



February 2012
LEGISLATIVE PRIORITY FACT SHEET



Reducing Atmospheric Toxic Pollution

Atmospheric deposition of toxic pollutants poses a significant risk to both human and wildlife health. Persistent bioaccumulative toxic contaminants, referred to as PBTs, enter the Great Lakes ecosystem and its food chain via atmospheric transport, surface runoff and direct discharges to waterways. Mercury is likely the best-studied PBT. Mercury is a potent neurotoxicant that can cause irreversible damage during brain development in human fetuses and infants, as well as cardiovascular effects in adults.

In response to growing concern about the adverse effects of atmospheric deposition of toxic pollutants on the health of the nation's waters, the Great Waters section of the Clean Air Act Amendments of 1990 authorized the U.S. Environmental Protection Agency (USEPA) to improve our ability to identify, characterize and control atmospheric sources of toxic substances that impair major U.S. water bodies, including the Great Lakes. With federal support under the Act, the Great Lakes states and USEPA's Air and Radiation Division have implemented a broad initiative to identify and track sources of, and risks from, deposition of mercury and other toxic pollutants to the Great Lakes. Substantial work has been done under the Great Lakes Air Deposition (GLAD) program, coordinated by the Great Lakes Commission, to better understand the sources of toxic pollutants, their transport in the environment and the resulting impacts on human health and the Great Lakes ecosystem. The "Great Lakes Mercury Connections" report, published in October 2011 by the Biodiversity Research Institute, the Great Lakes Commission and the University of Wisconsin-La Crosse, documents the impacts and trends of mercury pollution in the Great Lakes region.



The Great Lakes Restoration Initiative (GLRI) is a collaborative effort that is supporting implementation of a comprehensive plan to protect and restore the Great Lakes and advance the economic revitalization in the region. A vital component of the GLRI is a science-based accountability system that establishes clear goals and measures of progress to maximize the benefits from the investments being made. Such accountability cannot exist without reliable monitoring data. In fact, a number of research projects funded under the GLAD program have emphasized the need for an improved, comprehensive national mercury monitoring program to provide a better understanding of the critical linkages between mercury emissions, the environmental response and associated human health concerns. However, over the last decade, monitoring of mercury cycling across the Great Lakes region has been significantly jeopardized due to funding limitations.

Priorities for Reducing Atmospheric Toxic Pollution

The Great Lakes Commission calls for action on the following priorities to reduce atmospheric toxic pollution and to enhance our understanding of and ability to respond to this issue:

- Authorize and fund comprehensive, collaborative, long-term mercury monitoring and research programs within and outside of the Great Lakes-St. Lawrence River basin, such as the proposed Comprehensive National Mercury Monitoring Network Act (H.R. 3391 and S. 1183)
- Expand the capabilities of federal, state and provincial governments to reduce mercury exposure, including but not limited to, environmental monitoring; fate and transport science; regional mercury reduction strategies; pollution prevention programs; and health advisory efforts
- Encourage global reductions in mercury emissions that adversely affect the health and well-being of people living in the Great Lakes-St. Lawrence River basin

Benefits to the Great Lakes Region

According to the American Sportfishing Association, recreational fishing in the Great Lakes region annually attracts over 1.5 million anglers, generates over \$7 billion in revenue, and supports nearly 60,000 jobs.ⁱ This industry is imperiled by the concerns about elevated levels of toxic contaminants, including mercury, that are found in fish. Mercury contamination is the primary reason for fish consumption advisories issued by all states in the Great Lakes region. These advisories act as a strong deterrent to the economic viability of the recreation and tourism industries across the region.

The Great Lakes region also supports a strong recreational boating community. Recreational boaters spend an estimated \$10 billion annually on Great Lakes boating trips, an additional \$5.7 billion to purchase and maintain their boats and equipment, and support some 244,000 jobs that generate \$7.2 billion in personal income.ⁱⁱ Reducing toxic contamination throughout the region will help keep these sectors of the economy vibrant.

Progress to Date

The United States and Canada have jointly signed an Air Quality Agreement, the Great Lakes Water Quality Agreement and the Great Lakes Toxic Substances Control Agreement to control transboundary emissions and to cooperate on research and development projects to eliminate toxic substances in all forms. The Great Lakes Regional Collaboration Toxics Strategy team outlined tasks to move toward elimination of PBTs in the environment. The Binational Toxics Strategy Mercury Workgroup, composed of members from each of the eight Great Lakes states and the province of Ontario, USEPA, Environment Canada, the Council of Great Lakes Industries and several environmental nongovernmental organizations, has developed a Great Lakes Mercury Emission Reduction Strategy that spells out activities needed to reduce mercury emissions from new and existing regional sources. Finally, the USEPA recently published the Mercury and Air Toxics Standards (MATS), the first national standard that protects American families from power plant emissions of mercury and other toxic air pollutants by relying on pollution controls that are already in use at more than half of the nation's coal-fired power plants.



Brown trout. Photo © Flickr/helti

Despite actions taken to reduce emissions of toxics to the atmosphere and through the waste stream, mercury contamination remains a problem. Of particular concern is the lack of a comprehensive monitoring program to track progress toward environmental protection and restoration goals through specific mercury reduction policies. A comprehensive mercury monitoring network, as proposed by the United States and Canadian scientific community, is needed to fill this gap. Representative Chellie Pingree (ME-01) and Senator Susan Collins (ME) have introduced legislation that would create such a network (H.R. 3391 and S. 1183, the Comprehensive National Mercury Monitoring Act).

More Information

Great Lakes Air Deposition Program

www.glc.org/glad

Great Lakes Mercury Connections: The Extent and Effects of Mercury Pollution in the Great Lakes Region

www.briloon.org/mercuryconnections/greatlakes

Great Lakes Mercury Emission Reduction Strategy

www.glrppr.org/glmst/Mercury-Emissions-Reduction-Strategy.pdf

USEPA Mercury and Air Toxics Standards (MATS)

www.epa.gov/mats

Mercury Monitoring Network (MercNet)

nadp.sws.uiuc.edu/mercnet

ⁱ American Sportfishing Association. 2008. *Sportfishing in America*. Available at <http://www.asafishing.org/images/statistics/resources/Sportfishing%20in%20America%20Rev.%207%202008.pdf>.

ⁱⁱ Great Lakes Commission. 2007. *Great Lakes recreational boating's economic punch*. Available at <http://glc.org/recboat>.