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TESTIMONY OF  
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BEFORE THE  
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
U.S. HOUSE OF REPRESENTATIVES

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Good Morning, Mr. Chairman. I am Chuck Fox, Assistant Administrator for Water at the Environmental Protection Agency (EPA). Thank you for the opportunity to speak with the Subcommittee about our work with other federal agencies and State and local governments to protect the Great Lakes. I will also comment on legislation (H.R. 3670) to reauthorize the Great Lakes Program in the Clean Water Act.

I am glad to be joined on this panel by my colleague Mr. Mike Davis from the Army Corps of Engineers. The Corps is a vital partner with EPA in many aspects of Great Lakes water quality management and particularly so in the area of contaminated sediments. EPA frequently relies on the Corps' expertise to manage Superfund cleanups including those involving contaminated sediments. EPA, the U.S. Army Corps of Engineers, and other federal and State agencies collaborate closely on Great Lakes water quality projects.

## **ENVIRONMENTAL PROGRESS AND REMAINING PROBLEMS IN THE GREAT LAKES**

The Great Lakes are a national and international treasure worthy of our protection. The Great Lakes Basin contains about 20% of the world's freshwater and 95% of the freshwater in the United States. The Lakes provide drinking water to an estimated 25 million people. They are a source of biological abundance and diversity for all of North America and an incredible economic, recreational, and ecological resource.

Thanks to a strong and committed network of federal, State, tribal, municipal, industry, and citizen organizations, much work has been done to improve water quality in the Great Lakes. In fact, the lakes are cleaner than they have been in decades. But we still have a long way to go to meet the commitments in the Great Lakes Water Quality Agreement and to achieve a state of Great lakes health that the nation can be proud of. States assessed 90% of Great Lakes shoreline miles in 1998 and reported that 96% (4,672 miles) are impaired by a range of pollutants including toxic chemicals, pesticides, nutrients, pathogens, and metals.

The Environmental Protection Agency (EPA) is actively involved in improving water quality in the Great Lakes.

In 1995 the Agency promulgated the Great Lakes Water Quality Guidance under the authority of the Great Lakes Critical Programs Act. These regulations address issues ranging from how Great Lakes States and Tribes develop water quality criteria to how those criteria are implemented in discharge permits. Each of the Great Lakes

States adopted revised quality standards and wastewater permitting rules to implement the federal rule. EPA will complete its review of the States' water quality standards this fall. The water quality standards adopted by the States under the Great Lakes Water Quality Guidance provide a strong scientific and regulatory framework for establishing cleanup targets and for ensuring that new contamination problems are not created in the future.

Through our Great Lakes National Program Office, the Agency oversees implementation of the United States commitments of the Great Lakes Water Quality Agreement ("the Agreement") signed with Canada in 1978 and amended in 1987. The Agency is accelerating development of the Lakewide Area Management Plans (LaMPs) called for in the Agreement. The LaMPs embody a comprehensive ecosystem approach to restoring and protecting the beneficial uses of the open waters of each of the Great Lakes. Canada and the U.S. committed to publishing LaMPs this year for Lakes Michigan, Superior, and Erie. We expect to issue the three LaMPs this summer, which will mean that comprehensive plans will then be in place for each of the Lakes.

One of the key tenets of the Agreement is the identification and restoration of Areas of Concern (AOCs). AOCs are severely degraded areas in which one or more "beneficial uses" of the waters is impaired. These impairments include: restrictions on consumption of water, fish or wildlife; beach closings; deformities in fish or wildlife; eutrophication and undesirable algae, among others. There are a total of 42 AOCs in the U.S. and Canada. Eleven are located in Canada, five are shared between the two countries, and the remaining 26 AOCs are dispersed among the eight Great Lakes

States (Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, Wisconsin).

For each AOC, the Agreement requires development of a Remedial Action Plan that identifies the specific problems degrading the AOC and outlines corrective actions that are necessary to mitigate those problems. By virtue of the Agreement and the Clean Water Act, States and the federal government have a shared responsibility for restoring AOCs. EPA's role, fulfilled through the Great Lakes National Program Office, is to work with the States and other federal agencies to ensure that Remedial Action Plans are developed and implemented, and to ensure that all available authorities are utilized to achieve ultimate restoration of these areas.

The AOCs were listed in the 1980's and none of the U.S. AOCs has been de-listed to date (one AOC in Canada has been de-listed). All AOCs remain impaired from sources of degradation such as contaminated sediments, storm sewer and combined sewer overflows, and nonpoint source runoff. With many industrial point sources under control, we are presented with the opportunity to make significant progress in addressing these remaining and more difficult sources of degradation.

The International Joint Commission (IJC), which oversees implementation of the Agreement in the U.S. and Canada, recently expressed concern about the slow rate of AOC cleanup due to diminishing availability of cleanup funds, and urged greater action by the U.S. and Canadian governments to prioritize work among AOCs and identify resources for RAP implementation.

In response to the recommendations of the IJC and the growing recognition of the importance of restoring AOCs, the President proposed in the FY2001 Budget funding of \$50 million to make grants for a range of pollution control and remediation projects needed to restore the AOCs.

### **CONTAMINATED SEDIMENTS POSE CHALLENGES BUT CAN BE RESTORED**

Of the numerous pollution sources that degrade the AOCs, perhaps the most ubiquitous is contaminated sediments. Contaminated sediments are at least partially responsible for the impairments in each of the 31 U.S. (and joint) AOCs.

There is a binational consensus among diverse sectors in the Great Lakes Basin that contaminated bottom sediment is a major cause of environmental problems. Over 2,000 miles (20%) of the shoreline are considered impaired due to sediment contamination. Contaminated sediments are a source of continuing pollutant loadings to the lakes and are the primary source of PCBs and other persistent contaminants in fish. Consumption of fish is the dominant route of human exposure to PCBs, dioxins, furans, methylmercury, and organochlorine pesticides in the Great Lakes Basin. These pollutants are linked to cancer, birth defects, neurological disorders (e.g., infants and children), immune dysfunction, and liver and kidney ailments.

Cycling and bioaccumulation of contaminants from bottom sediments is the largest source of contamination to the food chain, contributing to loss of habitat, fish deformities, and to limitations on the amount of fish that people can safely eat. All of the Great Lakes and their major tributaries are covered by fish advisories for the

persistent and toxic chemicals found in the sediment. There are economic consequences as well: contaminated sediments can cause severe economic impacts on harbors and restrict travel through navigational channels. Contaminated sediments can prevent or delay needed navigational dredging, imposing costs to waterborne commerce. In just one Great Lakes harbor, the Indiana Harbor Ship Canal, contaminated sediments are imposing an annual cost of \$11 million to \$17 million.

Although contaminated sediments impose many costs and challenges, there have been numerous successful efforts by EPA, the Corps of Engineers, and others to remediate sediments in the AOCs. For example, removal and treatment of contaminated sediments from the Waukegan Harbor AOC cost approximately \$21 million and removed over one million pounds of PCBs, one of the largest PCB sources to Lake Michigan. PCB levels in fish tissue were monitored before, during, and after remediation. In the two years following completion of the remediation, PCBs in Waukegan Harbor carp declined substantially. In fact, the improvement was significant enough to allow a special County Health Department posting, advising against eating all fish from the Harbor, to be removed.

There have been other successes in addition to Waukegan Harbor. Over the last three years more than 1.3 million cubic yards of polluted sediment has been removed from the Great Lakes, including over 500,000 pounds of PCBs and 430,000 pounds of DDT from an upstream location in the Saginaw River watershed. While the most cost-effective solution for contaminated sediments is often capping in place or

dredging and disposal, EPA and the Corps are exploring innovative technologies for the treatment of pollutants in sediment.

### **ALL AUTHORITIES AND ADDITIONAL RESOURCES ARE NEEDED TO RESTORE AREAS OF CONCERN**

Sediment cleanups are being achieved in the Great Lakes through a variety of authorities, funding sources, and approaches.

Superfund authorities are used at National Priorities List sites that affect AOCs - 22 of the 31 U.S. AOCs are impacted by one or more Superfund sites. Superfund resources may also be available for certain "hot spot" areas that are not on the National Priorities List but present an imminent and substantial endangerment to human health or the environment. For many Superfund cleanups, responsible parties are funding the work. Cleanups are also achieved under enforcement of Resource Conservation and Recovery Act, Clean Water Act, or other authorities and may be implemented as Supplemental Environmental Projects.

EPA will continue to vigorously enforce available authorities to address contaminated sediments at AOCs where appropriate. Partnership approaches with State, local and tribal governments, other federal agencies, and industry and citizen groups also play a prominent role in Great Lakes sediment cleanups and other water quality projects. I heartily agree with the statement in Mr. Davis's testimony that control and remediation of sediments requires collaboration among all government levels, as well as with industry and community stakeholders. We have the multi-agency teams



and processes in place to ensure that this coordination continues and makes the most effective use of additional funds for Great Lakes restoration.

While some funding sources exist for addressing contaminated sediments and other sources of AOC degradation, the funding is not adequate for the task at hand and in some cases is not available to an AOC. For example, many of the sediment cleanups completed to date have been accomplished through our Superfund program or through enforcement actions. At many AOCs, however, there is no clear link to a responsible party that can be required to clean up the site. In other cases, Superfund or enforcement actions may be available to do part of the job -- such as sediment remediation -- but additional funds are needed to correct other impairments such as habitat destruction or continued pollutant loading from nonpoint sources.

The need for additional funds beyond those provided by Superfund and other regulatory programs is illustrated with an example from the Kalamazoo River AOC. Because of serious PCB contamination, five miles of the Kalamazoo River have been identified as a Superfund site with at least five Potentially Responsible Parties named to date. Sediment cleanup has begun under Superfund authorities and is expected to address four out of eight beneficial use impairments in the AOC. Yet, when sediment remediation is complete, half of the beneficial uses -- loss of habitat, degradation of the benthos, degradation of fish and wildlife populations, and degradation of aesthetics -- are still likely to remain impaired. This will be the situation with a number of AOCs: when Superfund cleanups and other regulatory actions are complete, there will still be problems to address before it is possible to de-list the AOC.

This is where dedicated federal funds can spur innovative approaches and partnerships that will help get the job done. In the case of the Kalamazoo River AOC, EPA leveraged a grant to the local public advisory group to launch the Kalamazoo Storm Water and Watershed Strategy Pilot Project. This project brought together municipalities in the watershed to discuss problems related to storm water runoff, examine current land use planning and management programs that contribute to runoff, and create strategies that can link municipal initiatives to better protect the resources in this watershed into the future. A successful outcome of this collaboration was that the municipalities entered into a combined storm water permit application and are beginning to adopt Best Management Practices and model ordinances to address runoff issues.

**PROPOSED LEGISLATION TO REAUTHORIZE THE GREAT LAKES PROGRAM  
(H.R. 3670)**

Mr. Chairman, we have made outstanding progress in restoring water quality in the Great Lakes, but much more remains to be done. We have built a strong foundation of pollution control programs and are ready to take major steps toward further restoration of the Great Lakes. H.R. 3670 would be a catalyst for dramatic progress in protecting the Great Lakes and the Administration is pleased to support the bill.

Grants to Improve Water Quality at Areas of Concern

As can occur with many AOCs, federal dollars were used at the Kalamazoo AOC to leverage additional investments and collaboration which will go a long way to restoring all beneficial uses. This success could be duplicated at many of the AOCs and illustrates why dedicated funds for the restoration of AOCs are needed and why the President included a request for such funds in the FY2001 Budget Request. Dedicated federal funds for AOCs would leverage additional investments of non-federal dollars and serve to reinvigorate the cleanup of the Great Lakes.

Section 1 of H.R. 3670 would authorize grants for improving water quality at AOCs. Various provisions of the Clean Water Act provide authority for sediment restoration projects. The Agency believes that the authorizing language included in the President's Budget would improve upon this existing authority, facilitate grant management, and better leverage federal resources by requiring grants to be awarded on a competitive basis and requiring a cost share of non-federal resources. Section 1 of H.R. 3670 would have many of the same benefits.

It is important to note that, while the emphasis of this hearing is contaminated sediments and they are one of the major stressors on the Great Lakes, it is critical that funds for AOC cleanup retain the flexibility to be used for a range of projects that could benefit AOCs. As shown in the Kalamazoo River AOC, a variety of projects will often be needed to complete restoration of an AOC, so retaining the flexibility for funds to support these needed projects is essential.

H.R. 3670 and H.R. 1775 Definition of Fresh Water Estuary

Regarding Section 2 of H.R. 3670, we all recognize the importance of the Great Lakes as waterbodies with habitat of national significance. In addressing the restoration of degraded habitat in the Great Lakes, H.R. 3670 could make an important contribution to the habitat protection and restoration activities set forth in the President's *Clean Water Action Plan*, the Great Lakes Water Quality Agreement, and Lakewide Management Plans. Habitat restoration projects in the Great Lakes region complement those undertaken in other parts of the country.

We support the intent of the legislation to catalyze habitat restoration in the Great Lakes region. However, we have technical concerns regarding the definition of "fresh water estuary" that appears in both H.R. 3670 and H.R. 1775.

The broadly accepted definition of an estuary is "a part of a river or stream or other body of water that has an unimpaired connection with the open sea and where the sea water is measurably diluted with fresh water derived from land drainage." The mixing of fresh water and salt water is a vital part of this definition and greatly influences water circulation as well as the plants and animals found in these areas. Changes in salinity alter the density of seawater and contribute to water-column properties observed in most estuaries. Furthermore, the ability to adapt to changes in salinity is a trademark common to all plants and animals that thrive in estuaries. These physical and biological components, which are typical in estuaries, are not present in rivers entering lakes.

Section 2 of H.R. 3670 and Section 3(9) of H.R. 1775 contain the following

definition:

**"FRESH WATER ESTUARY.** – The term "fresh water estuary" means all or part of the mouth of a river or stream or other body of water having unimpaired natural connection with the Great Lakes and within which the Great Lakes water is measurably diluted with water derived from land drainage.

The concept of freshwater estuaries is not widely accepted among the scientific community. While it is possible to measure physical and chemical differences between lake water and that derived from land drainage, the definition, in its essence, relies on diluting fresh water with fresh water. Thus, it overlooks the important role that salinity plays in true estuaries.

Rather than rely on a definition of fresh water estuary, the Committee may wish to define these areas as "coastal habitat found in the Great Lakes Region." This would avoid technical concerns with the definition and would tie into the intent of Section 2 of H.R. 3670 and H.R. 1775 to restore degraded habitat.

#### Authorization of Appropriations

Finally, Section 3 of H.R. 3670 would authorize \$40 million to provide funds to continue the important work of the Great Lakes National Program Office. The Administration agrees that this important authorization needs to be extended and

expanded and proposes the appropriations level reflected in the current President's Budget of \$ 17.3 million .

## **CONCLUSION**

In closing, Mr. Chairman, the Agency strongly supports H.R. 3670.

We believe we have the coordinated network of federal, State, tribal, and local agencies necessary to effectively utilize these funds for the betterment of the Great Lakes.

The proposed level of funding is sufficient to achieve measurable improvements in Great Lakes water quality and help reduce contaminant levels in water and fish tissue, restore habitat, and reduce the number of beach closings and fish advisories, among other benefits.

In short, the additional funding could accelerate by many years the cleanup progress in AOCs, our attainment of U.S. commitments under the Great Lakes Water Quality Agreement, and tangible improvements in the health of the Great Lakes.

Thank you, Mr. Chairman. I'll be happy to take the panel's questions.

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