

## Great Lakes Regional Collaboration AOC/Sediments Chapter

### Problem Statement

The U.S. and Canada committed to restoring the most degraded portions of the Great Lakes basin in 1987. Working through the International Joint Commission (IJC), the Great Lakes States and Provinces designated 43 Areas of Concern (AOCs), including 26 in U.S. waters and five in bi-national waterways. AOCs were identified based on 14 types of impairment, reflecting human needs -- such as eating fish, drinking water and swimming -- and ecological impacts, such as loss of diversity in aquatic life and destruction of fish and wildlife habitat.

AOCs vary widely in geographic scope and extent of environmental problems. Some are confined to small harbors; others encompass an entire river watershed. Some are impacted primarily by one large contaminated sediment site; others face multiple sources of pollution and extensive loss of habitat. (See appendix.)

The most common sources of impairment are contaminated sediments; sewage treatment plant discharges/combined sewer overflows; nonpoint source runoff; runoff from hazardous waste sites; and habitat degradation/destruction. Many of the sources that impact the AOCs are addressed in the other chapters of the GLRC. Contaminated sediment is linked to impairments in all 31 U.S. AOCs; due to the widespread and severe impacts of contaminated sediments, and because no other chapter covers them, this is the only source this chapter will address.

Though progress has been made in the AOCs, much remains to be done. Contaminated sediment cleanups have historically been approached through an array of programs, most designed for other purposes and none adequately funded to solve all the problems. The U.S. Policy Committee for the Great Lakes, in January 2005, identified approximately 75 remaining sites in the Great Lakes, with a total volume of nearly 75 million cubic yards of contaminated sediments. Depending on the remedy, cleanup costs could range from \$1.5B to \$4.5B.

There are three primary barriers to further progress in restoring the AOCs: program administration, addressing contaminated sediment (including disposal and destruction technology issues), and establishing final restoration targets (delisting).

Program Administration: At inception, the AOC program generated much enthusiasm as a comprehensive, ecosystem-based approach with strong emphasis on community leadership and stakeholder involvement. Federal funding supported much of the planning, restoration, research and monitoring.

Local councils in most AOCs played an important role in engaging stakeholders, advising state and federal agencies, and implementing many planning and restoration efforts.

By the late 1990s, progress stalled due to diminished funding and a lack of organized federal program direction. Consequently, state and associated local efforts declined. In 2002, the General Accounting Office (GAO) produced a report ([www.gao.gov/new.items/d02563.pdf](http://www.gao.gov/new.items/d02563.pdf)) documenting administrative problems in the AOC program. Since then, significant changes have begun to reinvigorate the program. But there remains a need for simplified processes and adequate, stable funding for federal, state, local and tribal partners.

**Contaminated sediment issues:** It is critical to address concentrated deposits of contaminated sediments before they reach the lakes, where cleanup is virtually impossible. But remediation projects are constrained by the complexity and cost of design and implementation, limited disposal capacity, difficulty establishing disposal sites, limited alternatives to dredging and to disposal, and a lack of clear standards for beneficial re-use of some sediments.

**Delisting:** Despite the time and effort invested in the AOC program, no U.S. AOCs have been delisted and there is no consistent way to track progress in restoring these waterways. Further, most impacts are not clearly aligned with existing federal water quality regulations, making it difficult to meaningfully document environmental improvements in the AOCs.

AOCs need scientifically justified, measurable delisting targets that address AOC-specific conditions and are consistent with federal, state, local and tribal regulations and policies. Research, monitoring, remediation and restoration needed to achieve these targets must be identified.

### Goals and Milestones

The goal of the Great Lakes Regional Collaboration is to restore all the Great Lakes AOCs. Toward this ultimate goal:

- By the end of 2007, Congress will need to revise and reauthorize the Great Lakes Legacy Act.
- By the end of 2008, delisting targets for all U.S. AOCs should be developed collaboratively by federal, state, local and tribal partners.
- By the end of 2010, 10 AOCs should be delisted (restored).
- All known contaminated sediment sites in the Great Lakes should be remediated by 2020. Coupled with restoration measures identified in other chapters, this will effectuate complete restoration of the AOCs

### Recommendations

The following recommendations address the obstacles to restoring the AOCs by:

- addressing inefficiencies in the Legacy Act and increasing available funding to a level sufficient to reach the goal of cleaning up all sediment sites in the Great Lakes by 2020;
- providing for program capacity to develop measurable endpoints, design and implement remedial actions, and measure results;
- working toward better alternatives to removal and disposal of sediments;
- making better use of existing programs and funds through increased coordination at the federal, state, local and tribal levels.

### **Priority #1 – Great Lakes Legacy Act Amendments and Reauthorization**

**The Great Lakes Legacy Act should be the primary authority used to address contaminated sediments in the AOCs. Congress should amend the Act to streamline the clean-up process and allow for full federal funding of assessments and preliminary remedial design in order to move projects forward. Congress should appropriate \$150M (on average) annually over the next five years, toward the goal of ultimately cleaning up all known sites in the Great Lakes by 2020.**

Rationale: Before the Great Lakes Legacy Act, there was no specific federal authorization for a sediment remediation program for the AOCs. The Act fills this gap and holds the potential for an accelerated sediment remediation program that builds on considerable preparatory work by federal, state, local and tribal agencies to evaluate contaminated sediments and design remedial options. The Great Lakes Legacy Act should serve as a “one-stop shopping” mechanism to address contaminated sediment sites in U.S. AOCs. Ongoing projects should proceed as planned under existing remediation authorities, which can also be used to address contaminated sediment sites within the Great Lakes basin but outside the AOCs. Current difficulties in coordinating the use of these other programs are addressed in Priority #3.

Some elements of the Legacy Act are unnecessarily bureaucratic and impede the effective use of its funds. These include the complexity of the maintenance of effort provisions, the two-year life of appropriated funds, restrictions on pre-project matching funds and nonfederal sponsorship of projects, and the requirement for federal implementation. Congress should revisit these issues; specific recommendations are included in the appendix.

Current authorized funding under the Legacy Act is significantly less than identified need, and appropriations have lagged substantially behind authorized levels. Appropriation of \$150 million (on average) each year matches up with state, local, and tribal capacity to plan and implement remedial projects.

Continued funding at this level will be needed to reach the goal of remediating all contaminated sediment sites in the Great Lakes basin by 2020.

## **Priority # 2 –AOC program capacity**

**Congress should provide annually \$5M collectively to the Great Lakes States, \$5M to community-based coordinating councils in the AOCs, and \$1.7M to U.S. EPA's Great Lakes National Program office for regional coordination and program implementation.**

Rationale: Restoration of the AOCs is critical to the restoration of the Great Lakes, and yet the program has no regulatory authority and no stable, long-term funding source. Considerable coordination, collaboration and public outreach are needed to make the program work. States, local communities and tribes play a critical role in building partnerships, developing restoration plans, securing cleanup funds, determining restoration goals, designing monitoring programs, overseeing implementation, and establishing local stewardship programs to protect the AOCs once they are restored. Adequate technical capacity at the federal, state, local and tribal levels is vital to ensure that large-scale cleanup programs, such as the Great Lakes Legacy Act, are utilized effectively. The decline in program effectiveness in the late 1990s, directly corresponding to declining federal financial support and leadership, is testament to the need to build and maintain core capacity among the partners involved in AOC restoration.

U.S. EPA and each of the Great Lakes states should establish cooperative agreements for administering the AOC program that outlines their respective roles and responsibilities, priorities, anticipated outcomes, resource needs, staffing levels, and procedures for documenting and reporting progress. Funding should be allocated on the basis of these agreements rather than on a competitive basis, which does not allow for sustained capacity development. Funding for local AOC councils and tribes should be managed in a similar manner.

The core funding requested here will enable more rapid development of the delisting targets that are a necessary foundation of remedial projects. Federal, state, local and tribal partners should collaboratively develop local or statewide (as applicable) delisting targets for all U.S. AOCs by the end of 2008, in accordance with the Delisting Principles and Guidelines adopted by the US Policy Committee in December 2001.

## **Priority #3: Federal/State/Local/Tribal Collaboration**

**The Federal Interagency Task Force should establish a Federal-State AOC Coordinating Committee to better coordinate efforts and resources for restoring the AOCs.**

Rationale: No single agency at any level of government has the legal authority or programmatic resources to fully restore the AOCs. Further, the current lack of a coordinating mechanism means that existing resources are not used as effectively as they could be. A sustained, outcome-oriented collaborative process is needed to effectively consolidate resources available for restoring the AOCs.

The Federal Interagency Task Force is charged under the Executive Order with coordinating the Great Lakes activities of federal agencies. While this is a valuable objective, much of the work to restore the AOCs is administered at the state and local levels. A broader collaborative framework is needed. As full partners on the Coordinating Committee, States should work with local AOC councils and tribes to plan and schedule restoration work and identify nonfederal matching funds as necessary. The Coordinating Committee should act as a clearinghouse to move specific projects forward, through technical assistance to States, tribes and local AOC councils; data collection and sharing; identification of available resources; and joint work efforts.

**Priority #4: Promote development of treatment and destruction technologies, beneficial re-use, and disposal options**

**U.S. EPA, the Army Corps of Engineers and the States should actively examine innovative approaches as an alternative to the ultimate disposal of contaminated sediments in Confined Disposal Facilities (CDFs) or landfills. Congress should appropriate \$1 million annually over the next five years to test and promote viable treatment technologies that allow for the separation, immobilization or destruction of contaminants in sediments, in-stream or upon removal. A significant focus of this work should be on the development of technologies that produce no new contaminants and do not release contaminants to the environment.**

Rationale: While it undoubtedly improves the condition of waterways, removal of contaminated sediments to a disposal facility simply relocates the contamination. Disposal facilities can be difficult and expensive to site and build, and the lack of adequate disposal capacity keeps clean-ups from moving forward. Alternatives to disposal would address these issues.

Federal, state, local and tribal agencies should examine the feasibility of developing facilities where dredged sediments can be managed for disposal, treatment, destruction and/or beneficial reuse at a single location. Treatment technologies for decontamination and/or beneficial reuse of the dredged material at the facility should be included in project costs. In order to increase limited disposal space, the Corps and state agencies should encourage local communities to “mine” of existing CDFs, for beneficial reuse of dredged

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materials. There should be early, broad public outreach in siting decisions regarding disposal or treatment of contaminated sediments.