RECOMMENDATION

RESOLVED, That the ABA recommends that federal, state, territorial and tribal governments and agencies pursue their statutory or tribal goals in a way that preserves and enhances ecosystems services with due regard for economic, human and social impacts;

FURTHER RESOLVED, That the ABA urges the United States Government to engage in active discussions with the Canadian and Mexican governments to address cross-border ecosystem services issues in a coordinated and collaborative manner.

REPORT

Introduction

It is well understood that solving environmental challenges requires a better understanding of natural systems. One need look no further than relationships between the loss of wetlands in southern Louisiana and loss of lives and property in the aftermath of Hurricane Katrina to recognize the important public benefits conferred by what are known as “ecosystem services.”

Preserving and enhancing the services that the ecosystems provide can best be accomplished through comprehensive and integrated strategies that seek to preserve entire natural systems rather than focusing narrowly on particular pollutants or species. Recognizing the importance of ecosystems services helps to organize and direct otherwise fragmented efforts by public agencies at all levels of government and by private organizations. It acknowledges the benefits to the public, enhances biodiversity and protects the environment. Preserving and enhancing ecosystems is an important step toward achieving sustainable development, a goal endorsed by the American Bar Association’s 2003 Resolution on sustainable development. The present Resolution encourages government decisionmakers to consider ecosystem services concepts and principles in policy, law and regulation.

This Report consists of an introduction and five additional parts. As Part One describes, our country has a long tradition of appreciating ecosystem services. Part Two explains ecosystem services and related concepts. Part Three discusses how federal laws and international treaties already embrace and implement consideration of ecosystem services, even if indirectly. Part Four discusses the cooperative efforts of the United States, Mexico and Canada to address cross-border ecosystem issues. Part Five concludes that the ABA should encourage decisionmakers to pursue their objectives in a way that preserves and enhances ecosystems services and to consider ecosystem services in a more systematic, integrated manner with due regard for economic, human and social impacts.

I. Tradition of Recognizing Ecosystem Services

Ecosystem services have long been recognized in a qualitative sense; writers such as Rachel Carson, Aldo Leopold, John Muir and others articulated many years ago the importance of the natural world, both for its own sake and for the human race. Natural capital is of vital importance to human well-being, but as a public good its value is sometimes overlooked. More recently, we have begun to understand and measure the utilitarian values of ecosystem
protection. From this perspective, the importance of ecosystems to humans is in part based on
the services that they provide.\(^1\) Water purification, water supply, mitigation of floods and
droughts, decomposition of wastes, generation of soil, and pollination of crops are among the
ecosystem functions or services frequently cited.\(^2\) Although it is difficult to quantify the value of
ecosystem services with precision, economists and scientists in the natural, social and political
sciences have placed high monetary and social value on them.\(^3\) Many ecosystems are under
threat from human activity. Thus, it is an appropriate juncture for the ABA to encourage
decisionmakers to consider ecosystem services.

It is generally accepted that “Silent Spring” ignited the movement that led to the system
of environmental protection that we enjoy today, but it is easy to forget that Rachel Carson
focused on the threat posed to entire ecosystems by the uncontrolled use of chemical pesticides.
Over the following decades, a variety of legal and governmental institutions have been created to
tackle these and other environmental threats. Ironically, however, as these institutions emerged,
their connection to the original ecological or systemic concerns are often lost. Instead, statutes
and regulations focused on narrower goals such as controlling effluents and emissions from
individual sources, or preventing harm to individual species. Most notably, our major Federal
air, water and waste statutes and regulatory programs developed on a “media-specific” basis.
While these efforts have achieved much in terms of their stated goals and addressed several acute
environmental threats, in many locations ecosystems continue to degrade and their societal
benefits diminish.

II. Ecosystem Services and related ecosystem-level concepts

In the introduction to her highly influential 1997 book, Nature’s Services: Societal
Dependence on Natural Ecosystems, Gretchen Daily states:

Ecosystem services are the conditions and processes through which natural
ecosystems, and the species that make them up, sustain and fulfill human life.
They maintain biodiversity and the production of ecosystem goods, such as
seafood, forage, timber, biomass fuels, natural fiber, and many pharmaceuticals,
industrial products and their precursors. The harvest and trade of these goods
represent an important and familiar part of the human economy. In addition to the
production of goods, ecosystem services are the actual life-support functions, such

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\(^1\) See, National Research Council, Valuing Ecosystem Services: Toward Better Environmental

\(^2\) See, Gretchen Daily, Nature’s Services: Societal Dependence on Natural Ecosystem (1997) at
10; Millennium Ecosystem Assessment, Ecosystems and Human Well-Being: A Framework for

\(^3\) Costanza, d’Arge and deGroot, The Value of the World’s Ecosystem Services, 389 Nature
as cleansing, recycling, and renewal, and they confer many intangible aesthetic and cultural benefits as well.\(^4\)

The Millennium Ecosystem Assessment (MEA), an encyclopedic 2006 report examining the state of and policy recommendations for the world’s ecosystems, utilizes “ecosystem services” as the core of its organizing framework. The MEA states: “Ecosystem services are the benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious and other nonmaterial benefits.”\(^5\)

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\(^4\) Daily note 2, supra. Daily’s enumeration of ecosystem services includes the following:
1. purification of air and water; mitigation of floods and droughts,
2. detoxification and decomposition of wastes,
3. generation and renewal of soil and soil fertility,
4. pollination of crops and natural vegetation,
5. control of the vast majority of agricultural pests,
6. dispersal of seeds and translocation of nutrients,
7. maintenance of biodiversity, from which humanity has derived key elements of its agricultural, medicinal, and industrial enterprise, and
8. partial stabilization of climate.

\(^5\) Millennium Ecosystem Assessment available at http://millenniumassessment.org. The MEA categorizes ecosystem services as provisioning, regulating, supportive or cultural. MEA’s substantial enumeration of ecosystem services include the following:

**Provisioning Services**

*Food and Fiber:* This includes the vast range of food products derived from plants, animals, and microbes, as well as materials such as wood, jute, hemp, silk, and many other products derived from ecosystems.

*Fresh Water:* Fresh water is another example of linkages between categories, in this case, between provisioning and regulating services.

**Regulating Services**

*Water Regulation:* The timing and magnitude of runoff, flooding, and aquifer recharge can be strongly influenced by changes in land cover, including, in particular, alterations that change water storage potential of the system, such as the conversion of wetlands or the replacement of forests with croplands or croplands with urban areas.

*Erosion Control:* Vegetative cover plays an important role in soil retention and prevention of landslides.

*Water Purification and Waste Treatment:* Ecosystems can be a source of impurities in freshwater but also can help to filter out and decompose organic wastes introduced into inland waters and coastal and marine ecosystems.

*Regulation of Human Diseases:* Changes in ecosystems can directly change the abundance of human pathogens, such as cholera, and can alter the abundance of disease vectors, such as mosquitoes.
While our recommendation focuses on ecosystem services, many policymakers and practitioners refer to a broader “ecosystem approach” which has as its focus restoring and maintaining “the health of ecological resources together with the communities and economies that they support.” Understanding ecosystem services is key to such an ecosystem approach in that protection and enhancement of ecosystem services benefit natural habitats as well as the individual users of natural resources. The following have been identified as some key advantages of an ecosystems approach:

1) **Transparency.** The ecosystem approach encourages public participation in the regulatory processes.

2) **Preemptive regulation.** The ecosystem approach anticipates and “addresses ecological problems before they become critical.” This proactive approach is more cost effective, “less disruptive to economic activity and less wasteful of public funds.”

3) **Regulatory certainty.** The ecosystem approach allows private individuals and business to plan their entrepreneurial activities without unnecessary delays by permitting the regulatory bodies to address various issues endemic to a particular ecosystem simultaneously. The ability to regulate the entire spectrum of issues that arise in a specific ecosystem creates the potential for future “one-stop shopping for multiple permit requirements” by regulated individuals and industries.

4) **Community of interest approach.** Because of increased public participation, the ecosystem approach allows the needs of all stakeholders (e.g., federal, state, 

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7 *Id.*

8 *Id.*

9 *Id.*
territorial and tribal governments and regulatory bodies and regulated industries and landowners) to be identified and addressed.\textsuperscript{10}

5) **Sustainability.** The ecosystem approach promotes sustainable, proactive management of natural resources.

6) **Streamlining of regulatory efforts.** The ecosystem approach seeks to centralize regulatory efforts which greatly reduces duplicative or conflicting regulation and, consequently, preserves scarce financial resources.\textsuperscript{11}

7) **Minimizing of regulatory burdens.** The ecosystem approach minimizes regulatory burdens on smaller regulated entities and others.\textsuperscript{12}

An ecosystems approach also emphasizes certain procedural values, such as interagency communication and coordination, stakeholder involvement, and use of sound science. While not unique to the ecosystem context, these mechanisms help to support decision-making that takes into account the full array of affected values and considers the full range of potential options for action – options that may not be apparent when decisions are made within narrow organizational or geographic confines.\textsuperscript{13}

### III. Existing Treaties and Laws Incorporating Ecosystem Services Into Decisionmaking

Ecosystem services are already considered, at least indirectly, in decisionmaking at international, national and subnational levels. At the international level, the Convention on Biological Diversity (the “Convention”) explicitly adopts an ecosystem approach in achieving the Convention’s main objectives: “the conservation of biological diversity, sustainable use of its components, [and] fair and equitable sharing of benefits arising out of the use of genetic

\textsuperscript{10} Id.

\textsuperscript{11} Id. (also advocates for combining of administrative support functions as a resource-saving method).

\textsuperscript{12} Id.

\textsuperscript{13} The Task Force stressed the importance of interagency cooperation and communications among other elements: “Consideration of all ‘relevant and identifiable ecological and economic consequences’ of federal actions and regulation; the importance of interagency communication and cooperation best achieved through partnerships between the federal government and state and local governments, tribal councils and other stakeholders (e.g., landowners); communication with the public; accomplishment of regulatory mandates in an efficient and cost effective manner; use of best available science; improvement of ‘information and data management’ and; allowing for a change in course once new information becomes known.” Id.
Beginning in 1995, the Convention has taken definitive steps towards developing its ecosystem approach. The Convention’s scientific advisory body, the Subsidiary Body on Scientific, Technical and Technological Advice, proposed during its first meeting that “the ecosystem approach should be the primary framework of action to be taken under the Convention.” This proposal was subsequently adopted by the governing body of the Convention. The Convention declared in its strategic plan that “[i]ntegrated management of natural resources, based on the ecosystem approach, is the most effective way to promote” the Convention’s policies.

The Convention’s ecosystem approach consists of twelve (12) principles.

1. The objectives of management of land, water and living resources are a matter of societal choice; 2. Management should be decentralized to the lowest appropriate level; 3. Ecosystem management should consider the effects (actual and potential) of their activities on adjacent and other ecosystems; 4. Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem management program should: (a) Reduce those market distortions that adversely affect biological diversity; (b) Align incentives to promote biodiversity conservation and sustainable use; (c) Internalize costs and benefits in the given ecosystem to the extent feasible; 5. Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach; 6. Ecosystems must be managed within the limits of their functioning; 7. The ecosystem approach should be undertaken at the appropriate spatial and temporal scales; 8. Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for long term; 9. Management must recognize that change is inevitable; 10. The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity; 11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices; and 12. The ecosystem approach should involve all relevant sectors of society and scientific discipline.

Convention on Biological Diversity, Conference of the Parties, Fifth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity, Nairobi, Kenya, COP 5
At the national level, consideration of an ecosystem approach provides a bridge between statutes such as the ESA that promote conservation goals, and statutes such as the Clean Water Act and Clean Air Act, that promote environmental quality and human health goals. The ESA’s statement of statutory purposes expressly supports ecosystem-level considerations: “to provide a means whereby the ecosystems upon which endangered or threatened species depend may be conserved.” The ESA authorizes the establishment and implementation of a program to protect and conserve natural habitats and wildlife which is best achieved through federal-state partnerships and partnerships with foreign nations. The ESA precludes the destruction of critical habitat and authorizes the approval of habitat conservation plans. All of these goals are consistent with considering ecosystem services. To best achieve the ESA’s goals, the Services have agreed to, *inter alia*:

1) Group listing decisions on ecosystem basis where possible;

2) Cooperate with federal, state and private agencies in conducting comprehensive status reviews;

3) Develop a cooperative approach to developing and implementing conservation efforts;

4) Invite local jurisdictions, private organizations and individuals to participate in developing and implementing recovery plans; and

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24 Id.

25 Id.

26 Id.
5) Develop inter-agency resource-sharing agreements.  

Nevertheless, the species-specific focus of many of the ESA’s provisions limits the Service’s authority to regulate ecosystems or to conserve species that are not listed as endangered or threatened.

The Intermodal Surface Transportation Efficiency Act of 1991 (“ISTEA”), with its goal of developing transportation systems that meet the needs of both “the natural and constructed environments,” also reflects ecosystem services. ISTEA sought to improve communication with the general public by encouraging state and local transportation agencies to involve the public in long-term transportation planning. ISTEA also required transportation agencies to consider land use development when making long-term transportation policy decisions. Moreover, ISTEA allocated funds for environmental enhancement and preservation and sought to mitigate damages to the natural habitat caused by construction activities. By prioritizing land use decisions in the transportation process and advocating for development within the backdrop of sustainability, Congress incorporated features of the ecosystem approach into ISTEA.

While several bills have been introduced to explicitly mandate consideration of an ecosystems approach in decisionmaking, none are federal law. Nonetheless, ecosystem

27 Id.


29 Id.

30 Id.


33 The proposed Ecosystem Protection Act of 2005 declares a congressional policy of securing “for present and future generations of Americans the enduring resource of protected large wild lands.” To achieve the goals of assuring that “the American people have large areas of land in
services are already considered indirectly in the U.S. policy and regulatory context. The Interagency Ecosystem Management Task Force\(^\text{34}\) defines an ecosystem approach as “a method for sustaining or restoring natural systems and their functions and values [which is] goal driven … and based on a collaboratively developed vision of desired future conditions that integrates ecological, economic and social factors … [and is] applied within a geographic framework defined primarily by ecological boundaries.”\(^\text{35}\) While highly varied depending on context, an ecosystem-based approach to decisionmaking emphasizes a comprehensive and holistic approach to defining goals and designing strategies to achieve those goals, organized around frameworks that are naturally defined, such as watersheds, or habitats large enough to sustain viable plant and animal populations over the long term.

Some federal agencies are also mindful of another closely related concept, “ecosystem management,” which is relevant primarily in contexts where an agency or other organization is responsible for the overall management of a natural resource.\(^\text{36}\) One commentator considers healthy natural condition throughout the country to provide wildland recreational opportunities for people, provide habitat protection for native wildlife and natural plant communities, and to contribute to a preservation of water for use by downstream metropolitan communities and other users,” the Ecosystem Protection Act would establish a National Forest Ecosystem Protection Program. The Ecosystem Protection Act would also allow states which are without a national forest or grassland of 50,000 or more acres, to acquire technical and financial assistance to create a state ecosystem protection area. Ecosystem Protection Act of 2005 § 2(a) (Proposed Sept. 8, 2005), available at http://thomas.loc.gov/cgi-bin/query/F?c109:1:./temp/~c109bME7EI:e1922 (last visited July 5, 2006).

The proposed National Oceans Protection Act of 2005 likewise aims to “to secure for future U.S. generations a full range of benefits of healthy marine ecosystems.” The bill acknowledges our historic dependence on marine life and oceanic resources and the negative consequences which inevitably flow from our continued use of those resources and mandates federal, state and tribal governments to manage ocean resources in a way which preserves “the full range of their benefits for present and future generations.” The bill also recognized that despite a plethora of regulatory activities and programs focused on oceanic resources, the U.S. still lacks a “unified and comprehensive policy toward the oceans.” Thus, consistent with the ecosystem approach, the bill aims to improve communication between state and federal regulatory bodies while unifying various regulatory activities. National Oceans Protection Act § 3 (Proposed June 9, 2005), available at http://thomas.loc.gov/cgi-bin/bdquery/z?d109:SN01224:@@@D&summ2=m& (last visited June 30, 2006).

\(^{34}\) Ecosystem Task Force note 6 supra.

\(^{35}\) Id. at 14.

\(^{36}\) Despite their sometimes interchangeable use, some commentors insist that the terms ecosystem management and ecosystem approach are not fungible. Ecosystem management reflects a regulatory judgment derived from human needs and ecological conditions of the time which inevitably changes as the identified needs or ecological and economic conditions change. Maltby, supra, at 213; see also IUCN, - The World Conservation Union, What is the Ecosystem
ecosystem management to be an approach that “integrates scientific knowledge of ecological relationships with a complex sociopolitical and values framework toward the general goal of protecting native ecosystem integrity over the long term.”\(^{37}\) For example, EPA has recognized that management on a watershed basis often provides the best means of preserving and enhancing water quality and controlling stream flows. In this respect, EPA is following the lead of interstate commissions such as the Delaware River Basin Commission and the Susquehanna River Basin Commission, federal-interstate agencies established jointly by the United States Government and the affected states to manage water resources on a regional basis.

Specific to ecosystem services, commentary suggests that recent advances in the scientific and technical realm portend an enhanced role for these concepts and principles as applied in environmental policy, law and regulation.\(^{38}\)

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\(^{37}\) The definition incorporates ten themes of ecosystem management: (1) Hierarchical context - - a systems perspective recognizing connections of all levels of the biodiversity hierarchy, (2) ecological boundaries - - looking at ecological connections across administrative/political boundaries, (3) ecological integrity - - conservation of viable populations of native species, and maintaining their evolutionary potential, (4) data collection and management of existing data - - such as habitat inventory/classification, disturbance regime dynamics, baseline species and population assessment, (5) monitoring - - to quantitatively evaluate success or failure, (6) adaptive management - - continuous monitoring and reassessment, (7) interagency cooperation - - partnerships among various public and private agencies and parties, (8) organizational change - - in land management agencies, (9) humans embedded in nature - - humans influence and are influenced by ecological processes and should use resources sustainably by maintaining basic ecosystem patterns and processes, and (10) values - - human values play dominant role in ecosystem management. R. Edward Grumbine, *What Is Ecosystem Management?*, 8 Conservation Biology 27 (1994).

The disconnect between law and ecosystems services is especially conspicuous because safeguarding ecosystem services is increasingly understood as an objective for environmental policy and regulation and fundamental to the management of natural resources. Moreover, there is a growing appreciation that the traditional “single media” focus (air, water, and waste) of environmental law and policy cannot secure provision of the resources, health, and communal needs that are central to human communities. Constructing law and policy informed by a new understanding of ecosystem services would surmount the cross-media limitations of the current environmental regulatory regime. An ecosystems approach to law and policy would more effectively and seamlessly address ecosystem services-dependent human needs, such as safeguarding natural resources, ensuring health and well-being, and promoting effective stewardship of the natural and altered settings in which we live.39

Others have suggested that evaluating the impact of government decisions on ecosystems could involve an evaluation process analogous to that undertaken under the National Environmental Policy Act (NEPA). NEPA is designed to ensure that a government agency assesses and considers the potential environmental impacts of potential agency decisions before the decision becomes final. An ecological assessment would work much the same way by evaluating the impacts to ecosystem functions and services of potential agency action. The agency could then consider the ecological consequences of its action in the course of its decision-making process.

IV. Cooperation with the Governments of Mexico and Canada

Ecosystems are separated by natural rather than political boundaries. Because actions taken in one part of an ecosystem may affect the functioning of the entire ecosystem, coordination and cooperation between sovereigns exercising political authority over separate geographic portions of a single ecosystem is essential to effective management of ecosystems and preservation and enhancement of their services. Ecosystems that traverse the Mexican border and the Canadian border with the United States can best be protected through bilateral or trilateral cooperation.

The foundation for North American intergovernmental cooperation are well established. The Mexican and United States governments addressed their respective rights to shared waters in the Treaty Relating to the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande (1944). This treaty, which constituted the second water treaty between the United States and Mexico, transformed the then existing joint commission into the International Boundary and Water Commission (“IBWC”).40 Although its mission is broader than ecological cooperation, the IBWC provides a forum for the United States and Mexico to jointly address

39 Feldman and Blaustein, at 10756

40 See www.ibwc.state.gov/home.html.
water quantity, water quality and flood control transboundary issues. One of its focuses is the restoration of the Colorado River delta through cooperative efforts of both affected countries.

Mexico and the United States have also entered into agreements specific to joint environmental concerns. The 1983 La Paz Agreement provided for the protection, improvement and conservation of the environmental surrounding the border in a coordinated manner. A series of joint activities between EPA and its Mexican counterpart, SEMARNAT, has evolved into a program now known as Border 2012. This program solicits stakeholder involvement through four regionally-based workgroups. It also formed three binational workgroups to address border problems: environmental health, emergency preparedness and response, and cooperative enforcement and compliance.

Just as the United States and Mexico have historically cooperated on certain crossborder environmental issues, so too the foundation for cooperation between the United States and Canada is in place. The Boundary Waters Treaty of 1909 provides principles and mechanisms to resolve disputes between Canada and the United States involving transboundary water. Article VII of the treaty established the International Joint Commission (“IJC”) comprised of six commissioners, three from each country. The IJC examines potential ecosystem effects in the course of its evaluation of projects. For example, an expert study board that the IJC established to evaluate a proposed open-pit strip mining operation in the 1970’s recommended against approval of the project in part on its proximity to a national park, and a wild and scenic river, and on its potential adverse effect on environmentally sensitive species.

The Great Lakes Water Quality Agreement of 1972 between United States and Canada, renewed in 1978, contains elements of an ecosystem approach. The purpose of the Agreement, to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin Ecosystems, is parallel to the purpose of the Clean Water Act. The Agreement calls for the establishment of specific objectives to protect beneficial uses from the combined effects of pollutants, and for the control of pollutant loading rates for each lake basin to protect the integrity of the ecosystems over the long term. The Parties have also recognized “that restoration and enhancement of the boundary waters cannot be achieved independently of other parts of the Great Lakes Basin Ecosystem with which those water interact,” and that

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42 Id.

43 www.epa.gov/glnpo/glwqa/1978/articles.html

44 Id. at Article IV.3

45 Id.
cooperative programs and measures provide the best means of preserving aquatic ecosystems.\(^{46}\)

The IJC has the responsibility of assisting in the implementation of the Agreement.\(^{47}\)

Cooperative efforts to address ecosystem degradation has occurred among state and provincial governments as well as national governments. The eight states that border the Great Lakes have taken steps to manage their resources jointly. The Council of Great Lakes Governors was formed in 1983 to “encourage and facilitate environmentally responsible economic growth through a cooperative effort between the public and private sectors among the eight Great Lake States and with Ontario and Quebec.”\(^{48}\) The Council helps implement the Great Lakes Charter of 1985, a voluntary agreement to manage water resources, and the Federal Water Resources Development Act of 1986 which requires unanimous approval of the Governors on any out-of-basin diversion or export of water. The Council meeting of 2005 led to the Great Lakes-St. Lawrence River Basin Sustainable Water Resource Agreement and the Great Lakes-St. Lawrence River Basin Water Resources Compact. These agreements require ratification by the affected states and Canadian provinces.

The Council is also working with other government partners to develop a strategy and action plan to restore and protect the Great Lakes. President Bush’s May 2004 Executive Order directed the EPA Administrator to convene the Great Lakes Regional Collaboration (“GLRC”) to address environmental and natural resource issues involving the Great Lakes.\(^{49}\) The GLRC coordinates the efforts of the Council, EPA, the Great Lakes and St. Lawrence Cities Initiative, the Great Lakes Congressional Task Force and the Great Lakes Indian Fish and Wildlife Commission.\(^{50}\) The GLRC’s strategy includes control of aquatic invasive species, habitat conservation and species management, coastal health, cleanup of contaminated sites, control of nonpoint sources of pollution, reduction of the discharge of toxic pollutants, development of a sound information base and representative indicators to assess the ecosystem, and maintenance of sustainable practices on land use, agriculture and forestry, transportation, industrial activity and other areas.\(^{51}\) The GLRC has also expressed the importance of addressing Tribal perspectives and has included representatives of the Canadian government as observers.\(^{52}\)

\(^{46}\) Id.

\(^{47}\) Id. at Article VII

\(^{48}\) www.cglg.org

\(^{49}\) www.glrc.us/documents/E013340.pdf

\(^{50}\) www.glrc.us/documents/strategy/glrc_strategy.pdf

\(^{51}\) Id.

\(^{52}\) Id.
V. Conclusion

Pursuing statutory or tribal goals in a way that preserves and enhances ecosystem services requires a broad examination of how government actions will affect entire ecosystems rather than a narrow concentration on particular pollutants or species. This examination recognizes the role of natural capital in sustaining human well-being. Nonetheless, valuing ecosystems services does not mean elevating ecosystem protection above all other values or concerns such as economic growth or other social needs. Rather, recognizing the important benefits provided by ecosystem services encourages decisionmakers to seek policies and solutions that treat preservation and enhancement of ecosystems services as an integrated part of a plan to facilitate sustainable growth. By utilizing integrated strategies to preserve and enhance ecosystems services, governments can utilize natural systems and the services they provide to advance their economic and social goals in a sustainable manner.