

*For EPA personnel and partners who wish to implement collaborative problem solving projects effectively.*

## Great Lakes Bi-National Toxics Strategy

*The Great Lakes Binational Toxics Strategy demonstrates the success of two governments—along with a host of supporting partners—coming together to tackle a shared ecological threat.*

### Background

Persistent toxic substances (PTS) such as mercury, polychlorinated biphenyls (PCBs) and DDT have historically threatened the Great Lakes basin ecosystem, by poisoning the tissue of the fish we eat, such as salmon, walleye and trout. Sources of these toxics include:

- industrial and municipal discharges;
- contaminated sediments;
- agricultural and urban runoff;
- contributions of pollution from toxic waste sites;
- open burning;
- spills; and,
- long-range air deposition from out-of-basin sources.

The good news is significant progress has been made to decrease the presence and threat of these substances in the Great Lakes, and levels of most toxic substances have decreased over time. Fish advisories, however, remain in all of the Great Lakes, indicating that these substances continue to bio-accumulate through the food chain to unacceptable levels. This is particularly a problem for the most sensitive human populations in the basin such as pregnant women and children, and for communities, such as some Tribes and First Nations that rely on Great Lakes fish as a primary source of food.

The Great Lakes Binational Toxics Strategy (GLBTS) was conceived in

response to the International Joint Commission's (IJC) 1994 Seventh Biennial Report on Great Lakes Water Quality. The IJC is an independent body of government-appointed commissioners with the responsibility to assist and evaluate U.S. and Canadian efforts under the Great Lakes Water Quality Agreement (GLWQA). U.S. and Canadian governments were directed by IJC to "adopt a specific, coordinated strategy within two years with a common set of objectives and procedures for action to stop the input of persistent toxic substances into the Great Lakes environment." Signed eight years ago, the 1997 GLBTS agreement between Canada and the U.S. to virtually eliminate persistent toxic substances from the Great Lakes environment is still growing strong, with commitments and plans being currently renewed and revised.

The GLBTS sets forth reduction goals for twelve "level I" Persistent Toxic Substances (PTS) with a long term goal of "virtual elimination" of all PTS in the Great Lakes basin. The GLBTS also calls upon the governments to address a set of level II PTS through voluntary pollution prevention activities. Some examples of projects coming out of the GLBTS collaboration include partnering with the chlor-alkali industry to reduce mercury consumption by over 88% (since 1995), and Ontario's *Burn It Smart!* program to reduce the unwanted formation of carcinogenic polycyclic aromatic hydrocarbons (PAHs).



### Why The Great Lakes Binational Toxics Strategy Worked

The Great Lakes Binational Toxics Reduction Strategy is an example of a successful partnership among government, industry and non-governmental organizations on both sides of the border that have a shared commitment to solve a difficult environmental problem. Commitment, diligence and creativity of all concerned parties makes the Strategy work. Further, the GLBTS includes a voluntary pollution prevention component, which is an asset, as it facilitates stakeholder opportunities and participation in activities beyond regulatory requirements. The continued success of the GLBTS will depend, in large part, on the continued efforts of all concerned partners.

### What Made The Great Lakes Binational Toxics Strategy Unique

To date, the GLBTS represents the most comprehensive effort by the two

It took decades for the Great Lakes to reach their current state. It will take decades for the Lakes to fully recover...The important thing is that we are turning a corner and moving toward better coordinated efforts.

- EPA Administrator Steve Johnson

countries to reach a mutual commitment to virtually eliminate persistent toxic substances from the Great Lakes environment. Environment Canada (EC), the United States Environmental Protection Agency (USEPA), and stakeholders from industry, academia, state/provincial and local governments, First Nations, Tribes, and environmental and community groups have worked together towards the achievement of the Strategy's challenge goals. Substance-specific workgroups have worked to eliminate the Level I substances from the Great Lakes Basin, and an Integration Working Group has addressed issues that fall outside the scope of the substance-specific workgroups.

## Lessons Learned

- Pollutants that affect the Great Lakes ecosystem cross jurisdictional and geographic boundaries and therefore must be addressed in a collaborative fashion. Canada and the U.S. are working with the Province of Ontario, Great Lakes states, Tribes and First Nations, and public and private partners to virtually eliminate persistent toxic substances from the Great Lakes.
- It might not be possible to achieve total elimination of all persistent toxic substances. For example, some substances such as mercury, occur naturally and would exist at low levels even without human intervention.
- An open, transparent, and accountable process has proven to be the best process to involve the Great Lakes community. The strategy includes provisions for information sharing, and sets out a means to measure and communicate progress.

- To ensure continuing progress, the GLBTS must continue to work closely with the national programs of each country, as well as larger multi-stakeholders such as the Commission for Environmental Cooperation's Sound Management of Chemicals and the United Nations Environmental Program's Persistent Organic Pollutants programs.
- Out-of-Basin sources of persistent toxic substances and their relative contributions to the lakes must be reasonably well understood in order to set-forth realistic in-Basin reduction goals and to maintain realistic expectations of the attendant impacts to levels in the ecosystem.
- Collaborative approaches are applicable to large scale, in this case "bilateral," projects. Collaborative problem solving methods aren't limited to site specific or regional problems.

## Results

- Of the 17 reduction goals set forth in 1997 for the 12 ("level 1") toxic substances, ten have been met, three will be met by the target timeline date of 2006, and the remaining four will be well advanced toward meeting the targets by 2006.

## Keys to Collaboration Exemplified

The U.S. and Canada **share a similar problem**: the countries are both producers of persistent toxic substances (PTS) that might impair the health and longevity of the Great Lakes ecosystem. A key in bringing the two countries together to address the problem was the International Joint Commission (IJC), an independent

body of government-appointed commissioners with the responsibility to assist and evaluate U.S. and Canadian efforts under the Great Lakes Water Quality Agreement (GLWQA). The IJC called upon the two governments to "...adopt a specific, coordinated strategy within two years with a common set of objectives and procedures for action to stop the input of PTS into the Great Lakes environment.

The Great Lakes Binational Toxics Strategy represents a **formal agreement** between the U.S. and Canadian governments, as **committed leaders**, to virtually eliminate PTS from the Great Lakes environment. Environment Canada; U.S. EPA; stakeholders from industry, academia, state/provincial and local governments; First Nations; Tribes; and environmental and community groups are **representatives of substance**, working together to achieve the goals of the GLBTS.

Finally, an open, transparent, and accountable process has been used to involve the Great Lakes community. The strategy includes provisions for information sharing and sets out a means to measure and communicate progress. This approach has resulted in a **common information base**.

## For More Information

Great Lakes National Program Office  
(312) 353-6571  
<http://www.epa.gov/innovation/collaboration>