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# CMP Monitoring & Surveillance Update

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*Great Lakes Binational Toxics Strategy Status Update Teleconference      September 23, 2009*

# Overview

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- Monitoring & Surveillance is one of the key elements under CMP (along with Risk Assessment, Risk Management and Research)
- Main objectives under CMP: Generate data to
  1. Identify risks
  2. Inform risk assessment and risk management decision-making
  3. Ensure effectiveness of control actions
- Health Canada's activities
  - Biomonitoring
  - Human exposure monitoring (Indoor air, drinking water, house dust, food)
- Environment Canada's activities
  - Monitoring in environmental media (water, air, sediment, fish, birds)
  - Monitoring of waste and wastewater sectors

# Program Structure

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- **Monitoring Working Group:**

- Co-chaired by representatives of EC's RM (Brad Fisher) and Monitoring (Melanie Neilson)
- Members include EC Monitoring Scientists, RA and RM, and a representative from Health Canada
  - Identify priorities for monitoring and surveillance
  - Recommend appropriate media, sampling sites, frequency of monitoring, analytical lab; develop integrated, costed workplans
  - Oversee national implementation
  - Manage data and interpret/report results

- **Monitoring Steering Group:**

- Consists of representatives from RA/RM
- Review recommendations and workplan from Working Group and make decision on priorities for monitoring.
- Obtain approval of plan (including resources)
- Structure and mandate of this group is currently under discussion

## Key Outcomes – Yr1 (FY 07-08)

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- Created an inventory of Environment Canada's existing environmental monitoring programs
- Identified key media to be monitored (air, water, fish, sediment, birds) and established national media leads
- Conducted targeted ambient monitoring of priority substances – top up existing programs:
  - Brominated Flame Retardants (PBDEs)
  - Perfluorinated compounds (PFOS/PFOA)
- Developed a long-term coordinated, multi-media workplan



**Chemical Management Plan  
Environmental Monitoring Sites  
Year 1**

## Key Outcomes – Yr2 (FY 08-09)

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Implemented our long-term coordinated, multi-media workplan:

- Continued year 1 monitoring, but expanded selection of sites to fill spatial gaps:
  - Substances in the BFR (PBDEs and other BFRs) and PFC family of substances
  - Developed one common list of ‘target analytes’
- Added priority substances in selected media and sites:
  - Bisphenol-A [water and landfill leachate only]
  - Chlorinated Paraffins [sediment (GL)]
  - Legacy toxics (Mercury)
- Initiated terrestrial component of wildlife monitoring program: Starling nesting boxes were constructed and installed in urban locations
- Initiated Waste sector monitoring:
  - Landfill leachate and landfill gas
- Finalized design of sampling and analytical program and infrastructure for Wastewater monitoring
- Developed a clear and transparent process for adding new substances to the program

# Priority setting for monitoring

The CMP Monitoring & Surveillance Working Group developed a framework for identifying priorities for monitoring:

- The framework is a series of questions, to be answered by RM:

<b>What?</b>	Description of context (CAS #, CEPA-tox RA conclusion, does substance meet VE criteria under CEPA or TSMP?)
<b>Why?</b>	Identifies rationale for adding, or not adding, substances to the monitoring program, (i.e. performance measurement? Data gaps? Int'l obligations?)
<b>Where?</b>	Identifies media of interest, source of release, regions of concern, or vulnerable population
<b>How?</b>	Identifies existing monitoring (prevent overlap), identifies existing analytical methods or lack thereof
<b>Who?</b>	Contact info for parties interested in receiving data (RA, RM, enforcement, guidelines, etc.)

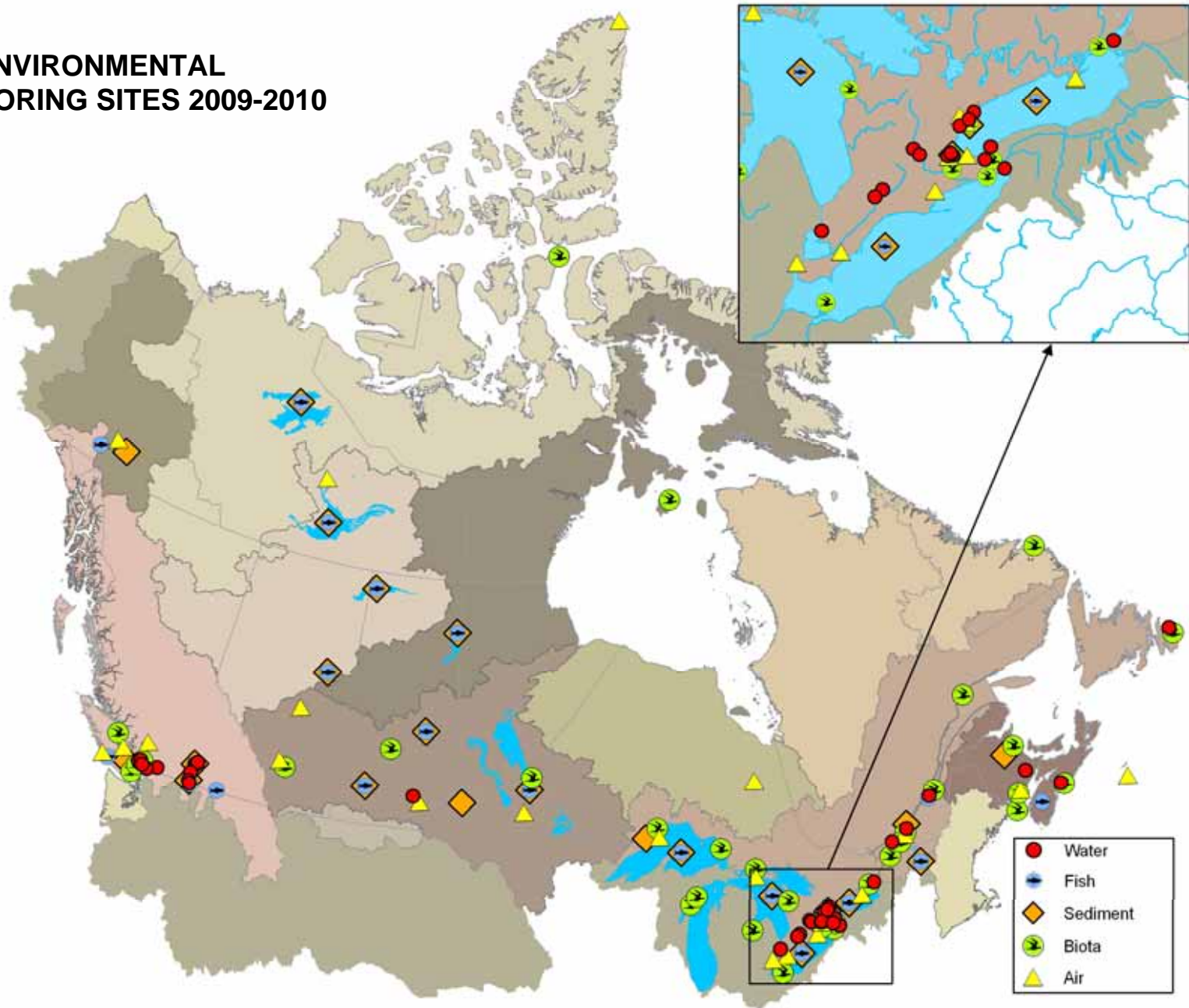
- **Output:** Leads to a YES/NO recommendation with supporting rationale
- The framework develops recommendations for both EC and HC
- EC RA is developing a similar decision framework for identifying RA priorities

## Enhancements – Yr3 (FY 09-10)

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- Expanded analysis of priority substances in selected media and sites:
  - Bisphenol-A [fish, birds, leachate, WW+biosolids]
  - Siloxanes [selected fish, air, landfill gas, WW]
  - Platinum Group Elements [fish (GL), birds]
  - Chlorinated Paraffins [fish]
- Initiated an International Inter-laboratory Study on volatile methyl siloxanes in fish, in cooperation with DOW Chemical
- Began collections of starling eggs (terrestrial component of wildlife program)
- Initiated Wastewater sector monitoring:
  - monitoring influent, primary effluent, final effluent, primary sludge, waste biological sludge, and finished biosolids

# CMP ENVIRONMENTAL MONITORING SITES 2009-2010



# Communicating Results

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- **For 2009/2010:**
  - CMP Monitoring & Surveillance backgrounder fact sheet (in translation)
  - BFR Session at Aquatic Toxicity Workshop (Sept 27-30, Quebec)
  - Case study reports for BFRs and PFCs
  - 2<sup>nd</sup> Annual CMP Monitoring Workshop – Fall 2009
  - Metadata maps (sampling sites and target analytes)
  - Outreach to other monitoring programs