

Comment on Great Lakes Regional Collaboration draft plan

September 9, 2005

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| <u>Alliance for the Great Lakes American Rivers</u> | <u>Friends of Milwaukee's Rivers</u> | <u>National Parks Conservation Association</u> |
| <u>Audubon</u> | <u>Great Lakes Aquatic Habitat Network and Fund</u> | <u>National Wildlife Federation</u> |
| <u>Audubon Pennsylvania</u> | <u>Great Lakes Boating Federation</u> | <u>New York Rivers United</u> |
| <u>Audubon Minnesota</u> | <u>Great Lakes United</u> | <u>Ohio Environmental Council</u> |
| <u>Audubon New York</u> | <u>Izaak Walton League of America</u> | <u>Prairie Rivers Network</u> |
| <u>Audubon Ohio</u> | <u>Lake Erie Region Conservancy</u> | <u>Public Interest Research Group in Michigan</u> |
| <u>Biodiversity Project</u> | <u>League of Women Voters of Michigan</u> | <u>Save the Dunes Council</u> |
| <u>Buffalo Niagara Riverkeeper</u> | <u>Michigan Environmental Council</u> | <u>Save the River!</u> |
| <u>Citizens Campaign for the Environment</u> | <u>Michigan Land Use Institute</u> | <u>Sierra Club</u> |
| <u>Clean Water Action</u> | <u>Michigan League of Conservation Voters</u> | <u>Tip of the Mitt Watershed Council</u> |
| <u>Clean Wisconsin</u> | <u>Michigan United Conservation Clubs</u> | <u>Union québécoise pour la conservation de la nature</u> |
| <u>Environmental Advocates of New York</u> | | <u>United States Public Interest Research Group</u> |
| <u>Environmental Association for Great Lakes Education</u> | | <u>Western Lake Erie Waterkeeper</u> |
| <u>Erie County Environmental Coalition</u> | | <u>Wisconsin Wildlife</u> |

Hyperlink contents

[introduction](#)

[Overarching comments](#)

[Aquatic Invasive Species](#)

[Habitat / Species](#)

[Coastal Health](#)

[AOC / Sediments](#)

[Nonpoint Source](#)

[Toxic Pollutants](#)

[Indicators and Information](#)

[Sustainable Development](#)

(to jump, click a link, or, if necessary, place cursor in the link and hit Enter)

Introduction

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The Great Lakes and its surrounding watershed sustain our economy and quality of life and have long needed attention commensurate with that importance to the region. After years of citizen calls for comprehensive solutions to the Great Lakes' many environmental problems, we enthusiastically welcome the government's "Great Lakes Regional Collaboration" initiative to plan and implement just such a comprehensive approach. We are sobered, however, by the imperative that any proposed plan must be fully funded if it is to make a difference in the health of the lakes.

We are especially happy to see support in the draft plan for an effective federal solution to the potentially catastrophic introduction of invasive species to the region, and for independent state action, in the same timeframe, should federal action prove ineffective. However, the plan should also stress the need for immediate use of available authority and enforcement of existing laws to combat the invasive species problem. Also, terrestrial invasive species should be addressed by the plan.

We are also happy to see the recommendation for an end to sewage dumping into the rivers and lakes of the basin. While expensive, the reduction in disease organisms and nutrients to the region's waters will have widespread benefits for basin quality of life and will remove a major stress on the functioning of the Great Lakes ecosystem. However, a comprehensive problem to the sewage threat to coastal health should also support real-time beach testing, encourage industrial pretreatment of wastewater, and prioritize of funding for communities who have implemented good stormwater management.

We also applaud the significant commitment to restoring the basin's wetlands, although we recommend doubling the acreage of that commitment, specifically dedicating some funds to urban wetland restoration, and clearly separating restoration intended to provide habitat for the basin's fish and wildlife and that intended to reduce polluted rainfall runoff.

We are gratified by the plan's substantial funding and rapid timeline proposed for fixing the basin's Area of Concern toxic hotspots, and the recommendation that action be better coordinated among federal and state agencies. However, we hope that the plan will ultimately recommend that community AOC coordinating bodies be included in the development of any cooperative agreements.

While there is much to applaud in the proposed plan, we believe that there are also some significant weaknesses to be addressed. Recommended controls on mercury pollution from coal-burning power plants are too weak and should be dramatically strengthened. The plan does not discuss funding options for cleaning up old contaminated "brownfield" industrial sites near the lakes, which continue to be human health hazards while also impeding redevelopment of the region's cities and their waterfronts. And the plan does not fully recognize that new technologies and methods can help manufacturers use fewer toxic chemicals that continue to pollute the lakes and our region.

We consider the proposed plan to be an excellent basis for the final document scheduled for completion in December. The current draft's strengths substantially outweigh its weaknesses, but the weaknesses are sometimes serious and must be addressed for this admirable initiative to succeed.

Overarching comments

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The Great Lakes Regional Collaboration's draft strategy makes a substantial start on identifying the actions needed to restore the Great Lakes. In the following sections we make a number of specific suggestions as to how the strategy could be strengthened. Here we wish to outline suggestions whose adoption by plan writers would require overarching change.

Binationality. First is the need for the strategy to address the fact that any comprehensive restoration of the Great Lakes must be a binational effort. Throughout the plan there should be references to, and requested support for, binational information sharing and, most importantly, decisionmaking.

Overlapping stresses. The plan should recognize and substantively respond to the scientific understanding that what might be termed the "perfect ecological storm" is a possibility for our basin. The returning "dead zone" in Lake Erie is but one example of the possible result of a combination of forces identified in the draft strategy's six sections dealing with particular stresses to the Great Lakes. The region's best scientific understanding is that multiple stresses can overlap in certain places or throughout an entire lake, potentially causing catastrophic effects that are more than the sum of several stresses and may not be effectively addressed by incremental progress on those stresses individually.

We suggest that the draft plan include an overarching recommendation that the possibility of such a catastrophic combination of stresses be the subject of dedicated, ongoing research, and that any coordinating bodies, whether of information or remedial action, established under this restoration effort be designed so as to be able to flexibly respond to the results of such research.

Implementation specifics. The plan should include a funding and implementation strategy complete with specific agency roles and responsibilities, timeline, and recommended funding levels.

Sequencing. Although plan writers are limited by space in the likely more influential main report, both the report proper and, where appropriate, its appendices, should either suggest an effective sequencing of the plan's proposed actions or recommend the provision of funding to determine effective sequencing.

Protection. Finally, the report should consistently note that any drive to restoration must not shortchange ongoing efforts to protect that lakes and their surrounding watershed. Protection efforts must be increased and assured for the long term if the benefits of restoration are to be maintained and the dramatic proposed investment in restoration ultimately justified.

Aquatic Invasive Species

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In general, the draft Aquatic Invasives Species strategy is an outstanding overall strategy which, if expeditiously adopted, funded, and implemented would dramatically reduce threats and impacts of invasive species. It should be approved and implemented immediately.

However, we are concerned about the possibility of delay in adopting the recommendations. Recent experience gives us little reason to believe that the federal government recognizes the urgency of addressing the problem of aquatic invasive species in the Great Lakes. The longer the plan's aquatic invasive species recommendations are delayed, the proportionally greater risk of severe and irreversible economic and ecological injury to the region. The legislation pending in Congress explicitly endorsed in this action plan was introduced years ago and has since languished in committee. We believe that immediate and unequivocal endorsement of the legislation by the administration would give the legislation the momentum it needs to pass. Having called for creation of a comprehensive restoration plan for the Great Lakes, the administration has the responsibility to take a leadership role in what is arguably the number one problem now facing the lakes, and one for which there is a full and cost-effective solution ready to hand.

Prevention principle. We strongly endorse the recommendation that policies and approaches be based on prevention. So far, government approaches have been reactive, or worse. Parts of the federal government are blocking aggressive action.

Immediate enforcement and action. We strongly support interim steps including:

- Mandating that the U.S. Coast Guard adopt by the beginning of the 2006 shipping season, under its existing authority granted by the current National Invasive Species Act (NISA), interim treatment regulations such as the so-called "swish and spit" for ships entering the Great Lakes in the "no ballast on board" (NOBOB) condition. To assure no misunderstanding about this mandate, Congress should immediately clarify the intent of NISA to cover NOBOB vessels operating in the Great Lakes
- Mandating that the Environmental Protection Agency by 2007 regulate releases from ships as point source discharges under the Clean Water Act. In particular, EPA should comply with the recent relevant federal court ruling. To assure no misunderstanding about this mandate, Congress should immediately pass language clarifying the intent of CWA to cover invasive species being discharged in the ballast of commercial ships
- Using existing authority under the Lacey Act to list as injurious black, bighead, and silver carp and provide sufficient funding to enable expanded use of this tool for other species and pathways
- Immediately producing a list of species of concern for the Great Lakes basin and institute an immediate moratorium by the States on the trade of species on that list, until the species are screened and approved for trade
- Immediately investigating alternatives to ballast water treatment, including shore-based treatment facilities and cargo transfer stations, that would effectively close the Great Lakes to any releases from ocean vessels

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

- Requiring ocean-going ships operating in the Great Lakes to carry liability insurance sufficient to compensate individuals, companies, and political jurisdictions who could suffer from new invasive species introduced by ocean-going ships
- Providing funding for fiscal year 2006 to complete the construction of a second, permanent dispersal barrier on the Chicago Sanitary and Ship Canal, to upgrade and make permanent the existing experimental barrier, and to operate and maintain the barriers at federal expense

Comprehensive approaches. We support immediate adoption of comprehensive approaches proposed in S. 770 and HR 1591 and 1592 (the National Aquatic Invasive Species Act). We oppose proposals, such those contained in S. 363, which fail to address all pathways or would hamstring state efforts to adopt more stringent approaches.

However, we must stress that the 2011 deadline articulated in S. 770 for treatments to protect national waters from ballast-mediated invaders results in a dangerous wait for the Great Lakes region, which experiences a new invasive species at least every eight months. For this reason, we recommend an expedited timeline for implementation of standards for all ocean-going vessels operating in the Great Lakes region. An advanced mandatory final standard timeline in NAISA should occur by 2008, which is the same deadline for installation of technology to treat ballast water onboard all new ships entering service.

State action. We strongly support the draft strategy's recommendation that, should Congress and the administration fail to move expeditiously to adopt and implement the needed legislation and regulations, the states proceed independently on several fronts. We particularly support the draft strategy recommendation that the states prepare for implementation of independent means to end the introduction of invasive species via ballast water *during* the leadup to congressional and administration action, so that implementation of solutions can take place on schedule—by 2008—whether or not the federal government ultimately acts.

Hydrological separation of basins. We support elements of the draft strategy calling for rapid investigation of permanent hydrological separation of the Lake Michigan and Mississippi River basins. The draft strategy's recommendation for a 2006 implementation and full funding for a reconnaissance study of such an endeavor is the only means by which we can ensure new invaders will not enter the Great Lakes through the Chicago Sanitary and Ship Canal.

We recommend that the final restoration plan also support study of hydrological separation of other man-made connections between the Great Lakes and other watersheds, such as that of the Champlain portion of the New York State canal.

Habitat / Species

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Implementation of the Habitat / Species section's recommendations of the draft strategy would result in substantial improvement in Great Lakes habitat extent and quality. However, the section's recommendations could be strengthened.

Terrestrial invasive species. The strategy should address terrestrial invasive species as a critical threat to habitat integrity. The strategy should set as a goal elimination of unintentional introduction

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

and spread of terrestrial invasive species, both plants and animals, within all terrestrial Great Lakes habitats. The strategy should recommend expenditure of \$20 million annually through 2010 for prevention, eradication, and management of terrestrial invasive plants and animals, with priority given to wetlands and globally significant habitats within the Great Lakes watershed.

Tributary restoration. We strongly support the general idea of the Habitat / Species section's short-term goal for riverine habitats: "Restore ten tributaries in each Great Lake state or ten percent of all Great Lakes tributaries (whichever is smaller)," which is fleshed out in recommendation 3. However, we suggest that the recommendation include:

- The goal in the recommendation itself, not only in the section's opening list of goals
- An initial phase during which all Great Lakes tributaries are assessed for potential for enhanced ecological functioning due to restoration efforts
- A reference to a corresponding recommendation in the Information and Indicators section that would support assessing tributaries for this purpose
- A reference to "scientifically based hydrologic regime principles" as the main basis for tributary restoration projects
- Reservation of sixteen of the watersheds (two per state) whose restorative purpose is soil conservation
- Assurance that ten of the watersheds include significant urban reaches whose restorative purpose is a combination of habitat enhancement and nonpoint source pollution reduction

Wetland restoration purposes. We strongly recommend separating the Habitat / Species and Nonpoint Source wetland restoration recommendations. We feel strongly that the 550,000-acre recommendation in the Nonpoint Source section (and the longer-term recommendation of one million acres) should be above and beyond the recommendation in this section.

While there may be some overlap in the acreage recommendations from the two sections, the geographies would usually be different for wetland restoration projects focused on providing habitat and on abating nonpoint source pollution, respectively. However, we do not mean to imply that the different wetland geographies require different programs.

With the staggering losses of wetlands seen across the Great Lakes, and their multiple functions and values, it is important to put significant resources to the task of vastly increasing wetland acreage across the basin. In effect we are recommending that the plan recommend restoration of a total of 1,100,000 acres of wetlands over five years, and a total of two million acres over the longer term.

Protecting "isolated" wetlands. The strategy should strongly advocate the development of new policy to institute protection of so-called "isolated" wetlands lost as a result of the "SWANCC" court decision. The strategy should recommend expenditure of \$5 million dollars annually for five years to support federal and state coordination in the development of new policy

The section should also recommend 1) that the Congress adopt the Clean Water Authority Restoration Act, which clarifies the definition of "waters of the United States" so that so-called isolated wetlands are protected, and 2) that the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers reaffirm their commitment to protecting so-called isolated wetlands in the Great Lakes basin by replacing current policy guidance with pre-SWANNC Clean Water Act protections for so-called isolated wetlands

Regulating wetlands restoration. Nearly all restoration efforts involve activities regulated by state and federal law, which in turn mandate a permit review process. The current regulatory process has in

some cases been effective for protecting wetlands from destruction—it is decidedly not conducive to supporting restoration efforts. Existing wetlands regulation legislation and its implementation often does not distinguish activities that restore or enhance wetlands from those that destroy them.

We recommend that the regulatory review process of all appropriate agencies be modified to effectively regulate and encourage ecological restoration. To increase the consistency and efficiency in which new permitting processes are implemented, we recommend that regulation of restoration activity be consolidated into one department in all appropriate permitting agencies.

The above notwithstanding, we are concerned that any process for reviewing and modifying wetlands regulation could result in a weakening of protection for existing wetlands. We recommend that the draft plan explicitly warn of this danger and suggest means by which to prevent it.

Rare biological systems. Recommendation 4, dealing with coastal shore and upland habitats, makes clear that efforts in these areas are intended to protect and restore many of the unique and rare plant and animal systems within the Great Lakes. We suggest only that this recommendation could be strengthened by noting the fact that the Great Lakes basin is home to forty-one globally rare plant and animal species.

Coastal shores in urban areas. As an analogous comment on tributary restoration above, we recommend that urban areas receive dedicated attention in any coastal habitat restoration effort. At least 10 percent of the acreage targeted for short-term coastal shore protection and restoration should be along urban shorelines.

One-million-acre goal. Recommendation 2 of the strategy's habitat / species section, spending between \$77.7 million and \$188.7 million annually to achieve the Great Lakes goals of the North American Waterfowl Plan and related Joint Venture, should explicitly state the long-term goal of one million acres of added wetlands, rather than only the five-year goal of 550,000 additional wetland acres. The recommendation should clearly be separate from the restoration goal for the purpose of nonpoint source pollution reduction

General use of existing programs. We recommend that the final report include a short section making it clearer to readers 1) which very specific existing programs could be used to support each of the Habitat / Species recommendations, and 2) what key reform to particular programs could make those programs more effective. Some of the programs are already listed in the report, some are not—in some places we are recommending a more complete list, in others only a more specific list. The purpose of this recommendation is to assure that the final report is written in such a way that those writing or supporting implementing legislation can quickly determine what statutory vehicles are available, and, where appropriate, how those vehicles might need to be reformed, so as to achieve the report's goals.

We suggest the following lists of relevant programs and their useful reform be integrated into the respective recommendations:

- Recommendation 1: Native fish communities in open-water near-shore habitats
 - Great Lakes Fishery and Ecosystem Restoration Program, or WRDA section 506 (key reform: U.S. Army Corps of Engineers improve its effectiveness in securing partnership with states and municipalities)
 - USFWS Coastal Program (key reform: direct dedicated funding for the Great Lakes for “on the ground,” community-led restoration projects)

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

- USFWS Great Lakes Fish and Wildlife Great Lakes Restoration Act (key reform: the act should be reauthorized)
- NOAA Community-Based Restoration Program
- Recommendation 2: Wetlands
 - NOAA Coastal and Estuarine Land Conservation Program (key reform: establish a subprogram dedicated to the Great Lakes)
 - North American Wetlands Conservation Act
 - USDA Wetland Reserve Program (key reform: increase funding for Great Lakes under the wetland reserve enhancement option)
 - USFWS Great Lakes Fish and Wildlife Great Lakes Restoration Act (key reform: reauthorize the act)
 - USFWS Partners for Fish and Wildlife Program
 - USFWS Coastal Program (key reform: see above)
 - GLNPO Grants Program
- Recommendation 3: Riparian habitat
 - USDA Conservation Program (key reform: facilitate reenrollment of Conservation Reserve Program lands in critical Great Lakes watersheds)
 - EPA Nonpoint Source Program, or Clean Water Act 319
 - USDA Environmental Quality Incentives Program (key reform: increase priority of practices that benefit water quality in critical Great Lakes watersheds)
 - GLNPO Grants Program
- Recommendation 4: Coastal shore and upland habitat
 - USDA Conservation Reserve Program (key reform: add additional incentives / bonuses for restoration of rare and unique habitats, for example, prairies and oak savannas)
 - USDA Wildlife Habitat Incentive Program
 - USDA Conservation Security Program (key reforms: provide more oversight on farm evaluation and tie the Wetland Reserve Program, the Conservation Reserve Program and the Wildlife Habitat Incentive Program to the Conservation Security Program in order to assist landowners in maximizing conservation programs on their land)
 - USFWS Coastal Program (key reform: see above)
 - USFS Forest Legacy Act
 - USFWS Partners for Fish and Wildlife Program
 - GLNPO Grants Program

Specific use of Clean Water Act section 404. When mentioning wetland protection, the strategy should note the need to more effectively employ section 404 of the Clean Water Act and parallel state and tribal protection programs.

Visualization. We think the power of this section's recommendations could be substantially enhanced by inclusion of a map that demonstrates the potential geographical extent of the impact of its recommendations.

Coastal Health

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The Coastal Health section of the strategy makes a strong start on improving coastal—largely human—health conditions, as the Coastal Health Strategy Team was charged to do. However, the section would be strengthened by several changes, including an accelerated timeline and more specific beach closings and drinking water protection recommendations.

Timeline. A 2020 deadline for cleaning up combined and sanitary sewer overflows is over forty-five years after the passage of the Clean Water Act, which was supposed to put an end to sewage dumping. We recommend a 2015 date as being more appropriate, especially since the funding request is for only the first five years. The deadline of 2020 is ten years past the deadline by which most government plans expect wastewater treatment plants to have implemented Long-Term Control Plans, which are intended to end sewage overflows.

Prioritize communities with good stormwater management. Experts agree that the most effective way to stop sewage and stormwater overflows that affect coastal health is by stopping stormwater at its source, not by building enormous infrastructure projects to transport and treat the water. These “soft-path,” “non-infrastructure,” “green infrastructure” solutions to overflows are discouraged by current federal funding programs.

A strong idea discussed by the strategy team but ultimately de-emphasized by relegation to the appendix is rewarding communities that are most effectively managing stormwater. Therefore, we recommend this section explicitly prioritize funding for communities with strong stormwater overflow and watershed management plans, especially those that are implementing a “no net increase of stormwater” rule for new development

Include industrial pre-treatment. Industrial pre-treatment of wastes is addressed only tangentially in this section, a significant shortcoming. Proper pre-treatment of industrial waste is necessary in order to reduce the loading of toxic pollutants to the Great Lakes, especially from cities with combined and sanitary sewer overflows.

This section should advocate a focus on the industrial pre-treatment program by requiring the U.S. Environmental Protection Agency and the states to review, upgrade, and, where necessary, enforce the pre-treatment program in all cities. This recommendation should be coordinated with a similar recommendation introduced to the Toxic Pollutants section of the strategy.

Improve funding and regulatory program for indirect sources of pollution. While the Coastal Health section has a strong goal in reducing beach contamination by 90 to 95 percent, it sets no target date for reducing the major cause of such contamination—rainfall-associated contamination. The section also fails to advocate enforceable programs for achieving this goal, recommending only education and research goals along with encouragement to enforce and promulgate existing regulations on boaters discharging waste. Research, education and enforcement of boater regulations will not lead to a 90 to 95 percent reduction in beach contamination by 2010. Moreover, the funding is listed as “variable,” based on sources, not a clarion for government support of the needed effort.

We recommend \$5 million annually to support state and local government programs to eliminate

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

pollution from boats and other indirect sources. Such a recommendation should be coordinated with a recommendation from the Nonpoint Source section of the strategy.

Advocate real-time beach testing. The section supports fully funding the BEACH act and implementing a “risk-based approach to manage recreational water.” Although these are fine goals, they need to be stronger and more specific to truly protect public health. The goal needs to be not merely that beaches are closed less often, but also that they are closed when they need to be closed and open when they are safe.

We recommend that the proposed funding in this section (\$2 million annually to states and \$9 million to the U.S. Environmental Protection Agency) be explicitly targeted at making widely available by 2007 the new testing technology that provides water quality data in less than two hours. The current system, whose test results lag reality by more than a full day, is unable to protect public health early in a contamination phase and often leaves beaches closed when they have in fact become safe.

Strengthen drinking water source protections. The Coastal Health section's goal of protecting drinking water sources from “chronic and episodic threats of chemical and biological contamination” come with no new funding, only full funding for state revolving funds at authorized levels through 2010, requiring only state strategies for protecting water quality by 2010 and new tests for parasites and other hazards.

We recommend inclusion in the restoration strategy of goals and incentives for states to truly protect source water, including prioritization of drinking water sources. The precedent-setting programs now being established in Ontario, following the drinking water contamination incident that killed seven people and poisoned two thousand in Walkerton in 2000, could be a model. See information on the legislation at www.ene.gov.on.ca/water.htm

Enforcing current law. The premise of the Coastal Health section is that current requirements and associated regulations under the Clean Water Act are strong enough to correct wet weather discharges and their adverse impacts.

We recommend that the final report contain a recommendation that declares, “U.S. EPA and the States should fully implement, enforce and report on their wet weather control programs to identify and correct deficiencies to ensure the requirements of the Clean Water Act are achieved in a timely fashion.”

AOCs / Sediments

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We strongly support the draft AOC / Sediments section of the draft restoration plan. If implemented, the section's recommendations will move us much closer to a healthy Great Lakes ecosystem. However, a few key areas of the section require strengthening if the strategy as a whole is to meet its goal or restoring the Great Lake basin ecosystem. In particular, the section should overtly recognize that, while sediment contamination is usually the most extensive and expensive problem faced by Areas Concern, they are also usually not the only problem they face.

General comments

The draft strategy rightly identifies toxic sediments as a major contributor to continued beneficial use impairment at almost all Areas of Concern. Other major sources of impairment, including sewage overflows, nonpoint source pollution, and habitat loss, are covered by other sections of the draft strategy, making the section's focus on contaminated sediments largely appropriate. However, we believe that the section should address sources of impairments not addressed elsewhere in the strategy:

Land-based sites impairing uses in AOCs. The section identifies runoff from land-based hazardous waste sites as a common cause of beneficial use impairments in Areas of Concern. In addition, these sites can pose a severe threat to human health, disproportionately that of low-income and minority communities. However, the section makes no recommendations for cleaning these sites up, although they are addressed nowhere elsewhere in the strategy.

We strongly recommend expanding this section to provide funding for the identification, cleanup and restoration of land-based toxic waste sites that contribute to beneficial use impairments and pose a serious risk to human health in Great Lakes urban communities.

Toxic sites outside AOCs. Although this strategy team was tasked with addressing only Great Lakes AOCs, it remains the case that contaminated sediments and toxic sites that fall outside of official Areas of Concern also damage the Great Lakes ecosystem and should be addressed somewhere in the strategy. This section of the strategy seems the most appropriate for this purpose.

Specific comments

Goals and milestones. Pursuant to our recommendations above, we think the section's goals and milestones should be expanded to include restoring land-based toxic waste sites that contribute to Great Lakes beneficial use impairments and pose a serious risk to human health. We also support defining the notion of restoration in the current goal to more specifically reflect the goal of "restoring beneficial uses" in all Great Lakes Areas of Concern.

Use of Legacy Act. We support the use and expansion of the Great Lakes Legacy Act as a major vehicle through which to address contaminated sediment cleanup, particularly at orphan sites. In addition, we support most of the recommended revisions to the Legacy Act to enable more effective use of its funds, but we are concerned about the proposed revision to the ways in which "potentially responsible parties" are dealt with.

Potentially responsible parties. We recommend that the section explicitly state that neither the Great Lakes Legacy Act nor any other public funding mechanism should replace the use of Superfund or other enforcement vehicles where there is a viable private entity responsible for the pollution at issue. In these cases, the private interests should be primarily responsible for cleanup of the site.

Expanding AOC program capacity should include community involvement. The draft is correct in tying the lack of progress in AOCs to a lack of funding and unclear roles and responsibilities. We strongly support increased funding for program implementation, tied to increased accountability. However, community AOC coordinating bodies should be included in the development of any cooperative agreements. Either the councils or other local entities should receive increased funding

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

for public outreach. The lack of extensive public involvement and dialog from the beginning of a sediment cleanup can lead to significant problems and opposition towards the end of the process.

We recommend that this section include funding recommendations tied specifically to community outreach and coordination.

Establishing a federal-state AOC coordinating committee. We very strongly support a federal-state coordinating committee as an excellent vehicle for assuring common policies and, most importantly, easy access by AOC and Remedial Action Plan coordinators to authoritative information. However, we do not see how the recommendation's laudable goal of providing "one-stop shopping" for those implementing AOC recovery plans can possibly be achieved without some recommended funding.

"Mining" confined disposal facilities. We strongly support this section's recommendation 4, promoting development of clean sediment treatment and disposal alternatives. In the long term, toxic sediment treatment, using technologies that produce no new contaminants and do not release contaminants into the environment, is a much better solution than the continued removal and relative isolation of contaminants in disposal facilities. Use of such technology is also likely to speed up community consensus on conducting cleanups.

However, we do not support the "mining" of existing confined disposal facilities, unless the contents are clean sands and the beneficial use of the materials will not release any contaminants into the environment.

Nonpoint Sources

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The Nonpoint Source section of the restoration strategy charts a steady course toward addressing this difficult but critical pollution problem. We agree with the fundamental barriers identified by the Strategy Team and generally feel that the goals, interim milestones, and recommendations put forth will help to overcome those barriers.

We are also very happy to see the inclusion of critical geographic areas in this section. While nonpoint source pollution is clearly a basinwide issue, there is little doubt that addressing the problem in critical geographic areas will more effectively deliver the most ecological effect per restoration dollar.

However, we think some changes in the section could strengthen it.

Wetlands restoration purposes. We strongly recommend separating the Habitat / Species and Nonpoint Source wetland restoration recommendations. We feel strongly that the 550,000-acre recommendation (and the longer-term recommendation of one million acres) in the Nonpoint Source section should be above and beyond the recommendation in the Habitat / Species section.

While there may be some overlap in the acreage recommendations from the two sections, geographies would usually be different for wetland restoration projects focused on providing habitat and on abating nonpoint source pollution, respectively. With the staggering losses of wetlands seen across the Great Lakes, and their multiple functions and values, it is important to put significant resources to the task of vastly increasing wetland acreage across the basin. In effect we are

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

recommending that the plan recommend restoration of a total of 1,100,000 acres of wetlands over five years, two million over the longer term.

Confusing wetlands milestone. We believe that the language “restore, recover, and protect” used in the interim milestone for the wetlands goal of the section may confuse the agreed-upon concept of a net increase of wetlands. We suggest rewording the interim milestone to read:

- By 2010, restore, recover, and protect wetlands to achieve a net increase of 550,000 acres of wetlands within the Great Lakes basin.
- By 2015, restore, recover, and protect wetlands to achieve a net increase of 1,000,000 acres (450,000 additional) of wetlands within the Great Lakes basin.

Protecting “isolated” wetlands. The strategy should strongly advocate the development of new policy to institute protection of so-called “isolated” wetlands lost as a result of the “SWANCC” court decision. The strategy should recommend expenditure of \$5 million dollars annually for five years to support federal and state coordination in the development of new policy

The section should also recommend 1) that the Congress adopt the Clean Water Authority Restoration Act, which clarifies the definition of “waters of the United States” so that so-called isolated wetlands are protected, and 2) that the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers reaffirm their commitment to protecting so-called isolated wetlands in the Great Lakes basin by replacing current policy guidance with pre-SWANNC Clean Water Act protections for so-called isolated wetlands

Buffer strips. We applaud the recommendation to provide \$335 million to restore 335,000 acres of buffer strip over five years. The section should recommend that the relevant coordinating agencies be charged with identifying priority watersheds where buffer strips are most urgently needed, and work with local governments and organizations to identify the types of buffer strips best suited to those watersheds in order to achieve water quality goals.

Improve funding and regulatory program for indirect sources of pollution. As noted also in the Coastal Health section above, we recommend \$5 million annually to support state and local government programs to eliminate pollution from boats and other indirect sources.

Comprehensive soil conservation in sixteen watersheds. We strongly support the general idea of a whole-watershed approach to soil conservation represented by recommendation 3. However, we think the recommendation could better serve the overall purpose of ecosystem restoration if were integrated into (in effect become a subset of) with the recommendation made in the Habitat / Species section to “restore ten tributaries in each Great Lake state or ten percent of all Great Lakes tributaries (whichever is smaller),” fleshed out in Habitat / Species section’s recommendation 3.

We recommend that the Nonpoint Source recommendation 3 be recast to address two watersheds in each state, rather than a total of ten. These sixteen watersheds should be drawn from the list of ten watersheds in each state chosen for restoration per recommendation 3 of the Habitat / Species section. The increase to sixteen watersheds from ten would require a corresponding increase in the requested funding for the first five years of the plan from \$120 million to \$192 million.

The recommendation should require that the soil loss reduction effort in the sixteen watersheds be fully integrated into the overall watershed restoration efforts.

Hydrological restoration of ten Great Lakes tributaries. As with the soil loss reduction recommendation immediately above, we recommend that this recommendation be integrated with (become a subset of) the recommendation in the Habitat / Species section advocating hydrological restoration of ten Great Lakes tributaries per state. Therefore this recommendation should be recast to advocate that ten of the total of eighty basin tributaries targeted for hydrological restoration of some kind by the Habitat / Species section's recommendation 3 should be urban reaches of Great Lakes tributaries, and that projects carried out in those reaches should have dual purposes: habitat enhancement and nonpoint pollution source reduction.

Toxic Pollutants

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We strongly support the general goals set forth in the Toxic Pollutants strategy. These goals have long been articulated in the Great Lakes basin. However, the strategy's recommendations and interim milestones fall far short of what is needed to achieve its goals. While the strategy contains recommendations that are strong and should be implemented immediately, others must be strengthened in order to protect human health and fully address toxic substances in the Great Lakes basin.

Human health. With the exception of fish consumption, the strategy does not address threats to human health stemming from toxic pollutants. Toxic pollutants contaminate our air, water, and food and are pervasive enough that we are seeing human health effects at background levels. A focus on protecting vulnerable populations from exposure to contaminants of concern would protect all citizens of the basin. We recommend the strategy include a scholarly assessment of current threats to human health, particularly children's health, with recommendations for priority actions.

Eliminating human health effects caused by toxic chemicals should—indeed, must—be one of the goals of the strategy.

Fish consumption advisories. Fish are an important source of food for a significant minority of basin residents, many of whom continue to eat contaminated fish. We support the recommendation for consistent and easily accessible fish consumption advisories, however, in order to protect those most at risk, the plan should also recommend that the advisories be posted at fishing locations that pose the greatest threat. The plan should also declare that advisories are only an interim solution, and articulate a basin-wide commitment to cleaning up the ecosystem sufficiently to eliminate the need for fish advisories.

We also recommend that the strategy ensure that the Great Lakes Sport Fish Advisory Task Force has the funding and authority needed to fulfill the recommendation. The need for consistent, basin-wide advisories still exists, despite the fact that the task force has been working on them for years. The task force should be directed to develop advisories fully protective of the most sensitive populations and consider synergistic and additive effects of fish contaminants.

Stopping current emissions—mercury. We cannot support any interim milestones or recommendations that do not protect public health. The third interim milestone references a mercury rule that is currently being challenged by six of the eight Great Lakes states because it does not protect public health. We will only be able to remove fish advisories and protect public health with

strong mercury standards based on sound science. The strategy will not fulfill goals 1 through 5 without strengthening the mercury sections.

The mercury recommendation should specifically indicate that utilities and other sources must reduce mercury emissions sufficient to protect human health.

To prevent the buildup of mercury from coal-fired power generation, the recommendation should allocate resources to developing and commercializing clean, safe renewable sources of power that do not emit any mercury, as well as give a greater emphasis to energy efficiency and conservation programs. We suggest that the plan recommend major investments in commercialization and implementation of technologies that are already available to conserve energy. We know that the payback for energy conservation far outpaces that of any other environmentally beneficial activity, and that it will be necessary in any case even as conventional energy prices rise and we shift to greater use of alternative sources of energy. Major incentives should be offered to businesses and homeowners who engage in conservation measures and switch to alternative and green energy sources.

Finally, the basin-wide mercury product stewardship strategy should include funding for reclaiming and recycling the mercury that is already in our waste streams, for example, switch recovery programs, and ensure that such mercury is properly disposed of, which ideally would include removal from the market.

Stopping current emissions—PCBs. We strongly support the recommendation to decommission and properly dispose of PCB-containing electrical equipment, though it must be emphasized that proper disposal means safe, permanent, non-dispersive destruction of PCBs. Stockpiles of already decommissioned equipment are a significant source of PCBs to the basin. The strategy should recommend measures sufficient for properly disposing of PCB-containing equipment.

Stopping current emissions—other persistent toxins. The strategy does not address the many new and emerging chemicals that have been accumulating in the Great Lakes biota and in residents of the Great Lakes basin in exponentially increasing amounts in recent years. The region's history with the original Great Lakes chemicals of concern identified by the International Joint Commission demonstrates that persistent toxic substances become problems for generations with enormous costs to society in cleanup costs, health impacts, loss of economic development opportunities, and quality of life. It is far more cost-effective to address persistent chemicals as soon as we see that they pose a threat, instead of allowing them to build up in our lakes, sediments, and biota. In order to actually meet the strategy's first, third, and fourth goals, the strategy should recommend and fund the design and implementation of plans for the virtual elimination of all persistent toxic substances that are:

- Increasing in concentration in any segment of the Great Lakes biota, and/or
- Flat or increasing in sediment core concentrations in both open water areas and AOCs and/or
- Present in human tissue, blood, or breast milk in flat or increasing levels and/or
- Detected in waste water treatment plant effluent in the Great Lakes region and/or
- Detected in whole fish but not a standardized part fish consumption advisories, and/or
- Have a reasonable probability of contributing to adverse effects in people, wildlife, or aquatic life

Top priority should be given to chemicals that fit more than one of the above categories. The strategy should include an appendix prioritizing examples of above chemicals as identified by the Great Lakes Binational Toxics Strategy and the State of the Lakes Ecosystem Conference. In particular, brominated flame retardants and perfluorinated chemicals are now increasing alarmingly in biota and breast milk. Brominated compounds are approaching levels in commerce that mirror PCB use rates.

Preventing future emissions. We support the recommendation 2's pollution prevention efforts. However, pollution prevention is not sufficient to prevent new toxic chemicals from entering the Great Lakes basin. The strategy should provide resources for enhancing current chemical screening tools, for developing new ones, for ensuring that such tools use wildlife health criteria and consider the most sensitive human populations, and for ensuring that such tools are readily available to industry. Screening tools should be used in conjunction with the precautionary principle to prevent new toxic chemicals from entering the Great Lakes basin.

In order to meet the first four goals laid out in the strategy, we must find replacements for toxic chemicals currently in use. The strategy should recommend at least \$50 million annually over five years to set up a "green chemistry" network that would focus on research, education, and practical implementation of chemical creation and management systems that protect the environment and human health.

Building capacity to transform the way in which chemicals are made, the network would re-focus chemistry education, drive research to develop chemicals designed to be inherently safe, and provide technical assistance services to small- and medium-sized businesses to effectively use new pollution prevention techniques and safer chemicals. Addressing the safety of chemicals before they are produced would both be cost-effective and set a clear course for prevention rather than remediation.

Additional funds should be allocated to provide direct assistance to businesses in all aspects of product design and manufacture in order to eliminate the use of toxic chemicals. We recommend the establishment of a regional toxics use reduction institute with an academic affiliation to provide this assistance to businesses. In addition, incentives should be aligned to reward businesses that take steps to eliminate target toxic chemicals, and design products and services that are non-toxic.

By integrating toxicology and environmental effects at the outset of chemical creation and deployment, time and resources can be saved by both chemical producers and product manufacturers. If we do not re-direct our funding and attention to the synthesis of safe chemicals, we do our industries a disservice as well as fail the social imperative to make our environment chemically safer for future generations.

Adequately implementing existing regulatory programs. The strategy fails in some cases to identify existing regulatory programs that have suffered from inadequate implementation. For example, discussion on the Clean Water Act in the Toxic Pollutants appendix (pages 36 to 38) does not address several important provisions in the act that can have significant impacts on PBT chemical releases or loadings to surface waters. These include the:

- Importance of the Total Maximum Daily Load provision of the act, involving the development of restoration plans addressing all sources of pollutants contributing to impaired waters; this is particularly crucial for dealing with the large number of water bodies where nonpoint source loadings are the major contributor to PBT loadings
- Significant backlog of National Pollutant Discharge Elimination System permits that often plagues state agencies
- Need for timely implementation of triennial review of water quality standards by state agencies

Monitoring. We support the section's monitoring recommendations and suggest the following additions. The chemical screening tools described above should be used to identify a chemical watch list to ensure comprehensive monitoring. Once research on chemical properties and long-term effects of a chemical indicate that it is toxic, plans should be designed and implemented for its elimination, as described above. Priority for toxicity research should be given to the categories of chemicals listed

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

above, that is, chemicals already known to be accumulating in Great Lakes biota. Research should be used to establish new water quality standards and fish tissue criteria with consideration of additive and synergistic effects and exposures through multiple routes. Finally, the plan should recommend refining and expanding recognized indicators of progress for protection of human health.

Include industrial pre-treatment. A major pathway of toxic contamination of the Great Lakes is municipal waste water. Proper pretreatment of industrial waste is necessary in order to reduce the loading of toxic pollutants to the Great Lakes, especially from cities with combined and sanitary sewer overflows.

In coordination with the Nonpoint Sources section of the strategy, this section should advocate a focus on the industrial pretreatment program by requiring the U.S. Environmental Protection Agency and the states to review, upgrade, and, where necessary, enforce the pretreatment program in all cities.

Indicators and Information

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The section poses a challenge to readers because it is highly technical and generally several steps removed from actually solving problems. This strategy section is a reduction of much more detailed and informative appendix. We strongly support the section's comprehensive treatment of the many components of information needed by decisionmakers and the public in their efforts to protect and restore the functioning of the Great Lakes ecosystem: indicator determination, information gathering, information dissemination and analysis, and research.

Broad areas of need. We also strongly support the section's awareness of and attempt to address the major broad areas of information need, particularly nearshore conditions and climate change effects.

We recommend adding two important items to that list: 1) information and indicators dealing with potential synergistic, catastrophic developments, as outlined referenced in our opening "overarching" comments on the strategy as a whole, and 2) the determination of target flow regimes for major Great Lakes tributaries. We currently do not have methods in place for characterizing or classifying watersheds based upon degree of altered hydrology. We suggest that the section include support for the development of credible protocols for measuring ecological impact based upon degree of altered hydrology.

Problem solving. We are concerned that, as written, the section does not effectively make the case to non-technical readers the critical importance of its recommendations to the success of the other elements of the strategy.

To this end, we recommend that the section be rewritten to be problem oriented. The section's four-part structure could be fundamentally retained, but in distributed form, reproduced under each of several problem headings, such as "basin water supply," "nearshore conditions," "climate change effects," and so on. Readers are more likely to be persuaded of the need for an investment in glamour-challenged information, monitoring, and research if it is clearer what problems such an investment will help solve.

New offices. Several Indicators and Information recommendations call for establishing and supporting new organizations, including a Great Lakes Communications Workgroup, a Regional Information Management Infrastructure, a Great Lakes Research Office, and a Great Lakes Information Coordination Council. The Great Lakes region has a number of well-established, basin-wide and international organizations that could possibly be charged or modified so that they could be charged to serve the intended purposes. Such institutions include, for example, the International Joint Commission's Council of Great Lakes Research Managers, the Great Lakes Commission, the Great Lakes Fisheries Commission, and the Great Lakes Sea Grant Program Network. It is a truism that creating new offices, easily tarred as "new bureaucracies," can become a political liability for a proposed new program. We understand that some of the proposed offices are assemblages of existing officials and that their purpose is to make existing programs more effective. Therefore we are recommending here only that the Information and Indicators drafting team very carefully review the draft reports proposed new offices to see where existing institutions could perform the needed tasks. The fewer new institutions proposed by the section, the better, practically speaking.

Research. The report recognizes that research and monitoring are fundamental to sound decisions and that the current level of funding for research is not sufficient to guide best courses of action for the restoration. In particular, we strongly support the proposal to double federal Great Lakes research support over the next five years to better meet restoration needs.

Additionally, we strongly endorse the proposal that, in addition, 10 percent of all new research funds to support Great Lakes restoration should be dedicated to *independent* research. Historically, the independent academic community has made significant and important contributions to policy and management actions in the Great Lakes. However, declines in funding for competitive, peer-reviewed research over the past decades has greatly diminished academic involvement in understanding and protecting the functioning of the Great Lakes ecosystem. It is imperative that these independent voices continue to be supported and heard, and that this support be delivered through independent, extramural research programs not subject to real or perceived manipulation by management agencies or government laboratories.

Sustainable Development

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General comments

The Sustainable Development strategy team faced the difficult task of writing a plan for a subject area that is high-concept, cross-cutting, and more amenable to policy development than the projects that are the main focus of the Collaborative's overall strategy. Environmental stakeholders are of course highly supportive of movement toward sustainable practices. Economic activity will never cease and ecological functioning can be preserved in the long run only if economic activity is made compatible with that functioning—this is the essence of sustainable development. Given its conceptual nature, the Sustainable Development Strategy Team has done yeoman's work in submitting a draft document that is both generally right in attitude and (relatively speaking) specific in application.

Sustainability and social needs. The sustainable development paradigm is not only one of matching economic and environmental needs, as suggested by the draft report. The concept is fundamentally tripartite, including also social needs, perhaps more understandably termed “social justice needs” and not to be confused with the far more general “societal needs” mentioned elsewhere in the draft report. “Societal needs” as used by the report writers seems to mean simply “not private needs.” A cleaner environment of course satisfies “societal needs.” Often, however, environmental initiatives fail to satisfy social needs by failing to provide environmental benefits to those who need them most.

Examples of this definition of “social needs” inherent in environmental issues are fish contamination and dredging and disposal of contaminated sediments, two issues that often negatively and disproportionately impact low-income and minority communities. The Sustainable Development section writers should broadly consider how sustainable development might also include addressing the region’s social needs conceived in this way.

Barriers list demands a goals list. The problem statement lists nine barriers to sustainable development, but no part of the report lists the affirmative purposes of sustainable development. The result is a report with a fine opening declaration of the purposes of sustainable development—the Brundtland Commission definition—but little specific to flesh out the meaning of that definition for the people who live in the basin.

We recommend that the report contain such a list, which might serve the overall restoration plan by giving readers a clearer sense of the future we envision for our region. For example, nowhere does the summary Sustainable Development report mention availability of open space or enhancement of human health as endpoints of sustainable development. The list we are recommending be created would contain such items, by declaring that our region will be developing sustainably when it is, for two corresponding examples, 1) “protecting and enlarging its open space, natural and agricultural, public and private,” or 2) “assuring that air, water, and plant and wildlife food sources fully support human health.”

Metamorphosis of drafting team recommendations. We are disturbed by discrepancies between the recommendations produced by the Transportation drafting team and the representation of those recommendations by the Sustainable Development Strategy Team’s report writers in the five-page summary report.

“Aging infrastructure” was not identified as a significant sustainable development issue during the drafting team’s six months of deliberations and appears only once in the appendix (strangely, as an excerpt of the summary), yet the summary report declares aging infrastructure to be an impediment to sustainable development.

Likewise the drafting team’s number one recommendation was to “eliminate the introduction and spread of invasive species by maritime commerce and other transportation modes.” Somehow the summary report transforms this straightforward recommendation into a call for a “single, integrated and comprehensive study of regional needs for intermodal transportation and the mitigation and prevention of invasive species”—strangely mixing together the issues of optimizing the proportion of ship, truck and rail movement of goods in the region with that of preventing introduction of invasive species. We oppose this suggestion because it would complicate and dilute the necessary focus on eliminating invasive species introductions.

We confess to being perplexed as to the motive, if any, behind the metamorphosis of the drafting team’s original recommendations. However, we worry that these and other elements of the draft report will ultimately be used to justify, as a Great Lakes restoration activity, the rebuilding and possibly even expansion of the Great Lakes Navigation System. That longtime pet project of the U.S. Army Corps of Engineers is at best tangentially related to restoration and at worst would further

degrade the Great Lakes ecosystem.

We support a properly designed study of the region's "intermodal transportation" needs, especially if targeted at reducing sprawl and generally minimizing environmental impacts of transportation infrastructure. However, we are concerned if the restoration plan suggests that such a study be conducted by the U.S. Army Corps of Engineers, especially if it is connected to the Corps' existing studies of the Great Lakes Navigation System. Ocean-going shipping, is, of course, currently one mode in the region's intermodal transportation system. But its role in degrading the basin ecosystem, by introducing invasive species to the basin, incalculably outweighs any economic efficiency or environmental benefit it might possess by being deployed in certain circumstances instead of rail or truck shipment. As drafted, the Sustainable Development summary report undermines the top priority and laser focus intended by the Aquatic Invasive Species Strategy Team in making its first and most important recommendation the taking of measures to "eliminate the introduction and spread of invasive species by maritime commerce and other transportation modes." The report must be rewritten to accurately reflect the drafting team's intent and remove unrelated or conflicting agendas such as promotion of commercial navigation system construction projects.

Promoting sustainability. The section's first recommendation is to adapt and maintain programs that promote sustainability across all sectors. As written, this recommendation makes sub-recommendations that are good though non-specific in that they suggest no deadlines or well defined targets. The recommendations include: 1) creating incentives and disincentives for sustainable and non-sustainable practices respectively, 2) eliminating or modifying existing programs that encourage non-sustainable programs, 3) funding existing incentive programs that promote sustainability, and 4) applying specific metrics of sustainability. We generally supports the various elements of this recommendation.

A troubling "blended mission." The section's second recommendation would completely redefine the framework of the Great Lakes Regional Collaboration, away from the restoration of the Great Lakes ecosystem to sustainable development of the Great Lakes, or "a blended mission of ecological restoration and economic development." However we believe that both sustainable development and restoring our past harms are necessary in order to create a sustainable future.

We recommend recasting the language of this recommendation such that it continues to advocate programs that will promote economic development compatible with long-term ecological functioning, but as only one part of the Collaborative's mission, not its primary purpose.

In that context we applaud the Sustainable Development section's proposal to fund a large-scale pilot project—"a three-year demonstration for development of consistent, sustainable land use plans that are integrated with regional transportation plans and other public infrastructure plans with support from existing, but focused federal and state program funds." Such a pilot project would provide an exciting foundation for additional sustainable projects in the Great Lakes, "rebranding" the region (see our comments on branding below) as a progressive, forward-thinking region that seeks a balance between, economic, environmental, and social needs.

Another pilot project might examine how promotion and development of lake-based recreation such as boating and fishing could be used to enhance the environment, economy, and culture of this region. Such an initiative could examine ecological and economic issues associated with waterfront revitalization for restoration of habitat and low-impact, lake-based recreation such as fishing; brownfield reclamation, cleanup for green marina development, and consolidation of shoreline development to relieve pressure on functioning habitats. The extensive economic and people resources associated with lake-based recreation industries, in particular boating and fishing, are prime

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan

candidates for sustainable development. These industries can and should be harnessed to promote Great Lakes restoration.

“Branding” a sustainably developing Great Lakes. The section’s third recommendation proposes an outreach and marketing campaign to brand the Great Lakes as an “exceptional, healthy, and competitive place to live, work, invest and play.” We support promotion of the unique and valuable aspects of the Great Lakes region in the context of sustainable development. We agree with the implicit premise of the recommendation that environmental attributes that are used by the public are also appreciated, and when appreciated by the public can be more effectively protected.

However, we think another adjective should be added to the proposed description of our ecosystem: “fragile.” Any marketing of Great Lakes waters and its surrounding basin must also promote an understanding that, while vast, they are also sensitive. Such an understanding can drive protection and restoration efforts and the behavior of humans in the region going forward. Any branding of the region that does not reflect this understanding does not fully serve the long-term interests of protection and restoration of the region’s ecosystem.

Transportation appendices comments

Overall, we hold a fundamentally different view of what should have been the overall approach taken by the team drafting the Transportation element of the Sustainable Development section. We believe the primary driver for the Transportation sub-team’s work should have been identifying transportation development recommendations that clearly restore or protect the basin ecosystem—simply put, recommendations in direct support of intentions of the Great Lakes Regional Collaboration, as originally stated.

To this extent, we believed that the charge was to identify changes to current, and opportunities for future, transportation operations that would directly benefit the ecosystem, as well as identify the economic benefits associated with such developments. The power of such a restricted interpretation would have been the unified endorsement of specific economic development opportunities that benefit the Great Lakes ecosystem. As currently drafted, the transportation-related recommendations in the appendices consistently benefit and promote transportation development—but benefit the Great Lakes ecosystem only inconsistently.

We recommend a thorough review of the Transportation appendices by expert stakeholders outside of the drafting team to ensure that all its recommendations directly benefit and restore the Great Lakes ecosystem. A few specific concerns we have identified are listed below; if a thorough review and modification of the Transportation appendices is not possible, we recommend deletion of these elements of the appendices.

Short Seas Shipping. Action 4 of this subsection of the appendix promotes short sea shipping in the Great Lakes–St. Lawrence Seaway System to relieve congestion and to reduce air emissions in heavily used railroad and highway corridors in the region.

We stress the need for language describing the ecological constraints within which short-seas shipping can be developed—development of short-seas shipping must not promote more ocean-ship access and subsequent introduction of additional invasive species, and should not come at the expense of other environmental considerations, such as aquatic habitat protection or restoration of natural flow regimes.

Additional actions recommended in the appendix. Actions 3, 5, 6, and 7 hold significant promise to protect and restore the Great Lakes, but need further development and the inclusion of specific

Environmental and conservation groups' comment on Great Lakes Regional Collaborative draft plan information in order for us to endorse them. In particular, due to the expertise of the members of the drafting team, the recommendations were predominantly focused on the movement of freight by commercial vessels. However, rail and truck commerce as well as air transportation (personal and commercial) and personal transportation were identified as needing significantly more attention.

New channel deepening. We do not believe that under any circumstances will deeper commercial navigation channels protect or restore the Great Lakes–St. Lawrence River ecosystem. Given the significant historical modifications of the Great Lakes–St. Lawrence River system to allow for commercial navigation operation, it is our strong position that future development should be made within the confines of the system's current configuration, and ultimately the parameters set by the natural system. All references to new deepening should be struck from the Transportation appendices.

Statistics. We are concerned with the adequacy of the statistics and confusing or misleading descriptions of the value, transits, volume by tonnage, and type of maritime commerce operating in the Great Lakes and St. Lawrence Seaway (pages 3–4). In general, we are also concerned with the inconsistent use and accuracy of statistics across all modes and the incomplete description of costs and benefits for all modes. The statistics reported in the Transportation appendices are not reflective of the best work emerging from the Great Lakes Regional Collaboration and should be rewritten or struck.

All appendices comments

Finally, we strongly encourage all appendices that emerged from the Sustainable Development drafting teams be critiqued by expert stakeholders as we have recommended for the Transportation appendices above, to ensure 1) that the included statistics and charts are factually accurate (we are thinking particularly of facts presented in the Transportation appendix, but there may be problems in all the appendices) and 2) most importantly, that *all* appendix recommendations advance the protection and restoration of the Great Lakes ecosystem, reflecting, as noted above, the clearly stated mission of the Great Lakes Regional Collaboration.