

Progress Toward the Challenge Goals

The following table shows Canadian and U.S. progress toward the challenge goals agreed upon in the GLBTS. It represents overall progress that has occurred in the two countries, reflecting GLBTS and other government and non-government initiatives.

Focus	Challenge Goals	Progress
Mercury	Canadian release: By 2000, reduce releases by 90% in the Great Lakes Basin.	Approximately 85% reduction between 1988 and 2003.
	U.S. release: By 2006, reduce releases (to air nationally and to Great Lakes waters) by 50%.	Estimated reduction of more than 50% since 1990.
	U.S. use: By 2006, reduce by 50%.	Estimated reduction of more than 50% between 1995 and 2003.
PCBs	Canada: By 2000, reduce by 90% high-level PCBs (>1% PCBs) that were once, or are currently, in service. Accelerate destruction of stored high-level PCB wastes.	As of April 2005, 89% of high-level PCBs (Askarel > 1%, 10,000 ppm) in storage had been destroyed in Ontario, compared to 1993; nearly 70% reduction in high-level PCBs in service in Ontario, since 1989.
	U.S.: By 2006, reduce by 90% nationally high-level PCBs (>500 ppm PCBs) used in electrical equipment.	The U.S. has made progress in reducing the amount of high-level PCB equipment in service but is lacking sufficient data to determine with accuracy the status of progress toward the goal. According to annual disposal data, at the end of 2003, an estimated 113,000 PCB transformers and 1,330,000 large PCB capacitors remained in use in the U.S. EPA is currently compiling 2004/2005 PCB disposal information and, based on the update of PCB transformer registrations, will re-evaluate the data gaps in the inventory.
Dioxins and Furans	Canadian releases: By 2000, reduce releases in the Great Lakes Basin by 90%.	89% reduction (228 grams) in total releases in the Great Lakes Basin since 1988.
	U.S. releases: By 2006, reduce releases (to air nationwide and to waters of the Great Lakes) by 75%.	89% reduction achieved since 1987.
HCB	Canadian releases in the Great Lakes Basin: Reduce by 90% by 2000.	Approximately 73% reduction in Ontario since 1988.
	U.S. releases: By 2006, reduce releases to the Great Lakes Basin.	Emissions reduced from approximately 8,519 lbs (3,872 kg) in 1990 to 2,911 lbs (1,323 kg) in 1999.* Additional 28% reduction from 1999 to 2002.
B(a)P	Canadian releases in the Great Lakes Basin: Reduce by 90% by 2000.	Approximately 52% reduction in Ontario since 1988.
	U.S. releases: By 2006, reduce releases to the Great Lakes Basin.	Approximately 77% reduction in the Great Lakes states from 1996 to 2001.
Alkyl-lead	Canada: By 2000, reduce by 90% the use, generation, or release of alkyl-lead.	Over 98% reduction in sources, uses, and releases from 1988 to 1997 in Ontario.
	U.S.: Confirm by 1998 that there is no longer use of alkyl-lead in automotive gasoline.	In 2000, EPA confirmed no use of alkyl-lead in automotive gasoline. NASCAR has agreed to phase-out the use of alkyl-lead in high octane fuel by 2008.
Level 1 Pesticides	Canada: Report by 1997 that there is no longer use, generation, or release of the five Level 1 pesticides.	EPA and EC confirmed that all uses of the Level 1 pesticides have been cancelled, and production facilities have been closed.
	U.S.: Confirm by 1998 that there is no longer use or release of the five Level 1 pesticides in the Great Lakes Basin.	
OCS	Canada: Report by 1997 that there is no longer use, generation, or release of OCS.	In 2000, EC concluded that there were no documented releases in Ontario in 2000.
	U.S.: Confirm by 1998 that there is no longer use or release of OCS in the Great Lakes Basin.	EPA has concluded that the challenge goal has been met.

*Reductions cannot be used to establish a specific reduction in HCB emissions since 1990 due to inconsistencies in the 1990 and the 1999 emission inventories and source categories.

Sources: (For mercury, PCBs, dioxins and furans, HCB, and B(a)P) US EPA, 2007. *GLBTS 2006 Progress Report*. February 2007, Access: <http://www.epa.gov/glnpo/bns/>; (For HCB and B(a)P) GLBTS Stakeholder Forum Presentation, May 2007; (For OCS) US EPA, 2000. *Great Lakes Binational Toxics Strategy Octachlorostyrene (OCS) Report Stage 3*; (For alkyl-lead and Level 1 pesticides) US EPA, 2002. *Great Lakes Binational Toxics Strategy, 2001 Progress Report*, Access: www.binational.net.

For more information about the Great Lakes Binational Toxics Strategy and the reduction challenge goals, visit www.epa.gov/glnpo/bns or www.binational.net.

THE GREAT LAKES BINATIONAL TOXICS STRATEGY

10-YEAR
ANNIVERSARY
UPDATE

MAY 2007

10-Year Perspective

Signed in 1997 by Environment Canada (EC) and the United States Environmental Protection Agency (US EPA), the Great Lakes Binational Toxics Strategy (GLBTS, or Strategy) established challenge goals for Canada and the U.S. for 12 Level 1 persistent toxic substances and targeted a list of Level 2 substances for pollution

prevention measures. Over the past 10 years, the governments of Canada and the U.S., along with stakeholders from industry, academia, state/provincial and local governments, Tribes, First Nations, and environmental and community groups have worked together to reduce the use and release of targeted substances. Significant progress has been made toward achieving the Strategy's challenge goals. To date, 12 of the 17 goals have been met, with one more expected in the near future. The remaining four - Canada's HCB/B(a)P challenges and the PCB challenge goals - are well advanced

The Level 1 substances consist of: mercury, polychlorinated biphenyls (PCBs), dioxins and furans, hexachlorobenzene (HCB), benzo(a)pyrene (B(a)P), octachlorostyrene (OCS), alkyl-lead, and five cancelled pesticides: chlordane, aldrin/dieldrin, DDT, mirex, and toxaphene.

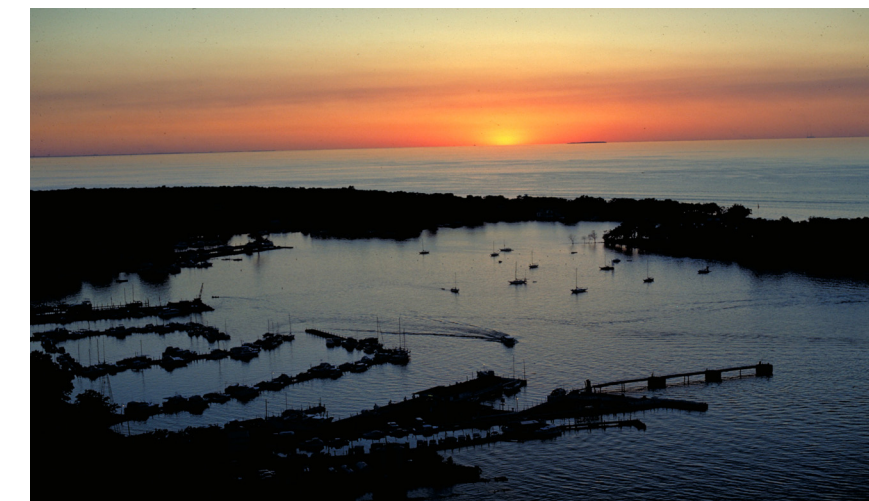
toward their respective targets. The Strategy also commits both countries to complete, or be significantly advanced in, the remediation of priority sites with contaminated bottom sediments within the Great Lakes Basin by the year 2006; this effort is still ongoing.

GLBTS Future Focus and Challenges

With the completion of the 10-year timeline for the Strategy's challenge goals, and significant reductions observed in environmental levels of the Level 1 substances, the GLBTS is looking toward the future and weighing its role in addressing new and emerging toxic chemical threats to the Great Lakes Basin. To this end, a 10-year anniversary event is being held in Chicago, Illinois, in May 2007. The event begins with a Stakeholder Forum presenting the 10-year perspective on progress made by Canada and the U.S. toward the Strategy's goals.

The focal point of the anniversary event is a two-day GLBTS workshop entitled *Strategy's Future Focus & Challenges: Sound Management of Chemicals in the Great Lakes Basin*. The workshop will enable EC, US EPA, and various stakeholders to begin considering new directions for the GLBTS as it moves forward with its mission to ensure the sound management of chemicals in the Great Lakes Basin. The workshop will include discussions of:

- ◆ Future GLBTS structure and mandate under a revised Great Lakes Water Quality Agreement (GLWQA).
- ◆ Future GLBTS management options for addressing new substances.



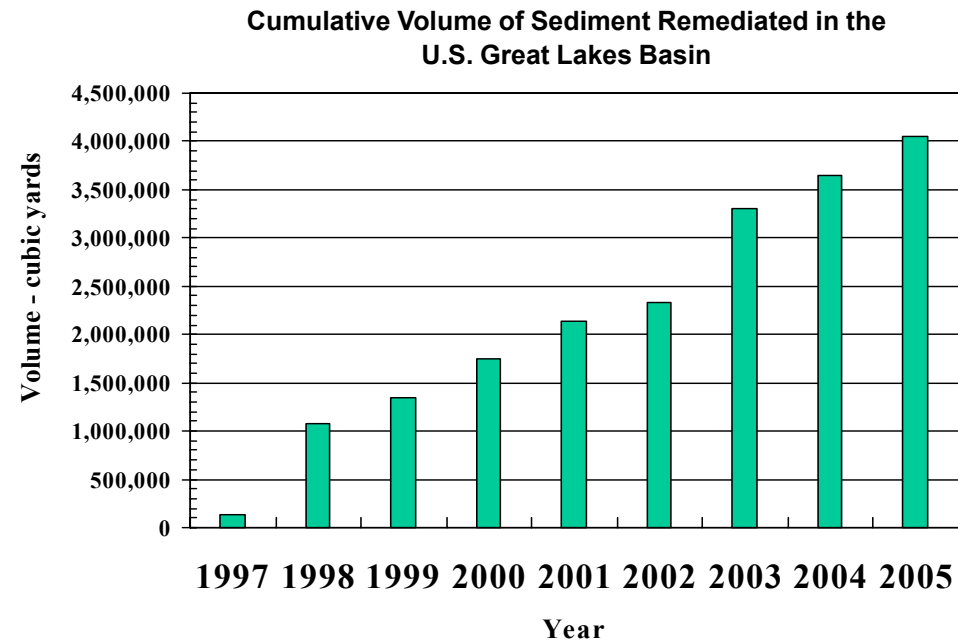
Put-in-Bay Harbor, Lake Erie, Ohio
Photo Credit: US EPA Great Lakes National Program Office

GLBTS Progress – 1997 to 2007

The following charts illustrate examples of progress made toward the GLBTS challenge goals. The table on the last page presents a more comprehensive summary of the progress achieved to date.

Sediments

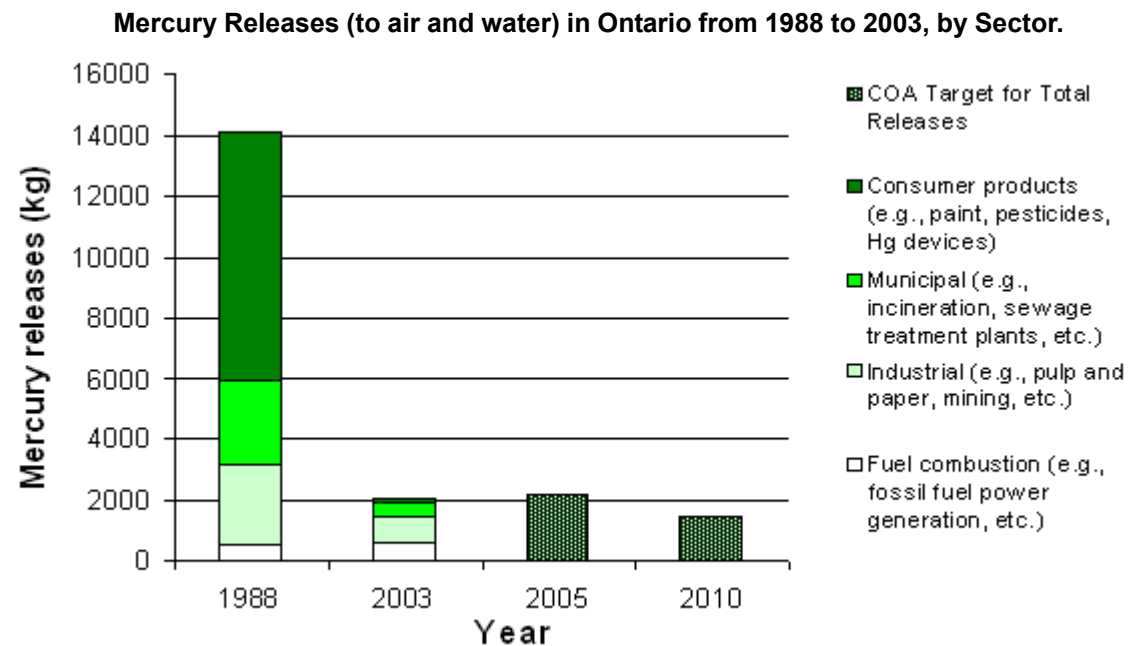
Since 1997, over 4,000,000 cubic yards of sediments are estimated to have been remediated in the Great Lakes Basin. The bar graph below represents the cumulative volume of sediment remediated in the U.S. Great Lakes Basin since 1997, as calculated based on quantitative estimates reported by project managers.



Source: 2006. Quality Assurance Project Plan for "Great Lakes Sediment Remediation Project Summary Support." Unpublished. Available from Mary Beth G. Ross (ross.marybeth@epa.gov).

Mercury

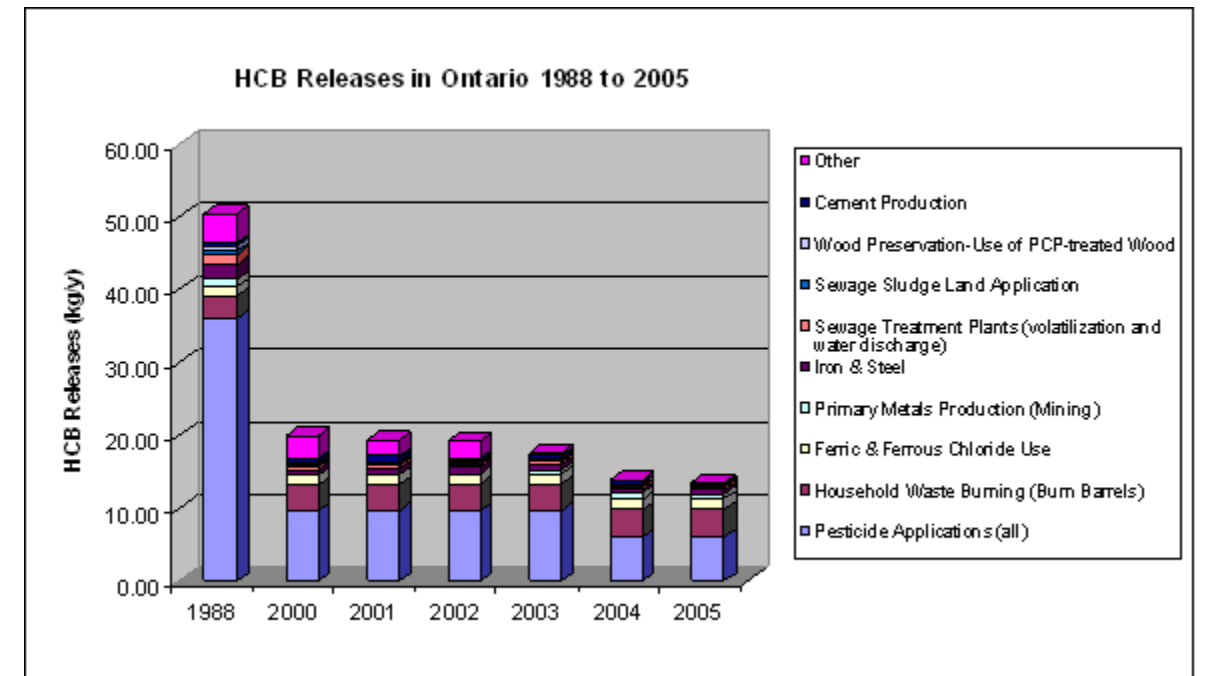
In Ontario, mercury releases have been reduced by approximately 85 percent between 1988 and 2003 (see below). In the U.S., mercury releases and total mercury use are estimated to have declined at least 50 percent since 1990 and 1995, respectively.



Source: Environment Canada, Ontario Region (2005).

Hexachlorobenzene

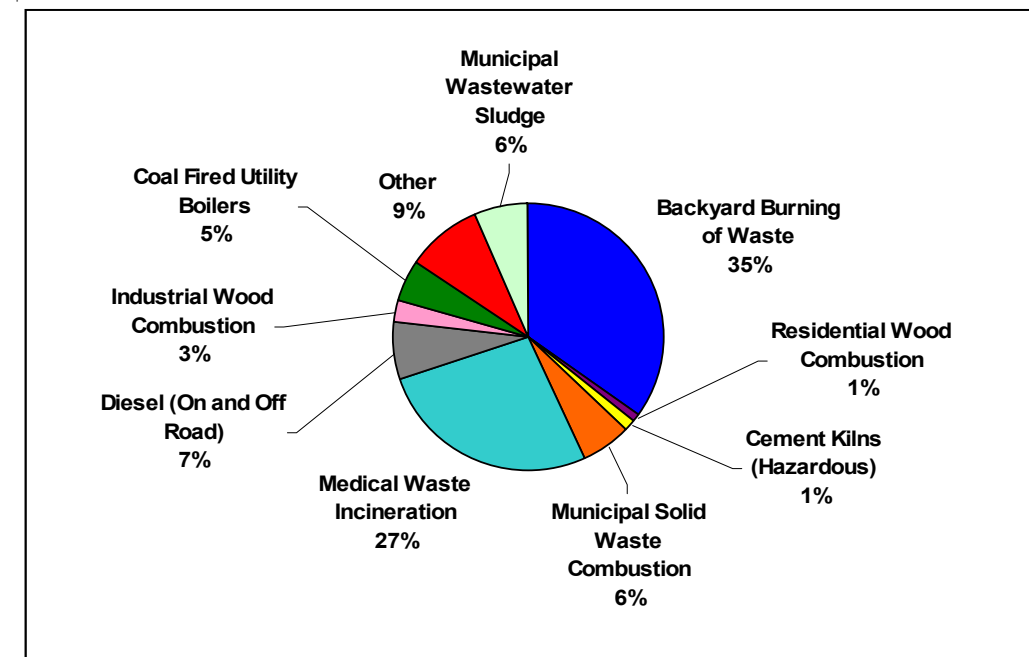
Canada has made significant progress toward its HCB goal, reducing HCB emissions to the Great Lakes Basin by approximately 73 percent since 1988. The bar graph below illustrates HCB releases in Ontario from 1988 to 2005, along with major sources of the chemical.



Source: Environment Canada (Environmental Protection Operations Division – Ontario Region) Inventory as of Nov. 2006, with an update on releases from pesticide application received from Health Canada's Pest Management Regulatory Agency (Letter dated April 11, 2005).

Dioxins/Furans

According to the most recent data available, the U.S. has reached its goal, and Canada has nearly met its challenge goal of a 90 percent reduction, achieving an 89 percent reduction in dioxin/furan releases. Based on total releases to air, water, and land, remaining sources of dioxins in the U.S. are illustrated in the chart below.



Top U.S. Inventoried Dioxin Releases in 2000.

Source: An Inventory of Sources and Environmental Releases of Dioxin-Like Compounds in the United States for the Years 1987, 1995, and 2000, November 2006.