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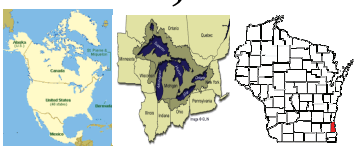
Canada

EPA
United States
Environmental Protection
Agency

7th Biennial

State of the Lakes Ecosystem Conference

November 1 – 3, 2006
Milwaukee, Wisconsin



SOLEC 2006

CONFERENCE PROGRAM

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Greetings from the SOLEC 2006 Conference Co-Chairs

Nancy Stadler-Salt and Paul Horvatin

Welcome to the 7th biennial State of the Lakes Ecosystem Conference (SOLEC), sponsored by the Governments of Canada and the United States. Our conferences are designed to be interactive, to maximize delegate discussion and scientific feedback, and to provide insight into emerging trends.

This year, SOLEC will present a comprehensive assessment on the state of the Great Lakes Basin Ecosystem based on the assessments provided from 58 indicators. The assessments are presented in 9 indicator groups including: biotic communities, contaminants, human health, coastal zones, land-use land-cover, aquatic habitats, invasive species, resource utilization and climate change. This approach is used to further refine our reporting format and content.

Day 2 of SOLEC will focus on the theme of 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." (James R. Karr, modified by Douglas P. Dodge). SOLEC organizers anticipate informative and thought-provoking presentations and discussions.

The draft indicator reports for SOLEC 2006 have been posted online at www.solecregistration.ca/en/indicator_reports.asp for your convenience. After listening to the presentations and participating in the discussions, we invite you to review these reports and enhance the findings with your insight and knowledge. We welcome your input into the draft reports now and after SOLEC. Conference proceedings will be available in January 2007.

Your participation in SOLEC 2006 represents an important contribution toward meeting the goals of the Great Lakes Water Quality Agreement. We look forward to your involvement over the next two and a half days.

Sincerely,

Nancy Stadler-Salt
Co-Chair
Environment Canada

Paul Horvatin
Co-Chair
U.S. Environmental Protection Agency

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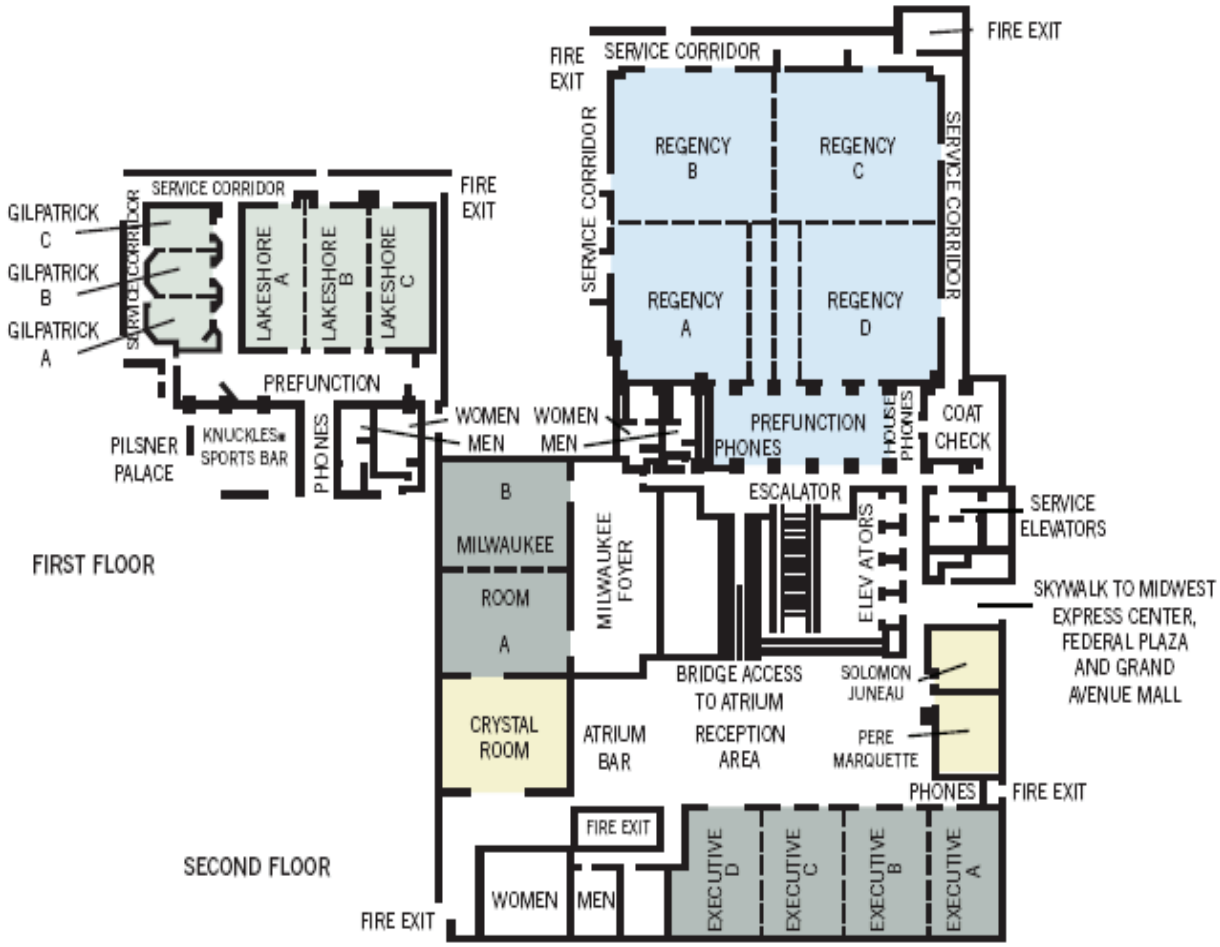
SOLEC 2006

Hyatt Regency Hotel, Milwaukee, Wisconsin
November 1-3, 2006

Displays

Be sure to visit the Atrium to view the selection of displays related to Great Lakes issues and programs. Displays can be viewed anytime during the conference.

Floor Plan of the Hyatt Regency Hotel and the Plenary and Meeting Rooms for SOLEC 2006



Taken from: Hyatt Regency Website: http://milwaukee.hyatt.com/hyatt/images/hotels/mkerm/floorplan.pdf

SOLEC 2006 PROGRAM
Day 1: WEDNESDAY NOVEMBER 1, 2006

	Morning Plenary
Time	**Location: Regency Ballroom Rooms A & B**
7:00 - 9:00	**Breakfast - Atrium**
9:00 - 9:25	**Welcomes and Introductions** Emcee: Kelly Burch, *Pennsylvania Department of Environmental Protection*
	State of the Great Lakes: Condition of Great Lakes Ecosystem, with emphasis on State and Pressure Indicators
9:25 - 9:50	**Indicators - Contaminants, Biotic Communities and Invasive Species** Presenter: Carri Lohse-Hanson, *Minnesota Pollution Control Agency*
9:50 - 10:15	**Indicators - Coastal Zones and Aquatic Habitats** Presenter: Gerald Niemi, *University of Minnesota, Duluth*
10:15 - 10:40	**Indicators - Human Health, Land Use, Resource Utilization, and Climate Change** Presenter: Victoria Harris, *University of Wisconsin & Sea Grant*
10:40 - 11:15	**Break - Atrium**
11:15 - 11:35	**Remarks from Dignitaries**
	Issues and Actions - Bridging from State and Pressure Indicators to Human Responses
11:35 - 12:05	**Responses to Achieve desired Conditions or Endpoints within the Great Lakes Basin** Presenter: Russell Kreis, *U.S. Environmental Protection Agency*
12:05 - 12:15	**Responses to Achieve desired conditions of Endpoints within the St. Clair-Detroit River Ecosystem** Presenters: Richard Hobrla, *MDEQ*
12:15 - 12:25	**Responses to achieve desired Conditions or Endpoints within the St. Lawrence River** Presenter: Jean-François Bibeault, *EC/SLC*
12:25 - 12:30	**Summary and Charge to Discussion Sessions**
	Lunch 12: 30 - 2:00 pm
12:30 - 2:00	**Lunch - Regency Ballroom Rooms C & D**
1:30 - 2:00	**Introduction to Indicators Session (All are invited to attend)**
	Afternoon Breakout Sessions 2:00 - 5:00 pm
Location	**Workshop** **Emphasis of presentations will be on actual or potential human responses to environmental conditions or pressures, both large-scale and small-scale.**
Gilpatrick Room	**Lake Ontario**
Executive C & D	**Lake Erie**
Lakeshore A	**St. Clair - Detroit River Ecosystem**
Lakeshore B	**Lake Huron**
Regency A&B	**Lake Michigan**
Executive A & B	**Lake Superior**
	Dinner and Reception 5:30 - 8:30 –Regency C & D
5:30 - 8:30	**Cash Bar - Atrium**
6:30 - 8:30	**Dinner and Success Story Recognition**

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SOLEC 2006 PROGRAM
Day 2: THURSDAY NOVEMBER 2, 2006

	Morning Plenary
Location	**Regency Ballroom Rooms A & B**
7:00 - 9:00	**Breakfast - Regency Ballroom C & D**
9:00 - 9:10	**Highlights from Day 1 and Chemical Integrity Overview** Emcee: Tim Eder, *Great Lakes Commission*
9:10 - 9:30	**Anthropogenic Chemicals: Legacy** Presenter: Ron Hites, *Indiana University*
9:30 - 9:50	**Anthropogenic Chemicals: Potential and New PBTs** Presenter: Derek Muir, *Environment Canada*
9:50 - 10:10	**Anthropogenic Chemicals: Pharmaceuticals and Personal Care Products** Presenter: Joanne Parott, *Environment Canada*
10:10 - 10:50	**Break - Atrium**
10:50 - 11:10	**Naturally Occurring Chemicals: Nutrients** Presenter: Harvey Bootsma, *University of Wisconsin, Milwaukee*
11:10 - 11:30	**Naturally Occurring Chemicals: Biotoxins** Presenter: Susan Watson, *Environment Canada*
11:30 - 11:50	**Naturally Occurring Chemicals: Monitoring and Modelling** Presenter: David Lam, *Environment Canada*
11:50 - 12:00	**Summary and Charge to Discussion Sessions**
12:00 - 1: 30	**Lunch - Regency C & D**

	Afternoon - Chemical Integrity Workshops 1:30 - 4:30 pm
Location	**Workshop** *Coffee will be provided between 2:45 - 3:15
Lakeshore A & B	**New and Old PBTs**
Regency A & B	**Pharmaceuticals and Personal Care Products**
Executive A & B	**Imbalances in Nutrients**
Executive C & D	**Hazardous Algal Blooms**
Milwaukee A & B	**Botulism**
Lakeshore C	**Modelling**
4:30 pm	**Adjourn**

SOLEC 2006 PROGRAM
Day 3: Friday November 3, 2006

	Day 3: Cross Cutting Issues	
	Event *Coffee will be available between 10:00 - 11:00am	**Location**
7:00 - 9:00	**Breakfast**	**Atrium**
8:00 - 9:00	**Great Lakes Water Quality Review Update** Presenters: Vicki Thomas, Susan Nameth	**Regency A&B**
9:00 - 12:00	**Tracking Sustainability**	**Lakeshore C**
9:00 - 12:00	**Groundwater**	**Milwaukee B**
9:00 - 12:00	**Great Lakes Indicator Mapping and Visualization**	**Executive A**
9:00 - 12:00	**Blue Flag Program in Canada and *E. coli* and Beach Postings in the Great Lakes Basin**	**Lakeshore B**
9:00 - 12:00	**Flow Regime: A Discussion of Potential Watershed Flow Indicators**	**Milwaukee A**
9:00 - 12:00	**Traditional Ecological Knowledge Indicators**	**Executive C**
9:00 - 12:00	**Human Health and the Great Lakes - Working Together to Create Better Indicators**	**Executive B**
9:00 - 12:00	**Green Chemistry and Industry Actions to Reduce Toxic Substances**	**Gilpatrick B**
9:00 - 12:00	**Green Highways**	**Gilpatrick C**
9:00 - 12:00	**Continuing the Dialogue and Next Steps Towards Wildlife Friendly Wind Power in the Great Lakes Basin**	**Executive D**
9:00 - 12:00	**Working with Communities to Develop Pollution Prevention Strategies in the Great Lakes Basin**	**Gilpatrick A**
9:00 - 12:00	**Indicators to Support Great Lakes Regional Collaboration Strategy Recommendations**	**Lakeshore A**
9:00 - 12:00	**Great Lakes Habitat and Wetlands Initiatives**	**Regency A & B**
**8:00 - 12:00	**Land Cover - Land Change Indicators**	**Solomon Juneau**
12:00 pm	**Adjourn**	

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Day 1 Highlights

SOLEC Success Story Awards Dinner

Emcee: Victoria Pebbles, Great Lakes Commission

Join us in the evening of Wednesday, November 1 for dinner and a celebration of the SOLEC 2006 Success Story Awards in the Regency Ballroom from 6:30 p.m. - 8:30 p.m. A cash bar will be available at 5:30 p.m. Dinner will be served at 6:30 p.m. followed by the presentation of awards by Mr. Georges Rioux, Canadian Consul General.

Congratulations to this year's recipients:

* Oswego River Area of Concern Remedial Action Committee and the City of Oswego, New York
* Northern Wood Preservers Alternative Remediation Concept (NOWPARC)
* Menomonee Valley Partners, Inc
* EcoSuperior
* Earth Keepers
* Ruddiman Creek & Pond Sediment Remediation Project
* Michigan Pulp & Paper Environment Council - Pulp, Paper & Product Pollution Prevention Program

Don't miss the Success Story displays located in the Atrium of the Hotel

Day 3 Workshops: Cross-Cutting Issues

Day 3 will begin with a Great Lakes Water Quality Agreement Review update from 8:00 - 9:00 a.m. given by Vicki Thomas, U.S. Environmental Protection Agency and Susan Nameth, Environment Canada. This session will be held in the Regency Room A.

Fourteen workshops on cross-cutting issues will take place on Day 3.
The workshops include:

Tracking Sustainability

This workshop will provide an overview of a subset of Great Lakes indicators related to sustainable development. Participants will engage in a focused discussion of the endpoints for 10-12 of the SOLEC indicators, including: evaluating past reporting; comparing endpoints with existing green metrics and other monitoring programs; identifying gaps; and identifying agencies and organizations that assist in filling those gaps and improve reporting on those indicators. Participants will then suggest ways to better engage additional partners in reporting on the selected indicators.

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Groundwater

This is a general forum on groundwater quality and quantity issues in the Great Lakes basin with a focus on chemical integrity from an urban/suburban groundwater perspective including monitoring, mapping, management and research issues.

The session will include consideration of the Great Lakes suite of groundwater indicators as well as: discussion of well head protection issues, residential/institutional on-site wastewater systems, groundwater pathogens and human health, leaking underground storage tank (LUST) programs, municipal groundwater-sourced drinking water and Annex 2001.

Great Lakes Indicator Mapping and Visualization

The Great Lakes Indicator Mapping and Visualization session will focus on the rational behind implementing web mapping on the SOLEC web portal and provide a basic overview of related topics such as standards, principles, and best practices.

The primary purpose of this session, however, is to introduce SOLEC participants to the benefits of web services for both the access and dissemination of geospatial data. This session will include discussion on what web services are, how they will be used in the SOLEC web portal, and how SOLEC contributors can create their own.

Blue Flag Program in Canada and *E. coli* and Beach Postings in the Great Lakes Basin

This workshop will review the scientific progress that has been made in recreational water quality monitoring, management and remediation. It will review more rapid and effective methods of tracking and characterizing beach water, communicating timely results to the public, pathogen detection, sources identification of contaminants, relative effects of non-point sources and hydrometerological conditions. Of particular emphasis will be the Blue Flag/Blue Wave programs that systematically evaluate the functional and practical practices of beach operations and the historical swimablity of selected beaches. Blue Flag/Blue Wave certification has been successful in letting visitors know that the beach meets criteria that serve their safety, enjoyment and health.

Flow Regime: A Discussion of Potential Watershed Flow Indicators

The purpose of this session is to promote dissemination and discussion of watershed flow regime indicators. This panel discussion of industry experts will present various measurements of watershed flow and the connections to ecosystem health based upon recent research, Great Lakes area applications, and local case studies.

Following presentations of various flow regime measurement techniques, the audience will be encouraged to participate through an interactive discussion of

flow regime issues and barriers to flow regime restoration affecting watersheds they manage, live, work, or recreate in.

Traditional Ecological Knowledge Indicators

Aboriginal Peoples have been utilizing Traditional Ecological Knowledge (TEK) for thousands of years to monitor the quality of the environment. Two unique initiatives will serve as important case examples for how Aboriginal people are utilizing TEK to understand changes in the Great Lakes ecosystem. This workshop will feature two such projects: Haudenosaunee Environmental Protection Program (HEPP) and EC's Aboriginal Traditional Knowledge and Source Water Protection Project.

Human Health and the Great Lakes-Working Together to Create Better Indicators

This session will incorporate presentations and brainstorming from EPA's Great Lakes National Program Office, ATSDR's Great Lakes Human Health Research Program, the CDC's Environmental Public Health Tracking Program and Great Lakes researchers. An expert panel will discuss:

1. improving the Great Lakes (SOLEC) human health indicators through interagency collaboration,
2. identifying data gaps and necessary research efforts to close data gaps,
3. exploring the possibility of centralizing Great Lakes environmental health data so multiple parties can access data sets, and
4. identifying/utilizing funding sources for data sharing and research efforts.

Green Chemistry and Industry Actions to Reduce Toxic Substances

This working session will address the questions, "What are the policy needs to push the development of green chemistry further in the Great Lakes? What are the barriers? What opportunities does green chemistry offer to Great Lakes industries? What role will Great Lakes academia and stakeholders play?" with participants leaving the workshop with a firm plan for establishing a Green Chemistry Network in the Great Lakes region. Keynote speakers are John Warner, Director of the Green Chemistry Center at the University of Massachusetts Lowell, co-author of Green Chemistry: Theory and Practice, and Berkeley W. Cue, Jr., a private consultant; retired from Pfizer, Inc., who lectures widely on green chemistry and business. This is a workshop for all stakeholders, for everyone who is interested in green chemistry, whether you work for the state or federal governments, in industry, or in an academic or other setting. The bulk of the workshop will be spent in breakout working groups, led by experienced green chemistry experts, with time at the end for a final report-back session.

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Green Highways

The Great Lakes Regional Collaboration Sustainability Issue Group identified a need for the development of a number of "Green Metrics" for activities in the Great Lakes. Working with Green Highways was identified as one of the 50 partnership projects. Green Highways is a public/private partnership that employs Smart Growth planning, environmental stewardship of the area, recycling and use of recycled materials, truck stop "plug ins" to prevent all night engine idling, and attention to prevention of invasive species transfer.

Continuing the Dialogue and Next Steps Towards Wildlife-Friendly Wind Power in the Great Lakes Basin

Participants in this workshop session will review and build on the recommendations for a "call to action" to take the next steps identified at the June 2006 "Towards Wildlife Friendly Wind Power: A Focus on the Great Lakes Basin" conference in Toledo, Ohio. Participants will have the opportunity to: continue the sharing of information, discuss priority research and information needs and gaps, work towards developing a consensus on effective and consistent approaches, and receive guidance for citing and both pre- and post- project monitoring requirements for wind energy projects. Emphasis will be on proactively providing solid science based information to allow good decision making for the Great Lakes ecosystem, consistent with the goals and objectives of SOLEC, the Lake Erie and other LaMPs, and the Great Lakes Regional Collaborative.

Working with Communities to Develop Pollution Prevention Strategies in the Great Lakes Basin

This workshop will highlight new community awareness campaigns on backyard burning reduction and pharmaceutical and personal care products (PPCP) disposal, developed by the U.S. EPA and Illinois-Indiana Sea Grant, under the Great Lakes Regional Collaboration. To reduce backyard burning of household waste by municipalities and tribes, a new resource kit has been developed for county and tribal leaders. By demonstrating the components of the resource kit, this session will educate attendees on the environmental concerns related to backyard trash burning, offer alternatives to burning in their communities, and provide resources that can be used by communities and tribes to build infrastructure to provide burning alternatives.

Indicators to Support Great Lakes Regional Collaboration Strategy Recommendations

Participants in this workshop will review the information needs identified in the GLRC Strategy Recommendations and assess the ability of the current suite of Great Lakes indicators to meet those needs. This will be part of an ongoing process for Great Lakes stakeholders to identify what information is needed about

key ecosystem components, to establish environmental endpoints, to develop appropriate indicators to measure progress toward the endpoints, and to implement monitoring and reporting procedures for the indicators.

Great Lakes Habitat and Wetlands Initiatives

The purpose of the workshop is to provide information on this U.S. initiative that will provide an implementation plan for the protection and restoration of wetlands and aquatic habitat based upon the recommendations of the Habitat/Species Strategy Team of the Great Lakes Regional Collaboration. The workshop will include presentations on the project scope and products, status to date, and provide an opportunity for feedback from interested stakeholders.

Land Cover - Land Change Indicators (begins at **8 a.m.**)

This workshop will review progress toward developing a suite of indicators for the Great Lakes (SOLEC) Land Cover - Land Change indicator bundle. Participants will consider additions, deletions or alterations of indicators to better meet the needs of environmental decision makers in the Great Lakes basin. Furthermore, this workshop will move beyond refinement of existing indicators and will focus on guaranteeing implementation of these indicators using historic data and current technologies. Interactive tools designed to assess the data, metrics, models, and indices supporting these indicators will be among the technologies presented.

Thank you for participating in SOLEC 2006!

See you in SOLEC 2008

We Want to Hear From You!!

Please complete your evaluation form and return it to the registration desk. Your input is valuable to us – it allows the SOLEC organizers to continually improve the conference and the products.

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SOLEC 2006 Steering Committee

SOLEC Steering Committee members represent a wide variety of agencies and organizations from around the Great Lakes:

Agency for Toxic Substances and Disease Registry
City of Chicago
City of Toronto
Council of Great Lakes Industries
Environment Canada
Great Lakes and St. Lawrence River Cities Initiative
Great Lakes Commission
Great Lakes Fishery Commission
Great Lakes United
Illinois Environmental Protection Agency
Illinois-Indiana Sea Grant
International Joint Commission
Michigan Department of Environmental Quality
Minnesota Pollution Control Agency
Natural Resources Canada
New York State Department of Environmental Conservation
Ontario Ministry of Agriculture and Food
Ontario Ministry of Environment
Ontario Ministry of Natural Resources
Pennsylvania Department of Environmental Protection
The Nature Conservancy
Tribes/First Nations
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Geological Survey
U.S. National Park Service
University of Toronto
University of Windsor
Wisconsin Department of Natural Resources

There are many other individuals and representatives from environmental groups, academia and local governments who have participated in the work necessary to develop this conference.

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