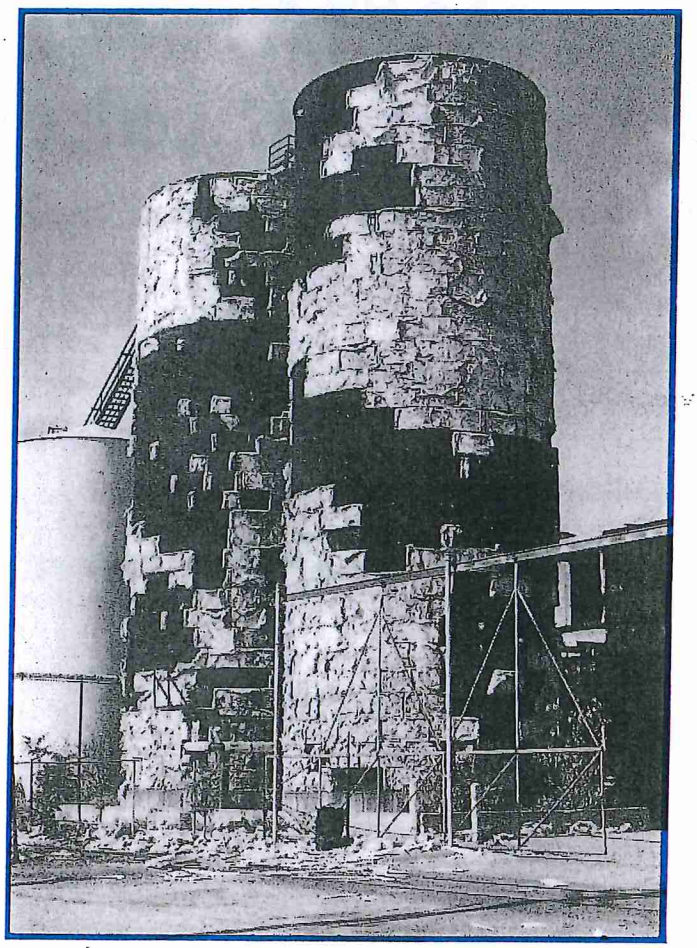
NAFTA and the Great Lakes

A Preliminary Survey of Environmental Implications



a discussion paper prepared by

Great Lakes United

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Canadian Environmental Law Association

in association with the

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November 1993

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The coauthors of this report include Bruce Lourie and Paul Muldoon, principal authors and editors; Carrie Fleming, an intern with the Canadian Environmental Law Association who wrote the water and fisheries sections of the preliminary survey and the water case study; and Mark Ritchie of the Institute for Agriculture and Trade Policy, who wrote the agriculture case study.

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The cover photograph is of abandoned silos located in Detroit, Michigan, slowly shedding asbestos insulation. Cover design and photograph by Reg Gilbert.

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EXECUTIVE SUMMARY

The North American Free Trade Agreement (NAFTA) defines not only trade relationships among nations but much broader issues of economic and regulatory harmonization.

These concepts of harmonization are perhaps the issues of most concern for environmental and citizen organizations in the Great Lakes Basin. Free trade agreements effectively move decision-making out of the hands of publicly elected officials, into the hands of inaccessible, international trade bodies, where not only is there no opportunity for public input into decisions, but the entire process is exclusive. The concern is compounded by the fact that the role of trade decision-makers is focused on narrowly defined, short term economic benefits of liberalizing trade. Notions such as sustainability, resource conservation or environmental protection, do not enter into trade decisions.

The implications of NAFTA on environmental protection are serious. The Agreement effectively places private economic interests above the interests of the public, the environment and national sovereignty. For example, in the Canada-U.S. Free Trade Agreement and NAFTA, Canada, which currently exports 75 percent of its heavy crude oil to the United States, cannot reduce this proportion of export. Therefore, despite, the outrageously inefficient consumption of energy by North Americans, shortages of supply, and efforts to achieve climate change targets, this proportion cannot be reduced, ever. The same policy applies to natural gas, coal and even fresh water.

This "proportionality" element is key to NAFTA. In fact, one of the primary goals of free trade in North America is twofold; for the U.S. to receive a guaranteed secure supply of fossil fuels, and for Canada to guarantee markets for petroleum companies. This explicit encouragement of fossil fuel use runs counter to the most fundamental arguments of sustainability.

The public policy situation is even more disconcerting, for three reasons. First, governments subsidize natural resource exploitation indirectly by allowing oil companies and forestry companies to extract and sell resources without paying the full environmental and social cost. Trade agreements limit governments' power to introduce polices designed to compensate for these environmental externalities. Therefore, the system benefits the corporations on both sides of a trading relationship at the expense of the public.

Second, the economic measurements of trade ignore ecological well-being. Increasing trade surplus and increasing GNP are fundamental measurements of economic success, but very poor measurements for sustainability. By ignoring the importance of measuring ecosystem health, trade agreements can override environmental policy.

Third, economic globalization places downward pressure on environmental standards and regulations, by forcing governments (under NAFTA) to prove that their policies fulfil "legitimate objectives" and are the "least trade restrictive" means of meeting these objectives.

Downward harmonization of standards is a critical concern for environmental and labour

groups. Trade agreements are explicitly designed to eliminate differences in the way in which governments treat the production, export and import of goods. With this objective in mind, it is foolish to expect that standards and regulations will not be changed. Moreover, since the objectives are also to eliminate barriers, the direction of change will undoubtedly be toward lower standards. This is exacerbated by corporations which place pressure on governments to lower standards, by threatening to move to regions where standards are lower or not enforced.

The Great Lakes Basin provides an interesting case study for analyzing the impacts of trade on standards and regulations. This is because the Great Lakes Basin is a unique economic, regulatory and institutional bioregion. Four key characteristics define the uniqueness of the Basin, as follows:

1. The dominant watershed in North America and the largest freshwater ecosystem in the world;
2. A strong binational economic force comprising the industrial and agricultural heartland of North America;
3. A unique bioregional and binational framework for environmental law and policy; and,
4. A well-established participatory governance structure.

Important concepts in Great Lakes environmental protection such as "zero discharge" and the "virtual elimination of persistent toxic chemicals" are included in the *Great Lakes Water Quality Agreement* and have been endorsed by the International Joint Commission. Progressive binational approaches to environmental protection may be challenged under free trade if the environmental objectives are found to be illegitimate, the evidence not convincing enough for trade panels, or the regulatory practices simply too trade restrictive.

When examining the relationship between free trade and the environment in the Great Lakes, environmental and community groups are most concerned with the erosion of these hard sought special environmental agreements and institutions which oversee the protection of the Great Lakes. Moreover, the concern is that the years of public pressure and public input in establishing this regime, and ensuring a continued role for the public, will be undermined by narrowly conceived, trade motivated decisions.

1 INTRODUCTION

1.1 Background

The North American Free Trade Agreement (NAFTA) is scheduled to go into effect on January 1, 1994. It will establish the largest free-trade zone in the world, comprising 360 million people and an $8 trillion (US$6.4 trillion) trinational economy. The agreement will eliminate all tariff barriers between Canada, Mexico and the United States over a fifteen year period.

Canada ratified NAFTA on June 23, 1993, conditional upon the governments of Mexico and the United States proclaiming their own NAFTA legislation. The United States is planning to introduce legislation in the fall of 1993 to be passed before the end of the year.

NAFTA supersedes the 1988 Free Trade Agreement (FTA) between Canada and the United States and is in many ways an extension of that agreement. NAFTA will define the rules for the globalization of economic activity in North America, and likely sets the stage for free trade between North, Central and South America and possibly the entire Pacific Rim.

The purpose of this report is to provide an overview of the implications of NAFTA for the Great Lakes Basin. The report discusses the potential impact of NAFTA on the physical, socio-economic and institutional environments of the Great Lakes Basin, with emphasis on the consequences for natural resource conservation.

The report aims to raise concerns and heighten awareness of the implications of NAFTA for the environment, resources and residents of the Great Lakes Basin. The greatest challenge in preparing this report is attempting to anticipate the consequences of the proposed agreement. Much assistance, however, can be derived from the analysis of Canada's and the U.S.'s four years of experience under FTA and major precedents set by the General Agreement on Tariffs and Trade (GATT).

The report provides a preliminary survey of the major implications for the Great Lakes Basin environment which are expected to stem from NAFTA. The role of Mexico in NAFTA, although important, is less critical to the Basin, and therefore not included. Information presented in this document is drawn from a number of analyses of trade agreements undertaken by leading Canadian and American researchers on public policy, environmental law and resource issues. These source materials are referenced at the end of the report.

It must be noted that NAFTA is a complicated 2,000 page agreement, replete with vague definitions and contentious sections. It has been interpreted in many different ways, none of which can be verified until rulings are made on the issues in question. This report is therefore a brief introduction to some of the major issues which appear to most directly affect the Great Lakes Basin. Certainly a more exhaustive study should be undertaken in the near future. Readers are encouraged to refer to the reference documents, other sources of analysis of

NAFTA, the FTA and GATT and the agreements themselves.

1.2 Overview

When examining the issue of trade and the environment, the relevance of trade to the Great Lakes may not be immediately obvious. Why would NAFTA affect the Great Lakes any differently, in kind or in degree, than other regions? What makes the Great Lakes vulnerable to trade regimes? Why is the Great Lakes region so special in this regard?

This paper responds in three ways: First, the paper argues that the Great Lakes region is unique for several reasons. The Great Lakes region, despite twelve major governmental jurisdictions, has created over the past century both legal and institutional frameworks which have served the region well. In effect, the driving thrust of NAFTA is in direct opposition to the development of the Great Lakes as "a special regime" whose goal is sustainability. This notion of the Great Lakes as a "special regime" is discussed in Section 2, below.

> The Great Lakes Basin has its own economic, regulatory and institutional culture, characterized by strong public involvement. it is this culture that is most at risk from NAFTA.

Second, the paper describes how NAFTA will affect environmental standard-setting (Section 3) and natural resource conservation policies (Sections 3 and 4). Third, the paper explores how these concerns manifest themselves in a variety of sectors, including; agriculture, fisheries, forestry, energy, water, transportation and others (Section 4). More detailed case studies of three sectors, energy, agriculture and water, are included in Sections 5, 6 and 7, respectively.

The overall thrust of this report is that NAFTA will have a long term adverse impact on the Great Lakes ecosystem. This view is founded on two notions. One is that the implications of NAFTA cannot be derived from any one section of the trade agreement; instead, it is the overall impact of NAFTA on the regulatory, policy and institutional environment of the Great Lakes. Second, the Great Lakes has, over the past century, developed its own unique economic, regulatory and institutional culture. While at times difficult to precisely define, there is ample evidence of the existence and vitality of this Great Lakes culture. Despite all the legal analysis and debate over NAFTA, it is this culture that is most at risk by the trilateral accord.

2. TRADE AND THE GREAT LAKES IN PERSPECTIVE

The Great Lakes region is a very special place. Its ecology, its people and its economy are truly unique. This section reviews the ways in which the Great Lakes are unique, so that the impact of NAFTA can be put into context and better understood. The following questions are explored:

1) What justifies the Great Lakes as a "special regime?"

2) What distinguishes the Great Lakes region from other regions?

3) What is unique about the region which makes it vulnerable to international and global trade agreements?

The Great Lakes Basin is clearly a unique and special regime.

In summary, it can be argued that there are four characteristics of the Great Lakes which make it a unique "special regime", as follows:

1) The dominant watershed ecosystem of North America;

2) A binational economic entity comprising the industrial and agricultural heartland of North America;

3) A legal and policy framework for environmental and natural resource conservation which is unique in its specificity to the region; and

4) A governance structure with a unique institutional framework and special role for the public.

Each of these characteristics are discussed in sections 2.1 through 2.4, below.

2.1 The Great Lakes as an Ecosystem

2.1.1 Physical Characteristics

The Great Lakes-St. Lawrence system is of global significance, an expansive and interconnected system of lakes and connecting channels that collectively define one of the most dominant physical features on the face of the earth. The size, configuration and biological diversity of this system give rise to its multiple use properties, its environmental and economic significance and the complexity and gravity of public policy issues concerning its use, development and protection.[1]

The Great Lakes Basin ecosystem comprises the largest freshwater lake system in the world, with nearly twenty percent of the world's supply of fresh water. The Basin drains an area of 765 990 km^2 with 750 000 km of tributary streams and rivers and over 80,000 small lakes.[2]

A number of physical characteristics of the Great Lakes Basin results in an ecosystem susceptible to pollution. The drainage basin is relatively small compared to the size of the lakes, therefore contaminants from industry and agriculture reach the lakes rapidly, with little time for natural dissipation or dilution. Due to the tremendous surface area of the Great Lakes, they are vulnerable to atmospheric deposition from a large portion of North America. Flushing time of the Lakes is long (191 years for Lake Superior), resulting in the accumulation and concentration of contaminants in sediments, fish and other wildlife, and the cycling of contaminants within the ecosystem.

Only superlatives can be used to describe the world's greatest fresh water system.

The land surrounding the Great Lakes is vast and varied, containing some of the world's most fertile farmland and greatest forests. The aquatic and the terrestrial ecosystems of the Great Lakes Basin are rich and diverse, providing a vast interconnected network for the flow of energy, nutrients and contaminants.

2.1.2 Ecosystem Planning

The impressive physical attributes described above are, however, not the most important factor for the Lakes. It is the overall Great Lakes Basin as an ecosystem -- the interdependencies between and among humans, other species, natural systems, the economy and the built environment -- which makes the Great Lakes region unique. Researchers are only now beginning to scratch the surface of understanding the complex interrelationships which occur in the Great Lakes Basin.

One of the most important policy responses to the uniqueness of the Great Lakes Basin was the adoption of the ecosystem approach to planning. That approach demands comprehensive and systematic planning; management based on ecological units rather than political boundaries; an emphasis on long-term planning; and respect for the needs of future generations.[3] Ecosystem planning focuses on the *interactions* between land-use, transportation and agriculture, or among urban sprawl, automobile use and air pollution.[4]
Trade acts as a focal point where ecosystem interactions take place, therefore, it is crucial to view the role of trade with an ecosystem approach. For example, ecosystem planning recognizes that the whole may be very different than the sum of the parts. Economic analysis used to justify trade agreements tends to focus on the "parts" (i.e. sector by sector), not the interactions between the "parts" or, in fact, anything beyond narrowly defined economic measurements of the parts. NAFTA ignores the innovative, publicly-driven, ecosystem-based

thinking that has been pioneered in the Great Lakes Basin.

2.1.3 Zero Discharge and the Great Lakes

A history of the Great Lakes is a history of a region attempting to address and reconcile the confrontation between industrial development and environmental integrity. The basin's history has resulted in the recognition of the goal of zero discharge for persistent toxic chemicals, and the ecosystem approach provides a framework to better understand the relationship between the interactions in the basin.

Since the 1960s, scientists have recognized that certain substances persist in the environment, and in particular, bioaccumulate in various biota, including; fish, wildlife and humans. The concept of zero discharge is now contained in the Great Lakes Water Quality Agreement, where it is the policy of the federal governments of Canada and the U.S. (the Parties) to "virtually eliminate the discharge of persistent toxic chemicals" and to follow "the philosophy of zero discharge" when developing new programs.

> Zero Discharge is derived from the ecological needs of the Great Lakes.

By the 1980s, scientists were able to provide an image of the problems posed by persistent toxic chemicals. Some 14 species were found to have a wide range problems -- from population decline to recognizable physical, behavioral and reproductive disorders. There is some evidence that suggests that some of these disorders may be threats to humans as well.

The International Joint Commission has endorsed the concept of zero discharge and has continually urged the Parties to implement it fully. Most governments in the basin have recognized the concept and some industries have agreed to work toward the goal. Over the past decade, environmental groups have written dozens of reports, held workshops and presented ample evidence in support of the concept. In summary, it is fair to say that the concept of zero discharge is now an integral and unique component of the policy framework for the Great Lakes.

2.1.4 Sustainability in the Great Lakes

The concept of sustainable development is closely linked to ecosystem planning, or at least it ought to be. All too often, sustainable development is used by economists and NAFTA proponents to mean "sustained growth in economic output regardless of future consequences". Unfortunately, this economically-weighted definition is diametrically opposed to the definition intended by the Brundtland Commission, which essentially states that present

> Despite its claims, NAFTA contradicts the most fundamental principles of ecosystem sustainability.

economic development must not jeopardize the availability of resources for future generations. For example, even something as simple as selecting units of measurement for well-being and quality of life, from a sustainable perspective, counter the way in which economic goals of trade agreements are measured.

Sustainable development is frequently discussed but rarely understood. In fact, the term is so frequently abused, that environmentalists now favour simply using "sustainability". Following are eight of sixteen principles of sustainability identified by the Sustainable Society Project[5], which provide an excellent framework for understanding sustainability:

1) Life support systems must be protected. This requires decontamination of air, water and soil and reduction in waste flows.

2) Biotic diversity must be protected and enhanced.

3) We must maintain and enhance the integrity of ecosystems through careful management of soils and nutrient cycles, and the development of rehabilitative measures for badly degraded ecosystems.

4) Preventive and adaptive strategies for responding to the threat of global change are needed.

5) The physical scale of human activity must be kept below the total carrying capacity of the planetary biosphere.

> The central issues in the Foundry, both in human and financial terms, revolve around questions of investment. Enormous quantities of time, sweat and money have been invested in making this region what it is, and the Foundry's future will be determined by the extent to which North Americans decide they should, or will, walk away from that.
>
> [Garreau, 1981]

6) There is a need for increased public involvement in the development, interpretation and implementation of concepts of sustainability.

7) Political activity must be linked more directly to actual environmental experience through decentralization of political power to more environmentally meaningful jurisdictions, and the promotion of greater local and regional self-reliance.

8) A sustainable society requires an open, accessible political process that has effective decision-making power at the level of government closest to the situation and lives of the people affected by a decision.

The preamble to NAFTA suggests the agreement will "promote sustainable development", but many provisions of NAFTA directly contradict this statement. NAFTA undermines industrial

policy tools which promote sustainability, such as; domestic processing of resources, measures to promote green industries, and price and tax policies that internalize environmental costs. [6]

It is clear that true sustainable development objectives are more often than not inconsistent with mainstream economic growth and trade objectives. The discussion presented in the following sections of this report highlights the blatant inconsistencies between the principles of sustainable development, and the goals and operating principles of NAFTA.

2.2 The Great Lakes Basin Economy

2.2.1 Industrial History

The industrial and settlement history of the great lakes basin is important for understanding the socio-economic implications of NAFTA. Non-native settlement in the Basin was established throughout the basin to take advantage of the rich agricultural land, plentiful natural resources and easy access to the Atlantic via the Great Lakes - St. Lawrence system.

Following the turn of the century, the Great Lakes Basin quickly developed into the industrial heartland of North America. Foundries and steel mills, mining, furniture, flour and grains, dairy and beef farming, machine manufacturing, breweries and distilleries, automobile manufacturing, hydro-power development, port facilities and railways became dominant and long lasting industries in the Basin. In fact, in his book, The Nine Nations of North America[7], Joel Garreau called the Great Lakes the "Foundry" of North America due to its function as the historical manufacturing base for the continent.

The Great Lakes states and provinces continue to be major industrial centres for North America. Metal products, machinery, plastics, paper, printing, publishing and transportation equipment are principal industries in the region.[8] Motor vehicle production is one of the most important industries in the basin, with nearly 60 percent of U.S. production and 85 percent of Canadian vehicle production occurring in the Basin. Agriculture is also an important part of the Great Lakes economy.

The Great Lakes economy is defined not only by how and what it produces, but where it trades. Nearly 65 percent of Ontario's $72.6 billion in exports are to Great Lakes states.[9]

The environmental downside of the Basin's industrial development is that heavy industry is very resource intensive. For example, auto parts manufacturing, automobile production and related industries such as steel making, are very energy intensive. This means that these industries consume more energy per unit of economic output than other, less energy intensive industries. Moreover, they tend to consume the most polluting forms of energy, such as coal.

The Great Lakes, however, have paid a heavy price for early industrial prosperity. Heavily polluting industries, such as petrochemicals, settled in the Basin contributing to the degradation of Great Lakes water quality. Inadequate resource and waste management, and

unsustainable development have resulted in polluted lakes, rivers, air and land. The Great Lakes have provided scientists with one of the largest living laboratories for pollution research. Unfortunately, the guinea pigs have all too often been the unwitting species, including humans, who occupy the Basin.

2.2.2 History and Patterns of Trade in the Great Lakes

Trade between nations has been taking place on the North and South American continents since long before the arrival of Europeans. In fact, there is evidence that trade took place between different native peoples of what is now North America, over distances of several thousand kilometres.[10] Contact between neighbouring native peoples throughout North and Central America, provided trade of goods across what are now the borders of Canada, the United States and Mexico.

The Great Lakes Basin has acted as a major trade route for thousands of years. First providing opportunities for trade between the many peoples inhabiting the shorelines and river valleys of the Basin, and later as a trade route for trade with Europeans.[11] Modern trade agreements have changed little in intent from the first trade agreements made between Europeans and natives of the Great Lakes, nearly three hundred years ago -- namely, to facilitate the exploitation of the vast natural resources of northern North America in exchange for manufactured products.

Two major trade agreements involving Canada and the United States define our modern trading relationships; the General Agreement on Tariffs and Trade (GATT) and the Free Trade Agreement (FTA). These two agreements provide the most important framework for attempting to understand the workings of NAFTA, and are described in more detail in Section 3, below.

Trade continues to be an important sector in the Great Lakes Basin economy. The Great Lakes states accounted for 53 percent of all U.S. exports to Canada and 60 percent of all U.S. imports from Canada, and nearly 60 percent of the U.S.'s total trade volume.[12] Trade between the Great Lakes states and Canada amounts to approximately $90 billion each year. The majority of trade (66 percent of U.S. imports and 46 percent of U.S. exports) flow between Michigan and New York, and Ontario. The region's largest share of total trade volume and the disproportionate share of the overall U.S. trade deficit with Canada, stems from the heavy concentration in motor vehicle trade.[13]

2.2.3 Population and Employment Trends

The Great Lakes Basin is home to 40 million people. Over 10 percent of Americans and 40 percent of Canadians live in the Great Lakes Basin. Nearly two-fifths of the basin's population live in seven major cities; Chicago, Detroit, Toronto, Minneapolis-St.Paul, Cleveland, Milwaukee and Indianapolis.[14]

The Great Lakes Basin continues to be the manufacturing centre of North America, although recent trends suggest that this role is diminishing. The percentage of the labour force employed in manufacturing has been declining for three decades. Taking the place of manufacturing and heavy industry is the service sector, including; banking and finance, health and human services, government, education and general business services.

With an historical emphasis on heavy industry, employment in the Great Lakes region has been more susceptible to recession and the downward pressures of economic restructuring. Recessionary manufacturing job losses were more severe in the Great Lakes Basin than the rest of the continent, and job recovery has been slower.[15]

Over 200,000 manufacturing jobs have been lost in Ontario alone in the past decade, and these jobs are not anticipated to return.[16] The job losses can be attributed to the world economic downturn, global competition and a fundamental restructuring of the economy, assisted by trade liberalization.

It is the restructuring of the economy that is perhaps most important for the future of the Great Lakes Basin. Long characterized as the "rust belt", the Great Lakes Basin is slowly being transformed into a new economy taking advantage of a relatively well-educated labour force, rather than merely relying on the past good fortunes of accessible natural resources and a free dumping area for waste.

2.3 The Legal and Policy Framework of the Great Lakes

Despite the abundance of national, provincial and state laws, the Great Lakes governments have cooperated over time to develop special laws, rules and policies for the Great Lakes. These laws and policies recognize the historical role of the Great Lakes to the communities which depend on them and their tenuous ecological balance and heavy environmental stresses over the years.

Two of the most obvious examples of the framework include:

1) Great Lakes Water Quality Agreements: The Boundary Water Treaty of 1909 established common principles for natural resource use "along the common frontier" between Canada and the U.S. along with the creation of the International Joint Commission to oversee the implementation of those principles. The evolution of the Great Lakes Water Quality Agreements of 1972, 1978 and 1987, however, develops a more specific bilateral regime. This regime recognizes the particular ecological uniqueness of the regime, vests the Parties with specific duties and obligations and grants the IJC special powers.

   More specifically, the GLWQA incorporates the notion of the Great Lakes as an ecosystem. The GLWQA recognizes that the ecosystem approach incorporates ecological, economic and social values. The GLWQA also sets "objectives" which all

jurisdictions have agreed to strive for, regardless of the differences in their respective regulatory regimes.

2) Great Lakes Charter: In this document, Great Lakes jurisdictions have agreed to certain rules pertaining to inter-basin transfer of water. Because all jurisdictions have the potential to be affected by such transfers, the Charter attempts to create a "notice and comment" system to activate full debate on such proposals. U.S. federal law also mandates certain requirements based on the Charter.

> Over the years, Great Lakes region has witnessed the emergence of its own regulatory structure suited to its needs and requirements.

While these may be the best known examples, there are a host of other interjurisdictional agreements. Some deal with the management of a specific area (such as the St. Lawrence Seaway Agreement or the Niagara Treaty), a particular environmental problem (such as the Great Lakes Substances Control Agreement and the Declaration of Intent for the Niagara River) or the management over certain resources (such as the Convention on Great Lakes Fisheries). In addition to these agreements, there is a broad range of programs within the Great Lakes, including the Lake Superior Binational Program and Ecosystem Objectives for Lake Ontario).

Clearly, U.S. federal law has recognized the importance and uniqueness of the Great Lakes. A number of examples in this regard include an amendment to the Clean Water Act called the Critical Programs Act and the Great Lakes Initiative, which is a draft regulation attempting to provide guidance for the development of water quality standards in the Great Lakes.

2.4 Governance Structure in the Great Lakes Basin

2.4.1 Institutional Governance

Presently, there are over twenty institutions in the Great Lakes pertaining to some aspect of environmental protection or natural resource protection.[17] Although these vary in size and importance, they illustrate a high degree of integration both in terms of information gathering and decision-making among jurisdictions within the Great Lakes.

The best known institution is the International Joint Commission (IJC), which as noted above, derives its powers from both the Boundary Waters Treaty and the Great Lakes Water Quality Agreements. While the Commission has the power to approve diversions of boundary waters, its focus in recent years has been on the Great Lakes pursuant to its reference power. Under this authority, the Commission acts as a "watchdog" over the Great Lakes governments progress in protecting the basin. It has promoted a number of policy innovations (such as the ecosystem approach) as well as undertaken seminal studies on matters such as land use

patterns, air pollution, water levels and flows and water pollution.

The importance of the Commission is not always obvious. It has become a coordinating body of Great Lakes research; a networking mechanisms for governments and a forum for the public to have their views expressed. The role of Great Lakes institutions, is an important aspect of Great Lakes governance.

In September of 1993, the governments of Mexico, Canada and the United States concluded "side agreements" to NAFTA.[18] In the Agreement, the Commission for Environmental Cooperation was established with various powers. The new commission has already been criticized for its limited powers and the fact that Canadian provinces may be exempt from its authority.[19] Further analysis is needed to determine the impact, if any, on the effectiveness of the International Joint Commission.

2.4.2 Public Governance

The fourth and perhaps most important component of the Great Lakes which distinguishes itself from other regions is the role of the public. Within the Great Lakes, there is a strong network of community, labour, environmental and other groups that actively participate in and contribute to Great Lakes decisions. In fact, public participation is a fundamental hallmark of the Great Lakes Basin. It pervades every level of decision-making and is an integral part of the Great Lakes ecosystem.

Public participation is a fundamental hallmark of the Great Lakes ecosystem.

At the local level, grass roots community groups have been instrumental in identifying problems and working toward solutions. These groups in fact now play an extremely important role in Remedial Actions Plans (RAPs), a process implemented under the GLWQA. RAPs are planning processes in the 43 Areas of Concern in the Great Lakes. Citizens, industry and all levels of government gather to identify causes of pollution and review and select appropriate remedial actions. Since the mid 1980s, there have been thousands of voluntary hours spent by Great Lakes citizens in this quest to rehabilitate the Basin.

Citizens now sit on various advisory committees in the basin. For example, there are citizen members of the IJC Advisory Board and the various committees of the Niagara River Four Party Accord. It is fair to say that governments and agencies have recognized the importance and necessity of public involvement in environmental decision-making. One example of this recognition was the fact that citizen groups were invited to act as observers in the 1987 renegotiation of the GLWQA. Prior to the negotiations, Great Lakes United held hearings around the Lakes soliciting input from the citizens of the Great Lakes Basin.

Effective and meaningful public involvement is a key component of a sustainable society.[20] Fortunately for the Great Lakes, citizens are an integral part of basin-wide decision-making. The role of the public, at many levels, has been and will continue to be, crucial to achieving environmental successes in the Great Lakes Basin. The implications of NAFTA's threat to undermining meaningful public participation must not be underestimated.

3 NAFTA AND THE GREAT LAKES: DECISION-MAKING IMPLICATIONS

This section examines NAFTA with respect to how and to what extent the trade agreement will impact Great Lakes decision-making. The discussion is centred on the standard-setting and natural resource provisions of NAFTA.

The purpose of the standard-setting provisions of the agreement are to reduce non-tariff barriers to trade. In other words, the provisions are intended to ensure that, apart from direct barriers to trade (such as tariffs, taxes, import fees, etc.) there are no indirect or non-tariff barriers (such as imposing product requirements or mandating certain standards).

The specific implications of this agreement for the Great Lakes cannot be predicted with any degree of certainty, however, it is certain to have impacts. To provide at least a cursory review of these implications, a number of questions will be used as a framework for discussion. These questions are as follows:

1) What impact, if any, will NAFTA have on existing inter-jurisdictional agreements in the Great Lakes?

2) To what extent will NAFTA curtail the ability of jurisdictions to develop environmental standards?

3) How will NAFTA affect *how* standards are developed?

4) To what extent will NAFTA affect the rights of provinces and states to develop their own standards?

5) How will NAFTA affect *who participates* in the development of environmental standards?

3.1 Relationship with Multilateral Environmental and Conservation Agreements

In general, environmentalists argue that NAFTA should be made subject to all present and future environmental agreements. In fact, it is argued that NAFTA should state that such agreements are rolled over even if they are inconsistent with GATT.[21]

NAFTA, however, does not have a general provision exempting environmental agreements. Instead, the three environmental agreements which have precedence over NAFTA provisions are listed in NAFTA.[22] Unfortunately, even these three agreements may be under threat, because, while not subject to a challenge under NAFTA, they will be subject to challenges under GATT. Commenting on this large loophole, one observer referred to these provisions as "window dressing with little legal effect."[23]

The greatest concern, however, rests with the tenuous relationship between NAFTA and the

environmental agreements which are *not* specifically listed in NAFTA. The question one must ask is, if NAFTA establishes an explicit link with three agreements by listing them, than what is the relationship between NAFTA and all of the agreements which it does not list?

It would seem clear that all environmental agreements not listed in NAFTA, including the Great Lakes Water Quality Agreement are subject to, and are overridden by, NAFTA. Hence, the bilateral legal regime governing the Great Lakes can be challenged (and no doubt some agreement provisions will be) on the basis that they are inconsistent with NAFTA.

Provisions governing standard-setting, water exports, and fish quotas, are but a few of bilateral mechanisms which may be ripe for challenge. The extent to which such challenges will be successful is a matter for speculation. What is clear, however, is that the bilateral policy and legal regimes are not totally dictated by environmental need; instead, they are dictated by the framework imposed by existing and future trade agreements. NAFTA could still protect the binational regulatory regime of the Great Lakes by exempting the myriad Great Lakes accords. If not, the bilateral agreements hang in uncertainty.

3.2 To What Extent Will NAFTA Curtail the Ability of Countries to Develop Environmental Standards?

No doubt one of the most controversial issues relating to NAFTA and the environment is the extent to which jurisdictions are impeded from developing, to the level they feel appropriate, environmental standards to protect their environmental and natural resource base.[24] In response to this, a number of concerns have been raised directly relevant to the Great Lakes region.

What are the implications of having these international bodies set standards? Although the precise response is uncertain, arguments can be made that such bodies will tend not to: (1) take innovative approaches; (2) guarantee citizen access to the processes; or (3) account for local or special conditions in the areas where the standards will be applied. In the end, such bodies tend to operate on the notion that the lowest common denominator is sufficient.

Generally, under NAFTA, countries have the right to adopt sanitary and phytosanitary standards (standards for the protection of human, animal or plant life or health risks from pests or diseases, food additives or contaminants) necessary to protect human, animal or plant life or health within their own territory. Similarly, other provisions of NAFTA state that countries have the right to make standard-related measures (such as product and manufacturing standards, or anything else not a sanitary or phytosanitary standard). However, the ability to make these standards is restricted in a number of ways under NAFTA, as described below.

3.2.1 NAFTA may affect how standards are developed in the Great Lakes

For sanitary and phytosanitary standards, NAFTA requires that these standards are:

1) Based on scientific principles;

2) Not maintained where there is no longer a scientific basis for them; and

3) Based on risk assessment.[25]

Most standards in the Great Lakes have a sound scientific basis and are derived from some type of risk assessment analysis. However, the preconditions of having a "scientific basis" and "risk assessment" should be a cause of concern in the Great Lakes. Some of these concerns include:

NAFTA will ensure the continuation of risk analysis in the Great Lakes.

1) The entire discipline of risk assessment is under attack for being a difficult, cumbersome, uncertain and often inadequate means of regulating toxins. Meanwhile, this is the approach being institutionalized under NAFTA;

2) The kind of information to be used for risk assessment is uncertain. Will it come from the Great Lakes? If not, can generic risk assessment adequately protect the Great Lakes ecosystem?

3) What happens if regulators want to deal with chemicals in a different way, without using risk assessment? For example, reducing the use of chemicals by 50 percent? Such reductions would be driven by public will rather than hard science. Will governments be able to make such public policy decisions?

4) What happens if there is insufficient evidence to undertake traditional risk analysis or to satisfy rigorous scientific principles? For example, in the Sixth Biennial Report to the Governments from the International Joint Commission, the Commission outlined the inherent difficulties of establishing the causal links between the releases of certain toxic substances and their effects. As such, a "weight of evidence" approach was recommended which, in effect, suggests that preventive action should occur even if all the facts are not yet known. Would standards based on the weight of evidence approach survive a NAFTA challenge? It appears unlikely.

3.2.2 NAFTA and Zero Discharge

For standard related measures, NAFTA prohibits technical or disguised barriers to trade. Under the agreement, a party cannot establish measures "with the effect of creating an

unnecessary obstacle to trade between parties."[26] It goes on to state that it will not be an "unnecessary obstacle" if the measure is aimed at a "legitimate objective."

The issues of what is a "necessary" measure and what are "legitimate objectives" impact directly on existing obligations between Canada and the United States in the Great Lakes, such as zero discharge.

Will Zero Discharge be Considered an Unnecessary Obstacle?

Similarly, as noted above, standards can only be maintained to the extent *necessary* to protect the environment. How does a government justify what is necessary in light of scientific uncertainty? Indeed, under GATT, which is incorporated into NAFTA, the term "necessary" is interpreted very narrowly.[27]

> With NAFTA in place, the goal of Zero Discharge may never be realized.

More important, the Canadian government used this reasoning in its intervention in a U.S. court proceeding involving a challenge of a US EPA rule banning the manufacture, importation, processing and distribution in commerce of most asbestos-containing products.[28] Canada argued that the ban was not supported by sufficient evidence to prove it was "necessary" within the meaning of the GATT and Canada-U.S. Free Trade Agreement and that the availability of less stringent measures meant the ban constituted an unnecessary obstacle to trade. The obvious question is the extent to which any chemical prohibitions is now feasible. For example, what would be the status of the Ontario list of 21 chemicals that the Ministry of Environment and Energy has targeted for phase-out?[29]

Further, the IJC recommended a "sunsetting" approach to achieve the goal of "virtual elimination" of persistent toxic substances. The recommendation went further to state that priority should be given those substances that have certain characteristics (such bioaccumulation and persistence). Does that mean that governments have to prove "necessity" every time they want to take proactive approaches to chemical regulation? If so, there is a serious question as to whether new approaches such as "sunsetting" chemicals will be acceptable under NAFTA, since the sunsetting approach assumes chemicals with certain characteristics should be regulated, without full risk assessment.

If not an Unnecessary Obstacle, Does it Fulfil a "Legitimate Objective"?

Under NAFTA, certain standards can be challenged if they are considered "technical barriers to trade." Existing and new standards are, however, justifiable if they serve a "legitimate objective."

A "legitimate objective," in turn, is defined to include:

1) Safety;

2) Protection of human, animal or plant life, the environment or consumers; or

3) Sustainable development.

So what is the problem? If standards can be for the "legitimate objective" of safety, environment, workers, and consumers, why should the Great Lakes public be concerned about challenges of existing standards as technical barriers to trade?

First of all, the very fact that all environmental protection measures are challengeable means that the *onus is on governments to prove the legitimacy of their own laws, programs and measures to protect the environment.* In a democracy, should not the government be accountable to the electorate rather than an international agreement?

Second, there is the issue of *who decides what is legitimate.* No longer will it be government scientists and bureaucrats familiar with the local conditions. Instead, it will be a trade panel with no local understanding of the ecological and socio-economic conditions with no requirement to retain such expertise. This seemingly abstract concern could have real consequences.

Who decides what a "legitimate objective" is under NAFTA? Not the Great Lakes public.

Third, the notion of what is a legitimate objective in the environmental realm will no doubt be contentious, especially in the Great Lakes. For example, the International Joint Commission has in the past urged governments to adopt standards that assume that there is no "safe" level or assimilative capacity for persistent toxic chemicals. In other words, there are no thresholds for persistent toxic chemicals. Would that be deemed to be a legitimate objective? *Many regard that objective to be a sound public policy position even without the supportable scientific basis.* What would be the result under a NAFTA challenge?

3.2.3 NAFTA, Harmonization, and the Ecosystem Approach

NAFTA calls upon parties to "pursue equivalence" and use "international standards" as a basis, but "without reducing the level of protection of human, animal, or plant life or health."[30] [31]

As noted by one commentator,

> This would imply that some level of harmonization will take place with the probable

conclusion that the accepted standard would meet something approaching the lowest common denominator of regulation.[32]

For example, NAFTA partners will promote the development and review of international SPS standards in such international standard-setting organizations as the Codex Alimentarius Commission. This is an intergovernmental subsidiary body of the Food and Agricultural Organization (FAO) and World Health Organization (WHO) which provides food standards at the lowest common denominator so as not to interfere with international trade. It is recognized by GATT as an acceptable standard setter for food additives, pesticide and other food related standards.

> The special needs of the Great Lakes may be lost in NAFTA's standard-setting rules.

Harmonization of standards raises a number of issues for the Great Lakes region, including:

- Irrespective of whether there is downward harmonization (as critics of NAFTA suggest) or upward harmonization (as promoters of NAFTA suggest), would the standards take into account and accommodate the ecologically sensitive Great Lakes ecosystem?
- Would harmonization work against local decision-making regimes within the Great Lakes?
- Would the Great Lakes regulators and public have a legitimate voice within the international standard-setting bodies?

3.2.4 NAFTA and the "Chilling Effect Syndrome"

Usually, an analysis of NAFTA proceeds with a strict legal review of its provisions. However, it is also important to stand back and attempt to comprehend the overall effect of the agreement. The potential challenges possible under NAFTA, the trend toward harmonization, and the uncertainty of how NAFTA will be applied, will dissuade regulators from being proactive and innovative in environmental law-making. In other words, there holds the potential for a "legislative chill" over law-making, such that the Great Lakes region may cease to hold its position as a legislative trend-setter.

> The overall effect of NAFTA is to intimidate regulators from adopting aggressive and innovative regulations.

There are a number of examples of this legislative trend-setting in the Great Lakes, which may be threatened. For example, in February of 1993, the Ontario Ministry of the

Environment and Energy released for public review a draft pulp and paper regulation with the goal of zero discharge for chlorine-related compounds. Will governments still be willing to initiate new regulatory initiatives?

This legislative chill even extends to existing laws. While there is a common assertion that countries maintain the right to enforce existing U.S. health, safety and environmental laws, why then are not existing laws grandfathered into the Agreement? How vulnerable are existing laws to challenge? Interestingly enough, in neither Canada nor the United States was there a systematic analysis of which laws would be vulnerable to challenge under NAFTA.

3.3 How Will NAFTA Affect Natural Resource Conservation in the Great Lakes

NAFTA does not directly mention resource conservation. However, present provisions of the Agreement and the experience with the Canada-U.S. Free Trade Agreement suggests that there resource conservation will be affected. Two of the most obvious concerns are that:

1) Jurisdictions within the Great Lakes will substantially lose trade measures as a mechanism to further environment objectives (such as the ability to ban or restrict imports or to tax exports of scarce resources); and,

2) In certain circumstances, once there is trade in commodities (water and energy for example), the exporting country limits its ability to restrict export.

In short, NAFTA will directly lead to the loss of national control over resource allocation and control. Why is this such a concern? First and foremost, NAFTA will run counter to conservation efforts locally, regionally and globally. Free trade in natural resources gives the signal that there are infinite resources to be distributed through market forces forever. This principle is in direct conflict with the concept of sustainability as defined by the Brundtland Commission in 1987.[33] Hence, while countries are waving the banner of sustainability, the economic framework they are developing is working in the opposite direction.

NAFTA promotes consumption, not conservation

Second, loss of natural resource control changes the rules of who should get what resources. At present, while the market may be seen to define resource allocation, governments intervene through taxes, tariffs, prohibitions and subsidies to promote either extraction or conservation. Under NAFTA, the market rules. Hence, traditional business interests and market forces take precedence over existing institutional and policy frameworks. In effect, the policy and institutional framework in the Great Lakes has been demoted one tier to a decision-making process that is immune from both regional sensitivities and public input.

The manifestation of these concerns in the various resource sectors is described in more detail

in Sections 4,5,6 and 7. At this point, however, it may be worthwhile to briefly outline the basic provisions and the generic concerns of the agreement.

3.3.1 National Treatment

The basic rule under NAFTA for the trade in goods is the "national treatment" obligation. In other words, once goods have been imported into one country under NAFTA, they must not be the object of discrimination.[34] This rule states that no Party can treat the goods, services or investments of another party any differently from the way it treats its own.

The problem of national treatment is best illustrated in the energy field and described in section 5.1 In short, national treatment extends not only to "goods" but also investments. Hence, there is little control of who can own resources in any party country. For example, U.S. business interests can seek Mexican and Canadian resources for export with little regard to the conservation principles in the exporting or importing countries.

3.3.2 Elimination of Tariffs and Non-Tariff Barriers

Under NAFTA, all three countries will eliminate all direct and indirect barriers to trade across the respective borders.[35] Hence, measures such as product bans, taxes, tariffs, government subsidies for sustainability, quotas and import licences will be at risk or deemed illegal under NAFTA.

Obviously, the most important consequence of these provisions is that countries have less tools available to them to further environmental objectives, however, there are other consequences. For example, it has been suggested that the elimination of tariffs will lead to a more realistic or full cost pricing of resources since the exporting country cannot subsidize the domestic markets through export tariffs. In practice, however, the opposite is the case. Inherent subsidies of primary resources are such that resource companies and consumers will continue to subsidized while the environment loses any chance of protection.

Eliminating trade barriers may mean environmental costs will never be included in the price of products.

There is also another implication. If one jurisdiction is progressive and imposes tough environmental measures on industry within its borders, it may want to adopt protective trade measures so as not to give an unfair advantage to importing industries. This kind of action would be considered to be "trade restrictive" and therefore not be allowed. Hence, companies in jurisdictions with progressive laws will suffer a competitive disadvantage with imports manufactured by firms facing lower environmental costs due to less stringent environmental laws and enforcement.

Exceptions Under GATT

In article XX(b) of GATT, import and export restrictions are allowed where *necessary* for the "protection of human, animal or plant life or health," and paragraph XX(g) allows bans "relating to the conservation of exhaustible natural resources."[36] However, these exceptions are narrow at best, and more often, provide extremely limited relief from overriding NAFTA principles.

> NAFTA and GATT, in theory allow for conservation measures, in practice, "virtually no conservation measures will be upheld"
>
> [Swenarchuk, 1993]

For example, in the Salmon and Herring case[37], the question was raised whether certain regulations under the federal Fisheries Act contravened the Free Trade Agreement by requiring that certain species of salmon and herring caught on the West Coast be landed in Canada for biological sampling. This requirement was part of a monitoring and conservation program.

In deciding against Canada, the panel concluded that sampling 10 to 20 percent of the catch would be sufficient, rather than the entire catch as required by the Regulation, and that the conservation program was therefore not "primarily aimed at conservation", implying that it constituted an unfair barrier to trade. As one commentator summarized,

> The test to be applied, whether there is a genuine conservation reason for choosing the actual measure in question, as opposed to others that might accomplish the same objective, suggests that virtually no conservation measure will be upheld under GATT Article XX and the Agreement. Various approaches to most problems can be considered and the likelihood of having a particular one struck down, with all the administrative and legal costs involved, is likely to have a chilling effect on new initiatives.[38]

It is important to note that this case gave a narrow interpretation of "necessary" conservation despite the fact that the panel had no expertise in the technical environmental matters before it. If this is indicative of the direction of future trade panel decisions, than the goals of conservation and sustainablity are clearly non-existent in NAFTA.

Finally, a recent GATT decision on United States restrictions on Tuna Imports[39] ruled that import bans which relate to the method by which a product is produced are "GATT illegal" even if that method is banned in the importing nation because of its environmental destructiveness. In the Tuna Case, the U.S. was opposing Mexico's use of seine net fishing because the nets killed dolphins and numerous other species, contravening the U.S. Marine Mammals Act. Again the trade panel ruled in favour of trade and against the environment. This decision has major ramifications for a wide range of issue, challenging countries' ability to implement global conservation programs.

GATT article XI prohibits import bans, subject to certain exceptions. According to one commentator however, the exceptions against import bans in Article XI of GATT "is of little significance for the purposes of environmental protection/natural resource conservation because Article XI has never been successfully invoked in a trade dispute resolution process to uphold an environmental measure."[40]

The Proportionality Rule

When a NAFTA country imposes an export restriction on a product, it must not reduce the proportion of total domestic production of any good available to the other party beneath the proportion exported in the three years prior to imposition of the restriction.[41] This requirement is commonly referred to as the "proportionality clause."

The effect of the clause will be to eliminate many methods of regulating natural resource extraction and export. It can be argued that this clause gives each country perpetual access to each other's natural resources once any amount has been exported. For example, as noted in Section 7, once water is traded as a commodity, that tap will be kept open in perpetuity. The only recourse is to reduce domestic consumption, thereby permitting a reduction in exports by a proportionate amount.

> Proportionality states that once the export "tap" is opened, the flow of resources can't be slowed or stopped, unless domestic consumption is too, regardless of the finite nature of the resources.

Proponents of NAFTA suggest that this clause will promote conservation since conservation will be furthered to both domestic and export markets. This argument, however, fails to recognize that:

1) The availability of an imported resource may legitimate unsustainable practices (such as southern states looking north for water owing to depletion of aquifers); and,

2) Domestic consumption of a resource may be sustainable but not that of export markets.

3.4 To What Extent Will NAFTA Affect the Rights of Provinces and States to Develop Their Own Standards?

States and provinces play a very important role in protecting the Great Lakes. In particular, Ontario and Quebec hold the weight of constitutional power to develop environmental laws and policies. Since states and provinces are not parties to the agreement they have no rights under NAFTA. In fact, the federal government takes all necessary measures to make sure the NAFTA obligations are respected by state and provincial governments.[42]

The Ontario government recognized their loss of power under the 1988 Free Trade Agreement, stating it:

> will permanently alter the capacity to make economic and social policy in Canada, sometimes shifting it to the federal government, sometimes abandoning it for all governments. This dramatic change in the ability of governments to respond to the legitimate expectations of their populations amounts to a constitutional change.[43]

3.5 How Will NAFTA Affect Who Participates in the Development of Environmental Standards?

One of the hallmarks of the Great Lakes region is the participatory nature of the environmental decision-making processes. Indeed, citizen groups, scientists, academics, labour, and a host of other interests are routinely involved in some aspects of decision-making.

Under NAFTA, however, the trend toward public inclusion may be threatened. Factors challenging this policy include:

- Trade disputes will be deferred to a panel which does not require any environmental expertise and is not required to be open to the public;

NAFTA replaces public involvement in decision-making with unaccountable and secretive international trade bodies.

- The trend toward harmonization and delegating standard setting to international bodies: and,

- The exclusion of publicly accountable state and provincial agencies.

If these concerns are justified, NAFTA raises many issues. For example, what is the impact on existing bilateral mechanisms? Will new mechanisms provide an opportunity for the Great Lakes public to participate?

The diminished role of the public is perhaps the most troubling aspect of NAFTA for the Great Lakes. Public participation is a fundamental principle to the Great Lakes; it has been institutionalized in RAPs, Lake-wide Management Plans, standard-setting and policy-making. The loss of public involvement flies directly in the face of the ecosystem approach, the principles of sustainability and the social consensus of the Great Lakes polity.

4 GREAT LAKES RESOURCES AND NAFTA: A PRELIMINARY SURVEY

4.1 Energy

4.1.1 Nature of the Issue

The concern of NAFTA with respect to energy is similar to the other resources, namely the ability to ensure adequate conservation of resources. There are two major distinctions between the nature of energy and the other resources. First, virtually all trade in energy is in the non-renewable forms of energy, primarily fossil fuels, and second, the environmental impacts of energy production and consumption are very significant, with major global implications.

In addition to the fundamental environmental and resource conservation issues, NAFTA will serve to undermine important initiatives in energy conservation, renewable energy development and nations' attempts at achieving sustainable development of energy resources. Finally, NAFTA will have a profound affect on the role of the public in decision-making processes.

4.1.2 Concerns with NAFTA

Standards and Harmonization

There are two important issues relating to standards and harmonization. First, is the potential for undermining state and provincial regulatory standards, and second is the threat to utility programs designed to improve energy efficiency.

NAFTA will undermine progressive energy conservation standard setting and regulatory activities of regional authorities because the signatories to the agreement are required to use international standards unless they can demonstrate that these standards do not meet their "legitimate objectives." For example, a state or province might place a high value on energy conservation and environmental protection, and adopt a regulation applying an environmental levy on the export of their finite resources, or on the import of resources from jurisdictions with lower environmental standards. This kind of action would likely be ruled as a "technical barrier to trade" and not be allowed under NAFTA.

Utility energy reforms may also be threatened by NAFTA. Initiatives to increase standards and introduce innovative demand management programs may be impeded in the name of "harmonization" or "technical barriers to trade". Moreover, agencies may become less aggressive knowing that certain actions may be exposed to a potential NAFTA challenge.

The role of the public in decision-making and standard setting will also be threatened. Both direct public involvement in trade related processes as well as the involvement of publicly accountable agencies will be strictly limited, if not eliminated all together, under NAFTA provisions.

Resource Conservation

Given the fact that virtually all trade in energy is in fossil fuels, the environmental and resource conservation impacts of energy trade may be greater than for any other resource. Energy conservation efforts will be affected in four significant ways:

1) By creating an unfair price advantage for oil, by allowing subsidies for fossil fuel exploration and eliminating potential subsidies to all other energy sectors, including renewables;

2) By providing guaranteed supplies of fossil fuel to the US;

3) By applying pressure to harmonize state and provincial efficiency standards at the lowest common denominator; and

4) By presenting a potential challenge to least cost planning and demand side management programs, as barriers to trade.

4.1.3 Implications for the Great Lakes Basin

Energy trade heightens awareness of the fact that the Great Lakes Basin is a reasonably homogenous economic union. The Basin acts as a giant repository for fossil fuels, delivered from all over North America. Without a coordinated Basin-wide approach to addressing energy conservation, there is little likelihood of success in achieving the goals of an energy efficient and energy sustainable society.

4.2 Agriculture

4.2.1 Nature of the Issue

The final NAFTA draft contained two separate agricultural agreements, one between the U.S. and Mexico and one between Canada and Mexico. Although these two deals were substantially different, there are areas of common concern for the entire Great Lakes Basin, including:

1) Lower family farm income;

2) A large increase in the pool of migrant farm workers;

3) Downward pressure on food safety and environmental protection regulations; and

4) Reduction in off-farm job opportunities and lower off-farm job wages.

4.2.2 Concerns with NAFTA

The concerns with the impact of NAFTA on agriculture in the Great Lakes Basin are best expressed by elaborating on the four issues presented above.

1) Reduction in tariffs and weakened import controls will result in significantly lower farm prices, and therefore lower net income, for many Great Lakes Basin family farmers who produce a number of key crops and livestock products, including fruits and vegetables, beef, dairy products, feed grains, sugar, flowers and plants, edible beans, and soybeans. Although Canadian dairy and poultry farmers are somewhat protected in NAFTA, the impacts on Canadian beef ranchers and horticulturists will be quite significant.

   Lower farm income has a number of potential environmental impacts. Farmers often move to more chemical-intensive methods of production when prices fall, in hopes of boosting yields enough to compensate for the lower prices. Lower income often means that there is less flexibility in the farms operation for adopting newer, environmentally preferable methods of production. Families who have shifted to more ecologically sound mixed livestock and crop farming operations will find it more difficult to continue these efforts and others will not be able to make those important transitions.

   Farmers who have shifted to organic production of fruits and vegetables in order to survive will find it more difficult to market these products, as prices on commercially produced crops will fall in the market, creating an even wider spread between organic and commercial products.

   A particular problem is the lowering of beef and dairy prices, which will accelerate the displacement of family-farm sized cattle production from ten Great Lakes Basin to the deserts of Mexico and the U.S. southwest. Often the hilly land that formerly was used to graze beef and dairy cattle is converted to corn and soybeans, leading to a major increase in soil erosion from the hillside and chemical run-off.

2) The pool of available migrant farm workers will be expanded. On the one hand, there will be fewer farm worker jobs available due to movement of much of the Great Lakes Basin fruit and vegetable production to Mexico. At the same time, one million or more small farm families in Mexico will be displaced as a result of NAFTA, many of whom will come to the United Sates in search of work as farm workers or in urban factories.

3) Foods will be imported into the region grown under different environmental standards and enforcement regimes, generally much less strict than those imposed on Great lakes Basin farmers and food processors. This will both create a difficult competitive position for both U.S. and Canadian farmers and potentially erode consumer confidence in both countries.

4) Small and medium-sized factories, which have been critically important as a source of off-farm income, will come under pressure in two ways. First, there may be a lowering of wages and weakening of environmental regulations in an attempt to compete with products from Mexico. Second, some factories which cannot compete with the cheaper imports will be forced to close or move to Mexico.

4.3 Water

4.3.1 Nature of the Issue

Water export under the NAFTA is an issue that has made the headlines. According to a 1989 study by the Rawson Academy of Aquatic Science, if Canada develops a programme of water export on any scale which creates an American dependence for the product, the Canadian government would have difficulty reversing an established market and imposing export restrictions in light of the FTA and NAFTA constraints. In other words, if Canada turns water into a marketable commodity, that market must remain accessible to their southern neighbours.

Throughout the twentieth century, the Great Lakes bioregion has developed large- and small-scale diversion schemes in response to inefficient, consumptive use of the water resources. Recent proposals such as Michigan's Mud Creek Pipeline, and Ontario's Georgian Bay Pipeline, and various hydroelectric projects have assumed water as a tradeable "good" in the Great Lakes bioregion. Hence, a strong argument can be made that water is subject to the rights and obligations of all other commodities under NAFTA.

4.3.2 Concerns with NAFTA

Standardization and Harmonization in the Water Conservation Regime

There are no standard setting organizations named in NAFTA that would govern the harmonization of water quantity and quality standards. Food, health and animal export regulations will be subject to harmonization by named international bodies. However, NAFTA is silent with respect to the agency or scientific board that will be consulted in the event of a conflict of water standards. While the US Environmental Protection Agency and state governments are currently considering uniform standards in their Great Lakes Initiative, no parallel effort is being undertaken in Canada.

The absence of a recognized standard setter is of particular concern to a shared resource - the Great Lakes' waters. Historically, American methodology held that "zero risk tolerance ... [was] unrealistic and incompatible with the current goal of trade facilitation".[44] Instead, the U.S. adopted the concept of "acceptable" levels of risk. In contrast, public interest groups have supported a pollution prevention approach which supports substance bans in instances of zero risk tolerance.

This conflicting approach to standard setting becomes relevant given that under NAFTA's dispute settlement process, the trade panel will make decisions independent of public participation. It will be an insulated body, not obligated to even publish the rationale for the decisions made. Consequently, with no recognized standard setting organization or commonly accepted scientific board for water issues, the trade panel would have broad discretionary powers regarding water quantity and quality standards in the Great Lakes which may contradict currently accepted public processes.

Resource Conservation

Water diversion schemes have resulted in various environmental consequences, including: moderate earthquakes; climatic change in the region of large impoundments; increased erosion and turbidity; declining biological productivity; loss of forests, agricultural lands, wildlife and fish habitats; mercury bioaccumulation in fish stocks; and, the migration of foreign fish, plants, parasites, bacteria and viruses.

Although many of these environmental impacts are associated with large-scale diversions, numerous small-scale diversions, such as a series of pipelines drawing from the Great Lakes, supplying municipal water needs, will also produce significant environmental impacts. In fact, it appears more likely that the greatest threat to the Great Lakes will be a large number of small diversions as opposed to the mega projects such as the NAWAPA or the GRAND Canal which will be difficult to finance and implement.

But the water debate has not occurred in a vacuum. The following are some of the provincial and state legislative attempts to prevent or regulate water diversion schemes:

- 1985, Great Lakes Charter, a non-enforceable statement of intention committing all basin states and provinces to implementing anti-diversion legislation;

- 1986, Water Resource Development Act, American legislation requiring the formal consent of all eight Great Lakes governors for any new diversionary schemes; and,

- 1989, Water Transfer Control Act, Ontario legislation prohibiting the transfer of water from a provincial drainage basin without Ministerial approval, and generally prohibiting the transfer of water out of a provincial drainage basin to a place outside Canada. The Minister must consider whether the transfer may be detrimental to the security of a water supply for Ontario. The Act was passed but not proclaimed.

The significance of these legislative schemes rests within the constitutional implications. Can provincial and state governments enact legislation prohibiting or controlling water exports that may contradict the obligations assumed by federal governments under trade agreements? The answer to this question remains unresolved.

As in the case of energy, NAFTA provides the most inefficient jurisdictions in the world with

greater access to resources. In the case of water, the trend towards pipeline diversions from the Great Lakes to supplement an increasingly polluted local water supply does not encourage local water conservation efforts.

Moreover, within the context of NAFTA's "national treatment" clause, once a state or provincial government permits the removal of water from a stream or aquifer, the access to the water supply cannot be restricted to the domestic market. Furthermore, it is clear that once a river, lake or stream has been diverted cross-border by pipeline, tanker or natural pathway (river), under NAFTA there would be no obvious way to preserve the resource or limit its use to domestic consumption.

4.3.3 Summary

NAFTA may therefore provide an economic and resource consumption climate where small-scale diversions become the norm among the Great Lakes' provinces and states, irrespective of the associated environmental consequences.

The demand for water resources, specifically the fresh water resources of the Great Lakes, will increase as both Americans and Canadians search for alternatives to a quickly growing polluted water supply. By establishing "viable" and "acceptable" water diversion or consumption schemes and draining the Great Lakes' waters, the bioregion has committed to an irreversible policy of environmental degradation under the NAFTA.

4.4 Transportation

4.4.1 Nature of the Issue

Transportation is an important trade issue for the Basin, particularly since it has been excluded from FTA and therefore NAFTA introduces new trade related transportation requirements between Canada and the US.

Transportation is covered in Chapter 12 of the agreement, where the underlying principle states that parties cannot discriminate against the service providers of their trading partners (ie Canada or Mexico could not restrict an American trucking company from operating across their borders, it would be illegal for an American vehicle to transport goods between to points within either country).

Free trade in North America will literally change the direction of transportation in the Basin. Since the inception of FTA the Basin has been experiencing a rapid increase in truck transportation and declining rail transportation. Moreover, there has been a simultaneous switch in the transportation axis from east-west to north-south.

Without the ability to impose national content requirements on transportation, it is likely that small independent operators, particularly in Canada, will have difficulty competing with the

larger US firms, where fuel prices and road taxes are much lower. Under FTA, Canada has lost a significant market share in cross border trucking.[45]

4.4.2 Concerns with NAFTA

Standards and Harmonization

One of the major concerns with respect to land transportation in the Basin is the potential for downward harmonization of environmental and safety standards. Although countries have the right to adopt their own technical standards to promote health and safety, NAFTA implies that international standards should be the basis for domestic standards.

Transportation provides a clear example of where the wording of NAFTA may be misleading or, in fact, irrelevant. Whereas the agreement states that any country has the right to set its own standards for health and safety, it will not take long for corporations to realize that the country with the lowest standards will be providing services at the lowest cost. Therefore, although countries may be able to set higher standards than their neighbours, in reality, the pressure from, affected industries, such as trucking, will necessitate the continuous, incremental lowering of standards.

In Canada, the fear of US trucking firms taking Canadian business has become a reality under FTA and it seems logical that similar fears in the US of Mexican based companies taking over trucking in the southern US are well-founded.

Resource Conservation

There are three implications of NAFTA and transportation which serve to thwart resource and energy conservation. There are subtle differences between each of the following implications:

1) The direct increase in movement of goods will result in an increase in trucking and other forms of transportation, and therefore an increase in fossil fuel consumption and related emissions;

2) The increase in the trade of resources will result in an increase in transportation infrastructure required to support this trade, and the related land-use and resource conservation impacts of this expansion; and

3) The increase in fossil fuel consumption and increased dependency on fossil fuels places energy demand in the Great Lakes Basin in a fossil fuel "Catch 22", requiring additional resources to locate, extract, transport, refine and deliver more resources to support a self-perpetuating cycle of resource depletion.

Trucking, is far less energy efficient than rail transport, however, the trend under NAFTA will be toward more trucking and less rail. This presents a good example of where a hidden or

acceptable subsidy is built into the agreement. Yet specific transportation subsidies for environmentally preferable forms of transportation, such as railways, are not allowed under NAFTA (with the exception of Western Canada Grain). Subsidies for trucking are built into government spending through numerous programs, and a general lack of true cost accounting for all aspects of road transportation such as; highway maintenance and expansion, policing, health costs and environmental externalities[46].

Environmental Effects

There are at least three main environmental effects that may result from NAFTA, as follows:

1) The trend toward a general deterioration in standards may result in a more lax system of monitoring, enforcement of transportation standards;

2) The potential that reduced standards will lead to increase transport of hazardous goods, this hazard is compounded by a possible reduction in standards regulating; truck dimensions and weights, safety inspections, driver training, road signs, and other regulations.

3) Significant environmental impacts can be attributed to the increased air emissions that will result from increased trucking and fossil fuel dependency in the Basin. Emissions from diesel trucks and other vehicles contribute significantly to poor urban air quality in the Great Lakes Basin.

The Great Lakes Basin acts as the main trade boundary between Canada and the United States. Therefore, increased trade means increased transportation, and increased transportation means increased traffic in the Basin. Moreover, this will result in an increase in all of the impacts associated with transportation, such as infrastructure expansion, land-use impacts, road safety issues, air emissions, fossil fuel consumption, global warming, etc.

Marine transportation is exempt from NAFTA, as it was with FTA. However, with the globalization of trade, increasing pressure is being placed on the Great Lakes-St. Lawrence Seaway for a longer shipping season. It is conceivable that NAFTA may be the turning point for eventual year round shipping in the Seaway.

4.5 Forestry

4.5.1 Nature of the Issue

There are two aspects of the forest industry which relate to the Great Lakes environment and NAFTA; the ability of jurisdictions to achieve sustainable forestry practices in the Great Lakes Basin, and the standards for pollutants released by pulp and paper companies into the Great Lakes.

4.5.2 Concerns with NAFTA

Standards and Harmonization

As described above, NAFTA will have the effect of pressuring jurisdictions to lower environmental standards and/or prevent the imposition of higher standards, either through countervailing duty actions or competitive pressures.

The discussions above on zero discharge of toxic chemicals (Section 3) provides an indication of the nature of the concerns with respect to deterioration of water quality due to reduced pulp mill effluent standards.

Resource Conservation

Resource conservation and sustainability issues in the forestry sector are similar to those for all natural resources (see case studies on Water and Energy, below, for a more detailed discussion of resource conservation). The essential concern is the ability of provincial and state jurisdictions to exercise control over the management of forest resources. For example, in Ontario, forest management is a provincial responsibility, however, since provinces and states are not parties to NAFTA they have no ability to develop and enforce policies to conserve the forest resources.

The softwood lumber trade disputes provide an excellent illustration of this concern.[47] Canadian softwood lumber exports were challenged and investigated three times in ten years, using a different set of rules each time.[48] During the dispute, the US Department of Commerce reversed longstanding administrative practices, upheld new allegations and interfered with provincial resource policies.[49] According to one observer discussing this issue, "US countervail law is often less a vehicle to assure fair trading practices than a device to protect weak American industries."[50]

Perhaps the greatest concern over NAFTA with respect to resource conservation is interference in domestic policy, as witnessed in the softwood lumber dispute. How can a province or state protect forests from exploitation if the economic instruments used to accurately value the true social and environmental costs of forest destruction are overruled by trade panels who's only concern is unrestricted trade?

The serious implications for the Great Lakes Basin appear to be threefold. First, the potential for a deterioration in standards for toxic chemical discharges. As described above (Section 3.2), the notions of "sunsetting" and "virtual elimination" of persistent toxic chemicals are incompatible with NAFTA's risk-based approach to determining actions "necessary to protect the environment". This is particularly relevant given that pulp and paper generated chemicals such as dioxin and furan, targeted for phase-out by the Ontario government, may not be considered dangerous according to the less stringent NAFTA approach.

Second, the effective transfer of regulatory power from the Great Lakes states and provinces, to trade panels, subverts the ability of regional, Basin-wide jurisdictions to oversee the sustainable management of the forests of the Great Lakes Basin ecosystem.

Third, there is strong pressure from the US for Canada to harmonize timber management with the more private, competitive American system. This kind of pressure further erodes Canada's sovereignty over natural resources without resolving the root causes of trade disputes; namely political motivation.

4.6 Fisheries

4.6.1 Nature of the Issue

Trade analysis of ocean fishery issues has been extensive. However, a parallel body of literature focusing on Great Lakes fresh water fisheries does not exist. This is surprising, given that in 1985 the Great Lakes Fishery Commission (GLFC) estimated that the total economic impact of the Great Lakes sport and food fishery on the regional economy was $2.3 to $4.3 billion (U.S. dollars). In addition, millions of dollars are invested annually in Great Lakes fisheries protection and management from both sides of the border.

Currently, the major issues threatening the health of the Great Lakes fishery resource include:

1) The decline of aquatic ecosystem health and the loss of fish habitat;

2) The loss of fish; and,

3) The development of increasing stakeholder conflicts.

Arguably, these issues stem from basic inadequacies within the economic and governing system, including:

1) An under-valuation of the resource;

2) The incomplete protection of the resource through legislation and enforcement practices;

3) A fragmentation of the protection and management agencies which has lead to conflict in policies and agendas; and,

4) An insufficient knowledge of the resource.

The health of the Great Lakes is threatened. As the fisheries become increasingly susceptible to environmental degradation, conflicts surrounding allocation and health standards issues will increase. As already discussed in Section 3 of this report, NAFTA creates a downward

pressure on standards and an increasing pressure on the natural resource base. As a result, this valuable regional economy may be further threatened with increased exploitation by the new trade deal.

4.6.2 Concerns with NAFTA

The impact of the FTA on ocean fisheries has been notable. The Canadian federal government viewed the FTA as a method of avoiding the American countervailing duty procedure, a 6.5% tariff on Canadian fish exports, and non-technical barriers to the fishery trade.

Recent FTA and GATT trade panel decisions regarding ocean fisheries have inadequately considered environmental protection measures. In the Herring and Salmon[51] decision, the panel overruled the Canadian catch landing requirements. It was held that the measures were "not primarily aimed at" the conservation of salmon and herring, thus rendering ineffective Canadian environmental restrictions on fish harvesting. In addition, the recent decision regarding Undersized Lobster[52] included an application of GATT provisions incorporated into the FTA. The panel drew its final conclusions with only a dismissing reference to GATT environmental exemptions, preferring instead to focus on legal arguments regarding the technical interrelationship between Articles III [National Treatment] and XI [Quantitative Restrictions]. It is argued that the analysis of recent trade panels on fishery issues lacks an awareness of basic environmental concerns.

In contrast to the conflicts experienced in ocean fishery trade, it is alleged that the FTA did not have a significant impact on the Great Lakes fisheries. This is due primarily to the following factors: (1) the majority of commercial fishing is limited almost exclusively to Lake Erie, and (2) the industry is dominated by the Canadians who sell in a market outside of North America. In contrast, the American fishing industry is predominantly recreational and sport fishing. Therefore, opportunities for trade disputes have been limited.

Historically, in order to address potential issues and conflicts associated with the fishing industry, the Great Lakes Fisheries Commission (GLFC) was established under the 1955 Convention on Great Lakes Fisheries between Canada and the United States. The GLFC maintains a dual mandate: (1) to research, develop and recommend measures which will permit the maximum sustained productivity of fish stocks; and, (2) to regulate fish stock predator (sea lamprey) populations.

The GLFC evolved within this framework, establishing the Lake Committees which assumed the role of arbiter when disputes arose regarding the maintenance of the fisheries. Recently, this function was challenged in the "Ontario/Ohio Lake Erie Yellow Perch Dispute" which focused on the allocation of stock. Although the conflict was resolved prior to arbitration by an independent, federally appointed panel, the conflict highlighted a shift in the treatment of the resource base from exclusive management to cooperative management of a common resource.

Historically, fish stocks were treated as exclusive resources by Canada and the United States. More recently, the GLFC has moved towards the identification of "common stocks" and "common fish community objectives". For example, the Lake Erie Yellow Walleye is treated as a common stock in which the annual net harvest is determined through the calculation of an allowable harvest, allocated between management agencies in the region.

Management of the Great Lakes fishery has evolved into a recognition of the need to share a common resource. However, this insight is recent. The current debate regarding the appropriate role of the GLFC opens the door for a FTA/NAFTA trade panel to assume the role of arbiter. This shift in the dispute settlement process could negatively impact the Great Lakes fisheries for several reasons which include: (1) the limited expertise of trade panellists on Great Lakes fresh water fishery issues; (2) the limitations placed upon general participation in the dispute settlement mechanism; and, (3) the trade bias that FTA panels have demonstrated in recent fishery decisions. In the long run, the goals of ecological sustainability and "common stock" management could suffer.

4.6.3 Summary

Very little trade analysis has focused upon the potential impact of NAFTA on Great Lakes fisheries. In light of the GLFC development of a "common stock/common objectives" approach to fisheries management, this vacuum in analysis could hinder future efforts to effectively regulate and maintain a sustainable yield in the face of increasing economic pressures in the region. Without an understanding of the NAFTA regime which governs economic development, Great Lakes regional management and preservation plans are incomplete, and therefore, insufficient.

4.7 Labour Issues

4.7.1 Nature of the Issue

NAFTA proponents argue that the free trade agreement will raise living standards in all three countries. However, under the current U.S.-Canadian Free Trade agreement, the standard of living in both countries has steadily declined. Once Mexico joins the free trade pact, the temptation of cheap Mexican labour, lax health and safety and environmental standards, and the elimination of duties will be too strong for corporations to resist moving south.[53]

NAFTA, therefore, will not only have an impact on the environment, but will have a profound impact on workers in the Great Lakes region. There are too many dimensions to the agreement to predict the entire scope how workers will be affected, however, two obvious consequences include:

1) Job dislocation; and

2) Weakening of worker health and safety standards

Job Dislocation

Free trade does not only imply the freer movement of goods and services. It implies that production facilities will have the tendency to locate in areas where labour and environmental costs are least restrictive to the production processes in question. Thus, while it can be expected that NAFTA will result in job dislocation in some industrial sectors. The experience with the FTA has been that tens of thousands of jobs have been lost to the migration of industry southward.

The implication of job dislocation under NAFTA includes:

1) Diminished quality of life for workers within the Great Lakes Basin; and

2) The restructuring of various industrial sectors.

Canadian and U.S. communities will be forced to offer transnational corporations a "better business climate". Under threat of plant closing, workers will be forced to take pay cuts. Government revenues from income and sales will decline. Cutbacks in essential services such as education, public health, workplace and food inspections, and hazardous waste site clean-ups from runaway factories are inevitable. Instead of raising living standards for everyone, American and Canadian communities will see a reduction in living conditions.[54]

One of the often overlooked issues with respect to standards of living is that the "measuring stick" for standards of living in a trade agreement is the dollar value of merchandise shipped across borders, not better working conditions, higher health standards, better water quality or improved health of an ecosystem.

Health and Safety Standards

There is a direct comparison between the undermining of environmental laws and the undermining of health and safety laws under NAFTA. One of the most important consequences however, is that in addition to the downward pressure caused directly by the provisions of NAFTA (in terms of reducing barriers to trade) there will also be pressure applied by industry. Industry will exert pressure on health and safety laws by attempting to increase competitiveness with parties in jurisdictions with lower standards. This means that in a region like the Great Lakes Basin, with reasonably high standards and a unique regulatory regime, there will be particularly strong pressure to lower standards or face plant migration and closures.

5 CASE STUDY 1: NAFTA'S THREAT TO A SUSTAINABLE ENERGY FUTURE

by Bruce Lourie

NAFTA will ... justify draining every last barrel and cubic foot of oil and gas from North America's most remote and ecologically vulnerable regions.[55]

Canada and the United States both have the less than honourable distinction of being internationally renowned as the most energy *inefficient* countries in the world. North Americans consume far more energy per capita than any other nation on Earth.

One of the main goals of NAFTA is to provide a guaranteed supply of fossil fuels to the United States so that this inefficiency can be perpetuated, while at the same time, exploiting resources in Canada's most sensitive ecosystems. This may be one of the most insidious features of the entire agreement.

This case study is divided into four sections. The first section outlines existing energy trade patterns in the Great Lake Basin, the second section describes the specific features of NAFTA as they relate to energy, the third section explores the broad spectrum of environmental implications of NAFTA and the fourth section provides a summary of the issues and how they relate to sustainability.

5.1 Existing Energy Trade Patterns in the Great Lakes Basin[56]

In order to understand the implications of energy trade in the Great Lakes Basin, it is important to know which energy commodities are being traded, what proportion of a country's total demand is being exported and where the trade is taking place.

Generally speaking, Canada exports a significant proportion of all of its major fossil fuels to the United States. A considerable amount of the trade in fossil fuels takes place in the Great Lakes Basin, where the flow is from north to the south. Coal is the only exception to this trend, with Ontario importing over a third of its coal from the United States.

Following is a summary of the primary energy commodities being traded between Canada and the US and an indication of proportions and future trends.

Oil

Canada exports 75 percent of its heavy crude oil production, the majority (85 percent) of which goes to the US midwest to be refined. Approximately 25 percent of Canada's light crude oil is exported to the United States. Under NAFTA, Canada will have to continue

providing at least this proportion of oil to the United States.

According to National Energy Board projections the proportion of Canadian exports to domestic supply for oil is expected to increase significantly over the next two decades. Therefore, the concerns with respect to the proportionality clause may be academic, since it appears as though Canada will be increasing its proportion of exports by choice. On the other hand, forecasting in the energy sector has been notoriously inaccurate over the past three decades and perhaps the overriding concern is not so much the projected future of Canadian fossil fuel exports, but the implications for Canada's ability to control the flow of non-renewable fossil fuel given the likelihood that the projections are meaningless and in the case of national shortage.

Natural Gas

The United States imports over 2 trillion cubic feet (TCF) of natural gas from Canada each year. Net imports by the US consume 37 percent of Canada's natural gas supply. By contrast, Canada imports one hundredth that amount from the US, an immeasurably small proportion of US production. Knowing these ratios is key to understanding the implications of the proportionality clause to Canadian natural gas.

The Great Lakes Basin figures prominently in natural gas trade. Sixty percent of Canada's exports and all of US imports cross the border in the Northeastern and Central regions of the United States. More importantly, these regions are predicted to be the regions of greatest growth in gas trade. The expansion of the Northern Border and Great Lakes gas pipelines make way for significant increases in natural gas exports to the United States.

The factors noted above highlight the concerns with respect to the "proportionality clause".

Coal

Coal is the exceptional fossil fuel, in that the flow of trade in the Great Lakes Basin is from the US to Canada. US coal provides 27 percent of Canadian coal demand, of which 94 percent is imported by Ontario, three-quarters of which fires Ontario Hydro's generating stations.

Electricity

From 1972 to 1987, Canada's electricity exports to the United States increased nearly five-fold, with trade between Great Lakes states and provinces accounting for the majority of the trade. Ontario and Quebec are Canada's largest exporters of electricity, although net exports have dropped sharply in the past few years.

Quebec is the only jurisdiction in the basin which views electricity as a major export commodity. In fact, Hydro Quebec's Great Whale hydroelectric project is being built almost

exclusively to supply electricity to New York and the New England states.

Canada supplies the US with 50 percent of its uranium, used as a fuel to generate electricity in nuclear reactors. The nuclear industry has strong links to the Great Lakes Basin, with reactors, uranium mines, refineries, heavy water plants, nuclear waste storage sights and other facilities dotting virtually all the shores of the Basin.

Renewable Energy

Renewable energy is not generally a tradeable commodity. It is the big loser under NAFTA since existing fossil fuel subsidies are left intact, whereas subsidies for the development of new technologies would not qualify under NAFTA. This historic institutionalized subsidization of fossil fuels will only become more exaggerated under NAFTA, creating a very unlevel playing field for non-traditional sources of energy.

5.2 An Overview of NAFTA and Energy Trade

Provisions describing trade in energy are contained in Chapter 6, Energy and Basic Petrochemicals, of NAFTA and, more generally, Chapter 3, National Treatment and Market Access for Goods. The fact that a separate chapter for energy is included in NAFTA indicates the importance of energy trade between the two countries.

The energy provisions of NAFTA are essentially an extension of the FTA principles, to include Mexico. These are in turn based on the need to coordinate with the structure of GATT. The following points present the features of NAFTA as it relates to trade in energy.

5.2.1 No New Tariffs

The fundamental objective of NAFTA is to restrict Parties from introducing new tariffs or other "technical barriers to trade" and to leave the marketplace free of government interference. This is what free trade is all about. Unfortunately, the notion of having the market dictate standards for resource conservation and environmental regulation is fraught with inconsistencies. This is especially true in the case of energy. To suggest that the marketplace is capable of conserving finite energy resources, or even managing their depletion in a coordinated fashion, is both naive and unwise.

The issue with respect to tariffs and other "technical barriers" revolves around the previously discussed concept of "legitimate objective". Tariffs are permissable only if they can be proven to meet a "legitimate objective" of the jurisdiction implementing the tariff, or they are applied domestically, and as long as the tariff is the "least trade restrictive" measure possible. For example, if Ontario decided that meeting carbon dioxide reduction targets to reduce global warming was an important goal, they may wish to impose a duty on US coal imports and provide subsidies to solar and wind power generators in Ontario. If the trade tribunal does not consider Ontario's global warming targets to be a legitimate objective, or even if the means

for meeting the objective are not found to be the least trade restrictive, than the jurisdiction must remove the challenged practice. This concept not only undermines the ability of jurisdictions to develop strategies to meet various environmental or resource conservation goals, but it imposes on the way in which a jurisdiction may wish to design an energy conservation program.

5.2.2 National Treatment and Investment

National treatment is the straight forward concept of not treating any Party any different from the way you treat yourself. This applies to all aspects of trade measures and is a conventional component of trade agreement as it applies to duties and tariffs. However, "national treatment" in NAFTA contains investment provisions which have little to do with trade. The concept of "national treatment of goods" is extended to various forms of investment. The intent of this clause is likely to allow US firms with freer access to Canadian and Mexican resources through direct ownership of petroleum companies, petroleum reserves and pipelines. The issue for Canadians and Mexicans is nationalistic as much as it is environmental. It is easy to imagine why a country like Canada, with a small population, abundant resources and high environmental standards is reluctant to see those resources treated as though they are freely available to a neighbouring country, when that country happens to be the single largest energy consumer in the world, with ten times the population, the world's highest per capita fossil fuel consumption, and the largest electricity market in the world.

Given that NAFTA presents a serious threat to government and regulatory body jurisdiction over resources, the remaining stewardship authority rests primarily with industry. However, with NAFTA provisions allowing equal rights to ownership of Canada's resources, as entrenched in the concept of "national treatment", Canada effectively loses this component of control as well.

5.2.3 Proportionality: The Open Tap Syndrome

One of the most controversial aspects of NAFTA and the FTA is the "proportionality clause". According to this clause a Party can only introduce a trade restriction if it:

> "...does not reduce the proportion of the total export shipments of the specific energy ... good made available to that other Party relative to the total supply of that good of the Party maintaining the restriction as compared to the proportion prevailing in the most recent 36-month period for which data are available prior to the imposition of the measure, or in such other representative period on which the Parties may agree."

In practical terms, this means that if Canada exports 40 percent of its supply of natural gas, it must continue to provide the US with access to at least 40 percent of its supply for as long as the agreement is in effect. The unusual aspect of this clause is that it bears no relationship to the resources available or, in fact, to any specific quantity of a resource, it merely depends on

the relative proportion of domestic use versus that available for export. Consequently, Canada could not reduce the proportion of gas (or other energy product) available to the US even in times of energy shortages. Mexico appears to have negotiated a far better deal than Canada, by achieving an exemption from this imprudent requirement.

5.2.4 Standards and Harmonization

There are two important issues relating to standards and harmonization. First, is the potential for undermining state and provincial regulatory standards, and second is the threat to utility programs designed to improve energy efficiency.

NAFTA will undermine progressive energy conservation standards and regulations set by regional authorities. This is because Parties are required to use international standards unless they can demonstrate that those standards do not meet their "legitimate objectives." The difficulty, of course, lies in the interpretation of "legitimate objectives". Whether adopting strict energy conservation measures and achieving a sustainable energy society are legitimate objectives or not, depends on individual values and/or political motivations, not so-called objective economic assessments by trade panelists.

There is already considerable pressure from industry placed on jurisdictions who attempt to introduce efficiency standards which are greater than those of their trading partners. NAFTA serves to institutionalize this pressure by creating legal restrictions to the development of specific standards and regulations that may be perceived to be trade restrictive.

With respect to utilities, the "legitimate objective" argument threatens progressive Least Cost Planning and Demand Side Management programs, as discussed below.

5.3 Environmental Implications of NAFTA

In the preceding section, the specific features of NAFTA, as they relate to energy, were discussed. The objective of this section is to describe what the implications of those features are for the environment, by providing examples of possible outcomes. Given the fact that virtually all trade in energy involves fossil fuels, the environmental impacts of energy trade may be greater than for any other resource.

NAFTA will encourage rapid development of fossil fuels, particularly in Canada and Mexico, where reserves are larger and easier to extract and where domestic consumption is below production capability.

The major environmental consequences include the following.

5.3.1 Perpetuating Fossil Fuels: Entrenching Public Subsidies

With undervalued, over subsidized electricity and fossil fuels, which have pricing structures

that ignore the environmental and social costs of damming, extracting, transporting and refining, Canada will in effect be subsidizing American energy consumption.

The North American energy industry has a long history of government intervention, unfortunately, mostly in the form of subsidizing the costs of fossil fuel extraction and nuclear research.

While NAFTA proposes to eliminate barriers to trade, there is one form of subsidy permitted, namely, subsidies for frontier oil exploration and development. While the billions of dollars in public subsidies to the economic and environmental disaster known as Hibernia are deemed acceptable, subsidies to a manufacturer of high efficiency appliances could be challenged. Therefore, NAFTA is the worst of both worlds, maintaining subsidies for fossil fuel exploitation while jeopardizing energy efficiency programs.

5.3.2 Exporting Environmental Damage

NAFTA will create the ultimate Not In My Back Yard (NIMBY) syndrome whereby remote areas of Canada will be accepting the environmental damage and environmental risk of energy projects built to meet demand in the Great Lakes Basin. This is due in part to the fact that the agreement guarantees the export of Canada's energy resources, while the US "exports" the environmental damages in return.

For example, the two frontier regions with the greatest potential for oil in Canada, the Beaufort Sea and the Grand Banks off the coast of Newfoundland, are in locations where a single oil spill would be environmentally devastating. Moreover, the increasing appetite for fossil fuels in the Basin, accelerated through NAFTA provisions, will require expanded pipelines in and around the Basin, increased flows through the pipelines, increased refinery capacity, and all of the associated environmental impacts "up the line". Yet, demand in the Basin continues.

Most discussions of this issue, including some presented in this study, tend to take strongly nationalistic perspectives, blaming US demand for all of the environmental consequences of frontier oil exploration in Canada. However, this argument must be kept in perspective. The Great Lakes Basin cannot be easily divided between north and south. There is little distinction between sending oil from the Beaufort Sea to a refinery in Chicago versus a refinery in Sarnia. This is the reason why we must insist on strong public decision-making powers in the Great Lakes Basin and why a sustainable ecosystem approach must be adopted.

5.3.3 Eliminating Public Decision-Making

International trade agreements effectively lock the public out of the decision-making process.[57] Concerns with respect to decision-making, expressed in various sections above, apply equally, if not greater, to energy. As noted above, the past decade has seen significant changes in the regulatory climate with respect to energy policy and utility reform. Many of these changes

would not have taken place were it not for public participation in utility rate and regulatory hearings.

However, with NAFTA, the role of regulatory bodies is being greatly diminished since their actions have been recognised as a vehicle for discrimination.[58] For example, in 1989 the Canadian National Energy Board did not approve export licenses for proposed natural gas projects on the basis that the social cost-benefit analysis determined that the projects were not in the best interest of Canadians. This decision was threatened with a challenge under the FTA as it applied only to exports and was considered to be a disguised minimum price test. The NEB backed down from their position, and approved the export license, in effect conceding that such interventions on behalf of the public interest were impediments to trade.[59]

The concern with a case such as this is more than the thought of a trade panel ruling against a regulatory body, but the fact that all it took was the threat of a trade challenge to get the NEB to back down from what it originally thought to be in the public interest. This is another example of the "legislative chill" described in earlier sections.

Public decision-making is therefore threatened in four ways. Two of these preclude direct public participation and two undermine the role of public bodies, as follows:

1) The direct public voice is not being represented since there is no opportunity to participate in trade panel decision-making;

2) The direct public has no voice if the results of their participation in regulatory hearings are abrogated;

3) The indirect public, represented by sub-national governments and regulatory bodies, are powerless if they are not permitted to participate in trade tribunal decisions, or even allowed to know upon what factors the decisions are based;

4) The indirect public voice is lost if public regulatory and review bodies are barred from the decision-making process or are influenced by the presence of trade tribunal.

5.3.4 Undermining Progressive Utility Policy

Over the past decade, a number of states, provinces and public utilities have embarked on progressive programs to reduce energy demand by providing incentives to industry and other customers to use electricity, and other forms of energy, more efficiently. These programs are based on the principles of Least-Cost Planning (LCP) and Demand Side Management (DSM). Typically, these programs offer rebates, loans, grants, technical advice and other assistance to businesses and homes participating in the programs.

These programs are essentially "energy regulatory measures" as defined in the agreement.

Accordingly, when considering regulatory measures, [60] each party's regulatory bodies must "avoid disruption of contractual relationships to the maximum extent practicable." This implies that DSM and LCP programs may be placed in serious jeopardy if they are construed to be "disrupting contractual relationships" as they do generally.

Furthermore, LCP and DSM programs have been seeking to incorporate the true, life-time cost of energy, by incorporating environmental externalities into the cost of future energy supply. For example, with least cost energy planning, Canadians should place a high price on oil from the Beaufort Sea or hydro electricity from Quebec, based on their excessive costs to native populations, fragile ecosystems and society and the environment at large. However, this high price could be challenged by Americans as a "technical barrier to trade" and overturned if a trade panel did not consider the pricing structure to reflect a "legitimate objective". Alternatively, if a state imposed its environmental standards on the social cost of electricity from Hydro Quebec, as is the case in Massachusetts, the state may elect to impose an environmental tariff or prevent imports of Quebec's electricity. Another example is New York State, where the public is opposed to buying power from Quebec without a full environmental impact statement. These actions in both states could certainly be challenged by Canada as a barrier to trade.

Under NAFTA, least cost planning regulations at the state and provincial level may be overturned if trade dispute panels determine they are inconsistent with national energy efforts to deregulate and "harmonize" energy markets.

5.3.5 Restricting Resource Conservation

In the broader context, most of the factors described above pertain to the way in which NAFTA undermines resource conservation. Actual energy conservation efforts will be affected in four significant ways:

1) By creating an unfair price advantage for oil, by allowing subsidies for fossil fuel exploration and eliminating potential subsidies to all other energy sectors, including renewables;

2) By providing guaranteed supplies of fossil fuel to the US;

3) By applying pressure to harmonize state and provincial efficiency standards at the lowest common denominator; and

4) By presenting a potential challenge to least cost planning and demand side management programs, as barriers to trade.

5.3.6 Accelerating Global Warming and Other Atmospheric Changes

The discussion so far has focussed on reasonably specific environmental implications of energy trade in NAFTA. Basically, the concern is that fossil fuel consumption will continue to increase in the less restricted and more unaccountable NAFTA setting.

Increased fossil fuel consumption increases carbon dioxide emissions. From a global environmental perspective this means one thing, accelerated global warming. Global warming could have a tremendous impact on the economy and environment of the Great Lakes Basin, as follows:[61]

- Lower lake levels due to declining run-off, increased evaporation and increased demand;
- Fluctuations in weather patterns, creating droughts and flooding, affecting agriculture and general commerce;
- Shifts in forest ranges and increased forest fires;
- Loss of wetlands and other important nearshore ecosystems;
- Deteriorating urban air quality;
- Declining tourism; and,
- No doubt many unknown affects.

There is a vast literature on the causes and potential solutions to global warming and readers are encouraged to explore these sources.

5.4 Conclusion: Threat to a Sustainable Energy Future

In summary, NAFTA goes against the principles of a sustainable energy future. Trends in sustainable energy supply include; small-scale energy projects, decentralized supply systems, matching regional demand to regional supply, encouraging energy efficiency, adopting demand side management, using least cost planning and eschewing fossil fuel dependency. Each of these features will be undermined by NAFTA.

6 CASE STUDY 2: NAFTA'S IMPACT ON AGRICULTURE IN THE GREAT LAKES BASIN

by Mark Ritchie

6.1 Background

Few aspects of the North American Free Trade Agreement (NAFTA) have generated as much controversy as the agricultural provisions. Thousands of pages of description and analysis have been written, often with directly contradictory views and conclusions. Part of the explanation for the wide differences of opinions and views is the complexity of factors that must be taken into consideration.

6.1.1 Three Sets of Bi-National Rules

Unlike other areas of trade, which would be covered by simply one set of trading rules for all of North America, the current NAFTA proposes that the rules of agricultural trade between and among our three countries be covered partially by three sets of bi-national rules and partially by tri-national rules.

The final NAFTA draft contains two separate agricultural agreements, one covering trade between the United States and Mexico and one between Canada and Mexico. In addition to these two sets of rules, farm trade between the United States and Canada would continue to be covered by the previously negotiated U.S.-Canada Free Trade Agreement (FTA). Since each of these three separate agreements contain important provisions that are either unique or substantially different from the others, any analysis of the potential impacts on the Great Lakes region must look at each of these three agreements separately.

6.1.2 Tri-National Rules

There are three specific rules in the NAFTA that would apply to farm trade in all three countries. The first is the section of the NAFTA covering rules for sanitary and phytosanitary systems (food safety and animal health). The second discusses special regulations to restrict domestic agricultural programs. The third includes rules which cover farm export subsidies.

6.1.3 Additional NAFTA Provisions Affecting Agriculture

In addition to the specific agricultural rules, there are literally hundreds of non-agricultural rules and regulations throughout the nearly 1000 pages of NAFTA text that would greatly impact Great Lakes farmers and rural communities, such as the provisions on automotive goods, energy, government procurement, technical standards, trucking, telecommunications, banking, patents, and taxation.

6.1.4 U.S. and Canadian National Farm Policy

Another element which adds complexity to this analysis is the high degree of government policy involvement in determining the economics of agriculture in both the United States and Canada. While a manufacturer can easily understand the impact of a tariff reduction from 6% to 3% over 5 years, the provisions of the NAFTA for agriculture are much more involved and inter-related with a whole range of other government policies. Since United States and Canada are very different, any analysis of the potential impact of the NAFTA on Great Lakes agriculture must also differentiate between the impacts in both countries.

6.1.5 Local, State, and Provincial Farm Policy

In addition to the many important differences in policies between the United States and Canada at the federal level, there are also important local, state and provincial policies that influence family farm and rural community economic vitality which, of course, vary tremendously between all of the states and provinces that border the Great Lakes. A very significant number of these will also be affected by the proposed NAFTA.

6.1.6 Interaction with GATT

Another element of complexity is the interaction of the NAFTA and the FTA with the existing rules of global trade under the General Agreement on Tariffs and Trade (GATT) and the ways that this might change or be affected by the proposed changes to the GATT that may result from the Uruguay Round of renegotiations. There are many places in the current NAFTA text where the GATT agreement is the basis of a rule. But with the current GATT talks in serious danger of total failure, any analysis of the potential impact of these specific GATT-related provisions is highly speculative.

6.1.7 Supplemental Negotiations

On top of all of the above-mentioned contingencies and complexities, there is the likelihood that the three governments will agree to change the NAFTA through supplemental agreements in the areas of labour standards, environmental protection, and protection against disruptive import "surges". These supplemental deals, especially the ones for the environmental and import surges deals could have a tremendous impact if they were ever to become enforceable. Unfortunately, we cannot yet predict the outcome of the current negotiations taking place on these supplemental agreements.

6.2 Key Provisions in Each of the Three Agreements

Although there is still much that is unknown about the final shape and content of the NAFTA, we do have the final proposed document and the text of the previously ratified United States-Canada Free Trade Agreement. Following are a few of the specific provisions within each of the agreements affecting agriculture. This is not meant to be a complete listing,

but only a general overview of some of the provisions that most affect Great Lakes producers on both sides of the border.

6.2.1 U.S.-Canada Free Trade Agreement (FTA)

The major agricultural provisions of the original FTA include:

1) Waiver of U.S. import controls on a wide range of crops and livestock products coming in from Canada, including beef, pork, and grains, and the creation of major loopholes allowing significant increases in shipments of sugar, peanuts, and milk into the U.S. in the form of processed foods.

2) Replacement of Canadian pesticide standards, which required proof of safety, with U.S.-type "risk/benefit" analysis.

3) Reduction in border inspections of meat and other food products.

4) Waiver to allow continuous use by Canada of the "crow's nest" rail subsidy for grain travelling to ports in the East.

5) Weakening of Canadian import controls on wines, fruits and vegetables, processed foods, and other specific crops and livestock products.

6.2.2 Canada-Mexico Provisions in the NAFTA

1) Canada and Mexico will eliminate all tariff and non-tariff barriers to trade except for those in dairy, poultry, egg, and sugar sectors.

2) Canadian tariffs on most fruit and vegetable sectors will be eliminated in five years, with the rest over 10 years.

3) Mexico will replace requirements of import licenses with either tariffs or tariff rate quotas which will be phased out over the next 10 years.

4) The creation of supply management agencies and programs in any other crop or livestock sectors is prohibited.

6.2.3 U.S.-Mexico Provisions in the NAFTA

1) All import controls between both countries will be immediately eliminated, such as the U.S. import control laws included in Section 22 of the current farm bill and the Meat Import Act and the Mexican restrictions on corn imports. Many of these will be replaced by tariffs (a procedure called tariffication)which will then be phased out over 5 to 15 years.

2) Existing tariffs on a broad range of products will be immediately eliminated and all others phased out over 5-10 years.

3) Exporters in both countries have the right to ship any or all of the domestic production of almost all crop or livestock products across the border. This domestic production can then be replaced by imports from other countries, a process called substitution.

6.2.4 Tri-National Provisions in the NAFTA

1) Provisions are made for special safeguard procedures for some products covered under the bilateral agreements. This allows the re-application of a tariff if imports reach a specific target level.

2) On domestic farm programs, the NAFTA requires that all three countries move toward domestic farm programs that are "not trade distorting," which is interpreted by many analysis to mean direct government payments on the de-coupled model.

3) Any change in domestic farm policy by any government is strictly limited to only those in compliance with applicable GATT obligations.

4) The granting of export subsidies by governments to grain marketing corporations is explicitly approved.

5) A trilateral committee on agricultural trade is proposed to monitor the implementation of these rules.

6) The rights of local, state/provincial, and federal governments to enact food safety standards are limited. For example, these rules can only be enacted if they are based on so-called "risk assessment," which is much weaker than current Canadian rules. Concerns such as consumer preferences and animal welfare cannot be considered.

7) The NAFTA sections on Intellectual Property Rights permits private companies to patent existing and future life INDICATORS

6.3 Implications for the Great Lakes Basin

There are literally hundreds of specific agricultural impacts of NAFTA already identified, and the list continues to grow each day. Narrowing this long list of potential impacts to a few key indicators is critical to developing a coherent analysis, given the level of overall complexity and uncertainty. For the purposes of this paper, we have chosen to focus on the four issues having the greatest impact on the Great Lakes region:

1) Impact on prices for the major crops and livestock produced in the Great Lakes regions, and the resulting impacts on farm family economic viability;

2) Impact on wages, work availability, and labour pool of farm workers in the Great Lakes regions;

3) Impact on food safety and environmental protection regulations, especially those affecting the major crops and livestock and food processing operations in the Great Lakes regions; and,

4) Impact on off-farm employment opportunities and off-farm wages in the Great Lakes region.

Impact on prices for major crops and livestock and on farm family income

Reduction in tariffs and dismantled import controls will result in significantly lower farm prices for a number of key Great Lakes basin crops and livestock products, including, but not limited to:

Fruits and Vegetables; Beef; Milk and other Dairy Products; Feed-grains; Sugar; Flowers and Plants; Edible beans; and Soybeans.

Although Canadian dairy, egg and poultry farmers were somewhat protected in NAFTA, the impacts on Canadian family farmers in other crop and livestock areas will tend to be even greater than the impacts on U.S. farmers given the generally more favourable climatic conditions in the U.S.

Lower farm prices do not necessarily have to result in lower farm family income. Some level of government can choose to replace all or part of any loss of income due to lower prices with direct payments. For example, the state of Vermont has supplemented milk prices in the past and the U.S. federal government makes some direct payments to some farmers in the form of deficiency payments. However, given that all three governments are facing severe budget cuts and that the current GATT talks could result in the elimination or restriction of this option, this possibility should not be considered a viable option.

The lower farm prices that will result will mean lower farm family income, with a number of significant environmental and economic impacts. Farmers often move to more chemical-intensive methods of production when prices fall, in hopes of boosting yields enough to compensate for the lower prices. Lower income often means that there is less flexibility in the farm operation for adopting newer, more environmentally friendly methods of production. Families who are attempting to shift to more ecologically sound mixed livestock and cropping operations will find it more difficult to continue these efforts and others will be discouraged from attempting to make this transition.

On the economic front, lower farm family income means a reduction in economic activity in the surrounding communities, and a much wider ripple effect in farming related industries, such as equipment manufacturing, banking, chemicals, and transportation. If the drop in

income is as great as anticipated in fruits, vegetables, dairy, sugar and beef, the impact will be the bankruptcy of many family farms, with the resulting problems that will be faced by their lenders and creditors. During the 1980s we had a close look at the overall impacts of this level of economic crisis, including the severe impacts on all aspects of rural and small town life. What must also be considered is the weakened conditioned that many farmers, rural businesses, and other rural institutions (hospitals, schools, churches, etc.) are in due to the difficulties of the last decade. Add to this the bad weather and then the lower prices and we can anticipate a very difficult situation for family farmers and rural communities in all states and provinces in the basin.

One strategy used by some farmers in the 1980s to improve their economic situation was to shift to specialty crops, especially in the fruit and vegetable sector, and to shift to new methods of production, especially organic production, in order to receive a premium price.

Farmers who have shifted to organic production of fruits and vegetables will find a more difficult market situation, as prices on commercially produced competitive crops will fall in the market, creating an even wider spread in the prices between what an organic farmer must charge to survive and commercial prices. On top of this problem, the general lowering of wages that is anticipated in the industrial sectors of the Great Lakes region will dampen consumer demand for these premium items, especially if the "price gap" widens even further.

Another particular problem is the lowering of beef and dairy prices, which will accelerate the displacement of family-farm sized cattle production from the Great Lakes region to the deserts of Mexico and the U.S. southwest. There will be both severe economic impacts and disastrous ecological impacts as well.

Livestock production is a key component of the entire Great Lakes Basin economy. Dairy and beef production is the major market for much of the corn and other feed- grains grown in our region, providing an excellent market and a price boost. The processing o f milk into fluid and other products and the slaughter of beef and hogs provides many jobs in the basin, especially in rural areas. The NAFTA allows U.S. meat and dairy companies to import an essentially unlimited amount of their products from Mexico, driving down prices in the U.S. and significantly reducing the market for U.S. produced meat or dairy products. This in turn reduces U.S. production, which reduces outlets for feed-grains and jobs for meat-packers and cheese-makers.

In addition to these economic impacts, there are significant ecological impacts to price cuts in the dairy and livestock industry. For example, in the Great Lakes basin, much of the land that is used for grazing is hilly and very fragile. If a farmer is forced out of the dairy or livestock business due to these lower prices, the hilly land that formerly was used to graze beef and dairy cattle is converted to corn and soybeans, leading to a major increase in soil erosion from the hillsides and chemical run-off.

The accession clause of NAFTA, which allows other countries in Latin America or other

regions of the world to join in the NAFTA, has serious implications for livestock, dairy, sugar, oilseeds, grain, and fruit and vegetable producers in the region. The extremely low costs of production of milk in New Zealand, beef in Australia, sugar in Cuba, soybeans in Brazil, corn in Argentina, and of fruits and vegetables in the Caribbean would mean a serious reduction in prices for all of these crops in the region.

Impact on wages, work availability, and labour pool of farm-workers

The pool of available migrant farm-workers will be expanded. On the one hand, there will be fewer farm-worker jobs available due to the movement of much of the Great Lakes Basin fruit and vegetable production to Mexico. At the same time, one million or more small farm families in Mexico will be displaced as a result of NAFTA, many of whom will come to the United States in search for work as farm-workers or in urban factories.

Impact on food safety and environmental protection regulations

All of the various rules that will apply to farm trade within North America, the FTA, NAFTA, and GATT are based on several basic provisions. They all are attempting to reach some level of standardization among food safety and animal health regulations between the three countries, including bring state/provincial level regulations in line with national laws. This effort, which is sometimes called "harmonization," has been strongly backed by the food processing companies and by the manufacturers and distributors of pesticides.

Although the NAFTA has explicit language stating that states and national governments can maintain higher standards, the conditions under which these rules will be protected from challenge as a trade barrier are quite limited. For example, all food safety rules higher than the lower "harmonized" standard would have to be based on the so-called "risk assessment" procedure, which consumer groups have strongly criticized as a back door method of weakening public health protection. Under the current NAFTA text, foods will be imported into the Great Lakes region that have been grown under different environmental standards and enforcement regimes generally much less strict than those imposed on farmers and food processors in this region. This will both create a difficult competitive situation for both U.S. and Canadian farmers and potentially erode consumer confidence in both countries.

Impact on off-farm employment opportunities and wages

During this time of severe economic crisis for many family farms in the Great Lakes basin, off-farm jobs have been critical to keeping many families on the land. Unfortunately, many small and medium-sized factories in our region will come under enormous pressure as a result of the NAFTA. The will be a number of impacts that are likely to be felt by family farmers and rural community residents.

First, there may be a lowering of wages by factories in the region in hopes of keeping costs competitive with increasing imports. Second, we can expect pressure on local communities

and state legislature to weaken environmental regulations in an attempt to compete with products produced in Mexico, where environmental laws and enforcement are much less strict. Third, a number of factories which cannot compete with cheaper imports will be forced to close or move to Mexico, creating a vast pool of new unemployed rural people competing for a shrinking number of jobs. In addition, the farm workers who have lost work in the U.S. fruit and vegetable sector and new immigrants from Mexico who lost their farms due to imports will be competing for the same declining number of jobs. This competition will result in lower wages and higher unemployment for both farmers and small town residents.

7 CASE STUDY 3: DIVERTING THE GREAT LAKES: NAFTA AND WATER

by Carrie Fleming

Water will be Canada's fastest growing exportable resource.[62]

7.1 Introduction

Canadian and American engineering companies have proposed nine multi-billion dollar projects within the last three decades to export water from Canada.[63] Some of these schemes involve the conversion of the Great Lakes into a large reservoir for northern Canadian waters diverted south. The projects have gained official endorsement and are indicative of the private commercial sector's vision of the opportunities which lie in the exportation of Canadian water resources.

7.1.1 The Environmental Consequences of Diversions

In a recent book entitled Water Diversion and Export: Learning from the Canadian Experience, the authors summarized the potential for environmental degradation:

> A diverse set of changes occurs when one river system is dammed and its flow diverted to another... A variety of biophysical changes are predictable. Moderate earthquakes and climate change are to be expected in the vicinity of large impoundments. Erosion and turbidity decrease primary biological productivity in some existing lakes and rivers. Forests, agricultural lands, and wildlife habitat may be lost in perpetuity and existing fisheries habitats destroyed. Mercury is released into the water column and bioaccumulates in fish to levels which makes them unsuitable for human consumption. This condition persists for 20 to 30 years at a minimum and longer in areas where erosion or organic-rich soil continues.[64]

These forms of environmental degradation are not unknown in the Great Lakes. When the St. Lawrence Seaway was opened the Lakes' fisheries were nearly devastated by the migration of the Atlantic lamprey eels. History has demonstrated that water diversion schemes also transfers foreign fish, plants, parasites, bacteria and viruses. The environmental effects are neither predictable nor necessarily recoverable.

Other environmental considerations include the current level of toxins in the Lakes. Significant diversions would decrease the dilution of the pollutants, resulting in the increased toxicity of the water. In addition, current studies predict that if the Great Lakes water levels were reduced by 30 cm, it would become necessary to begin large scale dredging programmes in order to maintain shipping depths. The added pressures of diversionary schemes, acting in conjunction with predicted climatic warming effects amount to unrecoverable drainage patterns.[65]

7.1.2 The Impact of NAFTA

The implications of these transfers extends beyond the potential for temporary or "fixable" environmental degradation. According to a 1989 study completed by the Rawson Academy of Aquatic Science, if Canada develops a programme of water export on any scale which creates an American dependence for the product, the Canadian government would have difficulty reversing an established market and imposing export restrictions given the constraints imposed by the Canada/United States Free Trade Agreement and similar provisions under NAFTA.[66] In other words, once Canada turns the tap on, it cannot be turned off.

The extent to which state, provincial and federal governments have "marketed" water remains a question open to debate. However, in the Great Lakes bioregion, water diversion and inter-basin transfer schemes have become a part of the area's historical development. In that sense, the tap is already on.

7.2 Historical Development of Water Diversions in the Great Lakes Region

Throughout the twentieth century, the Great Lakes bioregion has been subjected to large water diversion schemes. The Long Lake and Ogoki diversions, initiated in 1939 and 1943 respectively, brought water from the Albany River Basin into Lake Superior. The Welland Canal brought water from Lake Erie into Lake Ontario. Finally, the water of Lake Michigan Basin was diverted at Chicago for municipal and sanitary uses, and then discharged into the Illinois Waterway which eventually drained into the Mississippi River Basin.

However, the diversions in the bioregion have not been limited to large-scale diversions or channelling projects. Pressure on the water resource has grown incrementally. The 1988 drought on the lower Mississippi River persuaded Illinois Governor James R. Thompson to request that federal authorities triple the Chicago diversion to the Illinois River which would discharge into the Mississippi River for the duration of the summer. This unilateral act challenged the authority of the 1986 Water Resources Development Act and the Great Lakes Charter which required formal consent of all eight Great Lakes governors for any new diversionary schemes. Ontario, Michigan and Wisconsin threatened legal retaliation, and the U.S. Army Engineering Corp concluded that the proposed diversion would not succeed. Eventually, the drought abated before any action was taken, and the issue became theoretical.

Additional pressure on the water resource may be found in the following smaller projects including:

- The Pleasant Prairie diversion of 1990, diverted water from Lake Michigan to replace the city's tainted well water which had been naturally contaminated by radium.
- In Wisconsin, the Kenosha diversion of August 1991 provided and expedient measure to supply water, through a system of pipelines, to a rapidly developing section of the city.

- In 1991, Lowell, Indiana initially requested permission to divert 3.8 million gallons per day (mgd), later downgraded to 1.7 mgd, from Lake Michigan into the Mississippi River. Michigan, Ontario and Quebec opposed the diversion and successfully vetoed the project.

- The Walpole Island Indian Band has requested that a water pipeline be constructed to Lake Huron, because their current water supply is polluted.

- Illinois's DuPage County, in the suburbs of Chicago, is currently constructing a $350 million pipeline to serve the community's depleted aquifers.

More recent proposals include Michigan's Mud Creek Irrigation Proposal which has given environmentalists' cause for concern. The proposal suggests a diversion of 6.1 to 8.7 mgd from Lake Huron (Saginaw Bay) to irrigate approximately 750 hectares of land. The net result would be a 20% increase in yields for 13 property owners.

Small-scale projects are springing up on both sides of the border. The Ontario government is currently considering the proposed Georgian Bay Pipeline which would include the construction of 150 km of pipeline from Georgian Bay, Collingwood, to eventually service Kitchener, Barrie and North York. The $500 million project would divert 227 million litres per day which would effectively divert 50 mgd from its final destination - Lake Erie.

In conjunction with the small-scale diversion and drainage schemes, larger scale diversion projects are waiting in the wings. The North American Water and Power Alliance (NAWAPA), a project which envisions the construction of a reservoir in the Rocky Mountain Trench, could be linked with the Great Lakes and the Mississippi River. In addition, the GRAND Canal Proposal suggests that water from James Bay be redirected to the Great Lakes. From this storage basin, the water supply would be distributed to the Mississippi River system. But these projects are no longer works of fiction; some links in the chain exist, such as the canal at Chicago which diverts water to the Mississippi.

Given the established historical pattern of diversion schemes in the Great Lakes, how will the trade deals affect the water resources in the bioregion?

7.3 The Great Lakes Water and the NAFTA

7.3.1 Water Is in the NAFTA

Any discussion of water export issues must acknowledge that the Canadian government has repeatedly denied the inclusion of large-scale water diversions within the FTA or the NAFTA. Indeed, Section 7 of the Canadian implementing legislation for the FTA states:

> For greater certainty, nothing in this Act of the Agreement, except Article 401 of the Agreement applies to water.[67]

The article does not exempt water from the trade deals. Under current trade law, a nation cannot unilaterally attach conditions to an agreement without concurrent recognition by the other signatories explicitly agreeing to the exemption. The United States' government has not clearly recognized the Section 7 exemption. Therefore, given the following discussion it is submitted that water is included within the terms of the FTA and the NAFTA.

With regard to water, tariff heading 22.01 of the NAFTA includes:

> Waters, including natural or artificial mineral waters and aerated waters, not containing added sugar or other sweetening matter nor flavoured; ice and snow.

The Harmonized System[68] Explanatory Note for the heading states that:

> This heading... covers ordinary natural water of all kinds (other than sea water...). Such water remains in this heading whether or not clarified or purified.

When a trade panel considers the legal definition of the goods covered under a tariff heading, the focus is upon the wording of the heading itself, and the explanatory notes related to the heading.[69]

Any "good" encompassed within a tariff heading annexed to the FTA or NAFTA is subject to the rights and obligations established by the agreement. This legal obligation was clearly understood by the trade negotiators in light of the exemptions provided for raw logs and unprocessed fish.[70] In contrast, both the Canadian and American Tariff Schedules annexed to the Agreements included Tariff Heading 22.01 which covered all natural water except sea water with no regard for how it is packaged or transported.[71]

Article 201.1 of the FTA and NAFTA define "goods" as "domestic products as these are understood in the General Agreement of Tariffs and Trade...".[72] Thus, in order for water to be a "good" under the Agreements, it must be a "product" under GATT or otherwise agreed to be a good by the parties. A product under GATT must be "gathered, stored, bottled or otherwise packaged or delivered". Clearly, water in bottles or tankers would constitute a product. In light of the fact that oil or natural gas in a pipeline is a product, it would be reasonable to presume that water, under similar conditions, would also be deemed a product.[73]

Yet even more significant in this argument is the fact that recent legal studies have concluded that there is an international trend towards the treatment of water as a commodity. In addition, the NAFTA has established of a continental market which acknowledges water as a commodity.[74] As a Mexican resource economist concluded at the 1992 Vancouver water conference:

> ...as full fledged trade integration between the three members of North America strengthens, the economic force to include water among the list of tradable goods will tend to manifest itself...

> ... NAFTA...thereby increases the probability of contemplating a continental model of water trading to ameliorate Mexico's water problems and eventually strengthen its hydrological potential. An all-important implication of open commerce and free-trade is the salutary effect of this policy for an efficient resource allocation and use, among the member countries which conform the regional trade bloc. This factor leads inexorably toward a continental trade model for (admittedly nonstandard) goods like water.[75]

Given this understanding of commodities in trade law and the historical pattern of diversions established within the Great Lakes bioregion, what is the impact of NAFTA with respect to the waters of the Great Lakes ecosystem?

7.3.2 National Treatment

Article 301.1 of the NAFTA requires the signatories to accord National Treatment with respect to the trade of goods. National Treatment means that one country will accord another country identical treatment to that which it provides nationally. The purpose of this doctrine is to prevent a single country from utilizing domestic measures (taxes, laws, regulations, etc) to provide protection to nationals. Other article relevant to services and investment are discussed at a later point in the paper.

Controversy arises with regard to the obligations implied under the NAFTA, as compared to those of the GATT because GATT National Treatment does not apply to exports, investment, and services such as engineering and construction. These are new obligations assumed under the NAFTA and the FTA. Furthermore, the ability to use trade remedies under the NAFTA is confined. Article 309 of the NAFTA states that:

> no Party shall adopt or maintain any prohibition on the ... exportation .... of any good destined for the territory of another Party, except in accordance with Article XI of the GATT...

Article XI [Quantitative Restrictions] of the GATT prohibits the use of prohibitions and restrictions on exports and imports. Because the exceptions to Article XI are temporary in nature and recent trade decisions have emphasized a strict interpretation of the interrelationship of GATT Articles III [National Treatment] and XI [Quantitative Restrictions],[76] it is arguable that the exemptions from trade obligations do not apply to water exports.[77]

Applying this discussion to the Great Lakes, it is argued that the NAFTA will do little to assist Great Lakes governments to protect water resources. In fact, a number of arguments can be made establishing that NAFTA could undermine water resource protection measures. In addition, the national treatment provisions of the NAFTA will make it more difficult for Great Lakes governments to impose trade measures to discourage water exports, and more important, to encourage water conservation.

7.3.3 Furthering Water Exports

Article 314 of the NAFTA states that no Party shall implement a tax duty or charge on the export of any good, unless a similar charge is applied to domestic consumption. In other words, Canadian water exporters could not charge U.S. domestic consumers more than they were charging Canadian consumers, and visa versa. The implications are interesting.

Of course, one may argue that this scenario may force both domestic and export customers to pay the same for water. However, it may not force both domestic and export customers to pay the full cost of the water and infrastructure. In fact, it may avoid full cost pricing because:

- In Canada, water prices are the second most inexpensive in the world with the U.S. not far behind. At present, governments are loathe to charge the full cost of water. The refusal of the Canadian federal government to contribute to water infrastructure costs has led to a breakdown in provincial and federal relations this summer. The consequences of this has been the two governments have refused to negotiate a Canada/Ontario agreement which sets out all of their obligations in respect of the Great Lakes. Clearly, until the two levels of government address the apportionment of real costs associated with water, they will be vulnerable to charges of allowing subsidies. In fact, many hide water costs. Hence, by mandate, if water export customers to pay the same, they will be receiving a hidden subsidy. The low cost of water will make export an attractive option.

- What if a government constructed a pipeline for a community with polluted water? If the government wants to subsidize the water for that blameless community, do the exporters get the same benefit?

7.3.4 Water Conservation Efforts Threatened

In the Great Lakes basin, few governments have developed comprehensive and stringent water conservation regimes. What happens if one jurisdiction does develop a water conservation regime and others do not? National treatment suggests that there is nothing the exporting country can do to support their own water conservation programmes and encourage the receiving jurisdiction to undertake similar programmes which may discourage with the potential of plentiful, cheap water. The threat persists that attempts by one jurisdiction to further the conservation efforts of another would be deemed to be a disguised barrier to trade. Yet, the best defence against water export at this time remains encouraging and developing comprehensive conservation programmes within the province.

Clearly, the National Treatment obligations developed under the NAFTA pose a significant barrier for local or federal governments to inhibit the growth and development of water export infrastructure. This is to say, national treatment provisions encourage wasteful and inefficient uses of the water resource in the Great Lakes.

7.3.5 Proportionality

Article 315 and 316 of the NAFTA, commonly referred to as the "proportionality clause", states that the limited restrictions on exports which are allowed under GATT Article XI [Quantitative Restrictions] and XX [Exemptions] are allowed in the NAFTA only if they do not reduce the total proportion of that good made available for export over a 36-month period or another **negotiable period of time**. This clause applies to the export of all Canadian goods, including water. It should be noted that, the "other negotiable period of time" is new clause under the NAFTA, differing from its sister provision under FTA, that has not been clarified and may be of relevance during a period of water shortages.

Like national treatment, proportionality assumes that, regardless of the environmental consequences, export customers have to be treated or affected equally in comparison to the domestic customers. For instance, if the export customers were continuing to practice unsustainable practices, the exporting country could not reduce export except if the domestic users were equally affected. Not only is there no incentive to conserve, there is little room to reward conservation practices.

7.3.6 Limitations on Indirect Controls -- Investment, Services, Regulations, Standards

The NAFTA has effectively deprived its Parties of traditional trade measures used to protect natural resources. Therefore, it becomes necessary to examine indirect controls which could be manipulated by provincial, state or federal governments in attempting to regulate or control water export. However, upon examination, it is clear that the following provision would not provide sufficient protection for the Great Lakes:

- Article 1114, which relates investment activity and environmental concerns, is so loosely worded that it is not certain if the clause could be used to stop a proposed investment scheme.

- Because the Canadian government failed to exempt specific economic activities as did the Mexican government under Article 1101(2), Article 1106(1) prohibits a Party from imposing requirements on the establishment, acquisition, expansion, management, conduct or operation of the investment of an investor.

- Under Chapter 12, National Treatment is accorded to service providers. Therefore, governments are obligated to treat service providers, including water export companies, in an identical fashion.

- Article 1207 disallows Quantitative Restrictions on cross-border trade in services.

- Article 1208 commits the parties to liberalizing licensing and performance requirements.

Effectively, these provisions commit the parties to treating any developers, investors, or service providers in a similar manner. A Party could not discriminate against a foreign investor or developer in order to prohibit or regulate the development of a water export infrastructure.

7.3.7 Who Decides? Water and Decision-Making Under NAFTA

Although water marketing has the potential to improve the efficiency of water utilization, the trend has also weakened provincial and state obstacles to water transfer. The Center for International Environmental Law, based in Washington, noted that "[w]here ten years ago, it was virtually impossible to conceive how water would ever flow through the labyrinth of local laws necessary to complete a large-scale inter-basin transfer, now allocation is increasingly being conducted through the market."[78] Effectively, under the NAFTA the decision-making authority and ability to regulate water diversions has moved from the state, provincial and federal level to an trinational panel.

Chapter 20 of the NAFTA outlines the function and obligations of the trade panel. Important aspects of this process include:

- The trade panel will meet and make its decision in almost total secrecy.
- Final panel reports may be withheld.[79]
- In making a decision, the trade panel will consider the text of the agreement based upon their trade expertise.
- It is at the discretion of the panel to consider outside scientific expertise. The discretion is dependent upon the consent of both parties. Additionally, the outside evidence may only be provided with regard to questions of fact. However, either party may request a report by a scientific review board.[80]
- Only governments may raise complaints under the NAFTA; no citizen participation is permitted.[81]

Over the past 20 years, Great Lakes' organizations motivated by environmental concerns have developed effective networking links and lines of communications with the local and federal governments. The result has been the ability to participate and contribute to the development of water policy in the bioregion. The NAFTA will limit this ability to participate.

Disputes regarding access to a demanded resource will be heard before a secret trade panel, which will perform its own investigation or contract the services of a scientific review board. This limitation of the ability of interested parties to contribute to the decision-making process will result in the emphasis upon trade considerations to the exclusion of other relevant issues, including the environmental degradation experienced in the Great Lakes bioregion which

would inevitably result from the depletion of its water resources.

7.4 Summary and Conclusions

In a 1992 study, the Canadian Centre for Policy Alternatives drew several basic conclusions regarding the implications of the NAFTA for future water export, including:

- ... if a provincial government were to allow water removal from a stream or aquifer, there is every reason to believe that the access to or use of that water could not be restricted to Canadians.

- ... once a diversion or a river or stream is allowed, a pipeline approved, [or] a water tanker port established, there would be no obvious way for Canadians to reserve that water for use within Canada.

- ... the proportionality clause means that (under ordinary circumstances) once that water tap is opened, no Canadian government can force it closed.

These conclusions are controversial. It is not clear that the current provincial diversions and consumptive withdrawal projects will necessarily require reciprocal "national treatment" with Canada's trading partners. However, Ontarians have "turned on the tap" in the sense of developing and encouraging the consumptive uses of available water resources. Are these domestic uses and diversions now subject to the NAFTA? This question remains to be answered - by a trade panel.

In the larger picture however, the citizens of the Great Lakes bioregion are faced with a unique problem. The demand for water resources, specifically the fresh water resources of the Great Lakes, will increase as both Americans and Canadians search for alternatives to a quickly growing polluted water supply. By establishing "viable" interbasin diversion schemes and draining the Great Lakes' waters, the bioregion will be committed to a policy of encouraging environmental degradation and discouraging conservation efforts. The cycle will not be reversible under NAFTA.

8 SUMMARY AND CONCLUSIONS

In summary, this report has reviewed the provisions of NAFTA with a view to exploring its implications for the Great Lakes basin ecosystem. As noted in the introduction, the complexity of the agreement, the uncertainty of interpretation, and inability to anticipate with any degree of certainty how it will be applied, results in a general picture of the basin's future with NAFTA.

NAFTA is much more than a free trade agreement. It is an agreement of economic union, not unlike Europe's Maastricht Treaty. Consequently, nationalistic perspectives are difficult to ignore when discussing NAFTA. Debate often pits one country against another, focussing on which country gains and which country loses, in terms of jobs and economic prosperity. Rarely are trade negotiators concerned with the net global benefits or losses to the people, environment and economy, or in the case of the Great Lakes Basin, the implications for a bi-national region.

NAFTA takes a giant step backward by ignoring the principles of ecosystem planning and sustainability, and excluding the public from decision-making. It is clear that the years of creative thinking and research that have allowed the Great Lakes to evolve into a unique and progressive region have been ignored by federal governments.

In general terms, the following list of implications can be concluded:

Consumption versus Sustainability

The principles of NAFTA run contrary to the principles of sustainability since the trade agreement encourages resource trade and consumption whereas sustainability is aimed at conservation of resources. Will countries truly be able to use sustainable development as a "legitimate objective" in maintaining high standards for environmental protection and resource conservation, or will NAFTA undermine this goal?

Local Decision-Making versus Regional Decision-Making

NAFTA will undermine the ability of federal, state and provincial governments to develop, establish and enforce environmental standards and programs.

Harmonization versus Local Conditions

Often, the issue of harmonization is dealt with in the context of ensuring standards become similar between various jurisdictions. One perspective of this issue is that the agreement does not take into account particularly ecologically sensitive areas, such as the Great Lakes. In effect, the legal and policy framework governing the Great Lakes that recognizes this "uniqueness" is at risk.

Migration of Industry Versus Clean Production

By removing barriers to trade, it becomes much easier for industry to move at will. Where environmental compliance costs, and other costs such as labour, are lower, it can be expected (and history has shown under the Free Trade Agreement) that industry will migrate to the areas of lower costs. In other words, there is a direct link between trade and pollution havens. This has created the ironic situation in that the greater the protection there is for workers and the environment, the greater the propensity to migrate to areas of less regulation.

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3. Royal Commission on the Future of Toronto's Waterfront; *Regeneration: Toronto's Waterfront, and the Sustainable City: Final Report*, Supply and Services Canada, 1992.
4. *Ibid*, pg 77.
5. Sustainable Society Project, *Defining A Sustainable Society: Values, Principles and Definitions*, University of Waterloo, 1990.
6. Canadian Environmental Law Association, *The Environmental Implications of Trade Agreements*, 1993.
7. New York: Avon, 1981.
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9. Crane, David "Forging a Great Lakes Community" The Toronto Star, August 14, 1993, Page 1.
10. McMillan, Alan; *Native Peoples and Cultures of Canada*, Douglas & McIntyre, Vancouver, 1988.
11. *Ibid.*
12. Federal Reserve bank of Chicago, op. cit. pg 24.
13. *Ibid*, p. 52.
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17. See: H.A. Regier, "progress with Remediation, Rehabilitation and the Ecosystem Approach", in Alternatives, vol.13/no.3, Sept/Oct. 1986, pp 47-54.
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19. "Trilateral Bodies Mark New Direction for Trade Deal - Commission Given Limited Powers" Globe and Mail, September 7, 1993.

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22. The three Treaties listed are the; *Convention on International Trade in Endangered Species* (CITES), the *Montreal Protocol on Substances that Deplete the Ozone Layer,* and the *Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Substances*

23. C.R.B. Rolfe, West Coast Environmental Law Association, "Effects of the North American Free Trade Agreement on the Environment and the Regulation of the Environment in Canada" Submission to the House of Commons Sub-Committee on International Trade, February 15, 1993, p. 20.

24. Charnovitz, Steve, "The Regulation of Environmental Standards by International Trade Agreements" in *International Environment Reporter* August 25, 1992.

25. Article 712.1

26. Article 904.

27. Charnovitz, supra, at 10068.

28. See: Corrosion Proof Fittings v EPA 947 F2d 1201 (5th Cir. 1991), Government of Canada, pp 16-19.

29. Ontario Ministry of the Environment, *Candidate Substances List for Bans or Phase-Outs;* Ontario: Queen's Printer, 1992.

30. Article 712.5 states that measures are applied to the extent necessary to achieve their "appropriate level of protection."

31. Articles. 756-757 SPS; 906 TBT

32. Makuch, Zen, "A Preliminary Environmental Evaluation of NAFTA" (Canadian Environmental Law Association), p.2

33. World Commission on Environment and Development Our Common Future (London: Oxford University Press, 1987).

34. NAFTA, article 301.

35. See: NAFTA, articles 302 and 309. Similarly, NAFTA prohibits all three countries from applying export taxes unless such taxes are also applied on goods to be consumed domestically.[Article 309]

36. It should be noted that article 2101 of NAFTA states that:

> The Parties understand that the measures referred to in GATT Article XX(b) include environmental measure necessary to protect human, animal or plant life or health, and that GATT Article XX(G) applies to measure relating to the conservation of living and non-living exhaustible natural resources.

This section does not unequivocally provide an exception status to environmental protection and resource conservation measures. Moreover, the exceptions are only operative if "necessary," which could well work against legitimate environmental objectives.

37. Canada-U.S. Trade Commission Panel, In the Matter of Canada's Landing Requirement for Pacific Coast Salmon and Herring, 1989.

38. M. Swenarchuk, "Canada-US Free Trade Agreement: The Canadian Experience" in Review of European Community and International Environmental Law, vol. 1, #1, 1992, p. 44.

39. United States -- Restrictions on Imports of Tuna, GATT Doc. DS21R/R (September 3, 1991).

40. Makuch, p. 1.

41. NAFTA, Article 315 and 316.

42. see Article 105 of NAFTA. This position is weaker under the Technical Barriers to Trade provisions, Article 902.

43. Attorney General of Ontario, Legal Analysis of the Canada-U.S. Free Trade Agreement (May, 1988), p. 9.

44. APHIS, "A Framework for Regionalization", p.2 (May 1992). Presented to the International Office of Epizootics Regional Commission for the Americas on March 18-20, 1992. Although the statement was presented in the context of trade in animals and animal products, this general philosophy historically formed the basis of American trade.

45. Canadian Centre for Policy Alternatives, *Which Way for the Americas: Analysis of NAFTA Proposals and the Impact on Canada*, November, 1992.

46. Pollution Probe, *True Cost of the Car*, 1992.

47. See, *The Environmental Implications of Trade Agreements*, prepared by the Canadian Environmental Law Association for the Ontario Ministry of the Environment and Energy, 1993, for a detailed discussion of the softwood lumber disputes.

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50. Saunders, J. Owen, *Energy, Natural Resources and the Canada-United States Free Trade Agreement*, Journal of Energy and Natural Resources Law, Vol. 8, No. 1, 1990.

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52. Matter of Lobsters from Canada - U.S., 2 Trade and Tariff Reports 72 at paras. 7.20 - 7.20.4.

53. Great Lakes United, News Release, February 22, 1993.

54. *Ibid.*

55. Alexander, Carol and Ken Stump, *The North American Free Trade Agreement and Energy Trade*, Greenpeace, 1992.

56. Data used in this section is from the National Energy Board document, *Canadian Energy Supply and Demand 1990-2010*, June 1991. It is interesting to note that in this detailed 400 page analysis of future energy supply and demand, neither the FTA nor NAFTA is even mentioned.

57. Alexander, op. cit. p. 10

58. Sanders, O.J. *Energy, Natural Resources and the Canada-United States Free Trade Agreement*, Journal of Energy and Natural Resources Law, Vol. 8, No. 1.

59. Ibid, p. 10.

60. Article 606.2

61. Based on a discussion in: Ontario Global Warming Coalition, *Degrees of Change: Steps Toward an Ontario Global Warming Strategy*, prepared for the Ontario Ministries of the Environment and Energy, June 1991.

62. Advertisement for Water Conference, Aqua'92.

63. Refer to John Walley, Canada's Resource Industries and Water Export Policy (Toronto; University of Toronto Press) 1986 at pp.183-9 for a review of the six major projects, which include: the North American Water and Power Alliance (NAWAPA), the Central North American Water Project (CeNAWP), the Kuiper Diversion Scheme, Western States Water Augmentation Concepts, the Magnum Diversion Scheme, and the Great Recycling and Northern Diversion (GRAND) Canal.

64. J.C. Day and Frank Quinn, Water Diversion and Export: Learning from Canadian Experience (Department of Geography Publication Series No. 36, Department of Geography, University of Waterloo) 1992.

65. The Great Lakes Institute at the University of Windsor predicts that the Greenhouse Effect could cause water levels in the Great Lakes to decrease by as much as 75 cm by the year 2035.

66. Jon Johnson, "Water Exports and Free Trade: Another Perspective" in A.L.C. de Mestral and D.M. Leith (eds), Canadian Water Exports and Free Trade (Ottawa; Rawson Academy of Aquatic Science) December 1989 at 36.

67. Bill C-2, "An Act to Implement the Canada-United States Free Trade Agreement", section 7(1). Article 401 deals with the elimination of tariffs on goods.

68. The Harmonized Commodity and Coding Description System, signed at the 1983 International Convention, is a system for import classification adopted by many countries, including Canada and the United States.

69. Mel Clark and Don Gamble, "Water Exports and Free Trade" in A.L.C. de Mestral and D.M. Leith (eds), Canadian Water Exports and Free Trade (Ottawa; Rawson Academy of Aquatic Science) December 1989 at 8-9 in which it is noted that Interpretative Rule 1 for interpreting the Harmonized System states "The Sections, Chapters and Sub-Chapters are provided for ease of reference only; for legal purposes, classification shall be determined according to the terms of the headings and any relative Section or Chapter Notes". Thus, Mr. Crosbie's contention in the Montreal Gazette that the schedules only refer to water under the "Beverage, Spirits and Vinegar" Chapter is a misstatement. The General Rules for the Interpretation of the Harmonized System, listed in North American Free Trade Agreement, Schedule Part A, p.8.

70. North American Free Trade Agreement, Minister of Supply and Services Canada, 1992, Annex 301.3, Section A, items 1. and 2.

71. James Linton, "Water Export: The Issue that Won't Go Away" 5 (56) Canadian Water Watch [May-June 1992] at 49.

72. Reference can be made to the full definitions in Article 201.1 of the FTA and Article 201 of NAFTA in which goods of a Party means domestic products as these are understood in the General Agreement on Tariffs and Trade or such goods as the Parties may agree, to include originating goods of that Party.

In the GATT, Annex I regarding Article XVII (State Trading Enterprises) it is noted that "The term 'goods' is limited to products as understood in commercial practice, and is not intended to include the purchases or sale of services". Furthermore, Article II notes that products under the GATT are defined in the Schedule, Part I and II. Finally, trade law has proceeded to interpret the terms "product" and "good".

73. Johnson, at 28-9; Compounding the issue, the signatories to the NAFTA have acknowledged that water is a "good". The 1992 Statement of the International Conference on Water and the Environment held as a basic principle that "[w]ater has an economic value in all its competing uses, and should be recognized as an economic good." Canada was a signatory to the statement.

74. Jamie Linton, "NAFTA & Water Exports: Submissions to the Cabinet Committee on NAFTA of the Government of the Province of Ontario" (Rawson Academy of Aquatic Science, April 1993).

75. Roberto Salinas Leon, Academic Director, Centre for Free Enterprise Research, Mexico City, "Water and North American Free Trade: Problems and Prospects for a Viable Water Market in Mexico", in J.E. Windsor (ed.) Water Export: Should Canada's Water before Sale?, Proceedings of a Conference held in Vancouver, B.C., May 7-8, 1992, Canadian Water Resources Association, 1992, pp.181-205.

There is also a developing body of literature to support this position; refer to "The First Commodity", The Economist, March 28, 1992.

76. In the Salmon and Herring decision, it was held that the conservation measure used to protect the natural resource constituted a disguised barrier to trade. Upon subjective analysis the panel determined that the absolute requirements of the Canadian government constituted a disguised barrier. However, the panel concluded that they would entertain modifications to the requirements that would be more appropriate for conservation purposes. Thus, the panel established jurisprudence supporting a GATT determination of an "appropriate" environmental standard in light of trade requirements.

In Dolphin/Tuna the panel considered international trade law obligations, but could not compare the obligations with competing international environmental obligations. The MMPA was domestic legislation, and was not supported by an international covenant. Some authorities have suggested that while a country cannot use restrictive trade practices to impose domestic environmental standards on another nation with different environmental laws, it might be possible to utilize trade measures if there was a concurrent international

environmental obligation which could be said to modify the GATT obligation.

77. A.L.C. de Mestral, p.105.

78. Center for International Environmental Law, "Interbasin Water Transfers After NAFTA: Is Water a Commodity or Ecological Resource?", Draft Working Paper, Washington, DC, December 20, 1992, p.20.

79. NAFTA, Article 2017(4).

80. NAFTA, Article 2015.

81. David Hunter and Paul Orbuch, "Interbasin Water Diversions After NAFTA" (Center for International Environmental Law; Washington, no date) at 12.

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