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CMP Monitoring & Surveillance Update

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Environment Canada

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

Overview

- 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

- **Monitoring Working Group:**

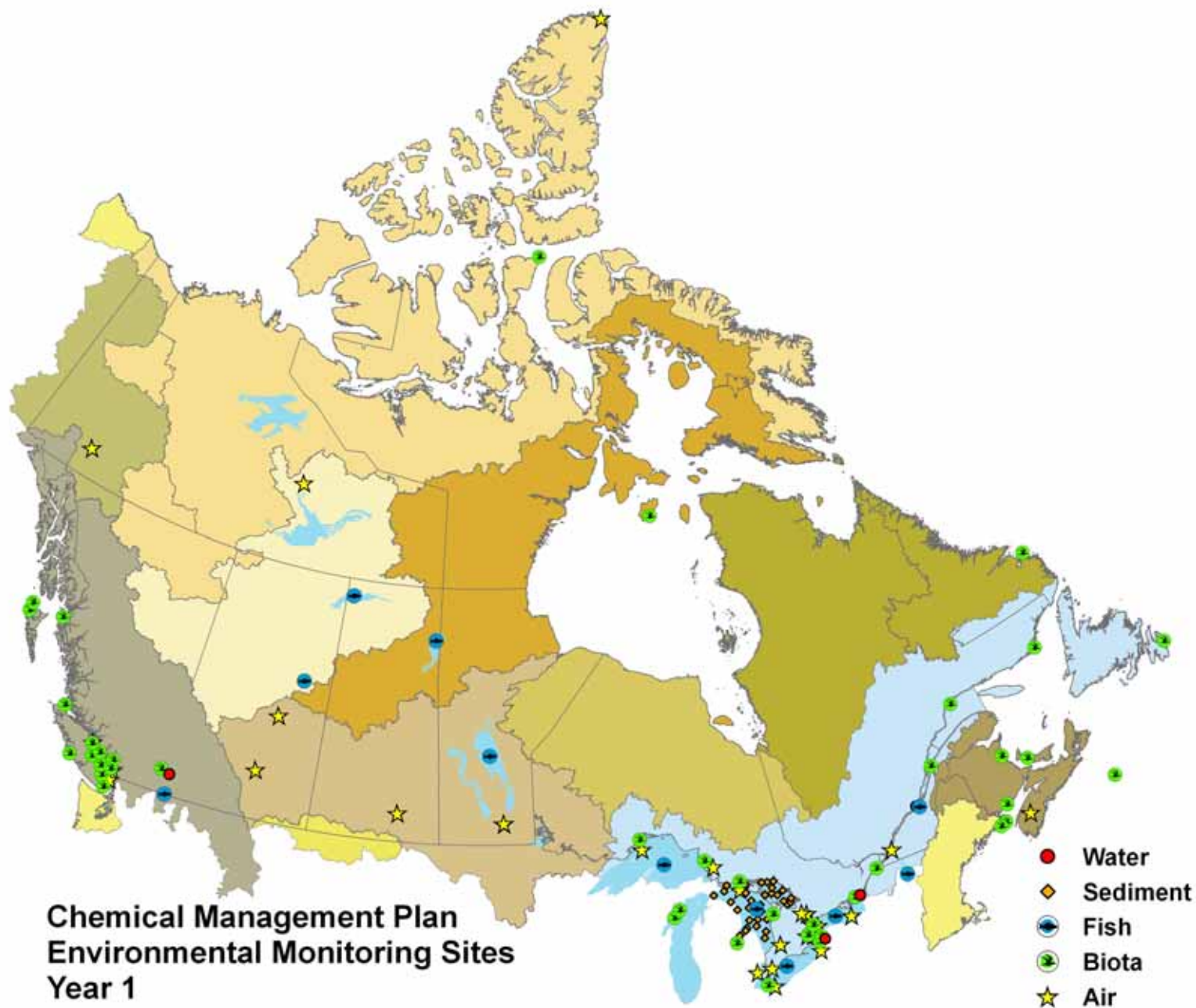
- Co-chaired by representatives of EC's RM (Brad Fisher) and Monitoring (Melanie Neilson)
- Members include EC Monitoring Scientists, RA and RM, and a representative from Health Canada
 - Identify priorities for monitoring and surveillance
 - Recommend appropriate media, sampling sites, frequency of 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)

- 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**



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Key Outcomes – Yr2 (FY 08-09)

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:

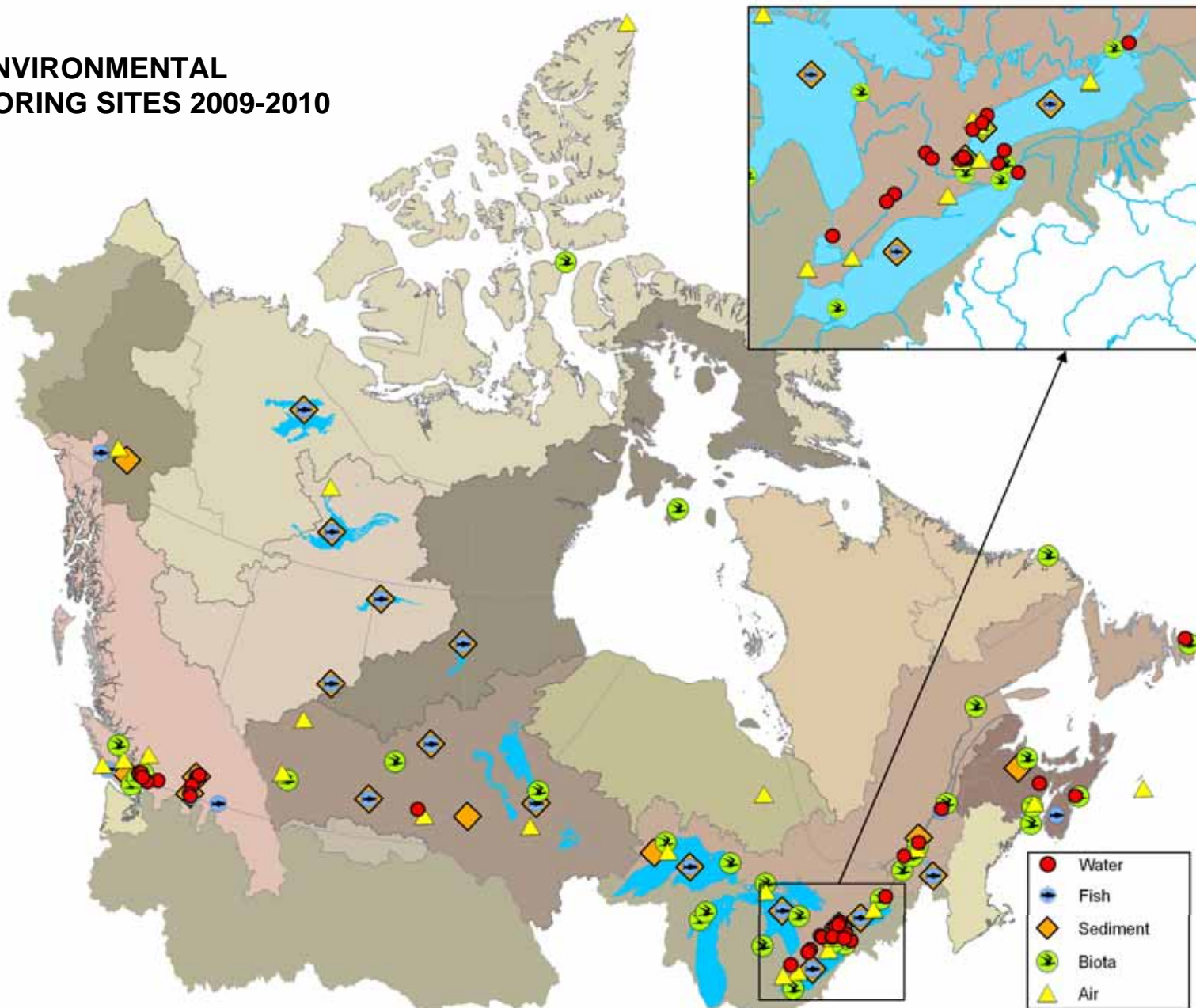
What?	Description of context (CAS #, CEPA-tox RA conclusion, does substance meet VE criteria under CEPA or TSMP?)
Why?	Identifies rationale for adding, or not adding, substances to the monitoring program, (i.e. performance measurement? Data gaps? Int'l obligations?)
Where?	Identifies media of interest,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

- 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



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Communicating Results

- **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
 - 2nd Annual CMP Monitoring Workshop – Fall 2009
 - Metadata maps (sampling sites and target analytes)
 - Outreach to other monitoring programs