts were evaluated and the most credible and broadly supported proposals were identified.

The IJC developed its policy proposals on the basis of the IB Final Report and so it benefited from the large body of information and the diffusion process discussed above. Other key considerations include the serious nature of the questions investigated in the Lower Lakes Reference, the observation that neither section of the IJC filed minority reports and the acceptance by U.S. officials of the Final Report as submitted by the IJC including all of the Recommendations. Thus, it was inferred that the IJC addressed the Lower Lakes Reference in an environment that thoroughly evaluated the policy concepts and developed credible proposals that was supported by consensus.

The governments gave a favorable evaluation of the Joint Working Group's proposed programs. It was inferred that there were mechanisms in place, such as intragovernmental review of the working proposals of the ten sub-groups by U.S. federal agencies that promoted the policy diffusion process and a thorough evaluation of policy proposals. Coordination of policy proposals with the administration's legislative agenda must have created exceedingly great demands for the policy diffusion process to provide crucial information. Thus, it was inferred that a diffusion process enabled the hidden entrepreneurs to evaluate policy problems, develop workable solutions for these and seek support from key administration policymakers.

6.6. Policies Stream Summary

The hidden entrepreneurs in the policies stream were inferred to be primarily the IJC Commissioners and members of the International Boards who were involved in the Lower Lakes Reference; the President's Great Lakes Task

Force; and, the U.S. section of the Canadian – United States Joint Working Group. They were specialists, well connected through policy networks.

The analysis abandoned the assumption of the hidden entrepreneurs' independence from the problems and politics streams that Kingdon's model requires. This was made necessary because visible entrepreneurs who were involved in the other two streams also had key leadership roles in the activities of the policies stream where the policy proposals were developed; e.g., the IJC Special Report, IJC Final Report, IB Final Report and JWG Final Report. Nonetheless, there were several incentives for the hidden entrepreneurs to commit their resources to this activity.

Hidden entrepreneurs from the states had strategic incentives to preserve their powers for controlling water pollution programs in their jurisdictions. Also, they had material incentives to get the federal government to agree to cover the majority of the costs for new and modernized waste treatment facilities. There was an electoral advantage as well for developing credible proposals that would solve important problems. Finally, they had a purposive incentive for working with their counterparts from other state and provincial agencies on problems that involved long term solutions.

The hidden entrepreneurs from the federal agencies had a primarily strategic incentive that the same water quality standards were used for the Great Lakes. Otherwise, it would be difficult for the U.S. government to ensure its compliance with the provisions of a Great Lakes agreement with Canada. Also, because the federal government would provide most of the capital for waste

control facilities and funds appropriated by Congress would be shared among the states they had material incentives to develop proposals that could be implemented effectively.

Electoral incentives could not be assessed in the analysis but could have been important because, as noted above each of the policy activities had visible entrepreneurs in leadership positions.

The hidden entrepreneurs primarily used means from inside government for developing policy proposals. These included institutional powers, such as the Lower Lakes Reference; intergovernmental roles, such as the International Boards; and, policy network relationships, such as the JWG. It was not possible to determine the effect of the visible entrepreneurs in the policies stream on the choice of means used.

Congruence with social values was important for reaching consensus among the three principal groups of hidden entrepreneurs; the International Boards, International Joint Commission and Joint Working Group. Also, congruence of values among the hidden entrepreneurs was evident for the International Boards but weak on the issue of toxic substances. This factor of consensus was seen with the Joint Working Group. In both cases, the Lower Lakes Reference and subsequent reports guided the consensus. In addition, it was inferred that technical feasibility was an important factor for the International Boards; it was not possible to determine if this may have been a salient factor for the other hidden entrepreneurs. Finally, political currency was inferred as a factor among the IJC who had held public hearings on a summary of the Lower

Lakes investigation and also participated in the Great Lakes Environmental Conference. Similarly, the JWG hidden entrepreneurs perceived the great importance of the Great Lakes negotiations for solving these regional political problems.

It was inferred that consensus on policy proposals was reached by means of a diffusion process among the hidden entrepreneurs on the International Boards, International Joint Commission and Joint Working Group. President Nixon's legislative agenda and the roles of visible entrepreneurs very likely affected the diffusion process; e.g., the JWG developed proposals for the GLWQA while the President and Congress pushed forward new water legislation.

CHAPTER 7. DECISION AGENDA ANALYSIS

7.1. Problems-Policies Window

The research question HDA 4.1 asks: Which pairs of policy problems and action alternatives were coupled in the problems-policies window?

Table 7.1 HDA 4.1 Variable Specification.

Research Question	Measurement Type	Variable Description
HAD 4.1	Nominal	Problems-Policies Window: policy problems; action alternatives.

Under the Kingdon model, the Problems-Policies Window (PbPyW) opens when policy entrepreneurs bring together important problems that are on the governmental agenda and policy proposals that appear to provide a solution for these problems. Both the problems and policies streams operate independently; e.g., the policy entrepreneurs who function within these streams until this process of coupling between the problems and policy solutions occurs. The coupling process itself is random and creates a window of opportunity whereby visible entrepreneurs seek out policy proposals to solve the problems they are monitoring or, alternatively, hidden entrepreneurs look for a problem that could be effectively addressed by a policy solution they have developed. Clearly, the model intends that both sets of policy entrepreneurs mediate the coupling process.

The effect of coupling a problem and proposed policy solution is to enhance the possibility that decision-makers will take authoritative action; thus,

the problem and proposed policy move up to a higher status on the governmental agenda. Under the model, the decision agenda is the next and final level where authoritative decisions are taken if the third component, the politics stream is also involved.

7.1.A. Findings for PbPyW

There were five major sources of documentation for the coupling of Great Lakes problems with proposed policy alternatives: IB Final Report (December 1969); IJC Special Report (April 1970); IJC Final Report (December 1970); President's Great Lakes Task Force Final Report (September 1970); and, JWG Final Report (June 1971) (Hillenbrand 1971d; Hillenbrand 1971g; IJC 1970a; IJC 1970b; ILELOWPB 1969a). Figure 7.1 presents a causal network diagram of the principal relationships within the PbPyW that are discussed below.

Each of these sources described some or all of the problems recognized as important by visible entrepreneurs, such as Russell Train. These Great Lakes problems coupled with credible policy proposals in the recommendations by hidden entrepreneurs, such as the International Boards. The recommendations included proposals for the negotiation of an intergovernmental agreement between Canada and the United States, development of general and specific water quality objectives and measures to control or eliminate toxic substances in the Great Lakes.

While it was clear that in each of these sources the problems and proposals had been coupled, there were problematic aspects in the analysis. Analytical difficulties appeared because Kingdon's model posits that the policy

process streams operate independent of each other; the implication for this analysis was that the actions of the policy entrepreneurs operating within each process stream would also be largely independent.

For example, hidden entrepreneurs were primarily responsible for advancing both the problems and policy alternatives in the case of the IB Final Report. This outcome followed predictably from the structured process of the Lower Lakes Reference that the governments submitted to the IJC (IJC 1970a, pp.161-162). The Reference asked a series of questions intended to identify what the water pollution problems were and then directed the IJC to make recommendations for appropriate programs and measures. The effect of this structured approach was to closely couple the identification of problems for the governmental agenda and the development of policy proposals to solve them.

Less clear was how the IJC, the President's Great Lakes Task Force and the U.S. section of the JWG operated. Those who had key leadership roles in each of these activities were visible entrepreneurs who also operated in the problems stream. Otherwise, hidden entrepreneurs comprised the majority of those who served in these activities, such as the International Boards. This appeared to create interdependencies between the hidden and visible entrepreneurs in these three activities because they operated within the same groups, such as the Joint Working Group. Thus, the analysis could not determine whether the condition for independence was upheld.

There were further uncertainties with the analysis of coupling between problems and proposals documented in the JWG Final Report. The report was

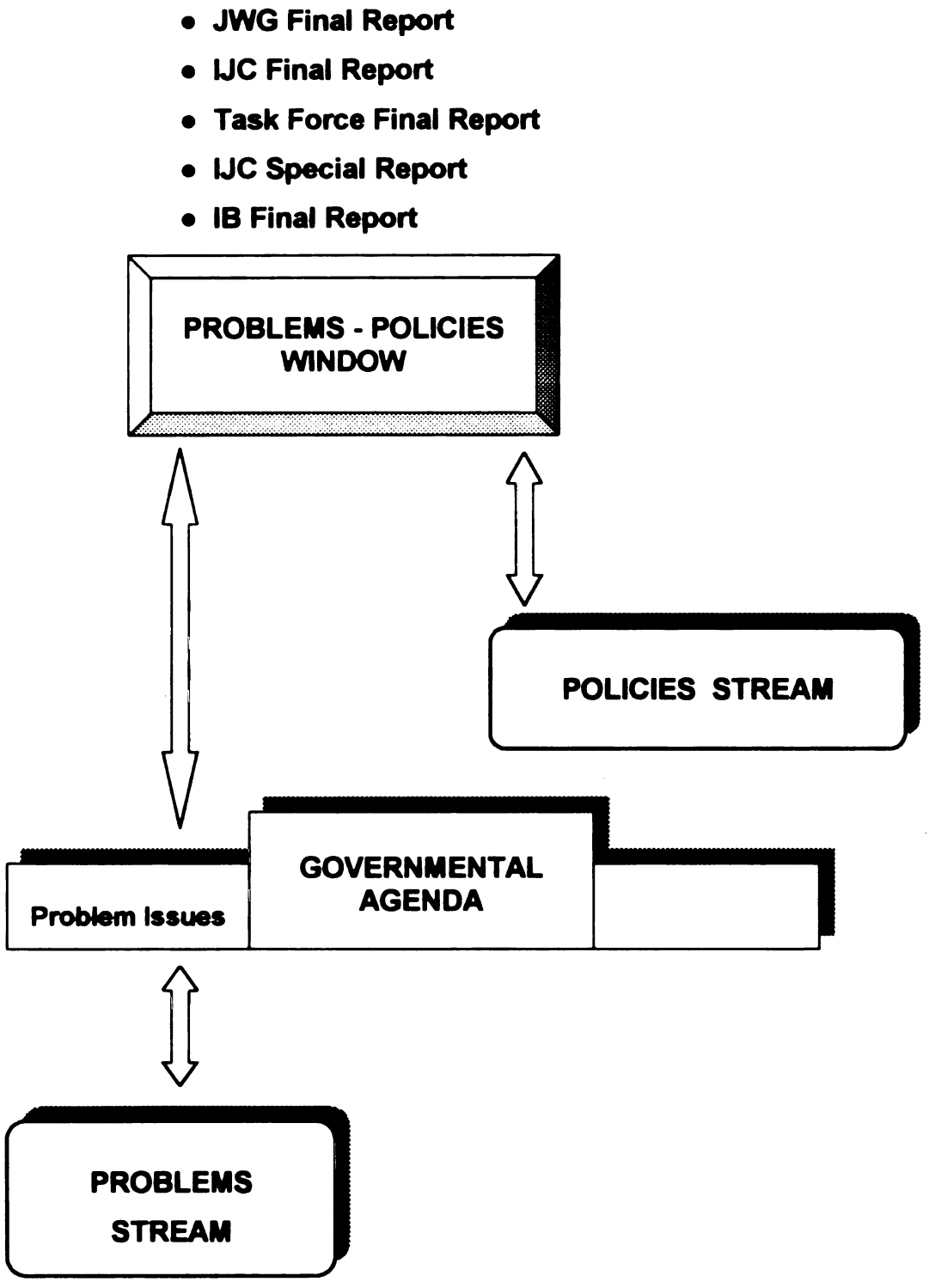


Figure 7.1 Problems-Policies Window within the GLWQA Policy Process.

primarily a detailed recommendation of the form for an intergovernmental agreement on Great Lakes water quality; the executive form of agreement was selected by U.S. officials rather than a treaty that had to be ratified by the Senate (Hillenbrand 1971g, Annex II). The implication for this analysis was that the JWG encountered two additional constraints as they prepared policy recommendations for the Final Report.

First, for the terms of an executive agreement with Canada to be enforceable they would have to conform to U.S. law. Second, Congress had started hearings on water legislation early in 1971; it was too early for the U.S. section of the JWG to know of possible changes to the law that might impact the agreement. Given the questions surrounding the independent functioning of the problems and policies stream, especially the policy entrepreneurs operating in them, it was reasonable to infer that political considerations from the politics stream could further erode the independence of the hidden entrepreneurs in the policies stream. In other words, interdependencies appeared to encroach from the politics stream through the legal constraints imposed on an executive form of agreement and possible changes to federal water law that was the basis for ensuring U.S. compliance with whatever was negotiated in the agreement.

A final observation in the analysis was that the important problems and proposals that had been coupled in the IB Final Report carried forward to the JWG Final Report. This suggests the operation of a quasi validation process that, in approximately five successive stages moved the coupled problems and proposals higher on the governmental agenda.

Therefore, the analysis concluded that Great Lakes water quality problems were coupled with policy proposals. Policy entrepreneurs who perceived credible problems and viable policy proposals to address them mediated the coupling process in the problems-policies window. However, the analysis could not determine if the policy entrepreneurs in the problems and policies streams operated independently as posited by Kingdon's model; in fact, the available evidence raised serious concerns that interdependencies developed between them and, perhaps with visible entrepreneurs in the politics stream as well.

7.2. Politics-Policies Window

The research question HDA 4.2 asks: Which pairs of political initiatives and action alternatives were coupled in the politics-policies window?

Table 7.2 HDA 4.2 Variable Specification.

Research Question	Measurement Type	Variable Description
HDA 4.2	Nominal	Politics-Policies Window: political events; action alternatives.

According to Kingdon, the Politics-Policies Window (PcPyW) opens when policy entrepreneurs connect political initiatives on the governmental agenda with policy proposals that make them viable and ready for further action. As with the PbPyW discussed above Kingdon postulates that the coupling process occurs randomly where visible entrepreneurs look for alternative proposals that would enhance the viability of their political initiative. Likewise, hidden entrepreneurs want to move their policies onto the governmental agenda so they try to attach

them to a promising initiative. Policy entrepreneurs from both streams must engage cooperatively to make the coupling process work.

The priority of the political initiative and proposed policy increase on the governmental agenda after they are coupled. According to Kingdon, further action beyond this point requires the problems stream; authoritative action occurs on the decision agenda only when all three streams couple.

7.2.A. Findings for PcPyW

President Nixon undertook one major political initiative, the Great Lakes Task Force, that responded directly to policies proposed for addressing Great Lakes water quality issues; the discussion below explains how the initiative actually involved two sequential steps. Also, Figure 7.2 presents a causal network diagram of the principal relationships within the PcPyW that are discussed below.

During the months of March and April 1970 the government's environmental agenda for the Great Lakes rose rapidly in prominence when the mercury contamination crisis emerged. The analysis found that public officials were dismayed that they were so poorly equipped to handle the situation; thus, there was a concerted demand by the Great Lakes States and Canada for changes in federal water pollution policy.

Also, the U.S. government received the IJC Special Report in April that recommended they take immediate steps to address critical water pollution problems in Lake Erie and Lake Ontario. The IJC further requested that the governments provide a response to a recommendation in the IB Final Report that

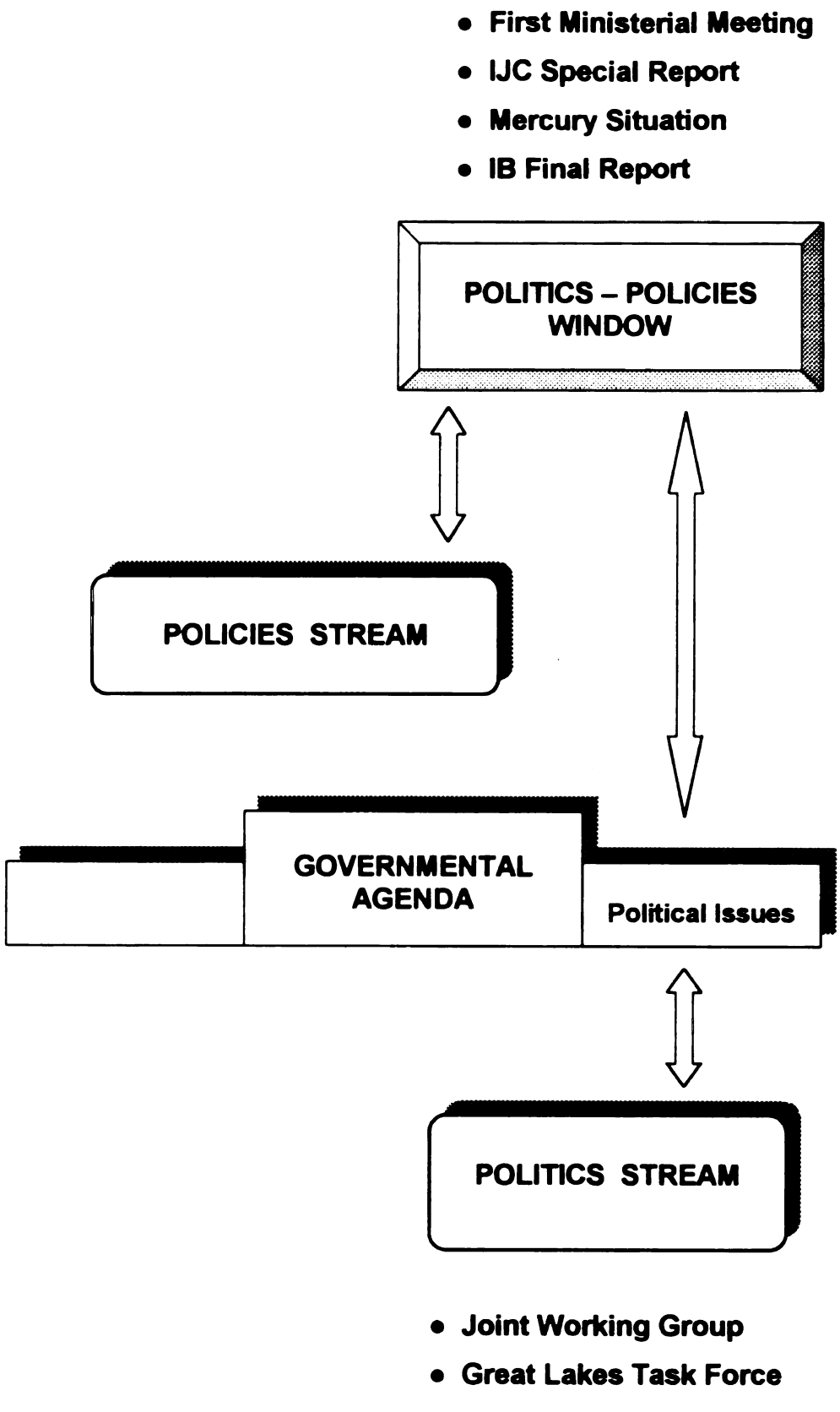


Figure 7.2 Politics-Policies Window within the GLWQA Policy Process.

called for establishing a water pollution control board for the Great Lakes. Thus, these three policy demands occurring nearly simultaneously prompted the President to take the first step, the political initiative to establish the Great Lakes Task Force.

In addition, the analysis showed that this initiative was extremely important because the Task Force would spearhead meetings with Canada in May and June, especially the First Ministerial Meeting that would deal with a range of Great Lakes water pollution issues, including long term solutions to these problems. The second step that was key for the Task Force occurred at the June meeting in Ottawa; the U.S. agreed to form a Joint Working Group to consider water quality objectives for the Great Lakes and the programs and measures necessary to implement them. Several months later the President reassigned the Task Force to the JWG continuing the political initiative begun in early April.

The President's Task Force initiative occurred in the context of other major environmental initiatives. In January 1970 Nixon signed NEPA into law, his first official act of the Decade of the Environment. This established the CEQ and in February he nominated Russell Train, Chairman. The end of February Nixon delivered a special Message on the Environment to Congress wherein the Clean Waters Act was placed at the top of the President's legislative agenda for 1970. Thus, the analysis revealed the administration's activist agenda in 1970 that began with a very full slate of political initiatives for the environment.

Furthermore, the President's record for introducing environmental initiatives clearly showed that he perceived broad public support for them.

Examples include the federal reorganization that created the Environmental Protection Agency in 1970 and the relations early in his administration with OPAs, such as Congress for changing the government's agenda on environmental protection. For the GLWQA in particular, the President found support for the negotiation of an executive agreement in federal law and the Constitution, as well as international law. The analysis concluded that most of the expected sources in the politics stream did support the President's initiative on the Great Lakes; Congress, as an institution did not oppose his efforts but neither did it overtly support it.

Therefore, the analysis concluded that President Nixon's political initiative, the Great Lakes Task Force was coupled with policy proposals to address charges of mercury contamination brought by Canada. The Task Force evolved into the U.S. section of the Joint Working Group in response to further policy proposals for cooperative arrangements with Canada on a range of Great Lakes problems. It was inferred that policy entrepreneurs, especially President Nixon perceived an opportunity to launch a new political initiative to deal with Great Lakes water pollution. However, the analysis was able to show that this initiative was a direct response to policy proposals presented by the IJC and the Government of Canada. Though coupling did occur, the fact that the initiative was not already on the governmental agenda but appeared in response to policy proposals suggested that the politics and policies streams did not operate independently as posited in Kingdon's model.

7.3. Decision Agenda

The research question HDA 4.3 asks: Which policy problems, political events and action alternatives were coupled in the decision agenda process?

Table 7.3 HDA 4.3 Variable Specification.

Research Question	Measurement Type	Variable Description
HDA 4.3	Nominal	Decision Agenda Change: policy problems; political events; action alternatives.

The Kingdon model posits that authoritative action is taken on an agenda item when policy entrepreneurs from the three process streams reach consensus that there is a credible problem, a viable alternative for action addresses this problem and both of these have the support of political constituencies and institutions.

Decision-makers look for problems and policies that have coupled and then seek a political initiative to provide the necessary support for further action. Alternatively, they search for a political initiative coupled to a policy proposal and set out looking for a problem to solve that would justify using this combination. Under Kingdon's model, a window of opportunity opens and an item moves from the governmental agenda to the decision agenda when either of these scenarios occur; the process is invariant. The item is now ready for authoritative action.

7.3.A. Findings for the Decision Agenda

The analysis below for the decision agenda focuses specifically on the policy process by which toxic substances were negotiated in the GLWQA. In 1972 the Agreement established a new international precedent for the control of

pollution in boundary waters or international waters shared between states. The categories of pollution control programs in the Agreement included ones specifically for toxic substances. Toxic substances assumed a prominent place on the decision agenda and played a central role in changes of the governmental agenda. The following analysis focuses primarily on the policy mechanisms by which the agenda changed. Also, Figure 7.3 presents a causal network diagram of the principal relationships within the Decision Agenda that are discussed below.

The analysis found that the Lower Lakes Reference of 1964 responded to the general perception that Great Lakes water quality was significantly impaired by discharges of municipal and industrial wastes. A lengthy five-year investigation focused on identification of problems and recommendations for their solution. Coupling between problems from the problems stream and policy proposals from the policies stream was documented consistently in five separate reports from late 1969 until June 1971. As noted above, the identified problems and policy proposals remained generally consistent because each subsequent report based its findings and recommendations on earlier ones.

The first report in the series, the IB Final Report (December 1969), recognized in the findings that discharge of municipal and industrial wastes contributed toxic substances to the Great Lakes and these are "pollutants that are of immediate concern" (ILELOWPB 1969a, pp.7-13). Two recommendations were offered to control these pollution sources. Also, the report recommended that a board be appointed to coordinate joint international programs for pollution

control, including water quality objectives. Thus, toxic substance problems were coupled with pollution control proposals.

The IJC held extensive public hearings on a summary of the IB Final Report and recommendations. The results of the hearings formed the basis of the IJC Special Report on potential oil pollution, eutrophication and pollution from watercraft (IJC 1970b). The IJC submitted the Special Report (April 1970) to the governments with recommendations that they develop plans "as a matter of urgency ... (to) effectively respond to major accidental spills of oils or other hazardous material." Though toxic substances were not specifically mentioned it was inferred that hazardous materials included them. The IJC also requested that the governments provide a response to the recommendation in the IB Final Report that they appoint a pollution control board for the Great Lakes. Again, perceived pollution problems were coupled with pollution control proposals.

While Nixon administration officials considered these requests the mercury situation emerged first in Lake St. Clair in March and then rapidly expanded to Lake Erie and Lake Ontario in April (Turney 1970). Nixon's political initiative, the Great Lakes Task Force was established to respond to these escalating problems and the IJC requests, and to conduct a study of pollution control management systems in the Great Lakes. In other words, input from policy proposals as well as feedback on deficiencies in government policy appeared to motivate the President to establish the Great Lakes Task Force; it also was charged with handling other policy problems.

Moreover, the Task Force under Russell Train conducted important policy

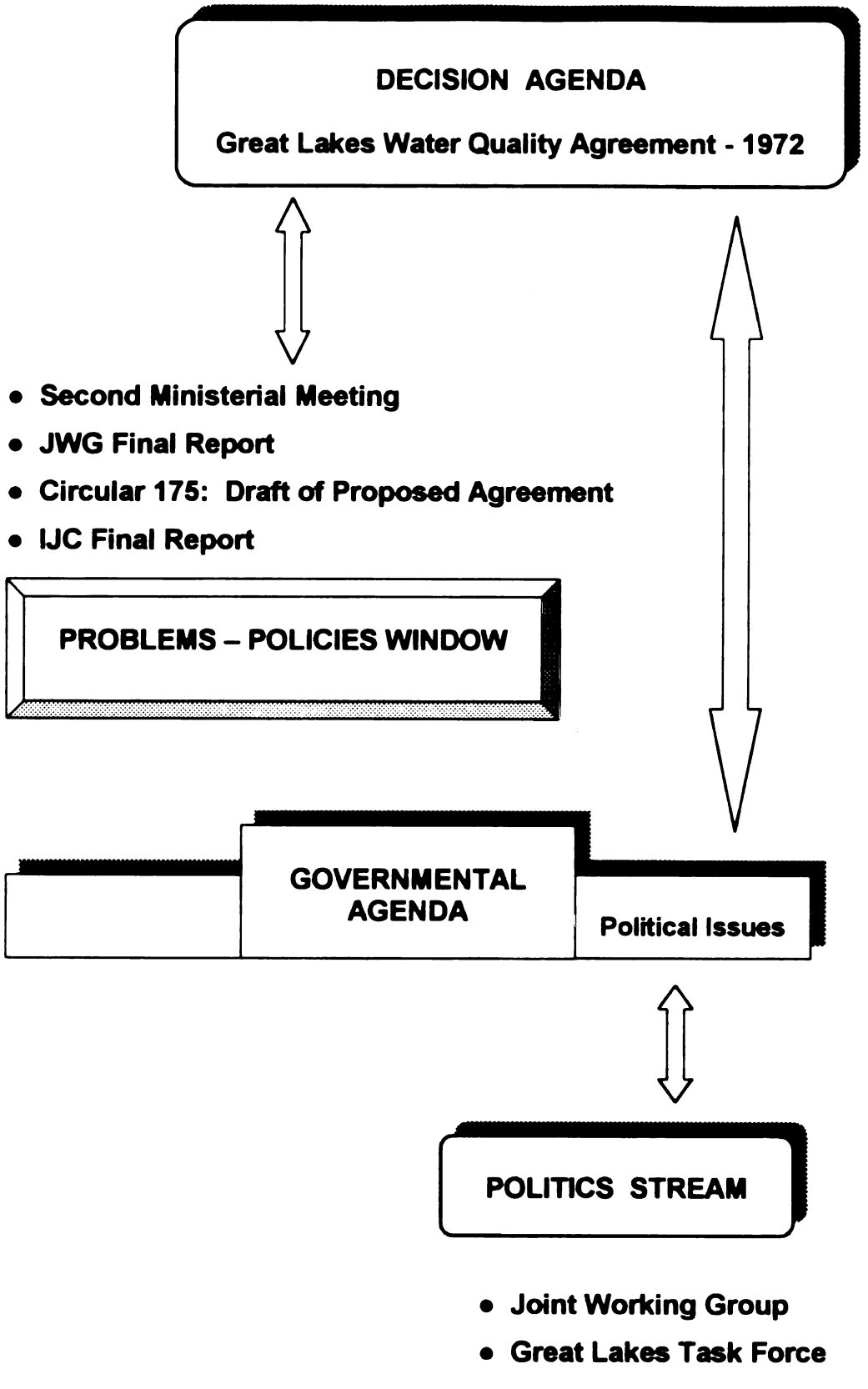


Figure 7.3 Decision Agenda within the GLWQA Policy Process.

meetings with Canadian officials. The Government of Canada made it clear that they believed waste discharges from the U.S. side were polluting the Great Lakes in violation of the Boundary Waters Treaty. Federal officials documented mercury contamination throughout the Lower Great Lakes confirming the earlier reports by Canadian government sources. These contamination problems and the IJC Special Report were discussed at the First Ministerial Meeting with Canadian officials in June 1970. The U.S. agreed at this meeting to establish a Joint Working Group to consider water quality objectives for the Great Lakes basin and programs to implement them.

All of the above activities showed the dynamic context for the PcPyW and PbPyW; that is, the context in which the President's political initiative coupled with policy proposals and policy entrepreneurs coupled Great Lakes problems with recommendations.

By the end of the summer of 1970 the Task Force completed the Great Lakes study for the President and submitted its Final Report in September. The President approved the Report in October; it was notably silent on toxic substances referring in a general way to "incidents and causes of pollution" and recommended that federal agencies should "maintain the present high priority" of its Great Lakes pollution programs (Hillenbrand 1971d, pg.2 and 7, respectively).

The Task Force Final Report showed that despite the coupling that had already occurred, the Nixon administration gave no clear signals on the agenda status for toxic substances. However, the IJC Final Report provided the first indication of change in the U.S. government's position. The IJC Final Report was

extremely important because it concluded the Lower Lakes Reference that had begun in 1964 and was the most comprehensive binational study ever undertaken. The 19 major findings in the Final Report, three of which dealt with toxic substances, answered all of the questions posed by the governments in the Lower Lakes Reference; also, four of the recommendations addressed toxic substances specifically (IJC 1970a, pp.136-143 and 149-156, respectively).

The U.S. government accepted and fully approved the IJC Final Report at a Washington press conference on January 14, 1971 (Hillenbrand 1971a). Thus, the Problems-Policies Window opened for toxic substances and they achieved a prominent and apparently permanent place on the governmental agenda.

This was confirmed several months later when the first Draft of Proposed Agreement was circulated in the Circular 175 package; U.S. officials reviewed and commented on the Draft (Hillenbrand 1971h). The U.S. Draft enumerated the "five freedoms" in Article II, one of which was that "the Great Lakes System should at all places and at all times be: ... free from substances in concentrations that are toxic or harmful to human, animal or aquatic life." Also, Article III called for water quality standards for "persistent organic contaminants, ... and mercury and other toxic heavy metals." Further, Article IV, Programs to Achieve the Common Water Quality Objectives, proposed that the governments implement programs "as rapidly as feasible": for "the elimination ... of mercury and other toxic heavy metals from all sources into the Boundary Waters"; and, "to limit the accumulation in the Boundary Waters ... of persistent pesticides, herbicides and other organic contaminants." Thus, the Problems-Policies Window opened again

and toxic substances were firmly placed on the governmental agenda for possible further action.

The Joint Working Group Final Report, submitted to the governments at the Second Ministerial Meeting in June 1971 provided similar recommendations (Hillenbrand 1971g). Annex II, Form and Content of Proposed Great Lakes Water Quality Agreement, recommended that water quality standards and pollution control programs be developed for various pollutants including mercury, toxic heavy metals, and persistent organic contaminants. In addition, Article III, Great Lakes Water Quality Objectives, again recommended the "five freedoms" that included the one for substances that are "toxic or harmful to human, animal or aquatic life." Schedule 1 included detailed program commitments for mercury and other toxic heavy metals, and persistent pesticides, herbicides and other organic contaminants. Once again, the Problems-Policies Window opened and toxic substances were positioned for further action on the governmental agenda.

The analysis inferred that the final necessary component of the policy process for toxic substances was the President's political initiative, the Great Lakes Task Force later to become the U.S. section of the Joint Working Group. It could not be determined whether this political initiative remained coupled with the policy proposals that initially helped to justify its existence. Nonetheless, it appeared to be essential given the prominent roles of the Task Force, and then the U.S. section of the JWG in the policy process that changed the governmental agenda for toxic substances.

CHAPTER 8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Conclusions

This research attempts to evaluate the applicability of Kingdon's model of agenda change to the policy process that moved toxic substances onto the governmental agenda for authoritative action under the Great Lakes Water Quality Agreement. The 1972 Agreement was the first binational water pollution control agreement negotiated for boundary waters shared between sovereign states and specifically provided for programs to control sources of toxic substances that discharge into the Great Lakes. Thus, the Agreement provided a case where significant change in the governmental agenda was clearly documented and included toxic substances.

According to Kingdon, the policy process requires three process streams – problems, politics and policies – to prepare for change on the government's decision agenda. The model posits that significant agenda change occurs; i.e., authoritative action on the decision agenda when policy entrepreneurs in all three streams reach consensus that there is a credible problem, a viable solution is available and there is either strong support for or minimal political opposition to government action.

This dissertation posed three hypotheses to test the applicability of Kingdon's model for each process stream. The concerted action of all three streams that completes preparations for change on the decision agenda was

tested by a fourth hypothesis. The conclusions of these tests are presented below.

8.1.A. Hypothesis H1: The Problems Stream

The hypothesis H1 posits that: the problems stream affects the governmental agenda when visible entrepreneurs perceive that there is an important and credible problem government should do something about.

The principal visible entrepreneurs who perceived Great Lakes water pollution problems as important were President Nixon and two of his appointees, William Rogers and Russell Train. They clearly had a legitimate claim to be heard on these issues, were well connected and skilled politically and, particularly in the case of Train, persisted in concluding a comprehensive Great Lakes agreement. Similarly, other visible entrepreneurs had a legitimate claim to be heard and spoke out; e.g., Governor Milliken of Michigan or were skilled politically, such as Patrick Moynihan. These characteristics of visible entrepreneurs are essential if problems are to be effectively moved up in prominence on the governmental agenda.

The conditions of water quality in the Great Lakes were perceived to be very important problems for several reasons. The water quality had deteriorated to the point of impairing designated uses of the waters. These designated uses had been established as legitimate social values under the Boundary Waters Treaty of 1909. Also, comparisons among jurisdictions in the U.S. revealed the weak capability of local and state governments to abate practices that impaired these uses.

In addition, the mercury contamination situation created a new category for the problem of waste discharges containing toxic substances; e.g., those discharged by municipal and industrial sources because there were no effective policy tools available to government jurisdictions at the state or federal levels. This situation unfolded dramatically and became a focusing event because it produced serious economic losses to commercial and sports fisheries.

Taken together, these problems had a cumulative effect that contributed to serious changes in a number of systematic indicators; e.g., commercial and sports fisheries. These changes were discussed in a number of important venues, such as the First Ministerial Meeting, IJC Special Report, IJC Final Report, JWG Final Report and Circular 175 packages; they demonstrated changes in systematic indicators and provided feedback on government policies established to handle them.

The Kingdon model posits that the factors discussed above are necessary for visible entrepreneurs to perceive that a problem is credible and important enough to commit their resources, and those of the government toward effective government action. All of the necessary factors appeared to operate for the problems stream.

8.1.B. Hypothesis H2: The Politics Stream

The hypothesis H2 holds that the politics stream affects the governmental agenda when visible entrepreneurs perceive that there is broad support for changing the government's agenda; this includes support from public constituencies, government institutions and organized political actors.

As in the problems stream, President Nixon and Russell Train were the principal visible entrepreneurs who possessed the necessary attributes; a legitimate claim to be heard; known political connections and/or negotiation skills; and, persistence in addressing the policy problems.

In addition, President Nixon perceived there was broad support from public constituencies and introduced numerous legislative initiatives on the environment from 1969 through 1972. Similarly, Russell Train advocated for the administration's environmental proposals in numerous public fora; thus, he also perceived that there was public support to move these items up on the governmental agenda.

Institutional support appeared from a number sources. For example, President Nixon used a major federal reorganization in 1970 to create support for the administration's environmental agenda. Specifically, the Environmental Protection Agency was established; it included turnover of personnel and realignment of programs from a number of federal agencies. Also, institutional support for the President's authority to conduct and later implement the provisions of the GLWQA came primarily from the U.S. Constitution and federal law, but included important precepts of international law.

Organized political actors generally supported the President's policies early in his administration. Congress supported President Nixon in 1969 and through most of 1970 on initiatives dealing with hazardous substances and water pollution permits. However, support faded in late 1970 and this continued into 1971; e.g., the President's legislation on toxic substances and water pollution

control stalled in Congress. Support eroded further in 1972 when the administration decided to battle Congress over controversial amendments to federal water law.

Though the Great Lakes Water Quality Agreement was not negotiated and discussed in public venues, the principal visible entrepreneurs appeared to perceive broad support from public constituencies, government institutions and organized political actors for undertaking action on these problems. Thus, it was inferred that the necessary factors were present and operated in the politics stream.

8.1.C. Hypothesis H3: The Policies Stream

The hypothesis H3 posits that the policies stream affects the set of alternatives for policy action when hidden entrepreneurs commit their resources to participate in the process, and a cohesive policy community arrives at a consensus about the reliability and/or viability of the policy proposals.

The hidden entrepreneurs in the policies stream were specialists and well connected through policy networks. These included the IJC Commissioners and members of the International Boards who were involved in the Lower Lakes Reference; the President's Great Lakes Task Force; and, the U.S. section of the Canadian – United States Joint Working Group.

The analysis inferred several incentives for the hidden entrepreneurs to commit their resources to developing Great Lakes policy proposals. Those in state and federal agencies shared a strategic interest in issues of control over water pollution programs.

Also, they shared material incentives that reflected the costs for new and modernized waste treatment facilities; the facilities would be mostly funded by federal appropriations and questions of revenue sharing were important. Finally, they shared purposive incentives for working with their counterparts from other agencies on problems that involved long term solutions.

Consensus was reached on the Great Lakes proposals, including those for toxic substances for several important reasons. First, the hidden entrepreneurs; the International Boards, International Joint Commission and Joint Working Group indicated congruence with social values in their findings and recommendations. Also, congruence of values among the hidden entrepreneurs was evident at least for the International Boards and International Joint Commission. Technical feasibility surfaced as an important factor for the International Boards in their recommendations. Finally, political currency was inferred as a factor for the IJC because they held public hearings on a summary of the Lower Lakes investigation and also participated in the Great Lakes Environmental Conference.

The diffusion process appeared to play a primary role in reaching consensus on the Great Lakes policy proposals. However, the diffusion of ideas that is key to the process seemed, in this case, to involve significant roles for visible entrepreneurs from the other process streams. Some of it may have been necessary; e.g., the JWG developed proposals during the negotiations of the GLWQA while the President and Congress pushed forward on new water legislation. The JWG had to be aware of these pending changes because the

U.S. government could not ensure compliance with the provisions of an agreement unless they knew what the law required.

Nonetheless, the research revealed a confounding effect in the policies stream caused by visible entrepreneurs. The confounding effect was introduced by visible entrepreneurs who were involved in developing policy proposals in the policies stream, such as Herter at the IJC and who also operated in the other process streams. Furthermore, the influence of the visible entrepreneurs over their counterparts, the hidden entrepreneurs was enhanced because they held leadership roles in at least two other process streams, such as Train at the CEQ. Thus, the requirement under the Kingdon model that the hidden entrepreneurs be independent from the policy entrepreneurs in the problems and politics streams could not be sustained.

A broader implication was that this loss of independent action among the policy entrepreneurs resulted in a loss of independence in the overall operation of the policies stream. The effect of this loss limited the range of alternative actions that were available because, under the circumstances described here proposals for alternative actions would be developed to address only the specific problems identified by the visible entrepreneurs.

Thus, while the evidence provides some support for Kingdon's model, overall the model's applicability to the policies stream in this case is not completely sustained and support for the hypothesis is thus weakened.

8.1.D. Hypothesis HDA: The Decision Agenda

The hypothesis HDA maintains that coupling among the policy process streams changes the government's decision agenda when there is a credible problem, a viable alternative for action on the problem, and these have the support, or at least the absence of strong opposition, of political constituencies and/or institutions.

The Problems-Policies Window opened when problems from the problems stream and policy proposals from the policies stream coupled. This was documented in five separate reports: the IB Final Report; IJC Special Report; President's Great Lakes Task Force Final Report; IJC Final Report; JWG Final Report. Each subsequent report cited the earlier ones and appeared to base its findings and recommendations on these. The identified problems and policy proposals remained generally consistent though the reports did not always deal with the same ones.

For example, toxic substances were specifically addressed in the findings and recommendations of the first report, the IB Final Report. The IJC Special Report, however, referred only to "hazardous material" and the Task Force Final Report simply identified "incidents and causes of pollution."

Also, the IJC Final Report contained19 major findings, three of which dealt with toxic substances; also, four of the recommendations addressed these. Pollution control programs and measures were recommended for mercury, toxic heavy metals, persistent pesticides and other organic contaminants. The Joint Working Group Final Report provided similar recommendations in Annexes II and

III and Schedule 1 for mercury, toxic heavy metals, persistent pesticides and other organic contaminants.

The first serious policy proposals by the U.S. on toxic substances were in the Draft of Proposed Agreement that was circulated in the Circular 175 package in May 1971. Articles II, III and IV focused on persistent organic contaminants, mercury and other toxic heavy metals.

The Politics-Policies Window opened when a major political initiative from the politics stream coupled with policy proposals from the policies stream. Policy proposals from the IJC and a serious mercury contamination situation that had numerous policy implications prompted President Nixon to undertake a major political initiative, the President's Great Lakes Task Force. In addition to responding to these policy problems the Task Force was directed to conduct a study of pollution control management systems in the Great Lakes. Several months later the Task Force was reassigned to the U.S. section of the Joint Working Group; the formation of the JWG was a major policy proposal from the First Ministerial Meeting.

In addition, the Circular 175 package was approved in May 1971 that authorized U.S. officials to negotiate an intergovernmental agreement with Canada. This political initiative coupled with the Problems-Policies Windows discussed above; the most probable reason for this was that the package contained the principal documents describing the most important problems and policy proposals for improving Great Lakes water quality. Approval of the Circular 175 package by U.S. officials, the visible and hidden policy

entrepreneurs, brought together all of the primary components for changing the government's agenda, especially for toxic substances. Thus, toxic substances were formally added to the decision agenda when the governments signed the Great Lakes Water Quality Agreement on April 15, 1972. Specifically, the U.S. government agreed to pollution control programs and measures for toxic and hazardous materials in Articles II, III, V and Annexes 1 and 7. Thus, the hypothesis HDA is supported by the evidence collected.

8.1.E. Conclusion

The results of this research demonstrate that Kingdon's model cannot be strictly applied to all aspects of the case of the Great Lakes Water Quality Agreement. However, Kingdon's model is useful in reaching an understanding of the way policy issues move up on the governmental agenda and, with sufficient support they receive authoritative action by decisionmakers.

Problems must be perceived as credible which requires skilled advocates and there are ways and means by which they become perceived as important. The characteristics in the model appeared to describe the problems addressed in the GLWQA.

Similarly, policy entrepreneurs that bring forward political initiatives must be skilled at negotiations, be able to understand the national mood and find support from important constituencies and government institutions. These characteristics also applied to the GLWQA case.

In addition, policy entrepreneurs commit their resources to developing policy proposals with the appropriate incentives. Their proposals receive support

when they are relevant and feasible and if the right means are used to reach consensus. The proposals in the GLWQA case were congruent with these characteristics of Kingdon's model.

Thus, the essential factors required within each policy process stream under Kingdon's model were present during the development of the Great Lakes Water Quality Agreement. In general, the problems, politics and policies streams operated as the model indicated they should.

The major exception was the policies stream wherein visible entrepreneurs did not act independently of the hidden entrepreneurs. Visible entrepreneurs had leadership roles in the activities of the policies stream, such as the Lower Lakes Reference with the IJC. Since the governments specified these relationships in the Reference, the agenda change process began with interdependence between hidden and visible entrepreneurs in the policies stream. While there were significant changes in the actors who took part in the policy process between the promulgation of the Reference in 1964 and the conclusion of the GLWQA in 1972, the evidence clearly indicates that this interdependence remained an integral part of the agenda change process. For example, this framework for addressing Great Lakes problems was also found with the President's Great Lakes Task Force and the Joint Working Group.

Thus, Kingdon's model, which is predicated on an independence of the hidden and visible entrepreneurs during the duration of the agenda change process, could not be successfully applied to any part of the process in this case study.

8.2. Recommendations

Further research should test the applicability of Kingdon's model to other Great Lakes cases, such as the Great Lakes Critical Programs Act of 1990 which requires minimum water quality standards for toxic substances that are consistent with the provisions of the Great Lakes Water Quality Agreement (United States 1991, pp.3000-3004). Another possible case is section 112(m) of the Clean Air Act Amendments of 1990 recognized toxic air pollutants deposited into the Great Lakes (Rhomberg 1997).

The agenda of Congress concerned with Great Lakes toxic substance problems changed significantly in both of these cases. Since Congress was making new federal water law the research would not be constrained by the legal enforceability issue that was faced with the GLWQA. Finally, research into the relevant records of Congress could be undertaken when they are released to the National Legislative Archives system.

Other policy changes that could be used to test Kingdon's model are the 1978 and 1987 amendments to the Great Lakes Water Quality Agreement which changed the governmental agenda with new concepts, such as "virtual elimination" (State 1978; United States 1978; United States 1988). The U.S. Environmental Protection Agency was primarily responsible for negotiating these amended agreements. Research into the records of the Agency could be undertaken when they are released to the National Archives and Records Administration system.

As noted above, Kingdon's model although imperfect provided a structured but flexible framework for understanding agenda change. The policy making literature offers several alternative approaches to agenda setting that could be tested with these Great Lakes cases, including the GLWQA of 1972.

One approach to agenda setting is the Downs' model, also known as the Issue-Attention Cycle (Downs 1972). This framework postulates a systematic cycle where problems suddenly appear on the governmental agenda and then fade from view. The relevant policy actors are government and the "public." The policy outcomes are regular, periodic, or cyclical patterns as policy issues move on and off the agenda in response to public attention.

Another approach is the Punctuated Equilibrium Model developed by Baumgartner and Jones (Baumgartner 1991; Baumgartner 1993). The policy actors are policy subsystems comprised of individuals, experts, government and elected officials and the media. The members of each subsystem work to change views on policies and thereby undermine the existing ones. The policy outcomes reflect a "punctuated equilibrium" process in which there is a relatively long stable period followed by rapid, dramatic and non-incremental change. After this change the policy subsystem does not return to the status quo, but rather achieves a new point of stability.

Finally, further research should study the role of the Great Lakes States in the GLWQA policy process. State archival records could provide important documentation to explain the relationship between the governors and President Nixon. During this time period the Nixon administration attempted to devolve

power back to the states through federal revenue sharing programs (Dye 1990a, pp.12-13). In the context of these policy changes this research should explore how the governors allowed President Nixon to address Great Lakes problems at the federal level rather than the state level.

4
2001

TOXIC SUBSTANCES AND FEDERAL WATER POLICY: APPLICATION OF KINGDON'S MODEL OF AGENDA CHANGE TO THE GREAT LAKES WATER QUALITY AGREEMENT OF 1972

VOLUME II

By

Jon MacDonagh-Dumler

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Resource Development

2000

APPENDIX

Note: The materials in the Appendix were reproduced from original documents archived at the National Archives and Records Administration, College Park, MD.

APPENDIX A

Special Report by the International Joint Commission on Potential Oil Pollution, Eutrophication and Pollution from Watercraft: Recommendations.

RECOMMENDATIONS

WITH REGARD TO POTENTIAL OIL POLLUTION IN LAKE ERIE THE COMMISSION RECOMMENDS THAT:

1. The two Governments in concert with provincial and state agencies and with industry accelerate and expand, as a matter of urgency, their applied research programmes on the containment and clean up of oil spills so those responsible for the execution of contingency plans may have available the best possible technical advice, equipment and support.

2. The Government of Canada, as a matter of urgency, develop a detailed and fully coordinated contingency plan for the Canadian waters of the Great Lakes system; the Government of the United States progressively improve its contingency plan so as to include all available response capabilities; and the two Governments under the general aegis of the International Joint Commission arrange for the development of a coordinated international contingency plan so that both countries may quickly and effectively respond to major accidental spills of oils or other hazardous material in the boundary waters of the Great Lakes system.

3. In view of the urgency of the two preceding recommendations,

(a) the oil production and the production of "wet gas" containing appreciable amounts of liquid hydrocarbons from wells in Lake Erie be prohibited,

(b) all wells in Lake Erie capable of oil production be adequately plugged,

(c) in the western basin of Lake Erie (west of a straight line drawn from the tip of Pelee Point in Ontario to Marblehead in Ohio) all drilling be prohibited,

(d) in the remainder of Lake Erie drilling not be permitted unless the regulating agency having jurisdiction has determined in the light of known geologic conditions that there would be no reasonable likelihood of discovering oil or "wet gas" containing appreciable amounts of liquid hydrocarbons,

until such time as the two Governments, through this Commission or otherwise, have examined and approved the containment methods and the contingency plans referred to above.

4. The two Governments take steps to exclude from the Great Lakes ships and masters likely to present an unreasonable risk of oil pollution; and also make provision to alert appropriate officials in both countries when hazardous materials are in transit in these waters.

WITH REGARD TO THE EUTROPHICATION OF LAKE ERIE, LAKE ONTARIO AND THE INTERNATIONAL SECTION OF THE ST. LAWRENCE RIVER THE COMMISSION RECOMMENDS THAT:

5. The Governments of the United States and Canada in concert implement at the earliest possible date an integrated programme of phosphorus control to include:

   (a) the immediate reduction to a minimum practicable level of the phosphorus content of detergents and the total quantities of phosphorus-based detergents discharged into the basin with the aim of complete replacement of all phosphorus in detergents with environmentally less harmful materials by December 31, 1972;

   (b) further reduction, as a matter of urgency, of the remaining phosphorus in municipal and industrial waste effluents discharging to Lake Erie, Lake Ontario and their tributaries and to the International Section of the St. Lawrence River, with a view to achieving at least an 80 percent reduction by 1975 and thereafter additional reduction to the maximum extent possible by economically feasible processes;

   (c) the reduction of phosphorus discharged to waters from agricultural activities.

WITH REGARD TO POLLUTION FROM WATERCRAFT THE COMMISSION RECOMMENDS THAT:

6. The federal, provincial and state governments in concert consider and implement at the earliest possible date compatible regulations for the control of water pollution from

all classes of commercial vessels and pleasure craft using Lake Erie, Lake Ontario and the International Section of the St. Lawrence River.

APPENDIX B

Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes - Final Report. Circular 175 of 05/28/71.

THE WHITE HOUSE

WASHINGTON

October 1, 1970

MEMORANDUM FOR

Russell E. Train, Chairman
Council on Environmental Quality

FROM: John D. Ehrlichman

The President is in agreement with your recommendations contained in your September 24 memorandum, "Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes - Final Report," including in your recommendation that the Task Force be discharged.

The recommendations should be implemented, as you suggest, by the U.S. Section of the Joint Working Group under the Council on Environmental Quality.

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W.
WASHINGTON, D. C. 20006

SEP 24 1970

MEMORANDUM FOR

THE PRESIDENT

SUBJECT: Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes--Final Report

In accordance with your instructions, the Task Force reports its findings and recommendations, and requests that it be discharged. We do not believe that a more formal report is necessary now since a number of the issues and recommendations require further discussion with the Canadians.

The Task Force and its Advisory Committee have held a number of meetings, and in addition, two meetings on the governmental level have been held with Canadian officials. At the June 23 U.S.-Canadian Ministerial meeting in Ottawa, we agreed to develop compatible joint contingency plans to cope with accidental oil pollution and requirements for pollution control with respect to polluting discharges from vessels on the Great Lakes. These two matters constitute recommendations 3 and 4 below.

The Task Force believes we have reached a point at which important steps can be taken to advance joint undertakings with Canada to combat pollution in the Great Lakes. Several recent developments have made this possible. Wide public concern has been generated recently for improving the quality of the Great Lakes. At the same time both governments have intensified their efforts to identify incidents and causes of pollution and to seek ways to combat it. Our own legislation and Canada's Water Act (enacted on June 26) have strengthened

governmental authority to deal with the pollution problem. Also, in its report of April 1970, and in another to be released in October 1970, the International Joint Commission (IJC), the permanent U.S. - Canadian body established to carry out the purposes of the Boundary Waters Treaty of 1909, has identified for the governments major pollution problems and provided recommendations for action to improve Great Lakes water quality.

These positive developments underscore the need to broaden and strengthen our joint machinery for international cooperation in attacking Great Lakes pollution. The principal joint body for this work is the IJC, which has been operating successfully in this general field for 50 years and is a competent and impartial body. The heightened concern and expanding needs and activities in the field of Great Lakes pollution require a greater IJC role and capabilities. The Task Force's recommendations are aimed in part at meeting this need.

On June 23, U.S. and Canadian officials at the Ministerial level met in Ottawa and agreed to establish a U.S. - Canadian Joint Working Group to consider common water quality objectives including proposals as may be presented by either government.

With the establishment of the Joint Working Group, the present Task Force should be dissolved and the work relating to improving the effectiveness of water quality control in the Great Lakes reassigned to the United States section of the Joint Working Group. The U.S. section of the Joint Working Group has been established under the Council on Environmental Quality. The Joint Working Group will report back to a Ministerial meeting planned to be convened later this year.

The U.S. and Canada have differing views on the causes and cures of pollution in the Great Lakes. The Canadians interpret the Boundary Waters Treaty of 1909 provision (Article VIII) "that each side shall have equal and similar rights in the use of the boundary waters" as meaning that each country has the right to use a percentage of an agreed pollution absorptive capacity of the lakes based on ownership of lake area. This approach would require treatment of waste discharges originating in the United States far beyond the point at which the residual would cause damage or nuisance on either side of the lakes.

The United States interprets the Treaty provision (Article IV) that "waters flowing across the boundaries shall not be polluted on either side to the injury of health or property of the other" as obligating both sides to reduce pollution of the lakes to the extent technically and economically feasible.

While this divergence of views has impeded our talks to date, we believe these differing viewpoints can be reconciled and that we can and should take important steps together in combating pollution in the lakes within the context of the new Joint Working Group and other cooperative machinery.

The Task Force's recommendations, summarized below, are of two types. The first, and most important, will require bilateral action, and hence, further negotiation with the Canadians. The second can be accomplished by independent action by the United States. These recommendations will provide a basis for the U. S. position in the Joint Working Group.

SUMMARY OF RECOMMENDATIONS

A. Recommendations requiring bilateral action by the United States and Canada

Recommendation 1: The Task Force recommends that a Great Lakes Basin Pollution Control Board be appointed, under and responsible to the International Joint Commission, for the coordination of programs of water pollution control of the Great Lakes. This is consistent with Recommendation No. 19 of the "Report to the International Joint Commission, 1969" of the International Lake Erie Water Pollution Board and the International Lake Ontario-St. Lawrence River Water Pollution Board.

The proposed Board, acting through the normal channels of the International Joint Commission, would:

(1) Make recommendations to the governments for the establishment of water quality objectives for the waters of the Great Lakes;

(2) Make recommendations to the governments for regulations and legislation to effectuate the objectives agreed upon by the governments from time to time;

(3) Obtain and transmit to the governments information concerning water quality in the Great Lakes;

(4) Monitor compliance with agreements between the United States and Canada, and to give notice to the appropriate compliance and enforcement agencies of the two countries concerning violations of the same; and

(5) Perform such other functions as may be assigned, from time to time, by the International Joint Commission.

The Board should be empowered by the International Joint Commission to conduct public hearings in the United States and Canada in order to develop information of use to the governments, and in this connection, should have all of the present power of the International Joint Commission to compel testimony and the production of documents. The Board should be directed to report to the International Joint Commission on a periodic basis and through the normal channels of the Commission to the governments on the subjects referred to it.

Recommendation 2: In connection with the establishment of this Board, the Task Force recommends that the jurisdiction for water quality of the International Joint Commission be extended to the entire Great Lakes System. This would be accomplished by extending the reference of the International Joint Commission on pollution of the lower Great Lakes to the other boundary waters of the Great Lakes Basin. Existing water quality boards could continue where appropriate, but as bodies subordinate to the Board created pursuant to Recommendation 1.

Action on Recommendations 1 and 2: The Department of State should transmit the above recommendations to the Government of Canada and to the International Joint Commission, pursuant to the request of the International Joint Commission of April 8, 1970, as the preliminary view of the Government of the United States on Recommendation No. 19, on or before September 10, 1970.

The United States delegation to the Joint Working Group should seek Canadian agreement to this proposal.

Recommendation 3: The Task Force recommends that the United States work with Canada to develop and enforce compatible regulations for the control of pollution from discharges of waste or other materials from vessels of all classes navigating the waters of the Great Lakes System. This recommendation was agreed to by the United States and Canada at the June 23 meeting of Ministers in Ottawa.

Action on Recommendation 3: The Council on Environmental Quality will coordinate with other agencies the development of these regulations and prepare the United States position for further negotiations with Canada under the aegis of the Joint Working Group.

Recommendation 4: The Task Force recommends that the United States exchange information with Canada concerning contingency plans for clean up of accidental spills of oil and other hazardous materials and, to the maximum extent possible, meld these into a joint contingency plan, including mutual cooperative action. The United States and Canada have agreed in principle to this recommendation.

Action on Recommendation 4: The Department of Transportation shall be responsible for coordinating the U.S. position for further negotiation with Canada under the aegis of the Joint Working Group.

Recommendation 5: The Task Force recommends that, in the continuing discussions with Canada through the Joint Working Group, arrangements be developed for a permanent Emergency Communications Operation (ECO) to deal promptly and decisively with any unforeseen water quality problem which may arise which would not be brought under control through the implementation of any approved joint contingency plan. The recent mercury contamination problem is an example of such a case. The structure of such an arrangement should be developed by the Joint Working Group.

Action on Recommendation 5: The U.S. delegation to the Joint Working Group should seek Canadian agreement to this proposal.

Recommendation 6: The Task Force recommends that the present informal exchange of information on water quality programs in the Great Lakes System Basin between the United States and Canada be expanded and put on a more formal, continuing basis giving up-to-date details of plans and programs and estimated schedules for completion.

Action on Recommendation 6: This task should be coordinated initially by the U.S. section of the Joint Working Group. The U.S. delegation to the Joint Working Group should present and seek Canadian agreement on this recommendation.

B. Recommendations which can and should be unilaterally implemented by the United States

Recommendation 7: The Task Force recommends that the Federal Government and the state governments concerned should maintain the present high priority assigned by the Federal Water Quality Administration for the programs in the Great Lakes Basin as required to reduce pollution from U.S. sources so as to be in full compliance with the Boundary Waters Treaty of 1909. The schedule of such actions should be set and maintained to achieve U.S. compliance by 1973.

Action on Recommendation 7: The Secretary of the Interior should assume responsibility for reviewing schedules set by FWQA and the states to achieve U.S. compliance by 1973.

Recommendation 8: The Task Force recommends that the Secretary of State upon official receipt of recommendations from the International Joint Commission shall forward them to the Chairman, Council on Environmental Quality and all appropriate federal agencies, the Great Lakes Basin Commission and to others as he deems advisable, requesting that comments and recommendations for action including the pros and cons therefore be submitted to the Chairman, Council on Environmental Quality, within a specified period of time. The Chairman, Council on Environmental Quality, shall seek, if necessary, to reconcile agency differences and shall approve the final decision on U.S. actions before it is transmitted to the Canadian Government through appropriate channels.

Action on Recommendation 8: The Chairman, Council on Environmental Quality, should implement this recommendation.

Recommendation 9: The Task Force recommends that adequate budget appropriations and personnel authorization be provided to permit the full time employment by the U.S. Commissioners of the International Joint Commission of one lawyer and one engineer. The budget appropriations should also be provided to assure appropriate payment, at a rate fully commensurate with the responsibilities of these positions, for services rendered by persons on the International Joint Commission and its boards not currently employed by the federal or state governments.

Should appropriations for these staff needs not materialize, the two staff members required should be assigned on a full time basis from the Department of State and the Federal Water Quality Administration, respectively.

Action Recommendation 9: The Department of State, the Federal Water Quality Administration, and the Office of Management and Budget should jointly assure that this recommendation is implemented.

If you concur with these recommendations which have been coordinated with the staff of all the agencies, we will proceed to discuss them with the Canadians. This concludes the work of the Task Force and we recommend that it be discharged.

Russell E. Train
Chairman

APPENDIX C

Request for Authority to Negotiate an Executive Agreement with Canada for Affirmative Action to Combat Water Pollution in the Great Lakes System. Background, Discussion and Recommendations. Circular 175 of 05/28/71.

DEPARTMENT OF STATE

ACTION MEMORANDUM

S/S

TO: ~~The Secretary~~ Dean Johnson

FROM: EUR - Martin J. Hillenbrand
L - John R. Stevenson

SUBJECT: Circular 175: Request for Authority to Negotiate an Executive Agreement with Canada for Affirmative Action to Combat Water Pollution in the Great Lakes System

Background

In recent years, there has been growing concern verging on alarm, both in the United States and in Canada, at the deterioration of water quality in the Great Lakes and their connecting channels. The Governments of the United States and of Canada, as well as the Governments of the eight Great Lakes States and of the Province of Ontario, have been working together in various efforts to determine the actions needed to reverse this deterioration and to protect and enhance water quality in the lakes.

On October 7, 1964, the Governments of the United States and Canada, acting pursuant to Article IX of the Boundary Waters Treaty of 1909, requested the International Joint Commission to enquire into and report to the Governments concerning the nature and extent of water pollution in Lake Erie, Lake Ontario and the International Section of the St. Lawrence River. The Commission established two investigative boards which conducted a thorough investigation of pollution in these waters. The Commission, on the basis

of this investigation, submitted three interim reports to the Governments, and in December, 1970, submitted a comprehensive final report, in which it found that the waters of the lower lakes

> ... 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.

The Commission made 22 recommendations to the Governments for affirmative measures to control pollution and to enhance the quality of water in the Great Lakes. These recommendations are attached to this Memorandum at Tab A.

In April, 1970, the President created a Task Force on the Improvement of the Effectiveness of Water Quality Control on the Great Lakes. The final report of this Task Force was approved by the President on October 1, 1970, and included recommendations for the establishment of a Pollution Control Board for the Great Lakes under the International Joint Commission, a commitment by the United States to eliminate trans-boundary pollution in compliance with the obligations imposed by Article IV of the Boundary Waters Treaty, thorough consideration of the IJC recommendations on control of pollution in the Lower Great Lakes, and increased support for the United States Section of the International Joint Commission. A copy of the Final Report of the Task Group is attached at Tab B.

On September 9-10, 1970, a Great Lakes Environmental Conference was held in Toronto at the invitation of the Prime Minister of Ontario, attended by Governors and other representatives of the eight Great Lakes Basin states as well as by representatives of the two federal governments. The Conference recommended that the powers of the International Joint Commission be significantly strengthened

to deal with problems of Great Lakes pollution. A copy of the Final Statement of this Conference is attached at Tab C.

On June 23, 1970, a United States delegation headed by Russell E. Train, Chairman of the Council on Environmental Quality, participated in a Ministerial Meeting in Ottawa on Pollution of the Great Lakes, at which deep concern was expressed concerning the critical water quality situation in the lakes. At this meeting, it was agreed that a Joint Working Group would be established to consider common water quality objectives and implementation of programs for pollution control in the Great Lakes. A copy of the Communique issued at the conclusion of this Ministerial Meeting is attached at Tab D.

The Joint Working Group created pursuant to the decision taken at this Ministerial Meeting convened in Washington on September 24-25, 1970. The Joint Working Group established ten sub-groups to study particular aspects of pollution control in the Great Lakes, with instructions to report back to the full Working Group. Following the substantial completion of the work of the ten sub-groups, the Working Group held its second meeting in Ottawa on April 21-22, 1971, and approved the transmission of a final report to the Ministers. A copy of the Final Report of the Joint Working Group is attached at Tab E. This report will be considered at a second Ministerial Meeting scheduled to be held in Washington on June 10, 1971.

The principal recommendation of the Joint Working Group to the Ministers is that an intergovernmental agreement be concluded in which the parties would recognize Common Water Quality Objectives for the boundary waters of the Great Lakes System and would commit themselves to the development of compatible water quality standards and programs for the attainment of these objectives.

In addition to the commitments relating to programs, the parties would agree to certain joint measures to combat specific pollution problems in the Great Lakes, such as oil spills and agricultural runoff. New responsibilities for surveillance of water quality and monitoring of the effectiveness of national programs would be conferred on the International Joint Commission. The Working Group has also recommended that the Joint Oil and Hazardous Materials Contingency Plan developed by the Group be implemented on June 10, 1971, pending formalization of the plan as an Annex to the recommended agreement.

Discussion

We believe that the conclusion of such an agreement would be desirable. Such an agreement would be further evidence of the commitment of the United States to take affirmative action to combat pollution in the Great Lakes. The United States has been severely, and probably unfairly, criticized by Canadian public officials and media for dilatoriness in attacking this problem; you were made aware of the Canadian viewpoint at the Ottawa meeting of the U.S.-Canadian Joint Cabinet Committee on November 23-24, 1970.

We believe that any effective action to combat water pollution in the Great Lakes must be coordinated with Canada. Coordination is necessary in order to minimize duplication of effort resulting in wasted resources, and in order to prevent the adoption of regulatory measures which are incompatible, and hence ineffectual.

The terms of the agreement proposed by the Joint Working Group would implement substantially all of the 22 recommendations of the International Joint Commission (Tab A) and are clearly in accord with the recommendations of the President's Task Force (Tab B). The proposed assignment of new responsibilities to the IJC accords with IJC Recommendation No. 22, Task Force Recommendation No. 1, and the Final Statement of the Toronto Conference, (Tab C).

There is attached at Tab F an outline of the proposed agreement. The basic agreement would cover in a general way all aspects of water quality control for the Great Lakes upon which agreement in principle has been reached. It would provide for the adoption of Common Water Quality Objectives, establishment of compatible Water Quality Standards, commitment to the development and implementation of specific programs, agreement to specific joint measures, assignment of new responsibilities to the International Joint Commission, and continuing consultation between the Governments. A draft of the proposed basic agreement has been prepared by L in accordance with the final report of the Joint Working Group as the basis for negotiation, and is attached at Tab G.

In addition to the basic agreement, several other documents would be prepared, and would be exchanged or signed at the time the basic agreement is signed. Various annexes would implement the details of the joint measures described in Articles II and V of the basic agreement. The annexes would, for example, set forth the Common Water Quality Objectives to be adopted pursuant to the basic agreement, together with provisions for modifying them in the light of new information. The objectives themselves will be substantially those recommended by the International Joint Commission. Annexes would also, in the light of the recommendations of the various sub-groups of the Joint Working Group, set forth principles of compatibility for regulations in various areas affecting water quality, and would provide for other types of joint action, such as a joint contingency plan for control of oil spills, a joint investigation of certain navigation problems involving risks of pollution, and cooperative arrangements for disposal of polluted dredged spoil.

Additionally, the parties would exchange letters of commitment concerning programs, to the extent the programs have been developed by the time of signature of the agreement, and would communicate by joint letter with the International Joint Commission concerning its new responsibilities under the agreement.

The legal memorandum attached at Tab H discusses the legal bases for each of the commitments proposed in the attached draft. The memorandum concludes that this agreement may be concluded as an Executive Agreement, without specific Congressional authorization or ratification. It points out, however, that each commitment on the part of the United States must be supported by specific legislative authority. It suggests a Concurrent Resolution of the Congress manifesting Congressional support for the conclusion of the agreement would be desirable.

We do not believe that the proposed agreement should be concluded in the form of a treaty to be submitted to the Senate for advice and consent. The Boundary Waters Treaty of 1909 contains the basic commitment of each nation not to pollute the boundary waters to the injury of health and property on the other side; this agreement will be designed to implement and make more meaningful this commitment, and should not be viewed independently of it. Further, the Great Lakes States are jealous of their responsibilities in the field of water pollution control, and would be fearful that the Federal Government might by treaty undercut their area of responsibility. Finally, both nations are anxious to conclude an agreement, and do not desire to go through the lengthy process of Senate approval, especially in an election year.

Although not legally required, we believe that securing a Concurrent Resolution approving the conclusion of the agreement prior to its signature would be desirable. The task of controlling water pollution in the Great Lakes will require the expenditure over the next few years of over two billion dollars in federal aid funds for construction of municipal and industrial treatment facilities alone. An agreement to develop programs will be empty unless there is reasonable hope of obtaining the needed funds, and these can only be provided by the Congress. In addition, an expression of Congressional support for the International Joint Commission would be desirable, since the new responsibilities to be conferred upon the Commission by the agreement will require

a substantial increase in the budget of the United States Section of the Commission; Congress in the past has shown reluctance to provide the IJC with needed funds. Finally, it cannot be overlooked that Congress may complain strongly about any attempt to exclude it from a program which has obvious political appeal. It is believed that Congress will cooperate in expediting consideration of a Concurrent Resolution. We would propose to introduce the Concurrent Resolution soon after the June 10 Ministerial Meeting, and seek its enactment prior to October 1, when the negotiations may be concluded.

A draft of the proposed Concurrent Resolution approving the conclusion of an agreement has been prepared by L and is attached at Tab I.

Because of the comprehensive nature of the proposed agreement, Congress may express the conviction that it should be authorized by a Joint Resolution. If, after consultation with Congress, it appears that there is substantial support for a Joint Resolution in place of a Concurrent Resolution, we would recommend that consideration be given to seeking a Joint Resolution.

The proposed agreement contains a provision (Article IV, §8) committing the Executive Branch to seek from Congress the appropriations necessary to permit the International Joint Commission effectively to carry out the responsibilities assigned to it under the agreement. This provision is greatly desired by the Canadians, who feel with considerable justification that the United States has failed in the past to provide the resources necessary for the effective functioning of the IJC. We believe that the making of such a commitment is appropriate, and is crucial to the effective functioning of the proposed agreement. We believe that the agreement will be meaningless unless the Commission is assured of the necessary financial support from both Governments. The Government of Canada strongly shares this view. The United States Section of the Commission estimates that under the proposed agreement the Commission would require an additional $100,000 for fiscal year 1973. This amount would be in addition to the $80,000 which has been requested for fiscal year 1972 in order to bring the staff of the United States

Section up to the level maintained for many years by the Canadian Section, and which is currently being considered by the Appropriations Committee of the House. O/A does not recommend that such a firm commitment be made until you have been made aware that this commitment could:

1. Require that you accord IJC's resource requirements a top priority in the Department's regular budget formulation process, without regard to other competing demands for resources. The Office of Management and Budget expresses the same concern regarding this provision in the agreement which could pre-empt its prerogative in the budget review process, and

2. Establish a precedent with the Canadians that they might wish to extent to other U.S.-Canadian Commissions such as the various Fisheries Commissions.

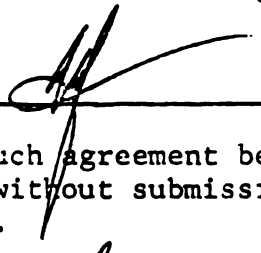
Due to the short time between the conclusion of Executive Branch discussions of the draft agreement and the U.S.-Canadian Ministerial Conference to be held in Washington on June 10 on the subject of Great Lakes pollution, at which time it is hoped that the Department's draft agreement may be tabled, normal congressional consultations have not yet taken place. If you approve the draft agreement, consultations will commence immediately after conclusion of the June 10 Ministerial Conference.

Recommendations

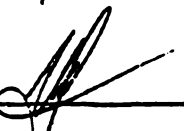
That you authorize L and EUR, in coordination with SCI/EN, the Environmental Protection Agency, the Council on Environmental Quality, the United States Coast Guard, and other affected agencies to negotiate an agreement with Canada along the lines of the proposals attached at Tabs F and G, the final agreement to be approved by you prior to signature.

Approve _____ Disapprove _____

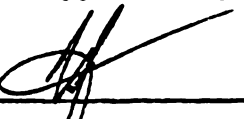
That you approve a commitment in the agreement on behalf of the United States to seek in accordance with its procedures for authorization and appropriation of funds the financial support required by the International Joint Commission effectively to carry out the responsibilities assigned to it under the agreement.

Approve  Disapprove _____

That such agreement be concluded as an Executive Agreement, without submission to the Senate for approval as a treaty.

Approve  Disapprove _____

That a Concurrent Resolution approving the conclusion of such agreement, substantially in the form attached at Tab I, be forwarded to the Congress for introduction following the June 10 Ministerial Meeting and that its enactment be supported by the Department.

Approve  Disapprove _____

That if, after consultation with Congress, it appears that there is substantial sentiment for a Joint Resolution authorizing conclusion of the agreement in place of the proposed Concurrent Resolution, the Department support such a Joint Resolution.

Approve  Disapprove _____

Attachments:

Tab A - Recommendations by IJC
Tab B - Copy of Final Report of Task Group
Tab C - Copy of Final Statement of GLEC
Tab D - Copy of Communique of Canada/US Ministerial Meeting on Great Lakes Pollution
Tab E - Copy of Final Report of Joint Working Group
Tab F - Copy of Outline of Proposed Great Lakes Water Quality Agreement Between US and Canada
Tab G - Draft Agreement Between US and Canada
Tab H - Memorandum of Law
Tab I - Draft of Proposed Concurrent Resolution

Clearances: L - Mr. Rhinelander
L/EUR - Mr. Brower
EUR/CAN - Mr. Johnson
SCI/EN - Mr. Herter
S/GOV - Mr. Mannell
H - Mr. Leahy
BF/BP - Mr. Murray
CEQ - Dr. MacDonald (in draft)
EPA - Dr. Hirsch (draft)
USCG - Cmdr. Charter (draft)
DOT - Mr. Byrd (draft)
USACE - Mr. Paquette (draft)
OST - Dr. Butcher (draft)
OMB - Mr. Schleede (Informed)
AEC - Mr. Henderson (Informed)

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x29499 5/28/71

APPENDIX D

Memorandum of Law: Great Lakes Water Quality Agreement Between the United States of America and Canada. Circular 175 of 05/28/71.

MEMORANDUM OF LAW

CIRCULAR 175: Great Lakes Water Quality Agreement Between the United States of America and Canada

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The Circular 175 request to which this memorandum is attached seeks authority to negotiate an Executive Agreement with Canada for the recognition of common water quality objectives for the boundary waters of the Great Lakes system and for mutual commitments and joint actions to achieve those objectives. This memorandum considers the legal authority for the conclusion of such an agreement without Congressional approval, and for the making, on behalf of the United States, of the commitments which it will contain. References to the "draft agreement" are to the draft Great Lakes Water Quality Agreement attached at Tab G and to the outline attached at Tab F.

Authority to Conclude a Water Quality Agreement without Congressional Authorization or Ratification

Section 102 of the National Environmental Policy Act of 1969 (43 U.S.C. 4332) provides:

> "The Congress authorizes and directs that, to the fullest extent possible, (1) the policies, regulations and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall--
>
> (E) recognize the worldwide and long range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment.

Article IV of the Boundary Waters Treaty of 1909 (36 Stat. 2448, T.S. 548) provides:

> "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."

The boundary waters of the Great Lakes system to which the draft agreement refers are boundary waters as defined in this Treaty.

In the exercise of his authority to conduct foreign relations under Article 2 of the Constitution, the President has authority to conclude agreements with foreign nations. Such agreements may either be submitted to the Senate for advice and consent as treaties, or may be predicated upon authority delegated to the President by the Constitution or a combination of that delegation and legislation enacted by Congress. While the President possesses no general authority in the environmental area comparable to his authority as Commander-in-Chief in the military area, the provisions of Section 102 of NEPA, quoted above, as well as the provisions of Article IV of the Boundary Waters Treaty, would appear to sanction the making of the agreement.

Each of the proposed commitments must be analyzed to determine the authority of the executive branch to act. Where it is proposed to make commitments for which no legislative authority exists, such commitments must be made subject to action by the Congress; likewise, any commitment for the expenditure of funds must be made subject to the authorization and appropriations process.

Water Quality Objectives - Proposed Article II

The adoption of water quality objectives for the boundary waters of the Great Lakes System does not, in and of itself, represent the making of a commitment, since the objectives have no legal force, and are merely precatory.

The Governments of the United States and Canada have heretofore recognized water quality objectives proposed by the International Joint Commission for particular bodies of water. Such objectives have been proposed in response to References submitted to the Commission by the Governments under Article IX of the Boundary Waters Treaty; the Governments, in recognizing the objectives, have given the Commission "continuing references" to maintain surveillance over the waters to which the objecives refer. For example, following the transmission to the Governments of the IJC's final report on the reference on the use, conservation and regulation of the waters of the St. Croix River, which recommended the establishment under the IJC of a Board of Pollution Control for the St. Croix and the recognition of objectives for the river, the Governments, on September 30, 1961, notified the IJC by letter of their acceptance of those recommendations and of their approval of the establishment of the proposed board with the authority proposed by the Commission. Such board was established and has continued to function since 1961. IJC objectives have likewise been approved for the Connecting Channels of the Great Lakes (November 19, 1951); for the Rainy River (December 13, 1965); and for the Red River of the North (May 14, 1969).

Accordingly, it is our opinion that an Agreement for the recognition of Common Water Quality Objectives for the boundary waters of the Great Lakes may be concluded by executive agreement without specific authorization by the Congress.

Similarly, we conclude that it is within the competence of the executive to conclude an agreement regarding target dates for the achievement of objectives, and target loadings for the input of substances into receiving waters, so long as these targets constitute no more than desiderata.

Water Quality Standards

Under Section 10 of the Federal Water Pollution Control Act, (the "Act") (33 U.S.C. 1160), the establishment of water quality standards is primarily the responsibility of the states. Under Section 10(c)(2), however,

"...[I]f the "Administrator of Environmental Protection Agency] ... desires a revision in such standards, [he] may, after reasonable notice and a conference of representatives of appropriate Federal departments and agencies, interstate agencies, States, municipalities and industries involved, prepare regulations setting forth standards of water quality to be applicable to interstate waters or portions thereof. If, within six months from the date the [Administrator] publishes such regulations, the State has not adopted water quality standards found by the [Administrator] to be consistent with paragraph (3) of this subsection, or a petition for public hearing has not been filed under paragraph (4) of this subsection, the [Administrator] shall promulgate such standards."

The same provisions apply in the event a state has not established water quality standards.

The boundary waters of the Great Lakes system are interstate waters; although no definition of this term is found in the Federal Water Pollution Control Act, it would appear difficult to assert that these waters, which touch six states in aggregate, are not interstate waters. It would not appear to accord with the purposes of the Act to conclude that the individual lakes must be considered separately so as to render Lake Huron and Lake Ontario, which border on one state only, outside the provisions of the Act, since pollution can be and is carried from one lake to another within the system, and water quality in the downstream lakes is affected by inputs from these upstream.

Section 10(c)(2) of the Act provides that standards "shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter." While questions of fact are presented in determining whether particular standards meet these tests, it

is believed that the statement in Article II, Paragraph 3 of the draft agreement, that achievement of the common water quality objectives is necessary to protect the health and welfare of the residents of the Great Lakes Basin and will enhance the quality of the Boundary Waters, will be useful in establishing that standards compatible with these objectives are in fact in accord with the tests imposed by Section 10(c)(3).

Section 10(c)(4) provides for review of standards promulgated by the Administrator under Section 10(c)(2) by a hearing board. If the board recommends modification of the proposed standards, the standards as modified by the board, and not those proposed by the Administrator, are to be put into effect. Accordingly, the possibility exists that, under existing procedures, the Administrator would be unable to guarantee the implementation of standards compatible with the common water quality objectives. For this reason, the draft agreement provides that the parties will endeavor to establish compatible standards within one year (two years for temperature) or as soon thereafter as the constitutional processes of the parties permit. In the event, which is considered unlikely, that the Administrator is unable in accordance with the procedures established in Section 10(c) to insure the establishment of standards compatible with the agreed objectives, the executive would be committed to seeking additional legislative authority to insure this result. Such legislation is in fact presently being sought, through proposed amendments to Section 10.

It should be noted that the term "standards" as it is used in the draft agreement refers only to receiving water quality standards, and hence is less broad than the term as it is used in the Federal Water Pollution Control Act. In the Act, the term refers to water quality criteria (receiving water standards) and also to plans for the implementation and enforcement of such criteria. As used in the agreement, the only difference between objectives and standards is that the latter may be enforced through the provisions of national law.

Programs

Section 3 of the Federal Water Pollution Control Act (33 U.S.C. 1153) delegates broad authority to the Administrator of EPA to "develop comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries thereof and improving the sanitary condition of surface and underground waters." Article IV of the draft agreement provides that the parties will develop and endeavor to implement programs to accomplish various objectives, all relating to the elimination or reduction of pollution in interstate waters. The development of such programs may be accomplished in accordance with the provisions of Section 3.

The legal basis for a commitment to implement such programs is more complicated. Under Section 10 of the Act, the Administrator may promulgate standards, in accordance with the procedures described under "standards" above. Standards, for this purpose, include plans for the implementation and enforcement of receiving water standards. Since the states have the principal responsibility under the Act for preventing and controlling water pollution, the execution of such plans remains in the hands of the state governments. The Administrator may, however, take action to abate pollution of interstate waters through enforcement conferences under Section 10(d) of the Act or may abate discharges into interstate waters which reduce the quality of water below established standards. The abatement procedure presently provided is complex: the Administrator must give 180 days notice to violators of the standards, and if, after 180 days, action reasonably calculated to secure abatement of such pollution is not taken, the Administrator may request the Attorney General to bring suit on behalf of the United States to secure abatement of the pollution. The Court is authorized to enter "such judgment, and orders enforcing such judgment, as the public interest and the equities of the case may require." Where the pollution is endangering the health or welfare only of persons in the state in which the polluting discharges are occurring, suit may be brought

only with the consent of the Governor of the state.

Under existing legislation, no authority exists for the executive to compel the implementation of programs, even after their incorporation as plans in the water quality standards which the Administrator must approve and may revise. Accordingly, it appears appropriate to include in the agreement a provision that implementation shall be accomplished in accordance with the constitutional processes of the parties. Legislation is presently being sought which will expand the definition of water quality standards and permit the Administrator to take direct action to enforce these standards, including the implementation of the plans included therein. Should this legislation pass prior to the conclusion of the agreement, this precautionary provision may be eliminated.

Joint Measures

Article V of the draft agreement provides for a number of joint measures to deal with specific pollution problems in the Great Lakes. The details of these measures will be set forth in annexes to the basic agreement. Each of these measures is specifically authorized under existing legislation.

Contingency Plan. Under Section 11(c)(2) of the Federal Water Pollution Control Act (33 USC 1161(c)(2)), the President is required to prepare and publish a National Contingency Plan for the removal of oil, and is authorized to revise and amend such plan from time to time as he deems advisable. The Joint Contingency Plan is an effort to coordinate the National Contingency Plan with that of Canada to assure a coordinated response to oil spills. The Treaty with Great Britain in respect of Canada of May 18, 1908, for conveyance of Prisoners and Wrecking and Salvage (35 Stat. 2035, TS 502) authorizes vessels and equipment of one of the parties to be used for salvage and assistance work in the waters of the other party, along the boundary. In addition, 14 USC 83(b) authorizes the Coast Guard to assist persons and protect property at any time and at any place at which Coast Guard facilities and personnel are available and can be effectively utilized. The Joint Contingency Plan also provides a mechanism for initiating consultations concerning pollution emergencies

in addition to oil spills; such mechanism does not constitute a commitment, and this does not require Congressional authorization.

Compatible Regulations for Vessel Design and Construction. Authority for the promulgation of regulations for design and construction of vessels of certain types is scattered throughout the United States code. Section 11 of the Federal Water Pollution Control Act (33 USC 1161) authorizes the President to establish procedures, methods and requirements for equipment to prevent oil discharges. The Commandant of the Coast Guard is authorized under 46 USC 170 to establish regulations for the safe transportation, carriage, conveyance and stowage of explosives and other dangerous articles or substances on board vessels. He is likewise authorized to establish regulations for the design and construction, alteration or repair of vessels having on board inflammable or combustible liquid cargo in bulk under 46 USC 391a. He is authorized to inspect various types of vessels plying United States waters to assure safe navigation: 46 USC 361, 362, 364, 377, 375, 399(b), 395, 404, 405, and 435. Certain types of vessels, as for example fishing vessels are exempted from inspection. Under the Magnuson Act (50 USC 191), the Secretary of the Treasury is authorized to regulate the movement of vessels in U.S. territorial waters in times of national emergency, to inspect such vessels, and to take control of such vessels in order to prevent damage to U.S. harbors or waters. Within this patchwork of existing law, the executive can agree to compatible regulations.

Compatible Regulations for Control of Vessel Waste Discharges. Section 13 of the Federal Water Pollution Control Act (33 USC 1163) requires the Administrator to promulgate Federal standards of performance for marine sanitation devices to prevent the discharge of untreated or inadequately treated sewage from vessels, and provides penalties for violation of such regulations. Sections 11 and 12 (33 USC 1161 and 1162) confer authority for regulations concerning the discharge of oil and other hazardous substances. In the latter section, present authority does not however extend to prohibiting and punishing the discharge of substances found to be hazardous. The Secretary

of the Army is authorized under 33 USC 419 to prescribe regulations governing dumping into navigable waters of dredgings, earth, garbage and other refuse materials where such regulations can be justified in the interest of navigation. In addition, 33 USC 407 gives authority to the Secretary of the Army to impose a requirement of permits for discharges of refuse into navigable waters within limits and under conditions to be prescribed by him. Executive Order 11574 requires the Secretary to consult with the Environmental Protection Administration in issuing any such permits. Compatible regulations may be established within the authorization contained in these sections.

Joint Study of Navigation Problems. Both nations are presently conducting studies of problems of navigation in the Great Lakes, and are coordinating their efforts in this field. Since each nation is funding its own activities, no commitment is contemplated by this section beyond seeking funds for continuing the efforts presently in progress and sharing the results of research. This is within the present authority of the executive.

Program for Disposal of Polluted Dredged Spoil. Section 123 of the River and Harbor Act of 1970, Public Law 91-611, authorizes the Chief of Engineers to construct, operate and maintain disposal facilities for dredged spoil from the Great Lakes and their connecting channels. The discharge of refuse matter of any type into navigable waters without a permit from the Secretary of the Army is prohibited by the Refuse Act of 1899 (33 USC 407), and the Secretary is specifically authorized to prescribe regulations governing the transportation and dumping into navigable waters of dredgings (33 USC 419). A concerted program may be implemented within the limits prescribed by these provisions of law.

Compatible Regulations to Prevent Discharges from Onshore and Offshore Facilities. Section 11 of the Federal Water Pollution Control Act (33 USC 1161) requires the President to determine by regulation quantities of oil which may be discharged at various locations in the navigable

waters of the United States without danger to health or welfare, and provides penalties for discharges in excess of the quantities thus determined. It further authorizes him to establish procedures, methods, and requirements for equipment to prevent discharges of oil from vessels and from onshore and offshore facilities. Section 12 of the Act (33 USC 1162) requires the President to designate by regulation hazardous substances other than oil the discharge of which present an imminent and substantial danger to health and welfare; although this section provides no control over discharges of such substances, 33 USC 419 empowers the Secretary of the Army to regulate dumping of refuse in the interest of navigation, and 33 USC 407 imposes a broad requirement that a permit be obtained from the Secretary of the Army before refuse may be discharged into navigable waterways. Compatible regulations can be established within the authorization contained in these provisions of law.

Compatible Regulations for the Transportation and Handling of Hazardous Substances on Land. Under 18 USC 834, the Secretary of Transportation is authorized to formulate regulations for the safe transportation of explosives and other dangerous articles, including radioactive materials, flammable liquids and poisonous substances, which are binding on all carriers engaged in interstate or foreign commerce. Penalties are prescribed for violation. The Railroad Safety Act of 1970 empowers the Secretary of Transportation to prescribe rules, regulations, orders and standards for all areas of railroad safety (45 USC 431). By the terms of the Congressional Declaration of Purpose (45 USC 421), safety is deemed to include the reduction of deaths and injuries to persons and reduction of damage to property caused by accidents involving any carrier of hazardous materials. Within these provisions of law, the executive is authorized to agree to compatible regulations.

Coordination for Research. The draft agreement provides for the assignment to the International Joint Commission of continuing responsibility for coordination and dissemination of information concerning water quality research in the Great Lakes. The executive can accomplish

this under the provisions of Article IX of the Boundary Waters Treaty of 1909 (36 Stat. 2448; TS 497), since the role of the IJC would be only to seek data and to transmit it to the interested parties.

Institutional Arrangements

Pursuant to Article IX of the Boundary Waters Treaty of 1909 the Governments may request the International Joint Commission to enquire into and report to Governments on "questions or matters of difference ... arising along the common frontier." The executive, acting pursuant to this article, may request the Commission to coordinate and facilitate the exchange of data, monitor the effectiveness of water quality programs, make recommendations to Governments concerning pollution control programs, legislation and agreements, and perform other, similar functions not involving judicial power. In the exercise of its responsibilities under the Treaty, the Commission is authorized to administer oaths to witnesses and to take evidence on oath whenever deemed necessary, to employ sub-poenas and compel the attendance of witnesses, and adopt its own rules of procedures (Article XII).

The United States cannot, by executive agreement, compel the states to furnish information to the Commission on a continuing basis, or confer upon the Commission the authority to enter on private property for the purpose of inspecting pollution control and other facilities. Likewise, the executive can only commit funds for the support of the Commission subject to the authorization and appropriation of funds by the Congress.

Other Provisions

The remaining provisions of the draft agreement are standard, and require no legal analysis at this time.

Annexes and Other Documents

The specific details of the joint measures described in Article V of the draft agreement will be embodied in annexes, which will be brought into force at the same time

as the basic agreement. These annexes will be prepared in accordance with the limitations described in this memorandum regarding the legal capacity of the executive to make agreements in the various areas. The provisions of the annexes will have to be examined prior to signature of the agreement to assure conformity with existing law.

Letters of commitment, containing the details of the programs described in Article IV of the draft agreement, will be exchanged at the time the agreement is concluded. While the development of programs is specifically authorized, the letters will have to be scrutinized to assure that no commitments relating to implementation are contained in the letters which do not conform to statutory authority.

One or more References to the International Joint Commission may be transmitted at the time the agreement is concluded. Since References ordinarily raise no question of legal authority, under Article IX of the Boundary Waters Treaty, no special issues are expected to be raised in connection with their preparation.

Congressional Approval

It is our opinion that a water quality agreement with Canada negotiated along the lines of the draft agreement may be concluded as an executive agreement without approval by the Congress in any form. Since the implementation of the commitments contained in the agreement will depend in large measure on the willingness of Congress to appropriate the needed funds, we believe that consideration should be given to securing an expression of approval from the Congress, before conclusion of the agreement, in Concurrent Resolution which would (1) approve the conclusion by the President of an agreement with Canada establishing water quality objectives for the waters of the Great Lakes and committing the United States to take effective measures to attain those objectives, and (2) support the assignment of additional functions and responsibilities on the International Joint Commission.

A Concurrent Resolution would appear to be more appropriate than a Joint Resolution, since no additional

legal authority is being sought, and since no specific amounts for funding the commitments to be contained in the agreement can be requested at this time.

While the commitments contained in the draft agreement are not, strictly speaking, promises "to assist a foreign country ... by the use of ... financial resources of the United States", defined as national commitments in Senate Resolution 85 adopted June 25, 1969, (the "Commitments" resolution) since the commitments envisaged here are for cooperative action for the direct benefit of both nations rather than as foreign assistance to Canada, the fact that we are discussing the proposed agreement with representatives of the Government of Canada in terms of "commitments" suggests that the Congress may regard the proposed agreement as one for which its approval in some form should be sought.

While it would, of course, be possible to conclude the proposed agreement in the form of a treaty, this is not necessary, and from a policy standpoint is thought to be undesirable. As noted above, the agreement is related to Article IV of the Boundary Waters Treaty of 1909.

Conclusion

We are of the opinion that an agreement embodying the provisions contained in the draft agreement may be concluded as an Executive Agreement. We recommend that consideration be given to seeking from Congress a Concurrent Resolution specifically approving the conclusion of the agreement, in view of the large appropriations which will be sought in connection with it, the fact that the parties are making "commitments" for affirmative action to combat pollution, and the general interest in providing broad based support for the contemplated action.

Charles N. Brower

Clearances: L - Mr. Rhinelander
L/T - Mr. Bevans
L/UNA - Mr. Doud
L/ARA - Mr. Feldman
EPA - Mr. Eckert
USCG - Capt. Hallberg

L/EUR:DFBurns:lla

APPENDIX E

Final Report of the Canada-United States Joint Working Group on Great Lakes Pollution. Circular 175 of 05/28/71.

June , 1971

FINAL REPORT OF THE

CANADA-UNITED STATES JOINT WORKING GROUP

ON GREAT LAKES POLLUTION

The Canada-United States Joint Working Group on Great Lakes Pollution has the honor to transmit the following report and recommendations to the second Ministerial Meeting.

The Joint Working Group was created at the Canada-United States Ministerial Meeting held in Ottawa on June 23, 1970, for the purpose of considerin common water quality objectives and implementing programs proposed by either government to the Working Group. In undertaking its work, the Working Group paid particular attention to the findings and recommendations of the International Joint Commission (IJC) in its recent Report on "Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River." The Working Group was composed of representatives of the two federal Governments, the Government of Ontario, and the Governments of the Great Lakes States. The Province of Quebec participated as an observer.

Annex I contains a brief account of the manner in which the Joint Working Group organized and carried out its assignments.

RECOMMENDATIONS

The International Joint Commission has found that the waters of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River are being polluted on each side of the boundary to the extent that it is causing or is likely to cause injury to health or property on the other side of the boundary. The IJC has recommended a series of urgent remedial measures required to restore a high level of water

quality in the Great Lakes. The Joint Working Group generally endorses the findings and recommendations of the IJC's report as the basis for further action, and recommends to the Ministers that the Governments of the United States and Canada take the following action in concert:

1. THE UNITED STATES AND CANADA SHOULD ENTER INTO AN INTERGOVERNMENTAL AGREEMENT SETTING FORTH COMMON WATER QUALITY OBJECTIVES FOR THE BOUNDARY WATERS OF THE GREAT LAKES SYSTEM, COMMITMENTS FOR PROGRAMS TO ATTAIN SUCH OBJECTIVES, AND STRENGTHENED INSTITUTIONAL ARRANGEMENTS TO ASSIST THE GOVERNMENTS.

The agreement would provide the basis for implementing the recommendations of the International Joint Commission and would represent a new dimension in international control of water pollution.

The form and content of the proposed agreement are more completely discussed in Annex II.

The central feature of the agreement would be the adoption of the general and specific common water quality objectives for the boundary waters of the Great Lakes system recommended by the IJC. The IJC's general objectives provide for the receiving waters to be free from substances harmful to human, animal or aquatic life or detrimental to intended uses. The specific objectives relate to quantities of particular substances and other parameters necessary to guarantee the quality of the receiving waters in accordance with the general objectives. The IJC common water quality objectives for the lower lakes and connecting channels of the Great Lakes are set out in Annex III to this report.

Each nation would commit itself to adopt legally enforceable standards, consisting of prescribed limits of receiving water quality, to seek the achievement

of the water quality objectives by agreed target dates. Each country would further commit itself to implement programs designed to achieve these standards by the target dates. These programs would include control programs and schedules for the construction of municipal and industrial waste treatment facilities or provision of other means of abating such pollution, programs for the reduction of gross phosphorus inputs, and other programs and measures designed to achieve the common water quality objectives.

The Working Group emphasized the urgent need for reducing phosphorus 1/ inputs into the Great Lakes from all sources, in view of the serious problem of accelerated eutrophication. The proposed agreement would incorporate undertakings by both countries to implement programs for upgrading municipal and industrial treatment facilities to remove phosphorus from effluents. Both countries recognize the need for improved practices to reduce phosphorus inputs from agricultural, forestry and other land use activities. The Government of Canada has taken steps to limit the phosphorus content of detergents to 20% by weight expressed as phosphorus pentoxide (8.7% by weight expressed elemental phosphorus) effective August 1, 1970, and has announced a further reduction to 5% by December 31, 1972. Some of the Great Lakes states and local authorities have adopted or introduced legislation to limit the phosphorus content of detergents. The United States Government is actively considering limitations on phosphorus content of detergents and, along with industry, is carrying out research activities to develop a suitable replacement for the phosphorus content of detergents, giving due consideration to the possible public health hazards of replacement materials.

1/ The term phosphorus in this Report refers to phosphorus as a constituent of the various organic and inorganic complexes and compounds commonly known as phosphates, and not to elemental phosphorus as a chemical substance.

In addition, the two nations would agree on additional cooperative measures to control specific pollution problems highlighted in the IJC's report, as, for example, compatible regulations for the disposal of vessel wastes.

To assist the Governments in implementing these new arrangements, the agreement would confer upon the International Joint Commission new responsibilities in the area of Great Lakes water quality, such as the analysis and dissemination of water quality data, the monitoring of national and joint programs for the achievement of the agreed objectives, and the making of recommendations to governments for improvements in their programs, legislation and intergovernmental agreements. The Working Group favors the establishment of a single board under the IJC to assist in carrying out its new responsibilities, and the establishment of an IJC office in the Great Lakes area. The Working Group recommends that the agreement contain provisions by which the two Governments seek the resources needed for the expanded IJC functions and responsibilities.

The agreement would also provide for revision and improvement from time to time. Intergovernmental consultations on further concerted action to deal with Great Lakes water quality problems would be conducted as needed.

2. THE GOVERNMENTS SHOULD AS SOON AS PRACTICABLE ANNOUNCE ADDITIONAL COOPERATIVE MEASURES TO IMPROVE WATER QUALITY IN THE GREAT LAKES, AS LISTED BELOW:

Joint Contingency Plan. Recognizing the need for a coordinated response to pollution incidents and pursuant to decisions reached at the June 1970 Ministerial Meeting, a coordinated contingency plan for the Great Lakes has now been developed. This plan provides for joint action to control spills of oil and hazardous material on the Great Lakes. It also incorporates arrangements to deal with special pollution

situations. The plan is summarized in Annex IV. It is recommended that at the Ministeral Meeting the Governments announce that this plan is being put into effect.

Upper Lakes Study. The Working Group recognized the integral nature of the Great Lakes system and the need for a comprehensive overview of water quality in all the boundary waters. It recommends that at the Ministerial Meeting the Governments announce that they intend soon to request the IJC to conduct an investigation of water quality in Lakes Superior and Huron. Sources of pollution in the tributaries, including Lake Michigan, which have caused effects on water quality in the boundary waters, should be a subject of concern to the IJC in its investigation. This investigation would supplement the study recently completed on the lower Great Lakes.

Interim Surveillance by International Joint Commission. The International Joint Commission is continuing its water quality surveillance activities under the 1964 Reference on Pollution of the Lower Lakes, as well as its activities through the Pollution Advisory Boards for the Connecting Channels. The Working Group recommends that at the Ministerial Meeting the Governments announce that in connection with the investigative study of the upper Great Lakes they intend soon to request the Commission to extend its surveillance to include Lake Huron and Lake Superior.

Other Actions. The governments may also wish to announce at the Ministerial Meeting additional positive action measures which will contribute to the achievement of the water quality objectives.

CONCLUSIONS

The foregoing recommendations represent the considered views of both the Canadian and United States sections of the Joint Working Group. These recommendations

represent a comprehensive response to the 22 recommendations made by the International Joint Commission in its report on pollution in the lower Great Lakes. The two sections worked in close harmony and demonstrated that there is a consensus on the programs necessary to restore and protect the Great Lakes.

The Joint Working Group recommends that a second Canada-United States Ministerial Meeting on Great Lakes Pollution be held in Washington on June 10, 1971, to consider this report, to authorize negotiation of the agreement proposed in Recommendation 1, and to implement the measures proposed in recommendation 2.

Respectfully submitted,

CANADA-UNITED STATES JOINT WORKING GROUP ON GREAT LAKES POLLUTION

Chairman, Canadian Section	Chairman, United States Section
Mr. Paul Tremblay Department of External Affairs	Dr. Gordon J. MacDonald Council on Environmental Quality

June , 1971

ANNEX I

JOINT WORKING GROUP ACTIVITIES

The first meeting of the Joint Working Group was held in Washington, D. C., on September 24-25, 1970. The Canadian section of the group was led by Ambassador Marcel Cadieux, and the United States section was headed by Dr. Gordon MacDonald of the Council on Environmental Quality. A useful general discussion was held concerning measures being taken by each country to combat problems of pollution in the Great Lakes Basin. It was determined at this meeting that the work of the Working Group should proceed through the instrumentality of sub-groups, which would consider various aspects of the problem of pollution in the Great Lakes and report to the full Working Group. Ten sub-groups were established, as follows:

1. Water quality objectives and standards;
2. Contingency plan for oil spills;
3. Handling of hazardous materials on water;
4. Pollution from watercraft;
5. Institutional matters;
6. Legislation relating to Great Lakes pollution;
7. Coordination of research;
8. Coordination of action to meet special situations;
9. Pollution from agriculture, forestry and conservation sources;
10. Handling of hazardous materials at on-shore and off-shore facilities.

Each sub-group operated under terms of reference approved by the Joint Working Group. The sub-groups submitted their reports, accompanied by recommendations

for joint action, to the Joint Working Group in the spring of 1971. The final reports of the sub-groups are being submitted to the governments as an addendum to this final report.

Following receipt of these reports, a special drafting committee of the Joint Working Group considered these reports and prepared an agenda for the second meeting of the Joint Working Group, together with the draft of a final report. The second meeting of the Working Group was held in Ottawa on April 21-22, 1971. The Canadian section was headed by Mr. Paul Tremblay, Associate Under Secretary for External Affairs, and the United States section was led by Dr. Gordon MacDonald. The meeting reviewed and approved the draft of the Working Group's final report and recommendations.

The Working Group consulted with the International Joint Commission regarding this report on May 20-21, 1971, in Washington. The Commissioners expressed general agreement with the report and its recommendations and they stated that they considered the actions recommended represented a positive and comprehensive response to their own recommendations contained in the IJC's report on the Lower Great Lakes. They indicated they would soon forward to the two Governments their comments on certain aspects of the institutional arrangements proposed in the Working Group's report.

June , 1971

ANNEX II

FORM AND CONTENT OF PROPOSED GREAT LAKES WATER QUALITY AGREEMENT

As indicated in its final report, the Joint Working Group recommends that the Governments at the Ministerial Meeting announce their support for the conclusion of a formal intergovernmental agreement between the two countries which would incorporate the elements set out below. The final text of the agreement should be settled through negotiation, which should begin as soon as possible between appropriate representatives of the two nations designated for this purpose. The agreement should be concluded and prepared for execution on behalf of the two Governments by appropriate high officials by the early autumn of 1971.

CONTENT OF THE AGREEMENT

Adoption of Common Water Quality Objectives

First, the agreement should provide for the adoption of common water quality objectives for the boundary waters of the Great Lakes. Initially, these should be based upon the general and specific objectives recommended by the IJC, as set out in Annex III.

Establishment of Compatible Standards

Second, the agreement should provide for the establishment of compatible standards. These standards should include prescribed limits of water quality established under governmental authority by pollution control agencies in programs designed to achieve the water quality objectives. There will be certain restricted, localized

areas where existing conditions will prevent these objectives from being met within the proposed time frame; such areas, however, should be identified specifically and kept to a minimum.

The Governments concerned will establish compatible standards within one year, or as soon thereafter as procedures permit, with respect to the agreed general parameters and the following specific ones:

1. microbiology;
2. dissolved oxygen;
3. total dissolved solids;
4. taste and odor;
5. pH;
6. iron;
7. phosphorus;
8. radioactivity;
9. mercury and other toxic heavy metals;
10. persistent organic contaminants;
11. settleable and suspended materials; and
12. oil, petrochemicals, and immiscible substances.

Compatible standards will be established for temperature within two years or as soon as technical information and procedures permit.

Program Commitments

Third, the agreement should contain an exchange of commitments between the Governments to implement the programs and measures required to comply with the agreed standards and to seek achievement of the common water quality objectives.

Details of programs and schedules designed to meet these standards, to the extent they are available, should be exchanged and provided to the IJC at the time the basic agreement is concluded and annually thereafter. The IJC should each year review these programs and the progress in their implementation, advise the Governments on their adequacy and recommend changes in programs to achieve the common water quality objectives

and in target programs. These programs would include the following:

(a) control programs and schedules for the construction of treatment facilities for municipal and industrial wastes and animal husbandry operations designed to seek attainment of the common general water quality objectives and the specific objectives for microbiology, dissolved oxygen, total dissolved solids, taste and odor (including phenols), pH, iron, settleable and suspended materials, oil, petrochemicals and immiscible substances. The target of these control programs shall be to meet the common water quality objectives by December 31, 1975;

(b) programs designed to achieve reductions in gross phosphorus inputs from municipal and industrial sources to agreed initial target loadings to Lake Erie by 1973 and to Lake Ontario by December 31, 1975;*

(c) programs designed to achieve the elimination as quickly as possible of mercury and other toxic heavy metals from all sources into the Great Lakes and to require the immediate elimination of mercury from slimicides and other biocides in industrial operations;

(d) programs and schedules to achieve the water quality objectives for temperature, particularly with respect to controls of thermal discharges and siting guidelines for nuclear and fossil-fuelled electric power plants;

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* The Canadian section of the Working Group favors the inclusion of programs designed essentially to eliminate the phosphorus content of detergents.

(e) programs and schedules for the control of pollution from combined sewer overflows by December 31, 1977, or as soon as possible thereafter;

(f) programs to limit accumulation of persistent pesticides, herbicides and other organic contaminants, including applicable measures for: (a) testing for environmental effects, (b) registration prior to use, (c) monitoring of inputs to sewage systems, and (d) pollution incident prevention plans; and

(g) programs and regulations to achieve the agreed objective for radioactivity, including: (a) guidelines on the siting of nuclear powered plants, (b) construction and operational control standards, (c) use of radioactive materials by industry, in research and elsewhere, (d) handling and transportation of radioactive materials, and (e) treatment and disposal of radioactive materials.

For purposes of reference, Schedule 1 (attached) sets out the recommendations of Sub-group 1 on Standards and Programs.

Additional Cooperative Measures

Fourth, the agreement should provide for additional cooperative measures aimed at protecting Great Lakes water quality, as follows:

(a) the joint U.S.-Canada oil and hazardous materials pollution contingency plan including coordination of joint response actions to a spill, and the intergovernmental arrangements for coordinating action to meet other

special situations involving water pollution incidents;

(b) the achievement of effective and compatible regulations regarding vessel design and construction to prevent the loss of fuel or potentially pollutant cargoes, and the essential features of such regulations;

(c) the achievement of effective and compatible regulations to control vessel waste discharges, including a high degree of sewage treatment, authority for total sewage discharge prohibition in certain critical use areas, and the prohibition of other vessel waste discharges, including the essential features of such regulations;

(d) the terms of reference and funding of a joint investigation by the Canadian and U.S. Governments, concerning the need for new navigation equipment, the establishment of formal traffic lanes on the Great Lakes, the need for standards of manning and operation of domestic and foreign vessels with respect to requiring certificated pilots and officers;

(e) the extension of a reference to the International Joint Commission requesting a review of the adequacy and compatibility of the programs of the governments concerned to control pollution from agriculture, forestry, and other land use activities including solid waste disposal; and requesting the IJC to recommend such additional programs as may be required to achieve the common water quality objectives;

(f) the achievement of compatible criteria for distinguishing polluted from non-polluted dredged spoil, of concerted programs for the designation of on-land disposal sites, and

of concerted programs for the phasing out of all discharges of polluted dredged spoil into the Great Lakes;

(g) the achievement of effective compatible regulations to prevent discharges of oil and hazardous polluting substances from on-shore and off-shore facilities, and the essential features of such regulations;

(h) the achievement of effective and compatible regulations for the transportation and handling of hazardous polluting substances on land and the essential features of such regulations; and

(i) the achievement of effective arrangements within the framework of the International Joint Commission for facilitating the coordination of Great Lakes water quality research.

Institutional Arrangements

Fifth, the agreement should provide for the development of effective institutional arrangements to oversee the operation of the new agreement and to assist the Governments in the implementation of their programs. The Working Group recommends that these arrangements be established within the International Joint Commission under the framework of the Boundary Waters Treaty of 1909. The basic agreement should set forth the responsibilities of the IJC for Great Lakes water quality, which should include:

(a) the collation, analysis and dissemination of data and information supplied by operational agencies with respect to the quality of water in the Great Lakes, in the light of the common water quality objectives;

(b) the collection, analysis and dissemination of data and information concerning the operation and effectiveness of water quality programs which are established to achieve the common objectives and the restoration and protection of Great Lakes water quality;

(c) the tendering of advice and recommendations to the Governments concerned (including periodic reports to governments and to the public) with respect to specific problems of water quality in the Great Lakes and to the action to be taken by Governments to meet these problems, including recommendations for improvement of water quality objectives, water quality programs, legislation and regulations, and for improvements to existing intergovernmental agreements on Great Lakes pollution control;

(d) assistance in the coordination of joint activities in such areas as research, systems analysis, contingency planning, and consultation on special situations; and

(e) assistance in achieving and maintaining more effective liaison among the governments concerned in their efforts to protect Great Lakes water quality.

The agreement should also provide that, in support of its enlarged role, the IJC would be empowered to conduct public hearings as appropriate; and to make special and periodic reports to the Governments and to the public including conclusions and recommendations for action.

Subject to a careful study of constitutional questions raised under United States domestic law, the Working Group believed the agreement should provide that the parties would seek legislation giving the IJC the authority without resort to local courts to subpoena witnesses and

to require the production of relevant documents relating to Great Lakes pollution.

While the Sub-group agreed that the Governments should not create within the IJC a large bureaucracy of technicians and analysts to duplicate the work already being performed by federal as well as state and provincial authorities within the two countries, it was recognized that an independent verification capability, even though limited, would enhance the credibility of the Commission's advice and recommendations in the eyes of the public. Such verification would involve authority to verify, through independent sampling and laboratory means, the data concerning water quality submitted by governmental water quality agencies.*

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* The Canadian members of tne Sub-group believed that in order to carry out its responsibilities the IJC should be given the authority and resources to make independent spot checks of the quality of the water in the Great Lakes; and that the IJC should be given authority to inspect effluent discharges and pollution control equipment located in buildings and other private property.

The United States members endorsed the recommendation that the IJC be given the authority and resources to make independent spot checks of the quality of the water in the boundary waters of the Great Lakes system. They believed, however, that in the United States adequate verification capability with respect to tributary waters and with respect to private installations existed in the federal government; and that this capability represented an adequate check on other agencies to the extent this is necessary. They felt that it would be both unnecessary and, from the American legal standpoint, constitutionally difficult, to confer independent verification capability on the IJC with respect to private installations.

As part of the institutions required by the IJC to carry out these new responsibilities, the Working Group supports the establishment of a single Board under the Commission, to assist in the implementation of the agreement.

The Working Group also considers that the Board should provide for balanced membership from Canada and the United States and that it should include personnel from the two federal Governments and from the states and provinces concerned. The members of the Board would be appointed by the IJC after consultation with the Governments concerned. Sub-boards could be created to deal with specific functional responsibilities and specific geographical areas within the Great Lakes basin.

The Working Group considers that it will be necessary to provide the IJC with additional staff and other resources in order to enable it to carry out its expanded functions. This new staff unit would be able to provide independent professional advice to the proposed Board and to the Commission. It would also serve as a secretariat to the proposed Board. The appointments to the staff would be the responsibility of the IJC, although the Governments concerned would be consulted about senior appointments.

The Working Group considers that the IJC should maintain an office or offices in the Great Lakes area for the performance of its new functions. The Working Group recommends that the agreement should contain provisions under which the two Governments would undertake to seek the resources needed for the expanded functions and responsibilities of the Commission.*

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* Two specific details concerning the establishment of the institutions require further discussion. The Canadian section considers that the additional staff should be integrated as a single unit and

Continuing Intergovernmental Review and Consultations

Sixth, the basic agreement should contain provisions for revision and improvement of the agreement from time to time as the need arises, it being understood that there would be continuing consultation in regard to the operation of the agreement.

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* (continued)

established in an office in the Great Lakes area. The United States section, while not rejecting the concept of a single office pending a study of the legal and other problems involved, believes that, as an alternative, separate offices for the two sections located in close proximity in the Great Lakes area could be considered.

The Canadian section considers that the agreement itself should contain provisions relating to the establishment of the Board and the establishment of an IJC office for the Great Lakes area, with provisions for modifying these arrangements as circumstances may from time to time require. The United States section believes that rather than incorporating such provisions in the agreement the views of the Governments should be separately communicated to the IJC, and that the Board and additional Commission staff should be established by the Commission in consultation with the Governments.

FORM OF AGREEMENT

The Joint Working Group believes that the intergovernmental agreement should not be a single integrated document, but rather should consist of a basic intergovernmental agreement and a series of supporting annexes relating to specific joint action on various subjects and to commitments for governmental programs.

The annexes should contain the details concerning water quality objectives agreed to from time to time, the operation of joint contingency and special situations plans requiring response in both nations, and basic principles of compatibility for national regulations in various areas. Further annexes would contain commitments for the establishment of water quality standards and programs for their attainment. These annexes could be amended from time to time by agreement between the appropriate authorities of the two federal Governments without amending the broader provisions of the basic agreement.

ANNEX III

GREAT LAKES WATER QUALITY OBJECTIVES

GENERAL OBJECTIVES

The receiving waters of Lake Erie, Lake Ontario, the International Section of the St. Lawrence River and the Connecting Channels of the Great Lakes at all places and at all times should be:

(a) 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;

(b) 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;

(c) free from materials attributable to municipal, industrial or other discharges producing colour, odour or other conditions in such a degree as to create a nuisance;

(d) free from substances attributable to municipal, industrial or other discharges in concentrations that are toxic or harmful to human, animal or aquatic life; and

(e) free from nutrients derived from municipal, industrial and agricultural sources in concentrations that create nuisance growths of aquatic weeds and algae.

Furthermore, no substance should be introduced into these waters unless reasonable efforts have been made to ensure that it will not lead to the violation of any of the foregoing objectives.

SPECIFIC OBJECTIVES

The Specific Objectives are for the receiving waters except in the restricted mixing zones at outfalls. (The periphery of the restricted mixing zones should be prescribed by water pollution control agencies.)

(a) Microbiology (Coliform Group) - The geometric mean of not less than a 30-day period shall not exceed 1,000/100 ml total coliforms, nor 200/100 ml fecal coliforms in local waters. Waters used for body contact recreation activities should be free from bacteria, fungi, or viruses that may produce enteric disorders, or eye, ear, nose, throat and skin infections.

(b) Dissolved Oxygen - In the Connecting Channels and in the upper waters of the Lakes not less than 6.0 mg/l at any time; in the hypolimnetic waters not less than the concentrations necessary for the support of fish-life, particularly cold water species.

(c) Total Dissolved Solids - Less than 200 mg/l in Lake Erie, Lake Ontario and the International Section of the St. Lawrence River; in the St. Marys River, pending the results of a study of the Upper Great Lakes, a level of total dissolved solids not exceeding that of 1970; and in the other Connecting Channels a level consistent with maintaining the levels of total dissolved solids in Lake Erie and Lake Ontario less than 200 mg/l.

(d) Temperature - No change which would adversely affect any local or general use of these waters.

(e) Taste and Odour - No objectionable taste or odour. Phenols desirably absent but not to exceed a monthly average of 1.0 micrograms/1. Other taste and odour producing substances absent.

(f) pH - No change from the range of levels, 6.7 to 8.5 which now exist.

(g) Iron - Less than 0.3 mg/1.

(h) Phosphorus* - Concentrations limited to the extent necessary to prevent nuisance growth of algae, weeds, and slimes which are or may become injurious to any beneficial water use. (Meeting this objective will require that the phosphorus loading to Lake Erie be limited to 0.39/g/m^2/yr and the phosphorus loading to Lake Ontario be limited to 0.17 g/m^2/yr.)

(i) Radioactivity - Elimination of radioactive materials to the extent necessary to prevent harmful effects on health. Pending

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* The term phosphorus in this Report refers to phosphorus as a constituent of various organic and inorganic complexes and compounds, not to elemental phosphorus as a chemical substance. The term phosphorus includes orthophosphates such as sodiumtripolyphosphate and polyphosphates such as sodiumhexametaphosphate. However, in this Report concentrations and loads are given in terms of the element phosphorus as part of any compound to assure uniformity of expression.

the adoption of more stringent limits, in no event is gross Beta activity to exceed 1,000 pCi/l, Radium-226 not to exceed 3 pCi/l and Strontium-90 not to exceed 10 pCi/l.

Additional Specific Objectives - When required, appropriate Specific Objectives will be established for water quality parameters including but not restricted to toxic materials, oils and heavy metals.

ANNEX IV

JOINT CONTINGENCY PLAN FOR THE GREAT LAKES

The Joint United States-Canadian Oil and Hazardous Materials Pollution Contingency Plan for the Great Lakes Region has been developed to provide a response mechanism for pollution situations threatening the waters of both countries. These pollution situations include harmful discharges of oil and hazardous materials and special pollution situations arising from conditions other than spills. It is intended to supplement and coordinate internationally other approved national, provincial, state and local pollution contingency plans.

The basic features of the plan encourage joint policy and responsibility, planning and response elements and response operations. The plan can be amended when required by mutual consent of the designated agencies of the two nations.

The U.S. and Canada agree to cooperate in spill situations by making mutual notification and joint response to polluting spills which threaten to affect the waters of both nations. The plan also outlines responsibilities of the agencies primarily involved in pollution situations. It recognizes that some situations might occur that are not related to a spill, and provides also for suitable notification and consultation in these situations.

The plan provides for establishment of a Joint Response Centre and Joint Response Team (JRT) to be activated in the event of a major spill or pollution incident. The plan predesignates primary and deputy on-scene commanders for all areas of the Great Lakes and boundary waters. The primary on-scene commander coordinates and directs the joint pollution control

efforts in his area of responsibility. The deputy on-scene commander is furnished by the nation not providing the primary on-scene commander and acts as the on-scene commander's direct liaison with the other country's agencies. The JRT is responsible for planning and preparedness functions. During a spill the JRT coordinates the actions of the various agencies in supplying needed assistance to the on-scene commander, provides advice to the on-scene commander, determines when a shift in on-scene commander is appropriate and furnishes a focal point for Pollution Incident Operations.

The plan establishes three response phases: Phase I, discovery and notification; Phase II, containment and countermeasures; and Phase III, cleanup and disposal. Phase I provides for mutual alerting and notification when appropriate. Phases II and III provide for suitable control measures.

SCHEDULE 1

RECOMMENDATIONS OF SUB-GROUP 1 ON STANDARDS AND PROGRAM COMMITMENTS TO ACHIEVE COMMON OBJECTIVES FOR WATER QUALITY

In developing the schedule of commitments to achieve the water quality objectives, the sub-group made the following basic assumptions:

1. when recommended in the futur by the IJC, the Water Quality Objectives for Lake Huron and Lake Superior may be more stringent than the objectives recommended for the lower lakes in recognition of the higher quality water of the upper lakes;

2. except where indicated, the objectives for microbiology, dissolved oxygen, temperature, taste and odour, pH, iron, phosphorus, radioactivity, mercury and other toxic heavy metals, persistent organic contaminants, settleable and suspended materials, oils, petrochemicals and immiscible substances are considered to apply to the inshore waters of the Great Lakes; higher quality water can be expected in the deeper portions of the lakes as compliance with the objectives is achieved. For each of the above parameters, the IJC should be asked to advise the Governments annually on the adequacy of the programs and recommended changes therein to achieve the common water quality objectives by 1975 or by the date indicated in the schedule.

SCHEDULE 1 (continued)

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
1. Microbiology:	Geometric means of not less than five samples taken over not more than a 30 day period shall not exceed 1,000/100 ml. total coliforms, nor 200/100 ml. fecal coliforms in local waters. Waters used for body contact recreation activities should be free from bacteria, fungi, or viruses that may produce enteric disorders or eye, ear, nose, throat and skin infections. (Ref. IJC Report, p. 145-6.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, the details of control programs and schedules proposed by each jurisdiction, for sources of municipal and industrial wastes. The target of these control programs shall be to meet the water quality objectives by Dec. 31, 1975.1/ These should include wastes from animal husbandry operations where treated waste effluents from these operations have been demonstrated to be acceptable for return to a watercourse. Programs should include effluent requirements for treated waste discharges from municipalities and industries and descriptions of mixing zones for major waste sources. 3. Submission to the IJC by each jurisdiction within one year following agreement of proposed programs and schedules for the control of pollution from combined sewer overflows by Dec. 31, 1977, or as soon as possible thereafter. 4. Adopt compatible regulations for the control of water pollution from all classes of commercial vessels and pleasure craft using the Great Lakes system. (See report of sub-group 4.) 1/ See assumption 2 on page i.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
2. Dissolved Oxygen	In the Connecting Channels and in the upper waters of the Lakes not less than 6.0 mg/l at any time; in hypolimnetic waters, not less than the concentrations necessary for the support of fishlife, particularly for cold water species. (Ref. IJC Report, p. 146.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, the details of control programs and schedules proposed by each jurisdiction, for sources of municipal and industrial wastes. The target of these control programs shall be to meet the water quality objectives by Dec. 31, 1975.1/ These should include wastes from animal husbandry operations where treated waste effluents from these operations have been demonstrated to be acceptable for return to a watercourse. Programs should include effluent requirements for treated waste discharges from municipalities and industries and description of mixing zones for major waste sources. 3. Submission to the IJC by each jurisdiction within one year following agreement of proposed programs and schedules for the control of pollution from combined sewer overflows by Dec. 31, 1977, or as soon as possible thereafter. 1/ See assumption 2 on page i.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
3. Total Dissolved Solids	Less than 200 mg/l in Lake Erie, Lake Ontario and the International Section of the St. Lawrence River; in the St. Marys River, pending the results of a study of the Upper Great Lakes, a level of total dissolved solids not exceeding that of 1970; and in the other Connecting Channels a level consistent with maintaining the levels of total dissolved solids in Lake Erie and Lake Ontario less than 200 mg/l. (Ref. IJC Report, p. 146.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC at the time of the signing of the agreement and each year thereafter, details of programs and, where practicable, forecasts of expected compliance, designed to achieve the objective by reduction of inputs from significant sources of industrial wastes and land drainage.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
4. Temperature	No change which would adversely affect any local or general use of these waters. (Ref. IJC Report, p. 146.)	1. Develop compatible standards within two years following agreement by the Governments or sooner as technical information and procedures permit. 2. Submission to the IJC, at the time of the signing or the agreement and each year thereafter, details of its programs and schedules, designed to acnieve the objectives, particularly with respect to controls of thermal discharges and the siting of nuclear and fossil-fuelled electric power plants.
5. Taste and Odour	No objectionable taste or odour. Phenols desirably absent but not to exceed a monthly average of 1.0 micrograms/litre. Other taste and odour producing substances absent. (Ref. IJC Report, p. 146.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC at the time of the signing of the agreement and each year thereafter, details of its programs and schedules proposed by each jurisdiction, for sources of municipal and industrial wastes. The target of these control programs shall be to meet the water quality objectives by Dec. 31, 1975, particularly with respect to control of inputs of phenols.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
6. pH	Values should not be outside the range of levels 6.7 to 8.5 which now exist. (Ref. IJC Report, p. 147.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, details of programs and schedules designed to achieve the objective by Dec. 31, 1975.
7. Iron	Less than 0.3 mg/l in inshore waters and in connecting channels. (Ref. IJC Report, p. 147.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, details of programs and schedules designed to achieve the objective by Dec. 31, 1975.

POLLUTANTS	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
8. Phosphorus	Concentrations limited to extent necessary to prevent nuisance growths of algae, weeds and slimes which are or may become injurious to any beneficial water use. (Meeting this objective will require that the total phosphorus loadings should be in keeping with IJC recommendations and should not exceed 0.4 $g/m^2/yr$ to Lake Erie and to Lake Ontario 0.2 $g/m^2/yr$.[1/] (Ref. IJC Report, p. 147.)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Through use of appropriate controls, by Dec. 31, 1971, at the latest a reduction in the phosphorus content of detergents in the Great Lakes system to 20 per cent expressed as P_2O_5 (8.7 per cent by weight expressed as elemental phosphorus); and by Dec. 31, 1972, essentially eliminate phosphates in detergents in the Great Lakes system. Where substitutes are used, they must be environmentally safe. 3. In addition, introduce immediately measures to reduce phosphorus in municipal and industrial waste effluents in order to (a) achieve an 80 per cent reduction in total loadings and (b) achieve the schedule of target loadings in short tons per year of phosphorus (as P) set out below:

1/ The indicated loadings are derived from an empirical relationship between loading rates, mean depths and trophic characteristics of the lakes.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS

8. Phosphorus (continued)

TARGET LOADINGS OF TOTAL PHOSPHORUS (SHORT TONS PER YEAR)[1]

LAKE ERIE[2] - 1973:

	Municipal & Industrial Wastes	Land Drainage & Other Sources
Canada:	239	1,930
Ontario	239	1,930
United States:	1,124	4,810
Michigan	708	1,590
Ohio	368	2,500
Pennsylvania	18	145
New York	5	400
Indiana	25	175

LAKE ONTARIO[2] - 1975:

Canada:	380	300
Ontario	380	300
United States:	241	520
New York	241	520

1/ The initial target loadings, based on present scientific evidence, represent desirable levels of phosphorus input and do not represent an allocation of permissable phosphorus loadings to the lakes.

2/ By meeting these schedules, phosphorus loadings would be limited to 0.32 $g/m^2/yr$ for Lake Erie and 0.12 $g/m^2/yr$ for Lake Ontario.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
8. Phosphorus (continued)		4. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, the details of the programs and schedules proposed by each jurisdiction, for sources of municipal and industrial wastes, designed to achieve the reductions set out in paragraph 3 above. 5. Before Dec. 31, 1975, complete a reassessment of the phosphorus loadings set out in paragraph 3 in order to ensure their adequacy to meet the stated water quality objective. 6. Submission to the IJC within one year following agreement, details of programs and schedules designed to achieve to the extent practicable reductions in inputs of phosphorus, and other nutrients from land drainage and other sources, particularly with respect to wastes from animal husbandry operations.

POLLUTANTS	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
9. Radioactivity	Elimination of radioactive materials to the extent necessary to prevent harmful effects on health. Pending the adoption of more stringent limits, in no event is gross beta activity to exceed 1,000 pCi/l, Radium-226 not to exceed 3 pCi/l and Strontium-90 not to exceed 10 pCi/l. (Ref. IJC Report, p. 147.) The general intent of the objective is to keep unnecessary exposure to radiation at a minimum.	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, details of programs and regulations to achieve the objective, particularly with respect to: (i) controls on the siting of nuclear powered plants; (ii) construction and operational control standards; (iii) use of radioactive materials by industry, in research, etc.; (iv) handling and transportation of radioactive material; and (v) treatment and disposal.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
10. Mercury and Other Toxic Heavy Metals[1]	The aquatic environment should be free from substances attributable to municipal, industrial or other discharges in concentrations that are toxic or harmful to human, animal or aquatic life. (Ref. IJC Report, p. 145 (d).)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Through appropriate controls, achieve, as quickly as possible, the elimination of mercury from all sources into the Great Lakes. 3. Eliminate immediately the use of slimicides or other biocides containing mercurial compounds in industrial operations.

1/ Other heavy metals may accumulate in aquatic biota to the detriment of the organisms themselves or to predators (including man) and in the absence of evidence to the contrary should be viewed with suspicion as to effect and be subject to stringent controls.

POLLUTANT	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
11. Persistent organic contaminants	Persistent pesticides, herbicides and other organic contaminants should be absent in the waters. (Ref. IJC Report, p. 145 (d).)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Each jurisdiction should develop and submit to the IJC at the time of the signing of the agreement and each year thereafter, details of compatible and coordinated programs and other measures to achieve the objective which would include: (a) testing of environmental effects; (b) registration prior to use; (c) monitoring of inputs to sewage systems; (d) pollution incident prevention plans.
12. Settleable 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. (Ref. IJC Report, p. 145 (a).)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, details of programs and schedules designed to achieve the objective by Dec. 31, 1975.

POLLUTANTS	COMMON WATER QUALITY OBJECTIVE	PROGRAM COMMITMENTS
13. Oil, Petrochemicals and Immiscible Substances	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. (Ref. IJC Report, p. 144 (b).)	1. Adopt receiving water quality standards which are compatible with the common objective within one year, or as soon thereafter as procedures permit, following agreement by the Governments. 2. Submission to the IJC, at the time of the signing of the agreement and each year thereafter, details of programs and schedules designed to achieve the objective by Dec. 31, 1975.

APPENDIX F

Request for Authority to Conclude a Great Lakes Water Quality Agreement. Circular 175 of 03/29/72.

DEPARTMENT OF STATE

Washington, D.C. 20520

MEMORANDUM

TO: CEQ - Mr. Janin
EPA - Mr. Mansfield
USCG - Captain Riedel
OMB - Mr. Barrett

FROM: L/EUR Douglas F. Burns

SUBJECT: Great Lakes Water Quality Agreement

The attached Circular 175 memorandum, together with the draft Agreement and legal memorandum, has been circulated to the persons indicated on the attached covering memorandum. Clearance by your agencies is requested by close of business on Monday, April 3. Your assistance is requested in securing the needed clearances by the date requested.

Attachments:

Circular 175 memorandum

Draft Agreement

Memorandum of Law

Covering Memorandum indicating persons in Department of State having already cleared the above items

DEPARTMENT OF STATE

Washington, D.C. 20520

MEMORANDUM

TO:
- CEQ - Dr. MacDonald
- EPA - Mr. Green
- EPA - Dr. Hirsch
- USCG - Admiral Benkert
- USACE - Mr. Lankhorst
- OST - Dr. Butcher
- OMB - Mr. Rice
- AEC - Mr. Kastner
- GLBC - Mr. Rouse
- SLSA - Mr. Kraft
- Commerce - Mr. Ellert
- USDA - Dr. Byerly
- EPA - Mr. McManus
- USCG - Mr. Hallberg

FROM: Department of State
L/EUR - Douglas F. Burns

SUBJECT: Great Lakes Water Quality Agreement

I attach a memorandum for your clearance to the Secretary of State requesting authority to conclude the Great Lakes Water Quality Agreement, together with a text of the Agreement and a legal memorandum in support thereof.

Your clearance of the attached memorandum and supporting documents is requested by close of business on Monday, April 3.

Attachments:

Memorandum to the Secretary of State

Text of Agreement

Legal Memorandum

DRAFT ACTION MEMORANDUM

TO: S - The Secretary

THROUGH: S/S

FROM: EUR - Martin J. Hillenbrand
L - Charles N. Brower

SUBJECT: CIRCULAR 175: Request for Authority to Conclude a Great Lakes Water Quality Agreement

Background

On June 9, 1971, Under Secretary Johnson authorized the negotiation of a Great Lakes Water Quality Agreement with Canada. A copy of the Circular 175 memorandum authorizing the negotiation is attached at Tab C.

The Agreement has now been negotiated, and authority is sought for its concludion as an executive agreement in connection with the visit by the President to Canada, April 13-15 , 1972. The final text of the Agreement, subject to technical corrections, is attached at Tab A. The French translation, together with the certificate of comparison of texts from OPR/LS, is at Tab B. A memorandum of law prepared by L is attached at Tab D.

Discussion

The Agreement as negotiated conforms closely to that described in the Circular 175 memorandum at Tab C. Under the terms of Articles II and III, the Parties adopt

and agree to recognize water quality objectives, which they agree to seek to attain through specific remedial programs and measures. Although it was originally contemplated that the Parties would commit themselves to adopt compatible water quality standards, certain proposed changes in U.S. domestic legislation have placed in doubt our ability to comply with such a commitment; accordingly, Article IV now provides that federal standards and regulatory measures will be consistent with the achievement of the water quality objectives, and that the Parties will use their best efforts to assure that state and provincial standards and measures are likewise consistent with this goal.

Article V sets forth the specific programs and other measures which the Parties agree to undertake in order to achieve the water quality objectives. The programs and other measures are in nine specific areas, and cover the principal problems which have been identified in the field of water pollution control. With respect to the United States, each of the named programs is either under way or awaiting authorizing legislation in accordance with administration requests. The Parties agree that such programs will either be completed or in process of implementation by December 31, 1975.

Articles VI, VII and VIII provide for monitoring and surveillance by the International Joint Commission, United States and Canada. The Commission, acting through a Great Lakes Water Quality Board, will act as an independent monitor of compliance with the Agreement, will assist the Governments in the implementation of the Agreement, and will report to the Governments at least annually, making recommendations for improvements in programs and other measures in order to assure the achievement of the water quality objectives. Although it was originally contemplated that descriptions of national programs would be exchanged in program letters, it was subsequently decided to include in the Agreement a basic description of national programs (Article 5) and to furnish to the International Joint Commission the detailed information needed by the Commission to evaluate these programs and to make recommendations concerning them (Article VIII). Article IX contains provisions relating to intergovernmental consultations.

Further program details, including principles for the establishment of compatible regulations in various areas, are included in annexes to the Agreement. Annex 1 sets forth the specific water quality objectives, which are technical parameters of water quality. In addition, the terms of reference for a Research Advisory Board to be established under the International Joint Commission

are attached, as well as two references to the Commission under Article IX of the Boundary Waters Treaty of 1909 calling for investigation of water quality problems in Lakes Superior and Huron and for an investigation of pollution problems from agricultural, forestry and land use activities.

The Agreement has the support of the Governors of the Great Lakes States, and State representatives have participated actively in the negotiating process. The Department has prepared and forwarded to Office of Management and Budget a draft concurrent resolution which would express the support of Congress for the Agreement; the resolution has not, however, been transmitted to the Congress as of this date.

We believe that the Agreement as negotiated is a full response to the recommendations made by the International Joint Commission in its report to Governments of December 9, 1970, on Pollution in Lake Erie, Lake Ontario and the International Section of the St. Lawrence River. We further believe that this Agreement, which is as far as we know, the first to be concluded by two Governments for the protection of a jointly-owned natural resource, is a vital first step toward restoration of the Great Lakes, and that it will be useful as a model for future intergovernmental agreements for protection of environmental resources.

Recommendation

That, pursuant to Circular 175, you authorize the signature of the Great Lakes Water Quality Agreement in substantially the form attached at Tab A. It is anticipated that the signing will take place on the occasion of the President's visit to Canada, April 13-15, 1972, and that the President may wish to sign the Agreement or designate a person to do so. Otherwise, our Ambassador at Ottawa would be authorized to do so.

Approve _____ Disapprove _____

Attachments:

Tab A - Great Lakes Water Quality Agreement

Tab B - French translation together with certificate of comparison of texts from OPR/LS

Tab C - Circular 175 memorandum to Ambassador Johnson dated June 8, 1971

Tab D - Memorandum of Law

Drafted: L/EUR:DFBurns:lla 3/29/72

Clearances:

EUR - Mr. Springsteen	SCI/EN - Mr. Herter
EUR/CAN - Mr. Johnson	S/GOV - Mr. Manell
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CEQ - Dr. MacDonald	EPA - Mr. Green
EPA - Dr. Hirsch	USCG - Admiral Benkert
USACE - Mr. Lankhorst	OST - Dr. Butcher
OMB - Mr. Rice	AEC - Mr. Kastner
GLBC - Mr. Rouse	SLSA - Mr. Kraft
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APPENDIX G

Memorandum of Law: Great Lakes Water Quality Agreement Between the United States of America and Canada. Circular 175 of 03/29/72.

MEMORANDUM OF LAW

CIRCULAR 175: Great Lakes Water Quality AGreement Between the United States of America and Canada

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The Circular 175 request to which this memorandum is attached seeks authority to conclude an Executive Agreement with Canada for the adoption of common water quality objectives for the boundary waters of the Great Lakes system and for mutual commitments and joint actions to achieve those objectives. This memorandum considers the legal authority for the conclusion of such an agreement, and for the making, on behalf of the United States, of the commitments which it will contain. References to the "Agreement" are to the Great Lakes Water Quality Agreement attached at Tab A.

Authority to Conclude a Water Quality Agreement without Congressional Authorization or Ratification

Section 102 of the National Environmental Policy Act of 1969 (43 U.S.C. 4332) provides:

> "The Congress authorizes and directs that, to the fullest extent possible, (1) the policies, regulations and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall--

(E) recognize the worldwide and long range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment.

Article IV of the Boundary Waters Treaty of 1909 (36 Stat. 2448, T. S. 548) provides:

"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."

The boundary waters of the Great Lakes system to which the draft agreement refers are boundary waters as defined in this Treaty.

In the exercise of his authority to conduct foreign relations under Article 2 of the Constitution, the President has authority to conclude agreements with foreign nations. Such agreements may either be submitted to the Senate for advice and consent as treaties, or may be predicated upon authority delegated to the President by the Constitution or a combination of that delegation and legislation enacted by Congress. While the President possesses no general authority in the environmental area comparable to his authority as Commander-in-Chief in the military area, the provisions of Section 102 of NEPA, quoted above, as well as the provisions of Article IV of the Boundary Waters Treaty, would appear to sanction the making of the agreement.

Since the Agreement is basically designed to implement Article IV of the Boundary Waters Treaty, the Executive Agreement form would appear more appropriate than treaty form.

Each of the proposed commitments must be analyzed to determine the authority of the executive branch to act. Where it is proposed to make commitments for which no legislative authority exists, such commitments must be made subject to action by the Congress; likewise, any commitment for the expenditure of funds must be made subject to the authorization and appropriations process. Article X of the Agreement provides generally that the carrying out of the commitments embodied in the Agreement are subject to the appropriation of funds by the Congress, and that to the extent new authorizing legislation is required, the obligation of the parties is limited to seeking such legislation.

Water Quality Objectives - Articles II and III

The adoption of water quality objectives for the boundary waters of the Great Lakes System does not, in and of itself, represent the making of a commitment, since the objectives have no legal force, and are merely precatory. The Governments of the United States and Canada have heretofore recognized water quality objectives proposed by the International Joint Commission for particular bodies of water. Such objectives have been proposed in response to References submitted to the Commission

by the Governments under Article IX of the Boundary Waters Treaty; the Governments, in recognizing the objectives, have given the Commission "continuing references" to maintain surveillance over the waters to which the objectives refer. For example, following the transmission to the Governments of the IJC's final report on the reference on the use, conservation and regulation of the waters of the St. Croix River, which recommended the establishment under the IJC of a Board of Pollution Control for the St. Croix and the recognition of objectives for the river, the Governments, on September 30, 1961, notified the IJC by letter of their acceptance of those recommendations and of their approval of the establishment of the proposed board with the authority proposed by the Commission. Such board was established and has continued to function since 1961. IJC objectives have likewise been approved for the Connecting Channels of the Great Lakes (November 19, 1951); for the Rainy River (December 13, 1965); and for the Red River of the North (May 14, 1969).

Accordingly, it is our opinion that an Agreement for the adoption of water quality objectives for the boundary waters of the Great Lakes may be concluded by executive agreement without specific authorization by the Congress. Article II sets forth general objectives for these waters; Article III provides for the adoption of specific objectives, which are set forth in detail in Annex 1. Article III further preserves the right of the

Parties and of the concerned states and provinces to establish regulatory requirements more stringent than those required to meet the water quality objectives. It also recognizes the general principle that the waters, regardless of present quality, should not be further degraded.

Standards and Regulatory Requirements - Article IV

Article IV contains the general commitment to ensure that federal water quality standards and other regulatory requirements are consistent with the achievement of the water quality objectives. This article also provides that the federal governments will use their best efforts to ensure that state and provincial standards and requirements are likewise consistent with the agreed objectives. As Article III, Paragraph 3, makes clear, the provisions of this Agreement will not preclude the States from adopting more stringent requirements and standards.

Under United States domestic law, water quality standards are established by the states, subject to the provisions of Section 10 of the Federal Water Pollution Control Act. This Section authorizes the Administrator of the Environmental Protection Agency to initiate a procedure for revision of state standards; if the states do not voluntarily revise their standards in accordance with the proposals of the Administrator, the Administrator

is authorized to promulgate the new standards, subject to a hearing procedure. Through this procedure, the United States could guarantee compliance with the obligations of this Article of the Agreement.

Regulatory requirements refer to actions under national legislation which are within the jurisdiction of the regulatory agencies. This Article commits the regulatory agencies of the executive branch to act in accordance with the objectives in the exercise of their discretion under existing law.

Programs and Other Measures - Article V

Article V of the Agreement provides for the development and implementation of programs and other measures directed toward the achievement of the water quality objectives. Such programs and other measures are to be in accordance with legislation in the two countries. Where legislative authority does not exist for the programs described, Article X of the Agreement provides that the obligation of the Parties is to seek such legislation. This formulation is appropriate for an executive agreement, and in no way commits the United States to implement authority enacted from time to time by the Congress. The executive branch is committed (1) to seek any necessary authorizing legislation for the

programs described, and (2) to use that authority to implement programs and other measures which have as their goal the achievement of the water quality objectives. Such programs and measures are to be completed or in process of implementation by December 31, 1975; this commitment is subject, of course, to the enactment of necessary authorizing legislation.

In fact, however, legislative authority exists in some form for the implementation of virtually all of the programs described in Article V of the Agreement. Where the implementation of the programs and other measures described depends in whole or in part on action by states, Article X provides that the obligation of the Parties is to seek the cooperation of the states to achieve the objectives of the Agreement.

Pollution from Municipal Sources. The programs to be developed and implemented under this section relate principally to the construction and operation of municipal sewage treatment facilities. The authority to develop such programs is vested in EPA under Section 3 of the Federal Water Pollution Control Act (33 USC 1153). While these facilities are constructed by state and local agencies, EPA, acting under Section 10 of the Federal Water Pollution Control Act (33 USC 1160), is empowered to approve or disapprove state water quality standards, which include plans for the implementation and enforce-

ment of specific criteria for water quality. The Administrator is empowered under Section 10 of the Act to take action to abate pollution of interstate waters through enforcement conferences. He is also empowered to abate discharges into interstate waters which reduce the quality of water below established standards, through notice to the violator, and, if the violation continues, through suit under the act. Legislation backed by the administration is presently before the Congress to strengthen the power of the Administrator to assure compliance with programs and schedules approved by him.

Section 8 of the Act (33 USC 1158) authorizes the Administrator to make grants to any state, municipality or intermunicipal or interstate agency for the construction of necessary treatment works to prevent the discharge of untreated or inadequately treated sewage into any waters. Such grants are conditioned on a showing that provision has been made for the proper operation and maintenance of such works.

While no programs currently exist for the control of combined storm and sanitary sewers, the administration is currently ~~[seeking authority for]~~ a demonstration project in this area, ~~such~~ authority ~~is~~ contained ~~in the bill amending~~ the Federal Water Pollution Control Act, ~~as passed by the Senate (S. 2770, Section 105(a)(1))~~. ~~Such legislation will comply with~~ our obligation to seek practical solutions to this problem.

Except as indicated above, no new legislation will be required to develop and implement the commitments described in this section.

Pollution from Industrial Sources. The programs to be developed and implemented under this section involve the establishment of regulatory requirements relating to discharges by industrial polluters. The U.S. Army Corps of Engineers permit program, established under the authority of 33 USC 407 (Section 13 of the River and Harbor Act of 1899), complies fully with the provisions of this Section. Under Executive Order 11574, the Secretary of the Army is required to consult with EPA before issuing any permits under this Section.

Additional provisions of law exist under the Atomic Energy Act of 1954, as amended, relating to the disposal of radioactive wastes. Under Reorganization Plan No. 3 of 1970, the powers of the Atomic Energy Commission under this Act establish environmental standards for the protection of the general environment from radioactive material was transferred to EPA.

No new legislation will be required to develop and implement the programs described in this section. Pending legislation will, however, vest new responsibilities in EPA in the administration of the permit program.

Eutrophication. The programs for the control of phosphorus discharges are established under the authority of legislation relating to municipal, industrial and other discharges, which are discussed under the appropriate headings. The eutrophication problem is highlighted in the Agreement because it was recognized by the International Joint Commission as the single most important water quality problem in the Great Lakes.

No new legislation will be required in the area of waste treatment facility operating standards. Legislation is pending which will empower EPA to establish effluent standards directly and will require industry to adopt best practicable pollution control technology.

Pollution from Agricultural, Forestry and Land Use Activities. 7 USC 135a establishes penalties for selling or transporting in interstate commerce pesticides and other economic poisons which are not registered in accordance with the further provisions of that act, and for making representations about such substances or providing directions for their use which differ from the information submitted in connection with the registration proceeding.

Under the Corps of Engineers permit program, agricultural feed lots feeding over 1,000 head of stock are requried to obtain permits for disposal of animal waste in interstate waters.

While no federal program exists in the solid waste area, EPA provides advice to local authorities regarding siting of land fill and land dumping sites and regarding disposal on land of hazardous polluting substances. Department of Agriculture operates advisory programs to educate farmers concerning the use and disposal of fertilizers containing harmful nutrients.

No additional legislation is required for the development and implementation of the programs described in this section. Pending legislation will increase the authority of EPA in this area.

Pollution from Shipping Activities. Authority for regulations for the design, construction and operation of vessels exists in various provisions of existing law. Section 11 of the Federal Water Pollution Control Act (33 USC 1161) authorizes the President to establish procedures, methods and requirements for equipment to prevent oil discharges. The Commandant of the Coast Guard is authorized under 46 USC 170 to establish regulations for the safe transportation, carriage, conveyance and stowage of explosives and other dangerous articles or substances on board vessels. He is likewise authorized to establish regulations for the design and construction, alteration or repair of vessels having on board inflammable or combustible liquid cargo in bulk under 46 USC 391a. He is authorized to inspect various types of vessels

plying United States waters to assure safe navigation: 46 USC 361, 362, 364, 372, 375, 392(b), 395, 404, 405 and 435.

Section 13 of the Federal Water Pollution Control Act (33 USC 1163) requires the Administrator to promulgate federal standards of performance for marine sanitation devices to prevent the discharge of untreated or inadequately treated sewage from vessels, and provides penalties for violation of such regulations.

Sections 11 and 12 of the Federal Water Pollution Control Act (33 USC 1161 and 1162) confer authority for regulations concerning the discharge of oil and hazardous substances. While present authority does not extend to prohibiting and punishing the discharge of substances found to be hazardous, pending legislation, supported by the Administration, would provide this authority. The Secretary of the Army is authorized under 33 USC 419 to prescribe regulations governing the dumping into navigable waters of dredgings, earth, garbage and other refuse materials where such regulations can be justified in the interest of navigation.

Additional legislation will be required, and is presently being sought, to permit EPA to regulate discharges of hazardous polluting substances.

Polluting from Dredging Activities. Section 123 of the River and Harbor Act of 1970, P.L. 91-611, authorizes the Chief of Engineers to construct, operate and maintain disposal facilities for dredged spoil from the Great Lakes and their connecting channels. The Administrator of EPA is authorized to submit views and recommendations to the Chief of Engineers in connection with any disposal facility, and to determine which areas are most urgently in need of such facilities. The discharge of refuse matter of any type into navigable waters without a permit from the Secretary of the Army is prohibited by the Refuse Act of 1899 (33 USC 407), and the Secretary is specifically authorized to prescribe regulations governing the transportation and dumping into navigable waters of dredgings (33 USC 419).

No additional legislation will be required for the development and implementation of the programs described in this section.

Pollution from Onshore and Offshore Facilities. Section 11 of the Federal Water Pollution Control Act (33 USC 1161) requires the President to determine by regulation quantities of oil which may be discharged at various locations in the navigable waters of the United States without danger to health or welfare, and provides penalties for discharges in excess of the quantities thus determined. It further authorizes him to establish

procedures, methods and requirements for equipment to prevent discharges of oil from onshore and offshore facilities. Section 12 of the Act (33 USC 1162) requires the President to designate by regulation hazardous substances other than oil, the discharge of which presents an imminent and substantial danger to health and welfare. Legislation is presently being sought to prevent and punish discharges of hazardous quantities of these substances.

Except as indicated above, no new legislation will be required to implement the measures described in this section.

Contingency Plan. Section 11 of the Federal Water Pollution Control Act (33 USC 1161) requires the President to prepare and publish a National Contingency Plan for the removal of oil, and authorizes the revision and amendment of the plan from time to time. The Treaty with Great Britain in respect of Canada of May 18, 1908, for conveyance of Prisoners and Wrecking and Salvage (35 Stat. 2035, TS 502) authorizes vessels and equipment of one of the parties to be used for salvage and assistance work in the waters of the other party along the boundary. In addition, 14 USC 88(b) authorizes the Coast Guard to assist persons and protect property at any time and at any place at which Coast Guard facilities and personnel are available and can be effectively utilized.

The Joint U.S.-Canadian Oil and Hazardous Materials Pollution Contingency Plan for the Great Lakes Region, meeting the requirements of this section, was adopted and promulgated under the above cited authorities on June 10, 1971.

No further legislation will be required to implement the measures described in this section.

Hazardous Polluting Substances. An annex identifying hazardous polluting substances will be concluded within one year. Authority for the identification of such substances is contained in Section 12 of the Federal Water Pollution Control Act (33 USC 1162). Regulations under this section are in the process of promulgation in the United States at the present time.

Institutional Arrangements - Articles VI and VII

Pursuant to Article IX of the Boundary Waters Treaty of 1909 the Governments may request the International Joint Commission to enquire into and report to Governments on "questions or matters of difference ... arising along the common frontier." The executive, acting pursuant to this article, may request the Commission to coordinate and facilitate the exchange of data, monitor the effectiveness of water quality programs, make recommendations to Governments concerning pollution control programs, legislation and agreements, and

perform other, similar functions not involving judicial power. In the exercise of its responsibilities under the Treaty, the Commission is authorized to administer oaths to witnesses and to take evidence on oath whenever deemed necessary, to employ sub-poenas and compel the attendance of witnesses, and adopt its own rules of procedures (Article XII).

Article VI of the Agreement assigns various administrative responsibilities to the Commission pursuant to this article of the Boundary Waters Treaty. Article VII mandates the creation of a Water Quality Board and a Research Advisory Board to assist the Commission in the exercise of its responsibilities. The Commission has, on its own authority under the Treaty, established numerous boards of this sort. Article VII further authorizes the Commission to establish a regional office to assist in the exercise of its new responsibilities.

Additional Matters

Article VIII of the Agreement provides for the furnishing of information to the International Joint Commission in accordance with procedures to be developed by the Commission in consultation with the Parties. This Article also contains a restriction against the disclosure of information that is characterized as "proprietary" under the law of the place where such information is acquired.

this section qualifies the right of the Commission to disclose information to the public, as provided in Article VI, Paragraph 4. Although the Public Information Act is probably inapplicable to the international activities of the IJC, this Act contains an exception for "trade secrets and commercial or financial information obtained from a person and privileged or confidential" (5 USC 552(b)(4)).

Article IX is a general consultation provision, which presents no legal problems.

Article X makes clear that all obligations undertaken in the Agreement are subject to appropriation of funds in accordance with the constitutional procedures of the Parties, and that where implementation of commitments is dependent on national legislation, the obligation of the Parties is to seek such legislation. Where implementation of commitments is dependent in whole or in part upon the cooperation of state and provincial governments, the obligation of the Parties is to seek such cooperation.

Annexes

Annex 1. Specific Water Quality Objectives. This Annex, adopted pursuant to Article III of the Agreement, sets forth the specific water quality objectives which the Parties agree to recognize for the waters of the Great Lakes. The objectives are substantially the same as those recommended after public hearings by the International Joint Commission in its report on Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River. The Annex may be amended upon agreement of the Parties through letters to the International Joint Commission accepting new objectives recommended by the Commission.

Annex 2. Control of Phosphorus. This Annex establishes a schedule for removal of phosphorus from effluents to the Great Lakes. The basic commitment is to establish an effluent limitation of one milligram per litre from municipal waste outfalls, and to require best practicable phosphorus removal treatment at industrial outfalls. While the federal government at present lacks authority to impose effluent standards, such authority is provided in the amendments to the Federal Water Pollution Control Act as passed by the Senate, and is supported by the Administration. The Great Lakes states have indicated their agreement with the proposed effluent standard.

Annex 3. Vessel Design, Construction and Operations. This Annex is adopted pursuant to Article V, Paragraph 1(e)(1) of the Agreement. The regulations and programs described in this annex are authorized pursuant to the provisions of law described in the discussion of that section, above. Regulations are currently in the process of promulgation.

Annex 4. Vessel Wastes. This Annex is adopted pursuant to Article V, Section 1(d)(ii) of the Agreement. Regulations compatible with the principles set forth in this annex are currently in process of promultation.

Annex 5. Studies of POllution from Shipping Sources. This Annex, which describes specific subjects with respect to which studies are to be made and procedures for carrying them out, is adopted pursuant to Article V, Paragraph 1(e)(iii).

Annex 6. Identification and Disposal of Polluted Dredged Spoil. This Annex is adopted pursuant to Article V, Paragraph 1(f) of the Agreement. It provides for a review of existing dredging programs with the objective of adopting compatible criteria for the identification of polluted dredged spoil and compatible programs for its disposal. Pending completion of this review, the Parties agree to utilize confined areas where available, and to continue to seek sites for additional

confined areas. These actions are authorized under existing law.

Annex 7. Discharges from Onshore and Offshore Facilities. This Annex is adopted pursuant to Article V, Paragraph 1(g) of the Agreement. The regulations and programs in this Annex are authorized pursuant to the provisions of law described in the discussion of that section, above.

Annex 8. Joint Contingency Plan. This Annex is adopted pursuant to Article V, Paragraph 1(h) of the Agreement, and embodies the basic provisions of the Joint Contingency Plan adopted June 10, 1971. The funding provisions of paragraph 4 apply only to the apportionment of costs between the Parties, and do not in any way restrict the right of a Party to recover costs from third parties.

Other Documents

In addition to the eight annexes, there will be attached to the Agreement the terms of reference for the Advisory Board, in accordance with Article VII of the Agreement, and two references to the International Joint Commission under Article IX of the Boundary Waters Treaty, in accordance with Article VI, Paragraph 1(f). The actions mandated by these documents are within the power of the Commission under the Boundary Waters Treaty.

Conclusion

The Great Lakes Water Quality Agreement, including the annexes and other documents attached thereto, may properly be concluded as an executive agreement.

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Drafted: L/EUR:DFBurns:lla 3/29/72

Clearances:

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EPA - Mr. McManus
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