

Areas of Concern Restoration

Background

The Great Lakes region has forged our nation's steel; built automobiles and bombers; milled paper and lumber; refined oil; manufactured chemicals; and supported an extensive transportation system of railroads and deep water ports. But the Great Lakes suffered as our region prospered. Coastal communities and the rivers and bays around which they were built have been tainted by pollution from industry, agriculture and rampant development. The Areas of Concern (AOCs) are the clearest legacy of our use and abuse of the Great Lakes. As some of the most contaminated sites in the basin, the AOCs are a primary source of degradation to the Great Lakes. If the AOCs are not restored, our Great Lakes will never be fully restored.

The United States and Canada committed to restoring the Areas of Concern in a 1987 Protocol amending the Great Lakes Water Quality Agreement of 1978. Working through the International Joint Commission (IJC), the States and Provinces designated 43 AOCs (see map at Attachment 1): 26 in U.S. waters, 12 in Canada and five in bi-national waterways. The AOCs were identified based on 14 beneficial use impairments (BUIs) that reflect both human needs -- such as eating fish, drinking water and swimming in local waterways -- and ecological impacts, such as degraded benthic communities, loss of fish and wildlife habitat, and bird and animal deformities. (Attachment 2 lists the BUIs, their causes, and the number of AOCs impacted by each.)

AOCs vary widely in geographic scope and extent of environmental problems. Some are confined to small harbors at a river mouth; others encompass an entire river watershed. Some are impacted primarily by a single, large contaminated sediment site; others face multiple sources of pollution and extensive loss of fish and wildlife habitat. The most common sources of impairment are contaminated sediments; sewage treatment plant discharges or combined sewer overflows; nonpoint source runoff; runoff from hazardous waste sites; and habitat destruction and degradation.

Problem Statement

Three areas must be addressed in order to restore the AOCs: program administration, restoration of beneficial uses, and delisting.

Program Administration: When first initiated, the AOC program generated a great deal of enthusiasm. The program outlined a comprehensive, ecosystem-based approach to restoring the Great Lakes' most degraded areas, with a strong emphasis on community leadership and stakeholder involvement. Federal funding supported a great deal of planning, restoration, remedial actions, research and monitoring. Local councils established in most AOCs played an important role in engaging community stakeholders, advising state and federal agencies on cleanup issues, and implementing many planning and restoration efforts.

By the late 1990s, progress had stalled, largely because of diminished funding and a lack of organized program direction and authority at the federal level. Consequently, States' efforts declined. In some cases, responsibility for RAPs was shifted to local groups that often lacked the funding and technical capacity to effectively coordinate the process. 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 developments have begun to reinvigorate the program. However, there remains a need for simplified processes for planning and implementation, and for adequate, stable funding and program support for federal, state and local partners.

Restoring beneficial uses: To fully restore the AOCs, many sources of beneficial use impairment must be addressed. (See Attachment 2.) Ongoing industrial and municipal discharges, atmospheric deposition, polluted runoff, invasive species and habitat degradation are among the stressors addressed in other chapters. We cannot fully restore the AOCs without solving these issues throughout the Great Lakes basin.

Contaminated sediment is the most widespread factor in beneficial use impairments. All AOCs have contaminated sediment and 11 of the 14 BUIs are associated with contaminated sediment. (See Attachment 2.) It is critical that concentrated deposits of contaminated sediments be addressed before they reach the lakes because once dispersed, cleanup is virtually impossible. However, the complexity and costs of remedial design and implementation, limited disposal capacity for contaminated sediment, and the difficulty of establishing new disposal sites constrain cleanup, as does a lack of clear standards for potential beneficial re-use of the sediments removed.

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 beneficial uses.¹ Further, most BUIs do not clearly align with existing federal water quality regulations, making it difficult to meaningfully document environmental improvements in the AOCs.

AOCs need scientifically justified, measurable delisting targets for the restoration of each applicable BUI. These targets must address AOC specific conditions and be consistent with federal, state and local regulations and policies. Research, monitoring, remediation and restoration needed to achieve these targets must be identified; and the resources to implement these actions must be found.

Desired State

The overarching goal of the AOC program is to restore beneficial uses in AOCs and the Great Lakes. Specific goals to accomplish this were set by the U.S. Policy Committee, representing federal, state and tribal agencies responsible for the Great Lakes, in its

¹The Presque Isle Bay AOC in Pennsylvania has been designated "in recovery" and the Black River AOC in Ohio has one BUI designated "in recovery."

Great Lakes Strategy 2002. The Lakewide Management Plans (LaMPs) set forth lake-specific strategies for restoring beneficial uses.

Restoration of the AOCs holds the promise of both environmental and economic benefit. In a 2003 study, the Northeast-Midwest Institute estimated that completing the contaminated sediment cleanup of Waukegan Harbor in Illinois could increase individual property values \$21,000 to \$53,000. The once infamous Cuyahoga River in Ohio now supports recreational and residential use as well as industrial use. The desired state for all AOCs is realizing these environmental and economic benefits by fully restoring beneficial uses.

Assessment of Ongoing Activities

Program Administration: US EPA's Great Lakes National Program Office (GLNPO) has assumed oversight responsibility and appointed federal liaisons to each AOC. In 2004, Congress increased funding for state and local support for AOC efforts, recognizing the need to rebuild capacity in this critical area. However, much work remains to bring State and local programs back to effective levels and to reduce bureaucratic requirements that impede progress in the AOC program.

Restoring beneficial uses: The Great Lakes Legacy Act of 2002 provides dedicated funding for sediment remediation, filling an important gap in the Great Lakes program. The accelerated sediment remediation program envisioned by this Act builds on a considerable amount of preparatory work by US EPA and other federal, state, local and tribal agencies to characterize the nature and extent of contaminated sediments in the AOCs and to evaluate remedial options.

The Act authorizes \$270 million over five years (beginning in fiscal year 2004) to remediate contaminated sediment in the US or bi-national AOCs. US EPA received \$10 million in FY 2004 and \$22.5 million in Legacy Act funding for 2005. Though Legacy Act funds are a boon to AOCs, progress is slowed by the fact that appropriated funds have not reached authorized levels, and by well-intended but convoluted provisions in the Act that make it difficult to disburse funds.

Delisting: In 2001, the US Policy Committee developed delisting principles and guidelines (www.epa.gov/glnpo/aoc/delist.html) that clearly describe the attributes of acceptable delisting targets and the process to totally delist an AOC. The guidance is being used by the States and local Remedial Action Plan (RAP) groups to define delisting targets for the BUIs identified in their AOCs. The guidelines allow for incremental progress towards delisting by BUI or by stream segment, and present a viable option for better measuring intermediate progress in AOCs. "Area of Concern in Recovery" status is available for AOCs that have implemented all feasible cleanup activities, but require time for the ecosystem to respond.

Over the last several years, GLNPO has begun funding technical workshops, research on feasible targets for BUIs, and development of statewide and local AOC restoration targets. The current lack of delisting targets slows down remedial work and creates the impression that the Great Lakes region is not ready to undertake a full-scale restoration effort.

Recommended Actions

The Great Lakes Regional Collaboration recommends several key actions to address remaining challenges in the areas of program administration, restoration of beneficial uses, and delisting.

Program Administration

- Federal funding should be provided in the amount of \$1.7 million annually for GLNPO and \$5 million annually for the States to support AOC program implementation. An additional \$5 million should be provided to the States to pass through to local RAP groups in support of AOC-specific program implementation and public outreach.

- The Great Lakes Water Quality Agreement should be amended to provide greater flexibility in achieving the aims of the AOC program. Changes should minimize bureaucratic requirements, focus resources on activities that contribute most to environmental improvements, and utilize plans developed under other programs to accomplish RAP goals.

- US EPA, the States, and local RAP participants should build capacity for ongoing watershed stewardship in the AOCs, both during the cleanup phase and after delisting. Allocations should be available through an expansion of US EPA's watershed program or the 319 program to support continuing stewardship efforts.

Restoring Beneficial Uses

- Congress should appropriate the full \$54 million per year authorized for remediation, research and outreach under the Great Lakes Legacy Act. Sustained spending at this level is preferable to a larger appropriation over an abbreviated period because it is better aligned with State and local capacity to undertake remediation projects. Legacy Act funds should be available for planning and design with a lower match requirement in order to “tee-up” projects and maintain momentum. An estimate of contaminated sediment volumes and remedial costs in each AOC can be found at <http://www.glin.net/aocstrategyteam/documents/RemediationEstimatesJan05.xls>.

- Some elements of the Legacy Act are unnecessarily bureaucratic and impede the ability of States to apply for and effectively use federal funds. These include eligibility requirements, the two-year life of appropriated funds, the complexity of the maintenance of effort provisions, and restrictions on matching funds. Congress should

revisit these issues and reauthorize the Legacy Act beyond 2008 to simplify implementation and move remediation projects forward.

- Addressing contaminated sediments and controlling runoff from wet weather events should be priorities for the AOC program, because these ecosystem stressors have the most widespread impact on beneficial uses. Congress should continue to fund the Clean Water Act State Revolving Loan program at \$1.35 billion annually to help provide low-interest funding for communities to eliminate combined sewer overflows (CSOs). US EPA and the States should continue to work with communities on Long-Term Control Plans for elimination of CSOs within 20 years.

- The Council of Great Lakes Governors, the Great Lakes Legislative Caucus and the Great Lakes Cities Initiative should form a task force to explore options for creating regional mechanisms for meeting nonfederal funding requirements for sediment remediation, and should work with the Federal Interagency Task Force on mechanisms for providing disposal capacity for contaminated sediments.

- US EPA, the Army Corps of Engineers and the States should develop guidance for the beneficial re-use of sediments and encourage sediment remediation projects that utilize alternatives to disposal.

- The Federal Interagency Task Force should develop effective mechanisms to address contaminated sediment sites through a collaborative process, leveraging resources from multiple partners and using authorities under all applicable statutes (e.g. WRDA, CWA, CERCLA – including NRD provisions, RCRA, OPA, etc.), when necessary, to complete a cleanup.

Delisting

- All US AOCs should develop local or statewide (as applicable) delisting targets for the restoration of applicable BUIs by the end of 2008. BUI delisting targets should be developed collaboratively by federal, state and local partners in accordance with the *Delisting Principles and Guidelines* adopted by the US Policy Committee in December 2001.

The delisting targets will define the end point for each AOC. Completion of the recommendations in this and other chapters of the Great Lakes Protection and Restoration Strategy will move us toward those end points and the goal of delisting all US and bi-national AOCs.

References

GLNPO and the States have developed an estimation of sediment costs by AOC, which is available at

<http://www.glin.net/aocstrategyteam/documents/RemediationEstimatesJan05.xls>).

An estimate of administrative costs for AOC program implementation was compiled by the Great Lakes Commission in consultation with federal, state and local partners. It can be found at: [create link].

U.S. Policy Committee. 2002. Great Lakes Strategy – A Plan for the New Millennium.

www.epa.gov/glnpo/gls/index.html

Braden, J., S. Chattopadhyay and A. Patunru. 2003. The Economic Value of Environmental Cleanup: Contaminants in Waukegan Harbor, Illinois.

www.nemw.org/Waukeganexsummary.pdf

Lakewide Management Plans (LaMPs) for the Great Lakes are available at:

www.epa.gov/glnpo/gl2000/lamps/index.html

U.S. Policy Committee. 2001. Restoring United States Great Lakes Areas of Concern: Delisting Principles and Guidelines. (www.epa.gov/glnpo/aoc/delist.html)