

The Argus II Building □ 400 Fourth St., Ann Arbor, Michigan 48103-4816 Office (313) 665-9135 □ Fax (313) 665-4370 □ E-Mail GLC@Great-Lakes.CIC.Net

EXECUTIVE DIRECTOR MICHAEL J. DONAHUE, Ph.D.

December 1994

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Pennsylvania Dept. of Environmental Resources Harrisburg, Pennsylvania

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JOSEPH K. HOFFMAN Pennsylvania Dept. of Environmental Resources Harrisburg, Pennsylvania

NATHANIEL E. ROBINSON Wisconsin Dept. of Administration Madison, Wisconsin Dear ADVISOR Reader:

I am pleased to present the enclosed Ecosystem Charter for the Great Lakes-St. Lawrence Basin. The Charter sets forth a shared vision for the Great Lakes-St. Lawrence Basin and a series of guideposts to achieve it. As a series of commonly held principles, findings and related action items to guide ecosystem management in the Great Lakes-St. Lawrence Basin, the Charter is a landmark document for the ecosystem approach, both regionally and globally.

As director of the Indiana Department of Natural Resources and the newly elected chair of the Great Lakes Commission, I will personally find it of value in my own activities. I trust you will also find it valuable for information/education, coordination and advocacy purposes.

The Charter's principles were drawn initially from a review of over 60 treaties, laws, policies and other agreements in the Great Lakes-St. Lawrence Basin and beyond. Preparation of the document was spearheaded by a drafting committee comprised of representatives from various public and non-governmental agencies and organizations throughout the Basin. Charter language was refined through an inclusive process, including two basinwide public comment periods, numerous state roundtables, workshops and presentations to individual organizations. During this process, hundreds of comments were received and incorporated into the final Charter.

By design, the Ecosystem Charter is "owned and operated" by the entire community of interests that subscribes to its principles. I thank all the members of the Great Lakes-St. Lawrence Basin community that participated in this very ambitious project.

Over 75 agencies, organizations and jurisdictions have already endorsed the Charter, including local, state, regional and federal agencies; tribal authorities; citizen-based environmental and conservation groups; business and industry interests; universities; research institutions and others. These are listed in the Charter addendum. If your agency or organization has not already done so, we encourage you to join with the many others in endorsing the Charter by completing and returning the enclosed Signatory Response Form at your earliest convenience. Your agency/organization name and associated statement will be added as the addendum is updated. Also, multiple copies of the Charter are available at no charge from the Great Lakes Commission.

In presenting the Charter to you, I emphasize that it is a "living document;" it will be reviewed and updated over time. Broader consensus is desired, for example, on some principles and emerging policy developments will need to be accommodated. If you wish to participate in future efforts to review/revise the Charter, please so indicate on the attached form. Should you have any questions or desire additional copies of the Charter, please contact Mike Donahue or Victoria Pebbles at 313-665-9135.

I look forward to working with you in pursuit of an ecosystem approach to management in the Great Lakes-St. Lawrence Basin.

Sincerely

Patrick R. Raltson

Chair

orderly, integrated and comprehensive development, use and conservation of the water resources of the Great Lakes

Established in 1955 by interstate compact "to promote the

Basin.''

## **SIGNATORY RESPONSE FORM**

### - AN ECOSYSTEM CHARTER FOR THE GREAT LAKES-ST. LAWRENCE BASIN -

INTRODUCTION: The Ecosystem Charter for the Great Lakes-St. Lawrence Basin is a statement that summarizes commonly held principles for pursuing an "ecosystem approach" to Great Lakes-St. Lawrence Basin management. Any government agency, or non-governmental organization that subscribes to these principles is invited to be a signatory. Signatories agree to use the Charter as guidance in developing their own work plans and priorities, as a means to enhance communication and cooperation with others, and as a means for assessing progress toward a shared vision for the future. The Charter is a non-binding "good faith" agreement; it does not replace or affect implementation of existing laws, agreements and policies. Rather, it showcases these initiatives in the spirit of promoting an ecosystem approach to Great Lakes-St. Lawrence Basin management.

workplans, implementation activities or advocacy efforts, etc.)	
SIGNATORY STATEMENT:	
☐ My agency/organization would like to be involved in future review/revision of Please contact us with further details.	the Charter.
Name:	
Affiliation:	
Address:	

Endorsements will be accepted on an ongoing basis.

Please complete and return to: Great Lakes Commission 400 Fourth Street Ann Arbor, MI 48103-4816

Ph: 313-665-9135, Fax: 313-665-4370, Email: glc@great-lakes.net

## Portage Land Association for Conservation and Education (PLACE)

PLACE applauds the vision of the Ecosystem Charter for the Great Lakes-St. Lawrence Basin. We will use it as a foundational document to educate our members, fellow citizens and leaders of the importance of working towards a sustainable society.

#### St. Joseph River Basin Commission-Indiana

Saint Lawrence Aquarium & Ecological Center Inc.

#### Saint Lawrence-Eastern Ontario Commission

The Charter formalizes in writing the philosophy the Commission has pursued informally. The explicit statement of the ecosystem approach will be incorporated in the Statement of Commission Philosophy, Annual Work Program, and other documents used in the management of the resources of the Great Lakes-St. Lawrence Ecosystem.

## **Saint Lawrence Economic Development Council (SODES)**

The mandate of the St. Lawrence Economic Development Council (SODES) is to represent the St. Lawrence maritime community and promote its economic interests. SODES endorses the Charter's Vision and supports Principles I,V,VI,VII, IX, X, XI, XII, XIV, XV and XVI. Since SODES believes that economic concerns and St. Lawrence issues are not fully reflected in all the principles and supporting statements, it can give only partial support to the Charter. SODES looks forward to working with Great Lakes and St. Lawrence Basin interests in addressing these issues of concern and thereby improving the Charter in the future.

#### Saint Lawrence Seaway Development Corporation

Sault Ste. Marie Tribe of Chippewa Indians

#### Save the Dunes Council

The Save the Dunes Council is a conservation organization founded in 1952 to preserve and protect the Indiana Dunes for public use and enjoyment. We support the concepts outlined in the Ecosystem Charter, recognizing the importance of an ecosystem approach to resource management. A tremendous opportunity exists in the Great Lakes Basin to maintain biodiversity and to restore degraded areas, while promoting sensible economic development. The Ecosystem Charter can serve as a road map for this effort. The Save the Dunes Council intends to utilize these principles as we build consensus for sustainable development in Northwest Indiana.

#### Seaway Review

Seaway Review has covered maritime issues in the Great Lakes-St. Lawrence Basin for 25 years. Over that period the magazine has always believed that environmental stewardship and economic growth are compatible goals for the region. The Ecosystem Charter for the Great Lakes-St. Lawrence Basin represents an affirmation of this position and proof that, working together, all stakeholders in the Great Lakes-St. Lawrence Basin can find consensus. Seaway Review enthusiastically endorses the letter and spirit of the Charter and will be fully supportive of its use as a guideline in future policy development.

#### Sigurd Olson Environmental Institute

(See Northland College for statement)

State University of New York, Albany

State University of New York, Buffalo, Office of Vice President for Research

State University of New York, Central Office

#### **Trout Unlimited**

University of Minnesota, College of Natural Resources

University of Toronto, Institute of Environmental Studies

#### U.S. Coast Guard, Ninth District

The Ninth District of the United States Coast Guard is responsible for marine safety and marine environmental protection in all of the United States waters of the Great Lakes and St. Lawrence Basin. The Ninth District is both a provider of services to, and a regulator of waterborne commerce and recreation in the Great Lakes. The basic principles of the Charter, which recognize both the right to use the resources of the lakes and the responsibility to preserve the integrity of the lakes, serve as a good summary of the competing principles which the Ninth District observes when balancing its service and regulatory missions in an increasingly complex ecological, economic and political environment.

## U.S. Department of Agriculture, Soil Conservation Service

## U.S. EPA Office of Superfund, Emergency Response Section (Grosse Ile, MI)

#### U.S. Fish and Wildlife Service, Regions 3 & 5

The Ecosystem Charter will support the goals, objectives, and action strategies the U.S. Fish and Wildlife Service is developing in the Great Lakes Ecosystem Plan. The two documents are complementary and good vehicles toward solidification of strong partnerships. We share a goal of sustainable development for the Great Lakes, and believe the Charter principles facilitate sound resource management decisions.

#### Waterfront Regeneration Trust (Toronto)

The Charter confirms the fundamental and inextricable linkage between economic activity and the environment, that everything is connected and that people are part of nature and not separate from it. It follows that we are responsible for our actions to ourselves, to other people, to other generations and to other species. The Trust will use the Charter as a guiding context for our work on the North shore of Lake Ontario. Stewardship of this magnificent and invaluable resource is basic to our environmental health, economic well-being and quality of life.

#### Wayne State University

#### **Muskegon County Soil Conservation District**

National Association of Conservation Districts, North Central Region

The 189 conservation districts in the Great Lakes-St. Lawrence Basin have been working since the late 1930s to correct land and water abuses from mankind's activities. Districts recognize the delicate balance that exists in this natural system and the need for economic activities that often upset this balance. Districts will find the 17 principles an excellent starting point in refining the work they began over 50 years ago.

#### National Biological Survey, Great Lakes Science Center

National Park Service, Midwest Region

The Charter's vision statement and principles clearly support and reinforce the mission of the National Park Service in the Great Lakes-St. Lawrence Basin. It is with much satisfaction, therefore, that the National Park Service becomes a signatory to this Charter. We welcome the opportunity to work closely with other Charter signatories in pursuing an ecosystem management approach in the Great Lakes-St. Lawrence Basin.

#### Nature's Niche: Citizens for Sustainable Re-creation

Nature's Niche advocates interdependence and mutuality in all relationships. The Charter exemplifies these ideals of integrative complementarity. Currently, there is much excitement and hope for an emerging ethos of global responsibility for which the Charter is a catalyst.

A highlight for Nature's Niche in 1993 was participation in the nine day event of the Council for a Parliament of the World's Religions, held in Chicago, Illinois. To date in 1994, attention has principally focused upon collaboration with Jean Feraca of Wisconsin Public Radio's Ideas Network. The Charter's effort to meld ecological fittedness with spirituality is an over-arching ideal of all citizens who embrace sustainable re-creation.

New York Delegation to the Great Lakes Commission

The New York State delegates to the Great Lakes Commission support the concept and the process for developing an Ecosystem Charter for the Great Lakes/St. Lawrence River Ecosystem and the Vision statement included in the Charter. We recognize that the Principles and the Findings are the basis for discussion on how the Charter could be implemented in the Great Lakes Basin and that continuing discussions among agencies and stakeholders will provide the communication needed to gain consensus on addressing the Ecosystem Charter in New York State.

#### **New York Rivers United**

New York Rivers United believes the Ecosystem Charter for the Great Lakes-St. Lawrence Basin provides an excellent basis for enhancement and maintenance of all aspects of the Basin Ecosystem. The principles set forth in the Ecosystem Charter will assist us in setting goals for our activities in conservation, restoration and enhancement of New York State's river systems.

Northland College

Northland College and its Sigurd Olson Environmental Institute endorse the Ecosystem Charter for the Great Lakes Basin because its principles parallel our interest in, and commitment to, partnerships dedicated to positive solutions of problems. Northland is a college of about 800 students who come from 45 states and ten other countries to study at its campus near the shores of Lake Superior in Ashland, Wisconsin. Founded in 1892 in the cutover Northern forest, the College has always been committed to the liberal arts as the appropriate tool for understanding the world. For a generation now, since 1971, it has added an institutional emphasis on the environment -- across both traditional and innovative curricular programs and as caretakers of a physical environment that extends beyond Northland College's campus. The Sigurd Olson Environmental Institute has, since 1972, been the environmental outreach arm of Northland College working in areas of environmental education, fresh water and forest ecosystems education and involvement.

#### Northwest Indiana Forum, Inc.

The Northwest Indiana Forum is pleased to endorse the Ecosystem Charter, and would like to suggest several issues for future discussions concerning ecosystem issues. As outlined in our correspondence of September 29, 1994, we suggest future discussion concerning tenet 4 of the vision statement, monitoring programs referenced in Principle III, Lakewide Management Plans referenced in Principle IV, the financing of research referenced in Principle VI, and pollution prevention referenced in Principle VI.

Northwest Michigan Resource Conservation & Development Council, Inc.

Ohio Coastal Resources Management Project, Inc.

The Ohio Coastal Resource Management Project (OCRMP) will use the principles outlined in the Charter as we approach public policy issues relating to the Lake Erie Basin from a citizen perspective. The vision statement reflects the increasing common interest each user has in this resource of statewide, regional and national importance. OCRMP will use the Charter to increase public knowledge and understanding of coastal issues, to promote stewardship of Ohio's north coast through systematic analysis of resource issues, and to develop and recommend solutions to existing management problems. It is time for all of us to work together to put these principles into practice, taking practical steps toward an ecosystem approach to restore and enhance the integrity of the Lakes and to direct our efforts toward sustainable development.

#### Ontario Federation of Anglers and Hunters

Pennsylvania Delegation to the Great Lakes Commission

Pennsylvania Fish and Boat Commission

Pine Grove Township (Van Buren County) Michigan

The Ecosystem Charter for the Great Lakes-St. Lawrence Basin is a document which shows understanding of the system, what needs to be done to correct problems and prevent harm now and in the future, and gives relatively clear directives about the processes required to carry out the plan in the form of information, education and public participation. It is up to each of us now not to put the document on the shelf, but rather to use it as our guide in every action pursued in our State: if our action does not help the ecosystem, we at least have to make sure our actions do not hurt the ecosystem. We wholeheartedly endorse the Charter.

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## Indiana University-Bloomington, School of Public and Environmental Affairs

## International Great Lakes St. Lawrence Mayors' Conference

The International Great Lake St. Lawrence Mayors' Conference was established in 1987 to provide a forum for discussion and advocacy on economic and environmental issues pertaining to the Great Lakes St. Lawrence River system. These world-class water resources provide a common bond among the shoreline communities and an opportunity for local units of government to participate in relevant resource policy development. For this reason, the Mayors' Conference is pleased to be an Ecosystem Charter signatory. The Mayors' Conference adopted a resolution on September 15, 1994 endorsing the Charter, recognizing it as among "the first steps toward the principles of a true ecosystem approach to management."

#### Izaak Walton League, Minnesota Division

#### Kahnawake Environment

#### Kent Environmental Council

The Kent Environmental Council enthusiastically endorses the principles affirmed in the Ecosystem Charter. We are engaged in a study of the vital signs and indicators of sustainable development as they would apply in our immediate locale, and will publish our findings in an effort to strengthen and unify the movement in support of ecological integrity in Kent and Portage Counties.

#### **Keweenaw Bay Indian Community**

#### Lake Michigan Marina Development Commission

Lake Michigan Marina Development Commission, a commission of mayors from Indiana's shoreline cities of Hammond, Whiting, East Chicago, Gary, Portage and Michigan City, was established by the Indiana General Assembly ten years ago to spur marina and economic development along the state's shoreline on Lake Michigan and two navigable tributaries. The Marina Commission recognizes that preservation of the natural environment, improvement of water quality and sustainable development are inherent in successful marina development and critical to human health and well-being. The Marina Commission endorses the concepts that are set forth in the Ecosystem Charter and looks to them to serve as a benchmark for assessing progress and providing guidance for future efforts on the Indiana shoreline and throughout the Great Lakes/St. Lawrence Basin.

#### **Lake Superior Center**

Lake Superior Center seeks to engage large numbers of the general public and make them responsive to the economic, recreational, biological, aesthetic and spiritual worth of Lake Superior. This is done with the belief that the creation of a "public will" is essential along with research and regulation in the future of Lake Superior. This is done through exhibits, trips and programs. No affinity for the Lake is assumed in the audience. We seek to expand the "family" rather than only address kindred spirits.

The Ecosystem Charter for the Great Lakes-St. Lawrence Basin is consistent with the the view that Lake Superior Center holds for the Basin. Principle XVI and VII are statements and methods that are specific areas of performance for Lake Superior Center.

## Land and Water Systems Partnership (Institute for Water Research, Center for Remote Sensing, Michigan State University)

League of Women Voters of Michigan

The League of Women Voters of Michigan sees the Ecosystem Charter as an important step in promoting an ecosystem approach to management. Its ultimate significance depends upon its use by the signatories and others. LWV will use it as a starting point in advocacy on Great Lakes issues. The open and cooperative process by which the Ecosystem Charter was drafted should serve as a model for future Great Lakes efforts.

#### League of Women Voters of Minnesota

League of Women Voters of New York

Michigan Association of Conservation Districts

Michigan Attorney General's Office

Michigan Delegation to the Great Lakes Commission

Michigan Environmental Defense

## Michigan State Section, American Water Resources Association

The Michigan State Section of the American Water Resources Association (AWRA) will support and promote the Ecosystem Charter for the Great Lakes-St. Lawrence Basin by ensuring that the Section's activities are consistent with the Charter and by providing a forum where issues related to the Charter can be discussed and debated. The Michigan State Section of AWRA will advance the principles of the Charter by promoting water resources education, research and management, by collecting and disseminating information, knowledge and data concerning all aspects of water resources and by fostering the rational and objective promotion, development, utilization and management of Michigan's water resources. The Michigan State Section of AWRA will network and cooperate with appropriate governmental institutions, private interests and other water resources organizations interested in promoting and advancing the Great Lakes Ecosystem Charter for the Great Lakes-St. Lawrence Basin.

#### Michigan State University Extension

Minnesota Delegation to the Great Lakes Commission

#### Minnesota Department of Natural Resources

#### Minnesota Sea Grant

The Charter will be a valuable educational tool for Minnesota Sea Grant. Much of the strength of the Ecosystem Charter lies in the very process of its initial creation. As a consensus document, it reflects the fact that very diverse interests were able to come to agreement on sound ecosystem management principles for the Great Lakes-St. Lawrence Basin. Given the complexity of the many layers of government, initiatives, and regulations affecting the region, the Charter provides a necessary central framework from which to evaluate the success of our efforts to maintain and improve the environmental quality of the Great Lakes-St. Lawrence Basin.

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# An Ecosystem Charter for the Great Lakes-St. Lawrence Basin ADDENDUM

#### SIGNATORIES AND STATEMENTS

November 7, 1994

The following is a listing of agencies and organizations that have signified their endorsement of the Ecosystem Charter. By signing, they agree to use the Charter as guidance in the development of their work plans and priorities, as a means to enhance communication with others, and as a means for assessing progress toward a shared vision for the Great Lakes-St. Lawrence Basin Ecosystem. Signatories will pursue principles and related actions that are consistent with their individual mandates and priorities and within available resources.

This listing represents signatories to date. It will be periodically updated to include additional signatories (and associated statements) secured over time. Signatories recognize that the Ecosystem Charter is a "living document" that will be periodically reviewed and revised in the interest of both expanding the breadth of the community of signatories, and addressing evolving Basin issues and needs.

**Bruce Trail Association** 

**Canadian Shipowners Association** 

Canandaigua Lake Watershed Task Force

#### Center for a Sustainable Great Lakes

The Ecosystem Charter for the Great Lakes-St. Lawrence River Basin is an important document which adds to the understanding of "ecosystem approach" to management within the Great Lakes-St. Lawrence River Basin Ecosystem. Our preference would be that a "human ecosystem approach" be taken that would focus on the management of human activities within the Basin to insure the long-term sustainability of the Great Lakes-St. Lawrence River Basin Ecosystem as a definable human ecosystem. With such an approach the issues related to "sustainable development" become moot. The Charter is a good beginning. It needs to be revisited and revised as our understanding of the relationship between people and the Great-St. Lawrence River improves.

**Chocolay Watershed Project, Marquette Conservation District** 

City of Monroe, Michigan (Water Department)

**Conserver Society of Hamilton District** 

#### **Ducks Unlimited Canada**

For the past 20 years Ducks Unlimited Canada has been a leader in conserving Great Lakes coastal wetlands. These are among the Continent's most important environments which have suffered significant damage due to improper water regulation, dyking, introduction of exotic species and pollution. The rehabilitation and management of these habitats will continue to be of the highest priority for Ducks Unlimited Canada.

**Ecology and Environment, Inc.** 

**Ecovision Associates** 

**Erie-Western Pennsylvania Port Authority** 

**Freshwater Foundation** 

Global Tomorrow Coalition

Grand Traverse Band of Ottawa and Chippewa Indians

**Grand Traverse Bay Watershed Initiative** 

Grand Valley State University Water Resources Institute

Great Lakes Environmental Research Laboratory, National Oceanic and Atmospheric Administration (NOAA)

#### **Great Lakes Pollution Prevention Centre**

The Ecosystem Charter for the Great Lakes/St. Lawrence Basin reflects the concepts essential for the prevention of pollution. As a living document, it offers a focus for all sections of society to take action towards a conscious goal based on a single set of fundamental principles.

Great Lakes Tomorrow (U.S. Directors)

Griesinger Films, Inc.

The Ecosystem Charter is a revolutionary document. Griesinger Films supports every effort to operationalize sustainability. We will continue to provide video productions that help establish the intellectual ecological/economic underpinnings for a healthy biosphere.

#### **Huron River Watershed Council**

To achieve this vision for the Great Lakes, the principles of this Charter must be applied to each smaller component of the ecosystem. These principles will guide the Huron River Watershed Council's efforts to restore and protect the ecological integrity of the Huron River system--a tributary to Lake Erie and the Great Lakes-St. Lawrence Basin.

Illinois Delegation to the Great Lakes Commission

Illinois-Indiana Sea Grant Program, University of Illinois

Indiana Delegation to the Great Lakes Commission

**Indiana Department of Natural Resources** 

#### Glossary

beneficial organisms: Organisms inhabiting the Great Lakes-St. Lawrence Basin Ecosystem that are not known to threaten ecosystem integrity or otherwise have any harmful impacts on the Ecosystem or the beneficial uses of ecosystem resources.

beneficial uses: Those activities that are dependent on the chemical, physical and biological integrity of the waters of the Great Lakes system; the impairment of which is identified under Annex 2 of the Great Lakes Water Quality Agreement.

bioaccumulative: Any substance that has the ability to bioaccumulate, where bioaccumulate means the retention of a chemical in the tissues of an organism as a result of uptake from all routes of exposure (i.e., absorption, consumption).

biological diversity/biodiversity: The full range of variety and variability within and among living organisms and the natural associations in which they occur.

ecological processes: The flow of energy and nutrients (including water) through an ecosystem.

ecosystem: An interacting system consisting of groups of organisms and their non-living or physical environment, which are highly interrelated.

ecosystem approach: An approach to perceiving, managing and otherwise living in an ecosystem that recognizes the need to preserve the ecosystem's biochemical pathways upon which the welfare of all life depends in the context of multifaceted relationships (biological, social, economic, etc.) that distinguish that particular ecosystem.

ecosystem-based management: Stewardship of our living natural resources to maintain the functional integrity of large, complex environmental units called ecosystems. Ecosystem-based management is an active process that emphasizes the maintenance of biological diversity, of natural relationships among species, and dynamic processes that make ecosystems sustainable.

ecosystem integrity: The ability of an ecosystem to maintain its organization (i.e., structures, processes, diversity) when confronted with environmental disturbance and change.

Great Lakes-St. Lawrence Basin: The watershed, including all land and freshwater (both surface and ground water) within the confines of the drainage area defined by topographic high points surrounding the five Great Lakes and the St. Lawrence River to Beaunté. Oubec.

Great Lakes-St. Lawrence Basin Ecosystem: The interacting system consisting of groups of organisms and their non-living or physical environment, which are highly interrelated, as it pertains to the Great Lakes-St. Lawrence Basin. hydrologic system: A group of interrelated surface and ground water bodies or forces within the same drainage basin.

integrated, multi-resource approach: Collaborative management (e.g., rehabilitation, protection) by individuals with expertise in all relevant fields of ecosystem resources with full recognition of the interdependence of such resources.

naturalized species: A species adapted to an environment outside its normal historic range.

nonindigenous/non-native species: A species that enters an ecosystem beyond its historic range. These species also are known as "exotic."

nonindigenous nuisance species: A nonindigenous species that threatens the diversity or abundance of native species or otherwise threatens ecosystem integrity or commercial, agricultural and/ or recreational activities dependent on it.

persistent toxic substance: Any substance that can cause death, disease, behavioral abnormalities, caree; genetic mutations, physiological or reproductive multiractions or physical deformities in any organism or its offspring; or which can become poisonous after concentration in the food chain or in combination with other substances; or that has a ladfiften in user greater than right weeks, such as a ladfiften in user greater than right weeks, as the concentration in the food chain or in combination with other control of the control of the

stewardship: The careful and responsible management of ecosystem resources entrusted to humans in the interest of achieving and protecting ecosystem integrity for its intrinsic value and/or for the benefit of current and future generations.

sustainable community: A community where the natural environment and its human inhabitants interrelate in a manner that maintains ecosystem integrity and provides a high quality of life for humans.

sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs, and respects the limits imposed by the capacity of an ecosystem to absorb the impact of human activities.

sustainable use (of resources): Consumption or employment of a resource which, all other factors being equal, does not cause depletion that harms the resource or constitutes a threat to ecosystem integrity.

## **Ecosystem Charter for the C**

#### R IGHTS AND RESPONSIBILITIES

Access to clean water, clean air, and healthy and productive soils as fundamental right of all individuals within the Great Lakes-St. Lawrence Basin. This right implies a shared responsibility for the informed use, management, conservation and protection of the Basin's water and related land and air resources. The integrity of the Ecosystem dath the physical health, economic well-being and quality of life of list bumans element most be enhanced and maintained for the current and future generations.

People in the Great Lakes-St. Lawrence Basin have a right to live in an ecosystem that supports their health and wellbeing as well as that of diverse communities of beneficial organisms

Findings: The natural world has intrinsic value; it is the basis for life on earth and is essential to human well-le-leing. Activities that degrade its water, air and land resources threaten the health of the Ecosystem and, hence, its ability to support the health and well-leing of those dependent upon it. The fundamental right of all people to a healthy environment is a basis for sustainghed evelopment and environmental protection.

This principle shall be addressed by:
• Recognizing that the Ecosystem is comprised of both human and nonhuman elements, and that the latter have an intrinsic value apart from

any value humans may receive from them.

• Accepting responsibility to conduct themselves, individually and collectively, in ways that support a healthy ecosystem consistent with the

principles set forth in this Charter.

People have the right to use natural resources and ecological processes for economic purpose and enjoyment, commensurate with the responsibility to rehabilitate and maintain the interrity of the Great Lakes-St. Lawrence Basin Ecosystem

Findings: People and their governments in the Great Lakes-St. Lawrence Basin are stewards of the Ecosystem; this entails a responsibility to enhance and maintain the health of the Ecosystem for the use, benefit and enjoyment of the current and foture generations.

This principle shall be addressed by:

• Adopting, pursuing and promoting principles and practices of sustainable use of Ecosystem resources by businesses, agencies, organizations

and individuals.

\*Accepting the responsibility to minimize or prevent activities that cause

environmental harm to other jurisdictions or individuals.

Recognizing the role of the Great Lakes-St. Lawrence Basin Ecosystem in the larger global environment and taking actions, where possible, that can alleviate adverse impacts on that environment.

 Cooperating with all people in the Great Lakes-St. Lawrence Basin Ecosystem and in other biogeographical regions to achieve mutual objectives consistent with this Charter.

The environmental and human health risks related to activities and resource uses shall be assessed and characterized, where possible, by those who propose them in the interest of demonstrating that such activities will not cause undue harm to the Economistry

Findings: Human activities in the Basin historically have been regu-

lated in response to demonstrable proof that those activities cause injury or harm to human health or the environment. However, achieving Ecosystem integrity is difficult if it is be sole responsibility of governments to prove that a certain activity causes harm or injury. Ecosystem protection can be enhanced by placing additional responsibility on those who are proposing such activities so that risk assessment is undertaken. This principle shall be adulersed by 11.

Agreeing to examine new or proposed activities in the Great Lakes-St.
 Lawrence Basin to identify prospective adverse impacts and means to reduce, mitigate or eliminate them.

Undertaking risk assessment processes that incorporate risk management strategies and effective risk communication to facilitate Ecosystem policy development and implementation.

 Maintaining or encouraging maintenance of monitoring programs to provide baseline information on the environmental impacts of resource

#### COLOGICAL INTEGRITY AND DIVERSITY

Lectoriquial integrity is a state of the Ecosystem in which ecotogical call directily and registence is present, allowing the Ecosystem to sustain need and its inhabitants. Integrity cannot be achieved, however. The extent of the threats of the Ecosystem is demonstrated by the summons Areas of Concern designated by the Parties to the Great Lakes Water Quality Agreement. Efforts on technikate and protect the Assert Quality Agreement. Efforts on technikate and protect the Assert Quality Agreement. Efforts on technikate and protect the Assert Quality Agreement. Efforts on technikate and protect the Assert Quality Agreement and Consideration of the Assert Quality Agreement and Assert Quality Agreement and Assert Quality and maintaining a collogical integrity.

The chemical, physical and biological integrity of the Great Lakes-St. Lawrence Basin Ecosystem shall be achieved by understanding, respecting, rehabilitating and protecting ecological processes and natural resources and by identifying and maintaining genetically diverse plant and animal communities within the Ecosystem.

Binational and national commitments have been made to restore and maintain the chemical, physical and biological integrity of the Great Lakes-St. Lawrence Basin Ecosystem. Despite some successes, the goal of Ecosystem integrity have yet to be achieved. Until that time, the health and well-being of the Ecosystem inhabitants will be compromised. This principle shall be addressed by:

Improving implementation of existing programs and, where appropriate, developing new ones to rehabilitate, protect and manage ecological resources and diversity within the Ecosystem.

Providing strong citizen, government and industry support for timely
and effective adoption and implementation of Lakewide Management
Plans; timely and effective implementation of Remedial Action Plans
for the Basin's Areas of Concern; and designation of additional Biosohere Reserves eites within the Basin.

Increasing the binational effort to monitor aquatic species and wildlife
communities in the Basin, both to sustain and relabilitate these communities and to better understand environmental threats to human health.
Developing, adopting and promoting strategies to integrate and expand efforts to rehabilitate and protect areas of natural beauty and ecological significance such as wetlands and dunes.

#### reat Lakes-St. Lawrence Basin

An ecosystem approach to management that involves rehabilitating and protecting ecological processes and resources of the Basian Ecosystem shall be fully and widely adopted, based on the understanding that human activities, natural resources and ecological processes are interdependent and parts of a unified whole.

Findings:

An ecosystem approach entails an integrated, multi-resource emphasis and broad, precautionary strategies that anticipate and prevent environmental harm. This approach respects and affirms the interconnectedness of ecological processes and requires humankind to understand and conduct itself as an integrated part of the Ecosystem rather than as an entity separate from

This principle shall be addressed by:

• Ensuring that ecological protection and rehabilitation efforts are based on an integrated, multi-resource approach.

Emphasizing precautionary measures that anticipate and prevent harm to human health and the environment.

 Collaborating on and coordinating environmental quality, natural recourse and economic development programs to ensure that pollution control and prevention, habitat restoration and protection, forestry management, fisheries management and other actions are consistent with ecosystem-based management.
 Adopting and applying principles, of an ecosystem approach to individual agency, organization and business estitings.

A coordinated, multi-disciplinary research agenda is necessary to improve understanding of the scientific, social and economic dimensions of the Great Lakes-St. Lawrence Basin Ecosystem.

Scientific, social and economic data and information form the basis for public policies, agreements and programs in the Great Lakes-St. Lawrence Basin Ecosystem: Yet many aspects of the Ecosystem and its dynamics are not well-understood. An enhanced, aggressive and innovative program of basic and applied research is necessary to improve understanding of the Ecosystem.

This principle shall be addressed by:
• Forming partnerships among public agencies, academic institutions, busi-

nesses and citizen organizations to conduct and coordinate basic and applied research on the Basin Ecosystem.

Advancing pollution prevention efforts and supporting sustainable develop-

ment in the Basin Ecosystem by conducting applied research on consumption attributes and production methods.

• Undertaking research initiatives, such as toxicological and epidemfological

stadies, that explore human health impacts of activities in the Basin Ecosystem.

\* Making research results understandable to the public and useful to decisionmakers.

\* Developing an efficient processing or activities processing activities processing feature to produce and produced analysis, dissemination and public and probled analysis, dissemination and probled analysis as well as associated analysis, dissemination and probled analysis and the problem and probled analysis and the problem and problem an

decisionmaxers.

• Establishing new and strengthening existing capabilities and networks for the exchange of data, research results and other information relevant to the Basin

The environmental quality of the Great Lakes-St. Lawrence Basin Ecosystem shall be improved by virtually eliminating the discharge or release of persistent bloaccumulative toxic substances into the Basin Ecosystem.

Numerous pollution control and prevention programs and measures have been implemented, and significant reductions in particular toxics and other pollutations have occurred. However, the complexity and pervasive nature of toxic contamination calls for continued vigorous action and innovative solutions.

Thus, a broad-based commitment to the above principle is needed, consistent with the objectives of the Great Lakes Water Quality Agreement.

This principle shall be addressed by:

Implementing pollution prevention practices to eliminate and/or reduce waste

emeration through changes in production processes, products and packaging and through resource reuse and recycling.

Implementing policies, programs and practices to virtually eliminate the dis-

Imprementing policies, programs and practices to virtually eliminate the discharge or release of persistent bioaccumulative toxic substances and to prohibit the discharge in toxic amounts of toxic substances that are not for the purpose of achieving Ecosystem integrity (e.g., lamprey control).
 Actively seeking cost-effective, benign afternatives to toxic substances and

 Actively seeking cost-effective, benign alternatives to toxic substances and substituting them, where possible, to reduce reliance on toxic substances that threaten Ecosystem integrity.

 Supporting the development of binational objectives and measures to address air quality issues, including acid deposition, smog and airborne toxic contaminants as well as global atmospheric problems that affect the Basin, such as global warming.

The natural fluctuations of the levels and flows within the Great Lakes-St. Lawrence River System shall be accommodated to the extent possible, while maintaining appropriate water use and related coastal activities.

Findings:

The freshwater resources of the Great Lakes and St. Lawrence River are interconnected and form sailing behaviors; seven that accomprising defines the Great Lakes-St. Lawrence Basis Ecosystem. This dynamic system, which supports a variety of organisms and human activities, in stantially subject to varying levels and flows. Many coolegical resources rely upon and benefit from the variance. Resource sees and economic activity in costal and bases-shore direction of the fluctuation imports different uses in different ways, lifeting structures and practices that protect appropriate use and related costal activities should be maintained, with future policy also considering adaptation to fluctuations.

This principle shall be addressed by:

• Supporting a binational process that allows all stakeholders to participate in decision-making and planning related to levels and flows and land use policies

for costal areas.

Supporting continued improvement in the collection and maintenance of data regarding levels and flows, major uses and diversions of Basin water resources as well as associated analysis, dissemination and public policy applications. Developing an effective process for state/provincial and public review and

on proposed impacts are available.

Societal needs for a healthy Ecosystem and economy shall be addressed by promoting the sustainable use of renewable natural

resources.
Findings:
Renewable resources such as forests, wildlife and fisheries, have been threatened by poor land use practices, overharvesting, habitat degradation and the

each by poor land use practices, overlayersting, labilitate degradation and the introduction of humilit non-marked species, among down. Numerus measures have been taken to check, reverse or compensate for this damage, but the availability and quality of renewable resources from intensetted. It binational commitment to the management of such resources must recognize the need for remedial actions as well as long-term banning and management on a compensation.

hensive Basinwide basis.

This principle shall be addressed by:

Consulting and coordinating with affected jurisdictions when renewable resource management decisions will significantly affect their interests.

 Incorporating renewable resource needs and management objectives into broader environmental quality policies and programs.

 Developing measures to predict and assess the effects of renewable resource management practices on environmental protection efforts and economic ac-

Biological diversity is an essential element of Ecosystem integrity, and shall be supported so that plant and animal populations may flourish in natural communities and habitats as well as in specially protected and rehabilitated sites.

Findings:

The Basin Ecosystem supports an abundance of plant and animal species including naturalized non-native species. However, the natural biological diversity once found in the Ecosystem has been substantially altered, both by intentional and unintentional introductions and other cultural factors, some benical and some harmful. Efforts to rehabilitate habitat and preserve speciesvariety, particularly that of native species, are an important part of efforts to

achieve Ecosystem integrity.

This principle shall be addressed by:

Developing strategies for the conservation of biological diversity, particularly for native species, and integrating those strategies into plans and practices concerning economic activities, environmental protection and resource management.

Nurturing biological diversity and reducing habitat fragmentation by encouraging the establishment of publicly owned protected areas, networks of protected areas and stewardship by private landowners.

tected areas and stewardship by private tandowners.

Modifying land use practices and other human activities to prevent the loss of biodiversity and habitat.

Preventing new introductions of nonindigenous nuisance species and controlling existing ones.

CUSTAINABLE COMMUNITIES

An a sestainable society, a intifamental and irrestigable linkage exists between contains cavity and the nutual cooystem. Statistudie contains activity meets the necks of the present generation without compromising the ability of future generation to meet the rose to the minute of the statistic properties of the contains to meet their own necks. The disposite the immiss imposed by the capacity of the Exposition to absorb the imposter forman activities. Adopting prescripted systemation fills at the community and Bissi felved will promote long-term genomic viability and continued improvements in errorinomental audies.

Ecosystem integrity and the economic well-being of human communities are interdependent; achieving and protecting ecosystem integrity is, therefore, an essential part of economic activity within the Basin.

Findings:

Natural resources within the Great Lakes S. Lawrence Basin Ecosysteg may be tres of million of people with of million of people with the initial in the little in the late recent into the proportion of the proportion of the late and the proportion of the late that the proportion of the late that the proportion of the late that the proportion is all support and extensive agricultural industry. To ensure that natural resources in the Basiff Ecosystem continue to provide such benefits, ecosomic strategies and activities must arrow that execution the continue to the provide such benefits, ecosomic strategies and activities must arrow that execution of the continue to the proposition of the pro

This principle shall be addressed by:

 Incorporating principles of sustainability in relevant public and private sector plans and programs that reflect an appropriate balance between ecosystem protection and economic development. Industry in the Great Lakes-St. Lawrence Basin is a key partner in achieving and protecting Ecosystem integrity; industry support for, and implementation of, environmental, conservation and safety standards and practices is necessary.

Findings:

ment practices.

The Great Lakes-St. Lawrence Basin is one of the most industrialized areas of the world. Economic development has created a high standard of living and quality of life for residens. As members of the Great Lakes-St. Lawrence was a standard of the contraction of the contract of the contraction of depends on a healthy Great Lakes-St. Lawrence Basin Econystem. Accordingly, through supporting and maintaining environmental, conservation and safety standards and practices, industry can help improve its workforce, the standards and practices, industry can help improve its workforce, the basin contraction of the contrac

This principle shall be addressed by:

Supporting an active role for business and industry in environmental policymaking.
 Encouraging the development of information programs to demonstrate that

environmental management is good for business and can improve profitability.

- Encouraging the development of cost accounting and pricing mechanisms that determine the real cost of goods and services based on production and marketing costs, as well as costs of environmental management associated with their production, use and disposed.

Encouraging the development and use of innovative conservation, environmental protection and related pollution prevention mechanisms by business and industry, including the incorporation of economically and environmentally sustainable practices in management and operations.

any sustainable practices in management and operations.

Ensuring effective communication between industrial facilities and local communities to provide information on local impacts and environmental management.

NSTITUTIONAL RELATIONS

A two federal governments, eight U.S. states, two Canadian grovines, murcous regional agreence, foousands of lead governments, may Native American authorities/first Nations and a multitude of other governmental engaged for the control of the cont

Cooperation is essential among government entities, including federal, state, provincial, Native American authorities/First Nations, regional and local governments, if the principles of this Charter are to become public policy priorities.

Institutional arrangements in the Great Lake-St. Lawrence Basin Ecosystem can provide innovative opportunities for addressing complex ecological problems, but they can also be rigid, fragmented and even contradictory. The most effective means of overcoming institutional barriers and ensuring the integrity of the Ecosystem is through cooperative, coordinated and collaborative policies and programs agreed upon and implemented by Basin jurisdictions. This principle data the addressed by:

Using the principles of the Charter as a basis to develop common objectives consistent with extant agreements, policies and laws, directed at achieving and maintaining the integrity of the Basin Ecosystem.

 Consulting with affected jurisdictions and other interested parties regarding the development and/or consideration of proposals with Basinwide implications.

tions.

Working to ensure that public and private sector activities are consistent with international, binational and regional obligations and agreements regarding the

Basin Ecosystem.

Continuing the practice and tradition of binational dispute management and resolution in the Basin Ecosystem.

Ensuring that public policies are based on mutual respect and justice for all peoples, free from any discrimination or bias.

Great Lakes-St. Lawrence Basin Ecosystem governance and management shall emphasize partnership arrangements among government entities, the private sector, citizen organizations and other interests.

The introdependence of the economy and the environment amplifies the consequences of the individual and collective actions of all agencies, organizations, businesses and individuals within the Basin Ecosystem. Their mutual interests must be explicitly acknowledged and purtnerships developed to pursue public and private sector actions that benefit the Basin Ecosystem. This principle shall be addressed by:

Supporting existing partnerships that integrate interests and management approaches in the Basin Ecosystem, such as Remedial Action Plans and Lakewide Management Plans.
 Implementing binational agreements and initiatives, such as the Great

Lakes Water Quality Agreement and the Convention on Great Lakes Fisheries, in such a way that recognizes broader issues of shared coreern, including habitat protection, fisheries management, shoreline protection, biodiversity and water quantity management. "Supporting full implementation of relevant federal, state and pro-

 Supporting full implementation of relevant federal, state and provincial laws and programs, and securing requisite resources to accomplish stated goals.

 Developing partnerships among Basin interests to address commonly identified problems and to harmonize institutional relationships and authorities.

Basing Ecosystem policies and programs on the findings of sound scientific research.
 Evaluating current and prospective policies and programs on the

 Evaluating current and prospective poneries and programs on the basis of their consistency with, and responsiveness to, the principles of the Charter and the goals and objectives of relevant Basin laws and agreements.

#### Public Information, Education and Participation

Public participation is the fune-spine of the development of public policies that protons claim environment, storage consum and light quality of life in the Creat Late-St. Lawrence Basis. Such participation ensures that the needs and discores for interested individuals are beard, understood and incorplated into the policymaking grocess, no der to participate effectively in lath process, residents must be informed of political, ecological, social and economic issues in the sinformed of political, ecological, social and economic issues in the Basis Ecosystem. This requires limple, socrared and accessible information, a forum in which is voice concerns: and a mechanism to become invoiced in policymaking and implementation of first.

Timely, accurate and accessible information shall be provided to the public regarding all planned activities that may significantly affect the Great Lakes-St. Lawrence Basin Ecosystem.

Findings: Timely information enables the public to respond to current issues and opportunities in an appropriate time frame; accurate information enables the people to make informed decisions about their interests and concerns; and accessible information allows for all interested persons to obtain the desired information with relative ease. Programs that reflect these qualities help premote informed public policy, efficient and effective implementation and strong partnerships among Basin interests,

This principle shall be addressed by:

 Gathering timely, accurate and meaningful information about the state of the Basin Ecosystem and monitoring and reporting on progress in implementing programs consistent with the principles of the Charter and other relevant laws and agreements.

Supporting full and equal access to public data, policies and related information concerning current and prospective conditions of the Basin Eco-

system and the associated impact of proposed actions.

• Creating and supporting formal information links to ensure ongoing and substantive dialogue on, and dissemination of data and information, relating to the Basin Ecosystem.

Stewardship of the Great Lakes-St. Lawrence Basin Ecosystem shall be fostered through educational efforts that promote greater understanding of the Ecosystem, the problems and opportunities facing it and policies and programs designed to improve, protect and manaee it.

Findings: Education in ecological, economic, social and political matters relating to Behaustion in ecological, economic basis for enlightened public opinion. Deliberation of the properties of

This principle shall be addressed by:

Establishing and enhancing Great Lakes-St. Lawrence education programs and curricula in both classrooms and non-traditional settings, with a special focus on at-risk groups.
 Encouraging coordination of and partnerships among educators in the

Basin to ensure that educational efforts are consistent, comprehensive and accessible.

• Establishing and/or maintaining permanent systems to disseminate and

Estatuishing and/or maintaining permanent systems to disseminate and promote the use of education materials.
 Improving stewardship of the Basin Ecosystem by educating themselves and others about the needs of a healthy Ecosystem, and opportunities to

address these needs through individual and collective action.

Meaningful public participation in decision-making processes regarding the Great Lakes-St. Lawrence Basin Ecosystem shall be encouraged by providing enhanced opportunities for public involvement and empowerment.

All people should have the opportunity for informed participation in the development, implementation and evaluation of public policies that affect the Basin Ecosystem. Meaningful public participation requires the public to be an active partner in the decision-making process, including the iden-

tification and assessment of issues.

This principle shall be addressed by:

 Developing and maintaining decision-making processes that promote and encourage active and informed public participation.

 Identifying and using resources, such as information networks and other communication technology, through which public participation can be enhanced.

 Planning and engaging in outreach efforts to increase public access to and use of those resources.

 Taking advantage of current and prospective means to further people's knowledge of the Basin Ecosystem and opportunities to enhance environmental health, economic well-being and quality of life.

## Ecosystem Charter for the Great Lakes-St. Lawrence Basin

~ Preamble ~

#### **I**NTRODUCTION

An 'ecosystem approach' to management is being embraced by many public sector, one-governmental and etizen-based institutions in the Great Lakes-St. Lawrence Basin. This approach recognizes that the environmental and economic attributes of the Basin are fundamentally linked and interdependent, as are the goals for environmental protection and economic development. It also recognizes that resources must be managed as part of dynamic and complex committies and cooystems, rather than as separate and distinct elegations of the contract of t

#### THE PROBLEM

A Many of our laws, programs, policies and institutions support the concept of an ecosystem approach, yet application of the concept is difficult due to their often narrow, single-medium or issuespecific mandates and the inherent challenges of managing on an anproachem to the contract of the contract of the contract of the contract of the coopstem basis. The problem is the absence of a single, clearly articulated statement—or draster—that explicitly defines goals for an ecosystem approach to management and ties a common thread through these many activities and mandates.

#### CHARTER FORMAT AND OBJECTIVES The Ecosystem Charter summarizes, in a concise and conve-

incut for acceptant before hindurates. In visities that reincut for commonly had principle have from exceptant from the stating laws treated the state of series of principles in the contract principles and series of principles in the contract principles in the state of the state of

The Charer has three primary uses. It is a tool for pomotine and periodically assessing public and privace score efforts beimplement an ecosystem approach. It is a tool for information and education (origing a vision for the Girel Lakes-N, Lawrence Basin Ecosystem and a means to achieve it. Finally, it is a tool for advocating the interests of the Basin Ecosystem and it inhabitants; a statement of unity acknowledging that all prainers in the collective management must be approached to the contract of the collection of the collec

mental principles. The Charles is a good faith agreement among its signatories, which can include prepieratilities from the army of public agencies, non-governmental organizations and private interests in the Great Lakes-governmental organizations and private interests in the Great Lakes-governmental organizations and private interests in the Great Lakes-government and prolines is Stather's its howevers not estimile parts, agreements and prolines is Stather's its howevers may pround the arms and prolines and prolines and prolines are occeptionally prounds to manufacture and their implementation and, in no doing, prounds an acception processly manufacture in the Great Lakes-St. Lawrence pixels.

#### CHARTER FOUNDATION

The foundation for the Ecosystem Charter is a heritage of binational cooperation to ensure the informed use, management, conservation and protection of the Great Lakes-St. Lawrence Basin Ecosystem. The Charter builds upon landmark agreements such as the U.S.-Canada Boundary Waters Treaty of 1909, which established procedures for avoiding or otherwise addressing transboundary resource management and related environmental problems, and the Great Lakes Water Quality Agreement, which commits the two countries to restoring and maintaining the chemical, physical and biological integrity of the waters of the Great Lakes Basin Ecosystem. Through these and many other initiatives, regional leadership has pioneered the ecosystem approach to resource and environmental management, conservation and protection. The Ecosystem Charter, as a statement of shared principles and related actions for an array of stakeholders, represents an important step forward in this approach. The Charter will help guide future actions to enhance and sustain the environmental health and economic viability of the world's greatest freshwater system. In so doing, it can serve as a model in North America and globally.

#### CHARTER PROCESS

The Chatter is a living document; it will be reviewed andrewised periodically to ensure that it reflects current thinking on the ecosystem approach. It offers a means for assessing progress and provides the guidance needed for further efforts. A broad coros section of agencies, organizations and associations contributed of fear darf of the Charter and the document itself is 'woment' by ild signatories. The Great Lakes Commission, as a coordinating agency, will provide engoing support in the distribution, use and updating of the Charter, including specific opportunities for petiodic review and assessment of progress.

#### CHARTER SIGNATORIES

Any organization, agency or governmental princidicion that subscribeostaghes "Prilimpilenes" invide to be a signatory to the Ecosystem Chanter's Signatories agree to use the Charter as guidance in the development of their work plains and priorities, as a means to the development of their work plains and priorities, and as a meeting the state of the signature of

## **Ecosystem Charter for the G1**

~ VIS

Our Vision is a Great Lakes-S

Where all people consider and conduct themselves as part of their Ecosystem;

Where all people recognize the fundamental and inextricable link between economic well-being and the health of the Ecosystem;

In which all beneficial organisms can thrive free from preventable ecological threats to their well-being;

Where environmental degradation is a legacy of the past and a basis for remedial action;

That exists as an evolving natural and cultural system that can successfully adapt to change;

In which use of natural resources is compatible with conservation of such resources;

Basin Ecosystem.

That maintains the integrity of the Ecosystem and accommodates appropriate development;

That is a rich mosaic of waters and lands, of natural areas and places of human activity, and of different peoples who govern themselves in various ways;

Prin

- People in the Great Lakes-St. Lawrence Basin have a right to live in an ecosystem that supports their health and well-being as well as that of diverse communities of beneficial organisms.
- People have the right to use natural resources and ecological processes for economic purpose and enjoyment, commensurate with the responsibility to rehabilitate and maintain the integrity of the Great Lakes-St. Lawrence
- The environmental and human health risks related to activities and resource uses shall be assessed and characterized, where possible, by those who propose them up the interest of demonstrating that such activities will not cause undue harm to the Ecosystem.
- TV The chemical, physical and biological integrity of the Great Lakes-St. Lawrence Basin Ecosystem shall be achieved by understanding, respecting, rehabilitating and protecting ecological processes and natural resources and by identifying and maintaining genetically diverse plant and animal communities within the Ecosystem.
- An ecosystem approach to management that involves rehabilitating and protecting ecological processes and resources of the Basin Ecosystem shall be fully and widely adopted, based on the understanding that human activities, natural resources and ecological processes are interdependent and parts of a milited whole.
- VI
  A coordinated, multi-disciplinary research agenda is necessary to improve understanding of the scientific, social and economic dimensions of the Great Lakes-St. Lawrence Basin Ecosystem.

  The environmental quality of the Great Lakes-St. Lawrence Basin Ecosystem shall be improved by virtually
- VII eliminating the discharge or release of persistent bioaccumulative toxic substances into the Basin Ecosystem.

  The natural fluctuations of the levels and flows within the Great Lakes-St. Lawrence River System shall be
- The natural fluctuations of the levels and flows within the Great Lakes-St. Lawrence River System shall be accommodated to the extent possible, while maintaining appropriate water use and related coastal activities.
  - Societal needs for a healthy Ecosystem and economy shall be addressed by promoting the sustainable use of renewable natural resources.

#### eat Lakes-St. Lawrence Basin

#### ion ~

Lawrence Basin Ecosystem ...

- That nurtures an abundance and diversity of plant and animal species in their natural communities and habitats as well as in specially protected and rehabilitated sites;
- That embraces the concept of sustainable development by meeting the needs of this generation without compromising the ability of future generations to meet their needs;
- Where all people and their governments act as stewards and are committed to informed action and supportive policy decisions;

In which a shared governance process, among diverse and respected traditions, provides an accessible and equitable basis for responsible actions and accountability among all people and their institutions.

#### iples ~

- X Biological diversity is an essential element of Ecosystem integrity, and shall be supported so that plant and animal populations may flourish in natural communities and habitats as well as in specially protected and rehabilitated sites.
- XI Ecosystem integrity and the economic well-being of human communities are interdependent; achieving and protecting ecosystem integrity is, therefore, an essential part of economic activity within the Basin.
- Industry in the Great Lakes-St. Lawrence Basin is a key partner in achieving and protecting Ecosystem integrity; industry support for and implementation of environmental, conservation and safety standards and practices is necessary.
- Cooperation is essential among government entities, including federal, state, provincial, Native American authorities/First Nations, regional and local governments, if the principles of this Charter are to become public policy priorities.
- XIV Great Lakes-St. Lawrence Basin Ecosystem governance and management shall emphasize partnership arrangements among government entities, the private sector, citizen organizations and other interests.
- Timely, accurate and accessible information shall be provided to the public regarding all planned activities that may significantly affect the Great Lakes-St. Lawrence Basin Ecosystem.
- XVI Stewardship of the Great Lakes-St. Lawrence Basin Ecosystem shall be fostered through educational efforts that promote greater understanding of the Ecosystem, the problems and opportunities facing it and policies and programs designed to improve, protect and manage it.
- Meaningful public participation in decision-making processes regarding the Great Lakes-St. Lawrence Basin Ecosystem shall be encouraged by providing opportunities for public involvement and empowerment.