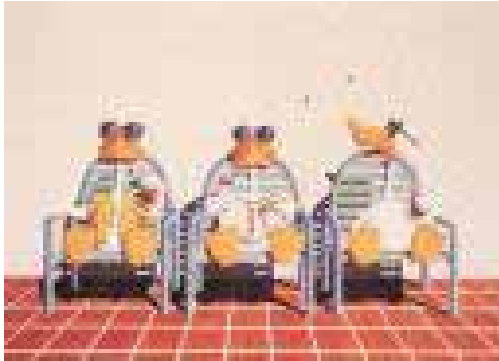


SOLEC Chemical Integrity Workshop



Lining up the ducks for SOLEC 2006
November 29-30, 2005

Workshop Format



- **Six speakers framed issues**
 - Brian Eadie, NOAA/GLERL – What is CI?
 - Peter Richards, Heidelberg College – Natural occurring chemical trends
 - Joe DePinto, LimnoTech – Natural occurring chemical effects
 - Daniel Hryhorczuk, U of IL – Anthropogenic chemical trends
 - Scott Brown, NWRI – Anthropogenic chemical effects
 - Keith Soloman, U of Guelph – Chemical integrity assessments
- **Breakout sessions**
 - What do we know?
 - What do we need to learn?
- **Plenary sum-up**
 - Key issues, management questions, and the path forward

SOLEC 2006 Sessions

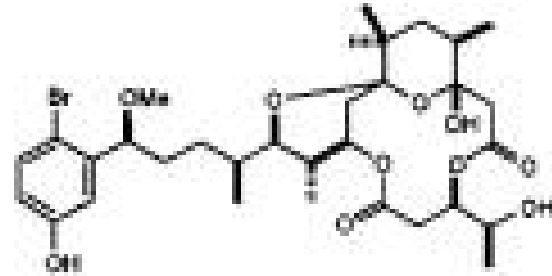
November 1-3, 2006

- Launch from workshop proceedings and prepared background papers
- Plan a program consisting of plenary presentations as well as breakout review and discussion sessions
- Synthesize a set of conclusions regarding the state of Great Lakes Chemical Integrity
- May publish findings in peer reviewed journal



Workshop Findings

What is Chemical Integrity?



Chemical Integrity is the capacity to support and maintain a balanced, integrated and adaptive biological system having the full range of elements and processes expected in a region's natural habitat.

(Adapted from previous SOLEC derived definition of biological integrity)

Themes and Issues



- Chemical integrity is the capacity to maintain the biological integrity of the Lakes – including human uses.
- Presence is on the starting point for the discussion. Toxicity is important – focus on exposures rather than presence.
- There's a wide range of materials to consider. “Classic” PBTs (legacy sources), out of Basin substances, naturally occurring toxins (many of biological origin), products supporting human life – like pharmaceuticals, PCPs, caffeine, road salt

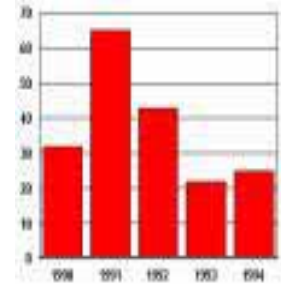
Understanding Needed



- Must understand Chemical integrity within context of whole ecosystem
- Ecosystem is constantly changing and that's important
- We desire a system that functions as a completely healthy system
- We must learn to manage the system as an ecosystem – not just one piece at a time

But There's More to the Story

- Human health is also of concern
- Exposure scenario is very important here
 - Potential for effects are exposure dependent
 - Exposures differ by location and lifestyle
- The exposure changes over time
 - For some contaminants body burdens have significantly dropped
 - Others are considered “new.”
 - There is generally a “mix” of exposures
 - Importance may change depending on life stage
- Human exposures and overall risk are but one element within a wide range of additional risk factors



How can SOLEC help?

- Supply information on trends
- Compile information on sources of data
- Identify program linkages needed
- Provide information needed for exposure assessments
- Support programs responsible for risk management and improvement of their modeling tools
- Continue the pursuit of SOLEC indicator endpoints



Building the Final SOLEC Agenda

- Determine topics of most interest for most efficient use of limited SOLEC time
- Provide supporting background papers
- Identify and describe the break-out topics
- Solicit participation from needed experts
- Wide distribution of SOLEC 2006 program details to entice participation

