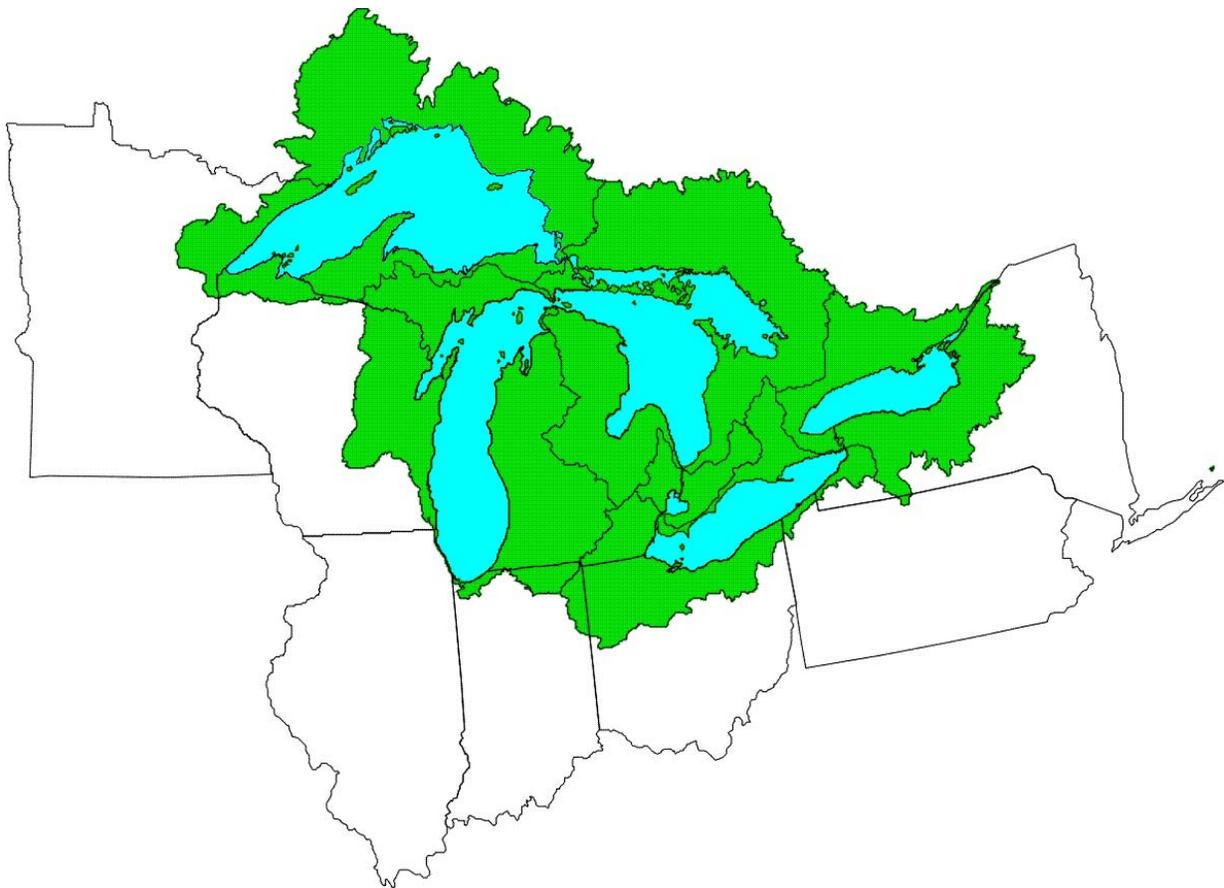


## **Appendix C. Great Lakes Stakeholder Survey**

# Water Resources Needs in the Great Lakes Basin

## Part A: Great Lakes Commission Survey of Regional Stakeholders



## Section 1: Water Resources Challenges in the Great Lakes—The Big Picture

1. Please choose the single-largest water resources concern in the Great Lakes region (SELECT ONE):

<b>Invasive nuisance species</b>	<b>28% (24)</b>
<b>Toxic chemicals in water and sediments</b>	<b>16% (14)</b>
<b>Water withdrawal from the Great Lakes basin</b>	<b>16% (14)</b>
<b>Lack of commitment to basinwide restoration goals</b>	<b>10% (9)</b>
<b>Aging navigation infrastructure</b>	<b>7% (6)</b>
Other concerns	6% (5)
Loss of wetlands and wildlife habitat	5% (4)
Excess nutrients from urban and agricultural runoff	4% (3)
Other concerns: "Algal blooms, bacterial concentrations"	1% (1)
Other concerns: "Lake level variations"	1% (1)
Total	94% (81)

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 1: Water Resources Challenges in the Great Lakes—The Big Picture

2. Please choose how important the following selected water resources needs are in the Great Lakes basin.

	<b><u>Very Important</u></b>	<b><u>Important</u></b>	<b><u>Somewhat Important</u></b>	<b><u>Less Important</u></b>	<b><u>Not Important at all</u></b>	<b>Total</b>
<b>Environmental restoration</b>	<b>69% (58)</b>	<b>24% (21)</b>	5% (4)	0% (0)	0% (0)	<b>98% (84)</b>
<b>Soil erosion, sediment transport, and management planning for prevention of excess loadings</b>	<b>47% (40)</b>	37% (32)	12% (10)	1% (1)	0% (0)	97% (83)
<b>Water level monitoring and management</b>	20% (17)	<b>45% (39)</b>	24% (21)	5% (4)	2% (2)	97% (83)
<b>Technical and planning assistance for states and remedial action planning committees</b>	20% (17)	<b>43% (37)</b>	27% (23)	3% (3)	3% (3)	97% (83)
<b>Flood damage reduction and shoreline erosion prevention</b>	17% (15)	<b>38% (33)</b>	37% (32)	1% (1)	2% (2)	97% (83)
Other	16% (13)	1% (1)	0% (0)	0% (0)	1% (1)	19% (15)
Navigation infrastructure for recreational vessels	14% (12)	24% (21)	34% (29)	21% (18)	2% (2)	95% (82)

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 1: Water Resources Challenges in the Great Lakes—The Big Picture

3. The following are key areas of water resources challenges. PLEASE SELECT THREE (3) highest priority areas.

<b>Restoring and protecting the environment</b>	<b>77% (66)</b>
<b>Managing watersheds holistically</b>	<b>53% (46)</b>
<b>Community water supply and wastewater infrastructure</b>	<b>30% (26)</b>
<b>Great Lakes commercial navigation</b>	<b>26% (22)</b>
<b>Dredging and sediment management</b>	<b>26% (22)</b>
<b>Regional coordination of water programs</b>	<b>20% (17)</b>
<b>Floodplain and coastal management</b>	<b>17% (15)</b>
<b>Streamlining federal project processes</b>	<b>13% (11)</b>
<b>Outdoor recreation</b>	<b>9% (8)</b>
Responding to natural disasters	3% (3)
Other	2% (2)
Other: "Prevention of ANS"	2% (2)
Other: "Sediment and nutrient loadings"	1% (1)
Other: "3-dimensional geologic mapping of surficial materials"	1% (1)
Other: "Urban Sprawl"	1% (1)

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 1: Water Resources Challenges in the Great Lakes—The Big Picture

4. Listed below are strategic actions that could address the water resources challenges in Question 3. PLEASE SELECT the THREE (3) most important strategic actions.

<b>Establish management priorities and restoration goals</b>	<b>50% (43)</b>
<b>Coordinate programs among federal, tribal, and state/provincial partners as well as local groups</b>	<b>44% (38)</b>
<b>Raise the profile of Great Lakes issues</b>	<b>40% (34)</b>
<b>Implement proposed and planned activities</b>	<b>38% (33)</b>
<b>Advocate for critical programs and activities</b>	<b>33% (28)</b>
<b>Identify and address gaps in meeting water resources needs</b>	<b>29% (25)</b>
<b>Improve planning and policy development</b>	<b>23% (20)</b>
<b>Conduct research and analyze issues</b>	<b>14% (12)</b>
<b>Enhance sharing of information among institutions and the public</b>	<b>10% (9)</b>
Other actions	6% (5)
Other actions: "Get resources (\$)"	1% (1)

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 2: Restoring and Protecting the Great Lakes

1. From the following list of environmental issues in the Great Lakes basin, which are you most concerned about? PLEASE SELECT THREE (3):

<b>Prevention and control of invasive species</b>	<b>60% (52)</b>
<b>Loss of critical ecosystems and their functions</b>	<b>56% (48)</b>
<b>Imbalance of economic and environmental objectives</b>	<b>34% (29)</b>
<b>Destruction of wetlands and other habitat</b>	<b>33% (29)</b>
<b>Lack of a watershed perspective</b>	<b>26% (22)</b>
<b>Short-sighted management of water and related resources</b>	<b>26% (22)</b>
<b>Fishing and swimming restrictions due to pollution</b>	<b>23% (20)</b>
<b>Overexploitation of natural resources</b>	<b>12% (10)</b>
<b>Adverse environmental impacts of navigation projects</b>	<b>8% (7)</b>
<b>Brownfields</b>	<b>5% (4)</b>
<b>Wildlife and fish diseases</b>	<b>5% (4)</b>
Other concerns	2% (2)
Other concerns "Public response/perception to natural system"	1% (1)
Other concerns "The top nine are all "most concerned" since they are all connected"	1% (1)

### Part A: Water Resources Needs in the Great Lakes Basin

## Section 2: Restoring and Protecting the Great Lakes

2. From the following possible actions for restoring the Great Lakes environment, PLEASE SELECT THREE (3) that are most important:

<b>Find environmentally sound ways to prevent the introduction of invasive species</b>	<b>31% (27)</b>
<b>Make the environment an equal goal with economic benefits in project selection</b>	<b>28% (24)</b>
<b>Create cost-sharing incentives for nonfederal sponsors to encourage investment in environmental projects</b>	<b>23% (20)</b>
<b>Coordinate watershed planning that involves all stakeholders and agencies</b>	<b>22% (19)</b>
<b>Analyze water resources comprehensively at a watershed level</b>	<b>20% (17)</b>
<b>Develop technologies for the cleanup and disposal of contaminated sediments</b>	<b>19% (16)</b>
<b>Remove contaminated sediments from lakes and rivers</b>	<b>16% (14)</b>
<b>Develop comprehensive and interjurisdictional watershed management plans</b>	<b>14% (12)</b>
<b>Educate the public on environmental issues</b>	<b>12% (10)</b>
<b>Improve technologies for the management of dredged sediments</b>	<b>12% (10)</b>
<b>Restore and conserve stream corridors</b>	<b>12% (10)</b>
<b>Reuse dredged sediments to build and enhance fish and wildlife habitat</b>	<b>10% (9)</b>
<b>Improve technologies for maintenance dredging of harbors and waterways</b>	<b>9% (8)</b>
<b>Mitigate sewer overflows</b>	<b>9% (8)</b>
<b>Restore Great Lakes fisheries</b>	<b>9% (8)</b>
<b>Assess and monitor environmental health indicators</b>	<b>8% (7)</b>
<b>Remove low-head dams from rivers</b>	<b>8% (7)</b>
<b>Develop environmentally friendly technologies</b>	<b>6% (5)</b>
<b>Create forums and conflict resolution mechanisms</b>	<b>5% (4)</b>
<b>Eliminate fragmentation among agencies in environmental regulations</b>	<b>5% (4)</b>
<b>Improve wastewater routing and treatment</b>	<b>5% (4)</b>
Rehabilitate brownfields	3% (3)
Revise federal water resources planning policy	3% (3)
Test mitigation techniques	3% (3)
Mitigate environmental impacts of navigation projects and flood control structures	2% (2)
Construct artificial reefs in Great Lakes to create fish habitat	1% (1)
Manage sand to keep it in the littoral system	1% (1)
Prohibit further destruction of coastal and inland wetlands	1% (1)
Build water supply and storage facilities	0% (0)

### Part A: Water Resources Needs in the Great Lakes Basin

## Section 2: Restoring and Protecting the Great Lakes

3. Please rate ongoing efforts to meet the following environmental challenges:

	<u>No need</u>	<u>Fully Adequate</u>	<u>Somewhat Adequate</u>	<u>Inadequate</u>	<u>Very Inadequate</u>	<u>Total</u>
Protecting and restoring fish and wildlife	1% (1)	7% (6)	<b>57% (50)</b>	25% (22)	7% (6)	97% (85)
Achieving environmental sustainability of water resources development projects	1% (1)	3% (3)	<b>43% (38)</b>	39% (34)	9% (8)	95% (84)
Balancing environmental and economic objectives	1% (1)	<b>2% (2)</b>	<b>38% (33)</b>	<b>38% (33)</b>	<b>19% (17)</b>	<b>98% (86)</b>
Restoring wetlands and other habitat	1% (1)	2% (2)	31% (27)	<b>47% (41)</b>	<b>15% (13)</b>	95% (84)
Restoring the Great Lakes ecosystem	1% (1)	1% (1)	38% (33)	<b>47% (40)</b>	<b>8% (7)</b>	95% (82)
Cleaning up toxic hot spots	0% (0)	9% (8)	<b>42% (37)</b>	32% (28)	14% (12)	97% (85)
Restoring and protecting water quality	0% (0)	7% (6)	<b>65% (57)</b>	23% (20)	2% (2)	97% (85)
Restoring rivers and stream corridors	0% (0)	5% (4)	<b>45% (40)</b>	36% (32)	6% (5)	92% (81)
Other efforts	0% (0)	1% (1)	0% (0)	2% (2)	8% (7)	12% (10)

4. Do you have any additional comments on unmet resource restoration needs in the Great Lakes basin?

Below are written comments submitted by survey respondents.

Commercial vessel owners and operators are held to a higher standard for sewage discharge than are municipal water purification plants.

Consistent funding for a set time is needed.

Coordinate funding process to increase local buy in + implementation.

Create a "dead zone" in the Chicago Sanitary Shipping Canal to stop all aquatic species from moving between the Great Lakes and Mississippi watershed. The electrical barriers are inadequate.

Current environmental regulations are not being enforced at a state level because of inadequate resources. Wetlands continue to be destroyed and politicians are pushing for further rollbacks in regulations. Current energy policy encourages fossil fuel use.

Environment agencies should stop getting in the way of resource restoration.

Fish passage and utilization of lost spawning headwater areas.

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 2: Restoring and Protecting the Great Lakes

Funding for watershed management/nonpoint source pollution remediation is strikingly inadequate given the proportion of non-attaining streams due to nonpoint vs. point. "Urban sprawl" and its dramatic effect on water resources need to be highlighted as..

I am concerned about the imbalance in management between Corps of Engineers offices within the Great Lakes. The Corps has become complacent and less rigorous in permitting - perhaps due to the overload of work. However, it has become their habit to pass.

I believe we need to capitalize on the regional population's perspectives that the Great Lakes are very important, in fact, central to our identity and to the high quality of life we enjoy. We need a message or vision that is commonly held among the state

Lack of funding and/or protective statutes for ecological restoration and protection. The Superfund program is based on protection of human health, and Superfund remedies have already been selected based on human health, but overall ecological risk has n

Looking at the reasons for the drastic drop in overall water levels and the impacts long and short term.

No.

People still have not changed their "ways of doing business" to have a sustainable Great Lakes water resource even though we have had many conferences, workshops, meetings on how and what "to do" to protect, restore, and be sustainable.

Protecting and restoring fish, wildlife and plants (the ecosystem) requires that the continuous invasion of non-indigenous species be stopped! "Restoration" activities will be wasted if the invasion continues. Since restoration activities are ultimately for the benefit of a single species, any and all forces that may impact those species will negate the restoration activity. This must be the top priority for this program!

So far this survey is nearly impossible to complete, the choices are too varied, the adjectives negate the concepts.

Target the GL basin for additional nonpoint source funding.

The cleanup of Superfund and Great Lakes AOCs has been painfully slow. It illustrates the difficulties in developing a consensus on how to clean up these areas and the lack of available funds.

We cannot properly assess ground-water/surface-water interactions unless we know the three-dimensional framework of the glacial deposits and related surficial materials surrounding the Great Lakes. We need significant financial support for geologic mapping.

We have spent huge amount of time and dollars on RAPs. It is time to implement projects identified.

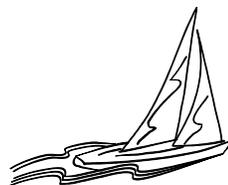
We need a concerted effort to work with our Congressional delegation in the Great Lakes basin to elevate Great Lakes issues to a national level, as has been done in the Florida Everglades. Without this crucial support, we will continue to fail in our rest

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 3: Flood and Storm Hazard Response and Prevention around the Great Lakes

1. From the following list of Great Lakes hazard issues, PLEASE SELECT THREE (3) that are of greatest concern to you:

<b>Shoreline erosion and bluff recession by waves and currents</b>	<b>47% (40)</b>
<b>Vulnerability of shoreline infrastructure to erosion from floods and other natural hazards</b>	<b>38% (33)</b>
<b>Environmental, economic, and social impacts of disasters</b>	<b>37% (32)</b>
<b>Increased frequency of weather calamities due to global warming</b>	<b>29% (25)</b>
<b>Flooding of urban areas in floodplains</b>	<b>20% (17)</b>
<b>Flood-related costs in property losses and emergency assistance</b>	<b>17% (15)</b>
Other issues	16% (14)
Lack of adequate flood protection measures	15% (13)
Deferred maintenance of flood control dams	12% (10)
Hazardous streambank and shore damage caused by severe storms	12% (10)
Lack of floodplain maps	12% (10)
Shore damage caused by navigation works	12% (10)
Damage to at-risk buildings not covered by national flood insurance	1% (1)



## Part A: Water Resources Needs in the Great Lakes Basin

## Section 3: Flood and Storm Hazard Response and Prevention around the Great Lakes

2. From the following possible actions of hazard response and prevention, PLEASE SELECT THREE (3) that are most important to you:

<b>Promote watershed management planning and work for balanced, environmentally sustainable flood solutions</b>	<b>50% (43)</b>
<b>Discourage future development in floodplains</b>	<b>47% (40)</b>
<b>Conserve and restore stream corridors</b>	<b>27% (23)</b>
<b>Readiness to construct emergency streambank and shore protection works</b>	<b>17% (15)</b>
<b>Improve coordination across federal agencies regarding disaster assistance programs</b>	<b>15% (13)</b>
<b>Proactively prepare, coordinate, and plan for natural disasters</b>	<b>15% (13)</b>
<b>Restore, nourish, and monitor beaches</b>	<b>15% (13)</b>
<b>Update floodplain maps</b>	<b>14% (12)</b>
<b>Structural shore protection (e.g. seawalls, stone groins, breakwaters)</b>	<b>13% (11)</b>
<b>Non-structural means to protect shorelines (e.g. beach nourishment, vegetation planting, sand by-passing)</b>	<b>12% (10)</b>
<b>Coordinate more across agency programs for better floodplain management, prevention, and response</b>	<b>12% (10)</b>
<b>Enhance urban waterfronts for multiple purposes</b>	<b>9% (8)</b>
<b>Monitor water levels and flows</b>	<b>8% (7)</b>
<b>Issue general 404 permits, such that people can respond effectively and efficiently during emergencies</b>	<b>7% (6)</b>
<b>Use structural and non-structural means to reduce flood damages</b>	<b>7% (6)</b>
<b>Better balance water distribution between municipalities during droughts</b>	<b>6% (5)</b>
<b>Improve coastal shore protection devices, designs, and methods</b>	<b>5% (4)</b>
<b>Timely and efficient natural disaster response across federal, state, and local agencies</b>	<b>5% (4)</b>
Other actions	4% (3)
Develop flood warning systems	2% (2)

### Part A: Water Resources Needs in the Great Lakes Basin

## Section 3: Flood and Storm Hazard Response and Prevention around the Great Lakes

3. Please rate current efforts to meet the following hazard response and prevention challenges in the Great Lakes basin:

	<b><u>No action required</u></b>	<b><u>Fully Adequate</u></b>	<b><u>Somewhat Adequate</u></b>	<b><u>Inadequate</u></b>	<b><u>Very Inadequate</u></b>	<b>Total</b>
Protecting shoreline infrastructure from erosion and other natural hazards	2% (2)	9% (8)	<b>47% (40)</b>	27% (23)	1% (1)	<b>86% (74)</b>
Protecting critical coastal habitat from erosion	2% (2)	5% (4)	<b>28% (24)</b>	<b>28% (24)</b>	6% (5)	69% (59)
Reducing flood hazards and damage to urban areas in floodplains	1% (1)	5% (4)	<b>53% (46)</b>	24% (21)	1% (1)	85% (73)
Urban planning for sustainable flood and shoreline erosion solutions	0% (0)	<b>2% (2)</b>	36% (31)	<b>40% (34)</b>	<b>6% (5)</b>	84% (72)
Other efforts	0% (0)	0% (0)	0% (0)	6% (5)	0% (0)	6% (5)

4. Do you have additional comments concerning natural hazard response and prevention in the Great Lakes basin?

Below are written comments submitted by survey respondents.

Regarding protecting critical coastal habitat from erosion (above), if the erosion is due to lake levels going up and down or other natural processes, then the erosive process is part of the habitat. Nothing should be done in these cases. If the erosion is....

The most cost-effective means of flood prevention is by protecting primary headwater streams and wetlands, and maintaining connectivity between stream channels and floodplain areas. This requires stormwater management designs developed for protecting watersheds.

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 4: Waterways and the Urban Waterfront

1. From the following waterway and waterfront development issues, PLEASE SELECT THREE (3) that are of greatest concern in the Great Lakes region:

<b>Abandoned and polluted urban waterfronts</b>	<b>54% (47)</b>
<b>Economic valuation of commercial navigation system</b>	<b>29% (25)</b>
<b>Economic valuation of recreational boating</b>	<b>28% (24)</b>
<b>World market competitiveness of the Great Lakes region</b>	<b>28% (24)</b>
<b>Aging commercial navigation system will not meet future demands</b>	<b>26% (22)</b>
<b>Neglect and disrepair of shallow-draft harbors and waterways</b>	<b>24% (21)</b>
<b>Maintenance backlog for commercial harbors and waterways</b>	<b>23% (20)</b>
<b>Boat traffic congestion and safety issues</b>	<b>15% (13)</b>
<b>Lack of deep-draft channels and harbors</b>	<b>15% (13)</b>
Other issues	5% (4)
Lock delays	2% (2)
Other issues: "Deep draft vessels in naturally shallow areas"	1% (1)
Other issues: "On shore ballast exchange system development to control ANS"	1% (1)
Other issues: "Softening urban shorelines"	1% (1)

2. From the following possible actions that address economic sustainability and better quality of life, PLEASE SELECT THREE that are most important:

<b>Seek solutions that balance economic and environmental needs</b>	<b>57% (49)</b>
<b>Rehabilitate the urban waterfront</b>	<b>43% (37)</b>
<b>Use problem-solving forums with all stakeholders to build consensus about water transport approaches and solutions</b>	<b>34% (29)</b>
<b>Improve the decision-making process for dredged material management</b>	<b>27% (23)</b>
<b>Make recreation a federal priority</b>	<b>27% (23)</b>
<b>Ensure that the commercial navigation system can meet demands of today and tomorrow</b>	<b>22% (19)</b>
<b>Educate the public on how navigation infrastructure supports regional prosperity</b>	<b>16% (14)</b>
<b>Build and improve small boat harbors and waterways</b>	<b>12% (10)</b>
<b>Eliminate the backlog of all navigation projects, including dredging</b>	<b>10% (9)</b>
<b>Build additional infrastructure (locks etc.) for maritime transportation</b>	<b>8% (7)</b>
Other actions	6% (5)

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 4: Waterways and the Urban Waterfront

3. Please rate current efforts to meet the following waterway and urban waterfront development challenges in the Great Lakes basin:

	<b><u>No action required</u></b>	<b><u>Fully Adequate</u></b>	<b><u>Somewhat Adequate</u></b>	<b><u>Inadequate</u></b>	<b><u>Very Inadequate</u></b>	<b>Total</b>
Maximizing the commercial value of Great Lakes waterways	5% (4)	12% (10)	<b>49% (42)</b>	19% (16)	3% (3)	<b>87% (75)</b>
Maximizing recreational value	3% (3)	8% (7)	<b>42% (36)</b>	30% (26)	3% (3)	<b>87% (75)</b>
Reclaiming and restoring the urban waterfront	2% (2)	0% (0)	30% (26)	<b>41% (35)</b>	<b>13% (11)</b>	86% (74)
Addressing boat safety and traffic congestion issues	1% (1)	24% (21)	<b>50% (43)</b>	10% (9)	0% (0)	86% (74)
Other: "Restore contaminated waterfront areas"	0% (0)	0% (0)	0% (0)	1% (1)	0% (0)	1% (1)

4. Do you have additional comments concerning waterways and the urban waterfront in the Great Lakes basin?  
Below are written comments submitted by survey respondents.

The questions in this section, especially question #2, seem biased towards the assumption that infrastructure = sustainability and better quality of life. I am not sure that's true. Tough to answer these questions.

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 5: Reducing Excess Sediment Loadings

1. Please rate the importance of the following issues:

	<b><u>Very serious</u></b>	<b><u>Serious</u></b>	<b><u>Somewhat serious</u></b>	<b><u>Less serious</u></b>	<b><u>Non-existent</u></b>	<b>Total</b>
Siltation and excess nutrients	<b>30% (26)</b>	<b>48% (42)</b>	17% (15)	0% (0)	0% (0)	<b>94% (83)</b>
Wasteful and inefficient sediment management practices	19% (17)	<b>42% (37)</b>	24% (21)	3% (3)	0% (0)	89% (78)
Other issues	5% (4)	3% (3)	0% (0)	1% (1)	0% (0)	9% (8)

2. Please indicate how important the following actions are to prevent excess sediment loadings in the Great Lakes:

	<b><u>Very Important</u></b>	<b><u>Important</u></b>	<b><u>Somewhat Important</u></b>	<b><u>Less Important</u></b>	<b><u>Not Important at all</u></b>	<b>Total</b>
Soil conservation in tributary watersheds	<b>68% (60)</b>	<b>24% (21)</b>	2% (2)	0% (0)	0% (0)	<b>94% (83)</b>
Comprehensive and cooperative sediment management strategies	<b>58% (51)</b>	30% (26)	6% (5)	0% (0)	0% (0)	93% (82)
Other actions	6% (5)	0% (0)	0% (0)	0% (0)	0% (0)	6% (5)
Other actions: "Enforcement"	1% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1% (1)

3. How would you rate current efforts to prevent siltation and excess nutrient loadings in the Great Lakes basin?

	<b><u>No action required</u></b>	<b><u>Fully Adequate</u></b>	<b><u>Somewhat Adequate</u></b>	<b><u>Inadequate</u></b>	<b><u>Very Inadequate</u></b>	<b>Total</b>
	0% (0)	0% (0)	<b>43% (38)</b>	42% (37)	8% (7)	<b>93% (82)</b>

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 5: Reducing Excess Sediment Loadings

### 4. Do you have additional comments concerning soil erosion and sediment loadings in the Great Lakes basin?

Below are written comments submitted by survey respondents.

Continued runoff from roads development and maintenance.

In general, huge amounts of money are being spent to reduce sediment erosion without any science to show that any benefit will be derived from these efforts. For instance, no one has shown that buffer strips will do anything to reduce sediment loads in streams.

Increase NPS funding and technical assistance.

It seems like a problem that will never go away. In spite of all the effort over many years, it is still a significant issue.

More funds for this effort (for programs like the Great Lakes Basin Program for Soil Erosion and Sediment Control) would be extremely beneficial.

Need to better explain to farmers on tributaries of Great Lakes the impacts of agricultural runoff + sedimentation on water resources, + methods to reduce these impacts. Many don't understand how upstream actions directly impact the lakes.

Restoring forested streamway corridors along all streams (includes rivers) and ditches would go a long way to solve the problem. But it has to be watershed-wide!

South shore streams on Lake Superior contribute more sediments and nutrients due to the highly erodible clay soils. New land-use plans and stricter BMPs should be developed for these highly sensitive areas to help reduce excess NPS pollutants/sediments from poorly managed land uses.

There needs to be a greater awareness of the economic and environmental losses due to soil erosion. The new farm bill will be a big step forward. Provide incentives to farmers to adopt land treatments and farm conservation plans making use of a variety of incentives.

Upper watershed sediment issues compound contaminated sediment issues in Area of Concern but are managed entirely separate.

Work with agricultural interest to educate and implement best management practices.



## Section 6: Great Lakes Water Levels and Flows

1. How much of a concern are the following water level issues?

	<b><u>Very serious</u></b>	<b><u>Serious</u></b>	<b><u>Somewhat serious</u></b>	<b><u>Less serious</u></b>	<b><u>Not a problem at all</u></b>	<b>Total</b>
Net loss of water from the Great Lakes basin	<b>43% (37)</b>	<b>23% (20)</b>	19% (16)	12% (10)	2% (2)	<b>99% (85)</b>
Extreme lake level fluctuations	24% (21)	<b>33% (28)</b>	19% (16)	17% (15)	6% (5)	<b>99% (85)</b>
Other issues	2% (2)	2% (2)	0% (0)	0% (0)	0% (0)	5% (4)

2. How important are the following water management activities to you?

	<b><u>Very Important</u></b>	<b><u>Important</u></b>	<b><u>Somewhat Important</u></b>	<b><u>Less Important</u></b>	<b><u>Not Important at all</u></b>	<b>Total</b>
Monitoring of water diversions from the Great Lakes basin	<b>55% (47)</b>	<b>21% (18)</b>	13% (11)	6% (5)	0% (0)	94% (81)
Real-time monitoring and historical records of Great Lakes water levels and flows	17% (15)	<b>40% (34)</b>	28% (24)	9% (8)	1% (1)	<b>95% (82)</b>
Lake Superior and Lake Ontario outflow control	16% (14)	<b>29% (25)</b>	<b>29% (25)</b>	15% (13)	6% (5)	<b>95% (82)</b>
Other activities	2% (2)	0% (0)	0% (0)	0% (0)	0% (0)	2% (2)

3. Please rate current water management efforts in the Great Lakes basin:

	<b><u>No action required</u></b>	<b><u>Fully Adequate</u></b>	<b><u>Somewhat Adequate</u></b>	<b><u>Inadequate</u></b>	<b><u>Very Inadequate</u></b>	<b>Total</b>
Forecasting of long-term trends in lake levels	2% (2)	15% (13)	<b>45% (38)</b>	26% (22)	4% (3)	<b>93% (79)</b>
Negotiation of Great Lakes outflows between affected interests	2% (2)	9% (8)	<b>57% (49)</b>	21% (18)	2% (2)	<b>92% (79)</b>
Study and assessment of criteria for regulating Great Lakes outflows	1% (1)	<b>9% (8)</b>	<b>50% (43)</b>	27% (23)	3% (3)	91% (78)
Great Lakes water diversion accounting	0% (0)	<b>9% (8)</b>	<b>40% (34)</b>	<b>33% (28)</b>	<b>10% (9)</b>	<b>92% (79)</b>
Other: "Agreement between governments to prevent further diversions"	0% (0)	0% (0)	0% (0)	1% (1)	0% (0)	1% (1)

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 6: Great Lakes Water Levels and Flows

4. Do you have additional comments concerning water level management and monitoring in the Great Lakes basin?

Below are written comments submitted by survey respondents.

Assuming no water diversion.

Getting the word out to the public as to why the water levels are so low, the causes and the long term solutions to maintain them without the sharp fluctuations of the past 15 years or so.

Need to get the international agreement formalized on Great Lakes water diversion.

The lake level fluctuations are a concern if they are going to be extreme from global climate change but not if they are the natural cycle.

Water-level fluctuations, including the extremes, are part of the Great Lakes ecosystem. Where these are modified, such as in Lake Ontario, critical ecosystems disappear, as has happened with nearshore wetlands

## Section 7: Water Resources Planning and Management

1. Water resources challenges may exceed the capacities of your tribe, state, community, or organization. Please rate your access to the following resources for meeting water resources planning and management needs:

	<b><u>No Need</u></b>	<b><u>Fully Adequate</u></b>	<b><u>Somewhat Adequate</u></b>	<b><u>Inadequate</u></b>	<b><u>Very Inadequate</u></b>	<b>Total</b>
Access to state services	3% (3)	31% (27)	<b>40% (35)</b>	13% (11)	2% (2)	89% (78)
Access to federal services	3% (3)	20% (18)	<b>50% (44)</b>	15% (13)	1% (1)	90% (79)
Access to regional planning and management organizations, commissions, or services	3% (3)	18% (16)	<b>47% (41)</b>	18% (16)	3% (3)	90% (79)
Access to expertise for technical assistance	2% (2)	28% (25)	<b>43% (38)</b>	15% (13)	1% (1)	90% (79)
Access to funding	2% (2)	5% (4)	18% (16)	<b>47% (41)</b>	<b>19% (17)</b>	<b>91% (80)</b>
Access to other resources	1% (1)	0% (0)	0% (0)	1% (1)	2% (2)	5% (4)

### Part A: Water Resources Needs in the Great Lakes Basin

## Section 7: Water Resources Planning and Management

2. From the following challenges, which are those where your lack of resources and experience is most critical? PLEASE CHOOSE THREE (3).

<b>Restoring local ecosystems</b>	<b>47% (42)</b>
<b>Comprehensive watershed planning</b>	<b>40% (35)</b>
<b>Preventing sewage overflows</b>	<b>30% (27)</b>
<b>Restoring stream corridors</b>	<b>31% (27)</b>
<b>Restoring urban waterfront</b>	<b>22% (19)</b>
<b>Water supply and wastewater infrastructure</b>	<b>18% (16)</b>
<b>Remedial action planning</b>	<b>14% (12)</b>
<b>Restoring and remediating brownfield sites</b>	<b>13% (11)</b>
<b>Water infrastructure service and maintenance costs</b>	<b>11% (10)</b>
<b>Reducing flood damage</b>	<b>6% (5)</b>
Miscellaneous remediation/restoration challenges	3% (3)
Other challenges	2% (2)
Preventing flood hazards	2% (2)
RAP implementation	1% (1)
Geological mapping	1% (1)

## Section 7: Water Resources Planning and Management

3. Which of the following forms of water resources planning and management assistance are most important to you? PLEASE SELECT THREE:

<b>Habitat restoration projects</b>	<b>40% (35)</b>
<b>Watershed planning coordinated among all stakeholders and agencies (federal, tribal, state, and local)</b>	<b>34% (30)</b>
<b>"Smart growth" program development</b>	<b>28% (25)</b>
<b>Financial assistance for water infrastructure</b>	<b>20% (18)</b>
<b>Funding for upgrades to water/sewer systems</b>	<b>20% (18)</b>
<b>Watershed management planning</b>	<b>20% (18)</b>
<b>Stream corridor restoration planning</b>	<b>18% (16)</b>
<b>Waterfront restoration planning</b>	<b>16% (14)</b>
<b>Funds for brownfields cleanup</b>	<b>14% (12)</b>
<b>Water resources conservation planning</b>	<b>13% (11)</b>
<b>Remedial action planning</b>	<b>10% (9)</b>
<b>Multi-purpose water resources projects</b>	<b>9% (8)</b>
Flood plain management guidance	3% (3)
Funding for community development	3% (3)
Prioritization system for water infrastructure projects	3% (3)
Flood monitoring and warning systems	2% (2)
Wastewater management planning	2% (2)
Entrainment and impingement of fish at power plants	1% (1)
Implementation on RAP priorities	1% (1)
Recreational harbor dredging	1% (1)
Sediment remediation	1% (1)
Water supply design	0% (0)

4. Additional comments concerning technical and planning assistance for water resources planning and management:  
Below are written comments submitted by survey respondents.

Items above not applicable to my agency.

Much more is needed for management/implementation than for planning.

Watershed management is supposed to include all of the above categories.

## Part A: Water Resources Needs in the Great Lakes Basin

## Section 8: Your Organization & The Great Lakes

***THIS SECTION IS VERY IMPORTANT, since we cannot use anonymous responses for our analysis. The information in this section and all individual responses to this survey will be treated confidentially by the Great Lakes Commission and will not be shared with others.***

1. A host of players—from local to international levels—is involved in managing water and related resources in the Great Lakes basin. We would like to know how your organization is involved.
  - a. Please tell us whether your organization has regulatory authority (A), policy, planning, or coordination responsibility (PPC), information/education involvement (I/E), or research programs (R) in any of the following areas. Please check all that apply:

	<b>Total</b>	<b>A</b>	<b>PPC</b>	<b>E/I</b>	<b>R</b>
<b>Natural Resources Management and Restoration</b>	<b>71% (61)</b>	<b>34% (29)</b>	<b>56% (48)</b>	<b>57% (49)</b>	<b>33% (28)</b>
<b>Land Use and Soil Conservation</b>	<b>70% (60)</b>	<b>22% (19)</b>	<b>42% (36)</b>	<b>51% (44)</b>	<b>23% (20)</b>
<b>Pollution Prevention and Remediation</b>	<b>57% (49)</b>	<b>23% (20)</b>	<b>37% (32)</b>	<b>34% (29)</b>	<b>15% (13)</b>
<b>Urban Planning and Development</b>	<b>55% (47)</b>	<b>14% (12)</b>	<b>30% (26)</b>	<b>30% (26)</b>	<b>7% (6)</b>
<b>Natural Hazard Assessment/Mitigation/Emergency Response</b>	<b>53% (46)</b>	<b>22% (19)</b>	<b>31% (27)</b>	<b>27% (23)</b>	<b>10% (9)</b>
<b>Tourism and Outdoor Recreation</b>	<b>48% (41)</b>	<b>10% (9)</b>	<b>29% (25)</b>	<b>29% (25)</b>	<b>10% (9)</b>
<b>Water Supply</b>	<b>42% (36)</b>	<b>24% (21)</b>	<b>26% (22)</b>	<b>23% (20)</b>	<b>10% (9)</b>
<b>Water Level Monitoring and Management</b>	<b>41% (35)</b>	<b>9% (8)</b>	<b>21% (18)</b>	<b>26% (22)</b>	<b>12% (10)</b>
<b>Wastewater Management</b>	<b>38% (33)</b>	<b>23% (20)</b>	<b>27% (23)</b>	<b>23% (20)</b>	<b>8% (7)</b>
<b>Maritime Transportation</b>	<b>29% (25)</b>	<b>9% (8)</b>	<b>16% (14)</b>	<b>12% (10)</b>	<b>7% (6)</b>
Other	5% (4)	0% (0)	1% (1)	2% (2)	5% (4)

## Section 8: Your Organization & The Great Lakes

b. Which of the following best describes your agency/organization:

	<b>Respondents</b>	<b>Recipients</b>
<b>State</b>	<b>41% (36)</b>	<b>34% (104)</b>
<b>Federal</b>	<b>20% (17)</b>	<b>20% (62)</b>
<b>Local</b>	<b>9% (8)</b>	<b>8% (25)</b>
Business/Industry	8% (7)	12% (36)
Tribal	8% (7)	13% (40)
Other	8% (7)	8% (24)
Binational	3% (3)	2% (5)
Citizen/environmental organization	3% (3)	4% (13)
<b>Total</b>	<b>100% (87)</b>	<b>100% (309)</b>

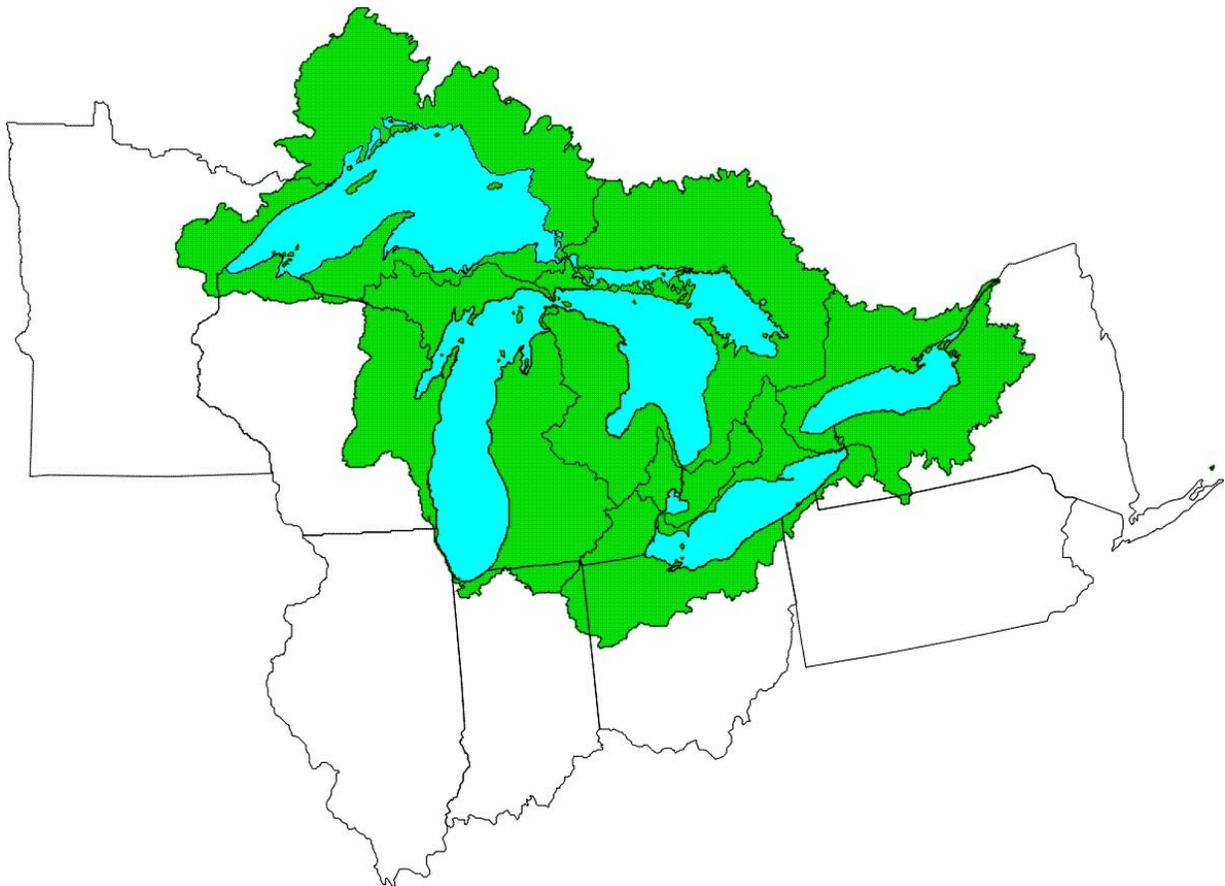
**Survey Response Rate Part A** **28% (88)**

**Survey Response Rate Part B** **24% (75)**

# Partnerships and Opportunities for the Corps of Engineers John Glenn Great Lakes Basin Program

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## Part B: Great Lakes Commission Survey of Regional Stakeholders



1. PLEASE CHOOSE TWO of the following factors that most severely limit the Corps of Engineers' potential to serve the Great Lakes region:

<b>Lengthy planning process for projects</b>	<b>47% (35)</b>
<b>Costshare and other requirements for nonfederal sponsors</b>	<b>44% (33)</b>
<b>Federal funding shortfalls</b>	<b>40% (30)</b>
<b>Lack of resources for watershed studies</b>	<b>24% (18)</b>
<b>Fragmentation of responsibilities among the Corps and other federal agencies</b>	<b>17% (13)</b>
<b>Study methods, economic principles, and guidelines for cost-benefit studies</b>	<b>16% (12)</b>
<b>Fragmentation of responsibilities within the Corps of Engineers</b>	<b>11% (8)</b>
Other factors: "Corps engineering is very expensive"	1% (1)
Other factors: "In-house technical expertise"	1% (1)
Other factors: "General lack of understanding of problems"	1% (1)
Other factors: "The willingness to use other credible and reputable research information"	1% (1)

2. From the following, PLEASE SELECT THREE most important action items that would improve the Corps of Engineers' ability to address water resources challenges in the Great Lakes basin:

<b>Provide funding of projects for entire project term</b>	<b>33% (25)</b>
<b>Develop integrated funding mechanism for Great Lakes activities</b>	<b>32% (24)</b>
<b>Increase funding through creative costshare partnerships</b>	<b>28% (21)</b>
<b>Reduce authority overlaps and policy conflicts with other agencies</b>	<b>28% (21)</b>
<b>Coordinate better with other federal, state, and tribal agencies</b>	<b>24% (18)</b>
<b>Conduct watershed management studies at full federal expense</b>	<b>23% (17)</b>
<b>Develop integrated legislative process for authorization of Great Lakes activities</b>	<b>20% (15)</b>
<b>Reduce environmental impacts of navigation and flood control operations</b>	<b>20% (15)</b>
<b>Increase interaction and communication with stakeholders</b>	<b>19% (14)</b>
<b>Enhance program partnerships with the nonprofit and private sector</b>	<b>13% (10)</b>
<b>Make more efficient use of existing programs</b>	<b>9% (7)</b>
<b>Reduce backlogs for construction and maintenance of authorized water resources projects</b>	<b>9% (7)</b>
<b>Strengthen Great Lakes issue analysis</b>	<b>9% (7)</b>
<b>Strengthen public information services, education programs, and outreach activities</b>	<b>8% (6)</b>
<b>Strengthen technology development and research</b>	<b>7% (5)</b>
<b>Improve program planning</b>	<b>5% (4)</b>
Create new programs and authorities	4% (3)
Form strategic alliances at the international/binational level	1% (1)
Other action items: "Fund authorities to the maximum"	1% (1)
Other action items: "Speed up project planning process"	1% (1)

3. Please tell us about your partnership with the Corps of Engineers (this question concerns only activities within the Great Lakes basin):

a. Do you have program partnerships with the Corps of Engineers?

Yes: **55% (41)**

No: 43% (32)

No response: 3% (2)

b. Do you coordinate funding of Great Lakes programs with the Corps of Engineers?

Yes: 36% (27)

No: 19% (14)

No response: **45% (33)**

c. How do you coordinate program funding with the Corps?

Act as local sponsor (costshare partnership): 31% (23)

Other: 12% (9)

No response: **57% (43)**

d. Other arrangements for program or project coordination (check all that apply):

Technical collaboration, implementation: **44% (33)**

Consultation: **29% (22)**

Program planning, strategic planning: **29% (22)**

Program Activity coordination: **20% (15)**

Outreach coordination: **17% (13)**

Other: 3% (2)

None: 0% (0)

4. How satisfied are you with your partnership with the Corps of Engineers? These questions concern only activities within the Great Lakes basin.

a. Please check the box that best describes your level of interaction with the Corps of Engineers:

1 - No Interaction:	4% (3)
2 -	: 11% (8)
3 -	: 11% (8)
<b>4 -</b>	<b>: 25% (19)</b>
5 -	: 17% (13)
6 -	: 19% (14)
7 - Strong Partnership:	14% (10)
X - No Response:	0% (0)

b. How would you assess the adequacy of your interaction with the Corps of Engineers:

Very good:	<b>16% (12)</b>
<b>Good:</b>	<b>33% (25)</b>
Adequate:	<b>23% (17)</b>
Inadequate:	13% (10)
Very Inadequate:	7% (5)
No Basis for Response:	5% (4)
No Response:	3% (2)

c. How satisfied are you with each of the following aspects of your interaction with the Corps:

	<b>Completely Satisfied</b>	<b>Satisfied</b>	<b>Somewhat Satisfied</b>	<b>Dissatisfied</b>	<b>Completely Dissatisfied</b>	<b>Total</b>
Communication, information exchange	9% (7)	<b>37% (28)</b>	29% (22)	19% (14)	1% (1)	<b>96% (71)</b>
Accomplishments, results	4% (3)	31% (23)	<b>40% (30)</b>	19% (14)	1% (1)	95% (71)
Current partnership strategy	1% (1)	33% (25)	<b>39% (29)</b>	17% (13)	3% (2)	93% (70)
Corps of Engineers business process	<b>1% (1)</b>	<b>12% (9)</b>	<b>51% (38)</b>	29% (22)	1% (1)	95% (71)

5. From the following list of Corps program activities, where do you see opportunities for future partnerships that would enhance your own programs? CHECK ALL THAT APPLY:

<b>Environmental Restoration</b>	<b>79% (59)</b>
<b>Sediment and Soil Erosion Control</b>	<b>65% (49)</b>
<b>Technical Assistance</b>	<b>53% (40)</b>
<b>Shoreline Erosion Control</b>	<b>48% (35)</b>
<b>Planning Assistance</b>	<b>43% (32)</b>
<b>Water Level Monitoring and Forecasting</b>	<b>31% (23)</b>
<b>Commercial Navigation</b>	<b>29% (22)</b>
<b>Recreational Navigation</b>	<b>24% (18)</b>
<b>Flood Damage Reduction</b>	<b>23% (17)</b>
Other Opportunities: "Navigation-related, miscellaneous"	4% (3)
Other Opportunities, miscellaneous	4% (3)
Other Opportunities: "Sample collection -AOC monitoring"	1% (1)
Other Opportunities: "Streamline permitting"	1% (1)
Other Opportunities: "Urban waterfront planning"	1% (1)

6. If you had a stronger partnership with the Corps of Engineers, what benefits would be most desirable? PLEASE SELECT THREE.

<b>Increase funding likelihood for needed projects</b>	<b>53% (40)</b>
<b>Improved capacity to restore, manage, and enhance ecosystems</b>	<b>42% (32)</b>
<b>Greater influence on Corps of Engineers policies and projects</b>	<b>37% (28)</b>
<b>Enhanced synergy between water resources development and the environment</b>	<b>30% (23)</b>
<b>Cost-saving and improved efficiency</b>	<b>26% (20)</b>
<b>Improved data and information access and sharing mechanisms</b>	<b>17% (13)</b>
<b>Improved effectiveness of your programs</b>	<b>17% (13)</b>
<b>Enhanced capabilities to build and sustain critical infrastructure</b>	<b>15% (12)</b>
<b>Advances in research and technology development</b>	<b>15% (11)</b>
<b>Advancing shared program goals by pooling resources</b>	<b>15% (11)</b>
<b>Better access to technical planning and engineering services</b>	<b>11% (8)</b>
<b>Better preparedness to meet future challenges</b>	<b>9% (7)</b>
Improved response capability to local and regional disasters	4% (3)
Other benefits: "Have strong partnership"	1% (1)
Other benefits: "Justice"	1% (1)

5. Do you have any additional comments on Corps programs and activities in the Great Lakes basin? Below are written comments submitted by survey respondents.

I think the Corps would do well to make their decision making process more transparent and encourage community involvement in the decision making. All too often the Corps favors one stakeholder over another.

Our level of cooperation has increased significantly over the past four years, especially in the context of the Midwest Natural Resources Group.

Thanks! Good survey.

The Corps has programs established to study and determine solutions for many problems. It would be helpful if they could also implement their solutions within the same program that the study was completed. This would save time and money. Some projects could...

The Corps needs assistance in planning and environmental design. IQS contracts should be awarded to planning, design and environmental firms to partner with the traditional engineering firms traditionally selected by the Corps for consulting support. It might be advantageous to include Corps biologists and planners in the selection of consultants.

The Corps shouldn't be working in the watersheds--not their mission. The tributary sediment modeling being done by consultants for the Corps is being oversold in terms of what it can do for watersheds. In fact, the data do not exist to do the modeling.

There needs to be a review of the Corps' role in certain navigation issues such as water level observations. Elbows are rubbing over jurisdictions with NOAA. The Corps also acts cavalierly about lock operations at the Soo by promoting bare bones staffing...[?]

USACE needs to streamline its processes - too many levels of approval for its projects.

Work in partnership with Tribal governments more.

Yes. Will send in comments next week (5-30-05).