

**Notes from Action Brainstorming session for PBT Team at
Great Lakes Regional Collaboration Meeting
Maumee Bay State Park, February 22-23, 2005**

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PRIORITY CHEMICALS

Dale: Screening program. Gather information that's being generated by various agencies who are screening chemicals.

Joe D.: Need to gather more data on other priority chemicals on the lakes.

Beth M.: Need Great Lakes NHANES study (human biomonitoring)

Sue: Need to implement existing programs fully. Ex. Residual risk (but not through traditional way, i.e. inhalation risk.....consider risk through fish and food consumption)

Sue: create new land disposal LDR under RCRA

Adequate fish tissue monitoring

Sue: Determine what's being monitored for and what's not being detected.

Joe: Maintain fish archives.

Matt: relate biomonitoring at low biological levels to what's happening at the population level

Gary: Need funding to complete Hg modeling for LMMB

Susan: Continue to create models for other PBT chemicals. Focus on chemicals driving fish consumption advisories (though often other PBTs not monitored in State programs).

Track down PCB sources for Lake Erie. (Stormwater in NYC huge source of PCBs. Where are PCBs coming from?)

Peter: Assess toxicity of mixtures of chemicals.

Frank A: Address international sources of Hg. Address small scale gold mining in other countries. Chlorine factories in other countries (chlorine companies in US should share their knowledge with facilities in other countries)

Sue: Reauthorize Superfund tax so that we can do more clean-ups. Most SF sites have PCBs. Land sites as well as contaminated sediments.

Beth M: Base our decisions on ecosystem (human and wildlife) health.

Melissa and Sue: Mandatory phase-out of in-use PCB electrical equipment and hydraulic fluids.

Susan: no one's paying attention to small capacitors (unregulated). Problem for transformers is not necessarily utilities, but other transformer owners.

Joe D.: rethink other disposal options (in-situ/alternative technologies vs. dredging) for contaminated sediments. There is a limit to where we can put contaminated sediment. Rethink Superfund paradigm (work more cooperatively with PRPs, without long-term liability issue.)

Gina: think about contaminated sediments outside of AOCs. Modeling could help prioritizing AOCs in terms of input to loads.

Gary: How should we address burn barrels.

Susan: Look at what we are burning. Revisit packaging status quo in the U.S. (make more like in Europe). Gary: Has heard that combustion conditions are more important than what we are burning.

Melissa: encourage implementation of national burn barrel scale-up via PBT Program or other program. Help smaller munis address garbage disposal capacity and also information transfer (model ordinances, etc.) from munis that have had success in reducing magnitude of problem.

Matt: Effect of food web changes on contaminant transfer. Are projections of old mass balance model with old food web still accurate? Joe is confident that his model results are robust and accurate.

Differential methylation of mercury in different waterbodies. How does this affect our actions re Hg? Joe: Methylation is included in models.

Mike: if plan a mercury monitoring program, look at waterbodies that have different methylation capacities.

Mike: Make sure monitoring is in place to determine fish consumption advisories for chemicals other than Hg and PCBs (ex. Dioxins). Develop water criteria for other chemicals that do not yet have criteria.

Gary: develop outreach packet for munis for how they can reduce releases of PBTs. Ex. Auto switch removal, burn barrels, Hg thermometers.

EMERGING CHEMICALS

Dale: Screening program. Gather information that's being generated by various agencies that operate various screening programs. There needs to be a central body that looks at what agencies are finding for different chemicals.

Beth: States don't have money to monitor for a wide variety of emerging contaminants, relying on GLNPO for monitoring for those substances. More funding for routine emerging contaminant GL monitoring programs.

Matt: Analyze fish program archive for emerging contaminants.

Mike M.: Take wildlife toxicity into consideration in screening programs. Ex. Improve PBT Profiler in this regard.

Matt: develop economical way to remove pharmaceuticals/EDCs/PCPs from wastewater. But first determine if we really need to do this—if these chemicals are presenting a threat.

Beth T-L.: Need systematic way of prioritizing chemicals of emerging concern

Beth M.: Consistent message to public re PTS (new and old) re fish consumption and reducing releases by public. Need to be able to measure behavior change post-outreach.

Frank: Need to assess risk for these chemicals first.

Sue: Need tox data first before can communicate risk.

Dale: What is difference between ranking system for priority vs. emerging contaminants?

Peter: Need improved capability to determine fate and effects of new chemicals. Need to be more proactive about whether certain chemicals are going to have an impact rather than reacting to them after they are found in the environment.

Jon: Act more quickly on emerging chemicals.

Susan: Act more intelligently rather than quickly.

Mike: Encourage use of green chemistry and design for the environment principles in development of new chemicals for commerce.

Joe: Missing input data for (emissions, loads, chem. Properties, rates) models for emerging chemicals. Start developing and applying models for these chemicals.

Peter: Models don't necessarily predict effects. Need better assessment of health/ecosystem effects.

Gary: When make recommendations, need to specify whether activities need to take place at the regional level vs. national.

Dale: Tools (screening programs) are out there, need to learn how to use them in our decision-making.

Need to talk people who work in chemicals screening programs. Go to their meetings, talk with them. Who should be doing this? Identify gaps in what they're doing and what it means for what we recommend in this strategy for the Great Lakes.

Chemical screening workgroup formed:

Seth Dibblee lead?: Frank A, Dale, Will, Mike M., Rachel, Melissa, Sue

Sue: HQ screening programs don't have enough resources. Also standardized analytical methods not necessarily available for all emerging chemicals. USGS had to do method

development for some compounds in some matrices. Money not necessarily there for method development.

Dale: If a company produces something, they probably have a method for analyzing for it.

Sue: EPA Region 5 Central Regional Lab lab developed methods for APES. Work with them to develop methods for other chemicals.

Ron: improve CSOs, strengthen recycling programs (establish infrastructure for recycling in cities and towns).

Peter: QSARs not necessarily well-developed when it comes to how they act in non-target receptor organisms. Developed improved QSARs. QSARs developed by private companies are proprietary and are focused on their own needs. No incentive for companies to share their QSARs.

Jon: limited resources for monitoring. More monitoring funding needed and use existing funding more effectively. Monitor less for "old" chemicals. Use cheaper technologies like passive sampling.

Sue: Need more samples for statistical robustness, cannot monitor much less for old chemicals in order to see trends.

Mike: Update guidance documents to reflect current analytical capabilities for priority and emerging pollutants.

Sue: Someone needs to do literature search for what has been detected in the GL basin.

Gary: Have our newly formed Chemical Screening subgroup do this.

Dale: Was there an IAGLR paper on this topic in the last 2 years?

Susan: Source track-down of emerging chemicals. Understand path from source to environment.

Sue: Ask TSCA and RCRA programs about this?

Susan: doesn't necessarily address imported products, inorganic substances.

Ron: inorganic chemicals will be covered in the future. Look at how effective current programs are, both regulatory and voluntary.

Sue: Need emissions controls on power plants. New source review.

Gary: Need to be dealt with. Report should state that coal-fired power plants are largest source and air is dominant input to lakes.

Mike: States are developing own rules for coal-fired power plants. GL states could adopt rules.

Susan: Lots of power plants in GL States.

Dale: Transport to GL comes from inside and outside the region.

Mike: continued PBT phase-out in products. Ex. States passing Hg thermometer phase-outs.

Note from Melissa Hulting: This is where meeting notes of a more organizational tone begin.

Paul K.: what are top five things we could do to reduce inputs of PBTs to the GL? What's different about current effort vs. past efforts?

Gary: for this collaboration, have governors, mayors, feds, states, tribes, etc. on board. Need to include how we could better use existing funds in addition to asking for new money.

Paul: We should divide up resources and recommended actions between different parties (industry including sectors, NGOs, etc.) and levels of govt.

Parties include:

Government

International

Binational

National

States

Tribes

Munis

Industry

NGOs

- Community Groups

Citizens

Health Professionals

Researchers/Academia

Beth T-L.: Make a matrix with actions across the top, groups along the side, put group-specific actions in boxes.

Gary: Use this to determine most significant actions.

Beth: Group actions at top by broad category like research, outreach, regulatory/P2, etc.

Gary: Executive committee has provided guidance on prioritization.

Rough groupings:

Regulatory controls/enforcement/P2

Remediation

Existing

Ed and outreach

Screening new chemicals

Research (includes tox)

Monitoring/assessment/indicators

Gary: Need initial set of actions by 3/15. Also need to designate who needs to do what.