



# Current Great Lakes Toxic Prevention Programs

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## Ongoing Programs

- Lake Wide Areas Management Plans
- Great Lakes Binational Toxics Strategy
- Remedial Action Plans for Areas of Concern



## LaMPs

- LaMPs originate in Annex 2 of the GLWQA.
- Originally intended to address critical pollutants in the open waters of each Great Lake, LaMPs now address other aspects of water quality improvement via the ecosystem management approach.
- While the LaMPs are planning programs, they are also implementing a variety of voluntary Toxics reduction projects.



## LaMP Projects

- *Lake Superior*: As part of the Lake Superior LaMP's *Zero Discharge Demonstration*, a 2004 project identified transformers suspected of containing PCBs at four utilities in the Minnesota portion of the basin and removed 71% of those transformers.
- *Lake Michigan*: Three Indiana steel mills participated in a Mercury Agreement Reduction Program that resulted in guidance for performing a mercury inventory and resulted in the removal of 3,700 pounds of mercury between 1999 and 2003 (roughly 80% of the mercury believed to be present in these facilities).



## LaMP Projects

- *Lake Erie*: The P3ERIE Program in Pennsylvania has removed over three tons of mercury from businesses, schools and citizens in the greater Erie area since the inception of the program.
- *Lake Ontario*: Monroe County, New York, Department of Health implemented a mercury pollution prevention program for hospitals and dental offices that won a USEPA Region 2 Environmental Quality Award in 1999.



## Great Lakes Binational Toxics Strategy

- Signed in 1997, by US and Canada, in response to IJC concerns regarding more direct action on virtual elimination policy described in Article II(a) of the *Great Lakes Water Quality Agreement* (GLWQA).
- Sets out 17 reduction goals over 10 year timeline for twelve persistent toxic substances.
- Engages Industry and NGOs in Stakeholder Forum to discuss toxics reduction opportunities.



## Strategy Substances

Level I - for Immediate Action

- Mercury and compounds
- PCBs
- Dioxins and Furans
- Benzo(a)pyrene
- Hexachlorobenzene
- Octachlorostyrene
- Alkyl-Lead
- Chlordane,
- toxaphene
- Aldrin/dieldrin
- DDT & Metabolites
- Mirex



## Some Successes

- ❖ Chlor-alkalai Industry Reductions in Mercury Consumption
- ❖ Big Three Auto Makers Divesting of PCB Equipment
- ❖ National Scale up of Pilot Projects
  - ❖ Burn Barrels
  - ❖ Auto Switches
- ❖ Most reductions goals have been met



## Remedial Action Plans (RAPs)

- Unlike LaMPs, which focus on open waters, the AOCs represent the nearshore contaminated areas.
- According to the GLWQA Annex 2, the United States and Canada will develop Remedial Action Plans (RAPs) for each AOC.
- RAPs are expected to address the impairment of 14 beneficial uses at each AOC. PBTs can cause the following beneficial use impairments. .



## 14 BUIs

- Restrictions on fish and wildlife consumption;
- Tainting of fish and wildlife flavour;
- Degradation of fish and wildlife populations;
- Fish tumors or other deformities;
- Bird or animal deformities or reproduction problems;
- Degradation of benthos;
- Restrictions of dredging activities;
- Restrictions on drinking water consumption, or taste or odour problems;
- Added costs to agriculture or industry;
- Degradation of phytoplankton or zoo plankton populations; and.
- Loss of fish and wildlife habitat.



## RAPs

- RAPs are mostly focused on sediment remediation.
- RAPs also include other aspects of toxics management, including stormwater management and local source reductions.