

AOC/Sediments Chapter

Problem Statement

In 1987, the U.S. and Canada committed to restoring the most degraded portions of the Great Lakes basin. 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 uses -- 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.

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, 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. Restoration of AOCs has historically been approached through an array of programs, most designed for other purposes and none adequately funded. This is particularly true for the remediation of contaminated sediments. The U.S. Policy Committee for the Great Lakes, in January 2005, identified 75 remaining sites in the AOCs, with a total volume of nearly 75 million cubic yards of contaminated sediments. Depending on the remedy, total cleanup costs could range from \$1.5 billion to \$4.5 billion.

There are three primary barriers to further progress in restoring the AOCs: optimizing 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 in some AOCs slowed due to diminished funding and a lack of organized federal program direction. Consequently, state and local efforts declined. In 2002, the General Accounting Office (GAO) produced a report (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 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 2006, the Federal Interagency Task Force and the Great Lakes States should organize a coordinating committee to direct resources toward AOC restoration.
- By the end of 2007, Congress should 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 AOCs 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 AOCs by 2020;
- providing for program capacity to develop measurable endpoints, design and implement remedial actions, and measure results;
- making better use of existing programs and funds through increased coordination at the federal, state, local and tribal levels;
- working toward better alternatives to removal and disposal of sediments.

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. Over the next five years, Congress should appropriate \$150 million annually to remediate contaminated sediment sites in the AOCs. Continued funding at this level over an additional ten years will be needed to achieve the goal of cleaning up all known contaminated sediment sites in Great Lakes AOCs 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.

Appropriations under the Legacy Act have lagged substantially behind authorized levels. US EPA received \$10 million in FY 2004 and \$22.5 million in FY 2005, compared to authorized funding of \$50 million annually for remedial activities. If Congress were to appropriate the full \$50 million annually, we could reach the interim milestone of delisting 10 AOCs by 2010. But this spending level will not be adequate to reach the ultimate goal of remediating all contaminated sediment sites in the AOCs by 2020. Based on approximations of sediment volume and depending on the remedy chosen, \$150 million (on average) each year matches up with both resource needs and state, local, and tribal capacity to plan and implement remedial projects.

Some elements of the Legacy Act should be fine-tuned to enable more effective use of its funds. Maintenance of effort provisions should be dropped; the life of appropriated funds should be extended; the Act's original intent to permit potentially responsible parties (PRPs) to participate as the nonfederal sponsor should be clarified and reiterated; and restrictions on disbursements to non-federal sponsors should be lifted. Specific recommendations are included in the appendix.

Cost: \$150 million annually, of which \$127.5 million exceeds current appropriation

Priority # 2 –AOC program capacity

Congress should provide annually \$10 million collectively to the Great Lakes States and 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 Clean Water Act provides no specific regulatory authority or funding for the AOC program. The decline in program effectiveness in the late 1990s, directly corresponding to declining federal financial support and the corresponding loss of State and local bench strength, is testament to the need to build and maintain core capacity among the partners involved in AOC restoration. Current funding levels should be enhanced to the above levels to ensure adequate technical capacity at the federal, state, local and tribal levels so that large-scale cleanup programs, such as the Great Lakes Legacy Act, are utilized effectively.

U.S. EPA and each State should establish cooperative agreements that outline their respective roles and responsibilities, priorities, anticipated outcomes, resource needs, staffing levels, and procedures for documenting and reporting progress.

The core funding requested here also 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.

Cost: \$11.7 million annually, of which \$9.2 million exceeds current appropriation

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

The Federal Interagency Task Force and the States should establish a Federal-State AOC Coordinating Committee by the end of 2006 to better coordinate efforts and direct existing resources toward 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 existing resources are not used as effectively as they could be. A sustained, outcome-oriented collaborative process is needed to effectively consolidate existing 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. The Coordinating Committee should act as a clearinghouse (“one-stop shop”) to move specific projects forward, through technical assistance; data collection and sharing; identification of available resources; and joint work efforts. States should help local AOC councils and tribes access the support of the Coordinating Committee, plan and schedule restoration work, and identify nonfederal matching funds as necessary.

Cost: No additional appropriation required

Priority #4: Promote development of clean treatment and destruction technologies, beneficial 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 fund at \$3 million annually over the next five years the research and development program per Section 306 of the Great Lakes Legacy Act. This research will 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 use at a single location. Treatment technologies for decontamination and/or beneficial use 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” existing CDFs, for beneficial use of dredged materials. There should be early, broad public outreach in siting decisions regarding disposal or treatment of contaminated sediments.

Cost: \$3 million annually, which is the authorized level for research but no research dollars have been expended to date

