




Mercury Clean Sweep Pilot Program for Schools

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GLBTS Mercury Workgroup
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Toronto, Ontario

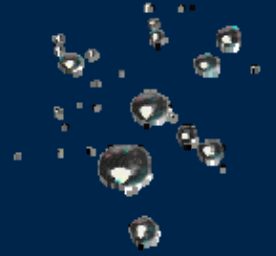


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Presentation Overview



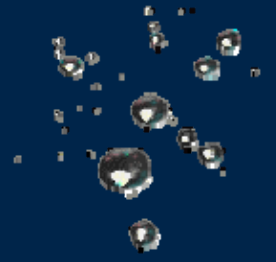
1. Background on School Program
 - EcoSuperior – Thunder Bay, Ontario
2. Mercury Clean Sweep Pilot Program for Schools in Ontario
 - Environment Canada & Ontario Ministry of the Environment – Toronto, Ontario



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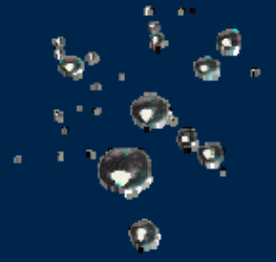
Pursues projects that promote:

- water & energy conservation
- waste reduction
- pollution prevention

Addresses environmental issues for Thunder Bay & area through Partnerships with:

- local business
- industry
- levels of government





Background on Hg School Program

EcoSuperior worked cooperatively with Thunder Bay area schools boards:

- To visit Lakehead Public Schools & inventory any Hg present onsite.
- Goal: to assist with proper removal of any mercury-containing items found.



Mercury Clean Sweep Pilot Program for Schools

(February 20 to March 31, 2006)



- Why Schools?
- Goals of Program
- Collaboration
- Getting Schools Involved
- Results
- Teacher's Reactions
- Recommendations & Projections



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Why Schools?

Many Hg containing items are found in schools:

- Hg compounds or elemental Hg in chemistry storage rooms.
- Old equipment & blood pressure gauges in nurses rooms.
- Lab thermometers or other equipment in science labs.

If there is a mercury spill, the health consequences to teachers & students can be very serious.

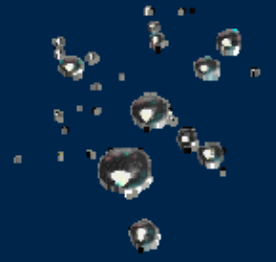


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Goals of Program



As part of COA, this pilot program aims to:

1. Safely remove stores of elemental Hg, equipment & products containing Hg from classrooms & science labs in Ontario schools.
2. Ensure proper disposal/recycling of Hg.
3. Reduce the risk of accidental spills & exposure to toxic Hg vapors.

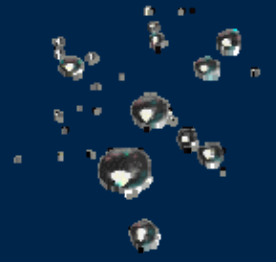


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Collaboration



➤ Partnership

- Federal - Environment Canada (EC)
- Provincial – Ontario Ministry of the Environment (MOE)

➤ Assistance

- EcoSuperior – contacting, visiting & providing information on mercury inventories in schools in Thunder Bay area.

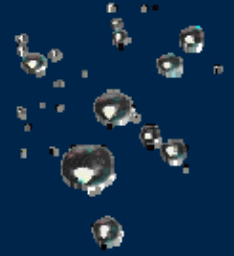


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Getting Schools Involved



Promotional Launch of the Pilot Program in November 2005:

- EC hosted a booth at annual Science Teachers' Association of Ontario (STAO) Conference in November 2005.
- Schools voluntarily enlisted.
- Communication & educational materials, surveys distributed to teachers.



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Getting Schools Involved

90 Teachers Completed the Booth Survey:

- Majority acknowledged presence of Hg in schools.
- 20 schools experienced a spill in the past, only 3 had Hg Spill Kits.



- Overall, > 40% teachers willing to participate, but all identified limited time as the major barrier.



Getting Schools Involved

Pilot took place Feb 20 to March 31, 2006:



- Schools that expressed interest at STAO were mailed Pledge forms
- Schools that signed Pledge forms received a Participant Package, which included:
 - Step-by-step Program Brochure
 - Mercury Inventory Sheet
 - Program Survey Sheet
 - Mercury Spill Kit
 - Mercury Fact Sheets



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Results of Program

Hg-containing items that would be collected from Schools:

- Laboratory thermometers
- Laboratory chemicals & compounds
- Button batteries
- Thermostats
- Blood pressure gauges
- Barometers
- Fever Thermometers
- Elemental Hg



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Results of Program

- EC & MOE incurred the costs of:
 - Collection & proper disposal of Hg waste
 - Fluorescent Lamp Recyclers (FLR) - waste hauler contracted to coordinate Hg pick-ups directly with schools
 - Hg Spill Kits
 - Hg-free replacement lab thermometers




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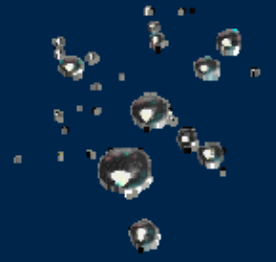
Results of Program



- Over 40 Ontario Schools participated by completing & submitting:
 - Signed Pledge Forms
 - Hg Inventory Sheets
 - Program Survey Sheets
 - In total, 9.32kg of Hg was collected!
 - Over 1150 Hg-containing lab thermometers
 - Other items: Jars of elemental Hg, Hg compounds, barometers, manometers, Hg switches etc.
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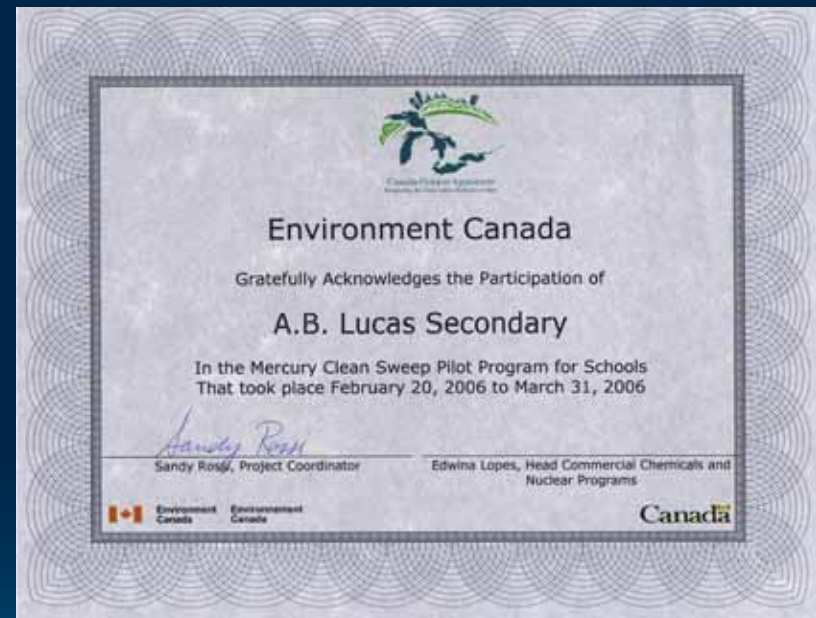


Results of Program



Each school that participated received:

- Thank you letter
- Certificate of Appreciation for their involvement
- Hg-free lab thermometers to replace each one collected through the program.



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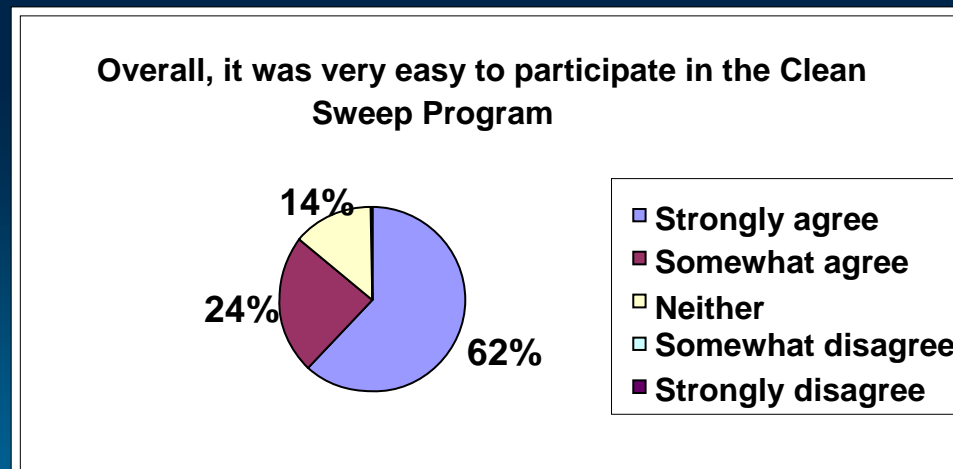
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Teacher's Reactions

Post-Program Survey Results:

- 81% teachers stated that no major problems were encountered during program
- 76% would strongly recommend this project to other schools & encourage their participation



Recommendations & Projections

- Increase timeline
- Improve communication
- Encourage student involvement

Projections of Hg that may be remaining in Canadian schools:

	*Approx. # Secondary Schools	**Projected Amount of Hg Remaining (kg)
Ontario	870	253 kg
Canada	3400	990 kg

* Ministry of Education & Statistics Canada (2006).

** Estimates based on Pilot Program average of 291grams Hg collected per school.





Photo credits: Jim Bailey/ecosuperior.com

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Mercury and the Environment

For more information please visit:



www.ec.gc.ca/mercury

www.ec.gc.ca/mercure



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