

GREAT LAKES EXECUTIVE COMMITTEE MEETING SUMMARY

Metro Toronto Convention Centre (MTCC) – Meeting Room 501A, South Building
222 Bremner Boulevard, Toronto, Ontario
December 2, 2014

WELCOME AND INTRODUCTIONS

The December 2, 2014 Great Lakes Executive Committee (GLEC) meeting was opened with a traditional ceremony and song by Kim Wheatley, a member of the Turtle Clan and Anishinaabe Ojibway from the Shawanaga First Nation.

Welcome and introductory remarks from the GLEC Co-Chairs, Michael Goffin and Susan Hedman, were followed by introductions of meeting participants.

A list of meeting attendees can be found in Appendix A.

JUNE 2014 GLEC MEETING SUMMARY AND STATUS OF ACTION ITEMS

The June 2014 GLEC Meeting Summary was approved with no changes.

All action items from the June 2014 GLEC meeting were highlighted as complete or to be addressed during the meeting.

ANNEX UPDATES

Annex Co-Leads provided quick updates of recent Great Lakes Water Quality Agreement Annex implementation activities and presented issues for discussion by the GLEC.

Annex 1: Areas of Concern

Annex Co-Leads Jon Gee (Environment Canada) and Wendy Carney (U.S. Environmental Protection Agency) provided an update on activities to implement the *Areas of Concern* Annex, including the development of a Situation Analysis on Areas of Concern, which reviews and compares U.S. and Canadian agency roles and practices related to issues such as delisting criteria and beneficial use impairment removals. Also described was the development of a Guidance Document on *Areas of Concern in Recovery*, which will assist the Parties in designating AOCs in recovery when remedial actions have been implemented and monitoring confirms that recovery is progressing. Annex Co-Leads expect draft documents on both subjects to be available in early 2015; documents will be posted on binational.net for public input.

Annex 2: Lakewide Management

Annex Co-Lead John Marsden (Environment Canada) for the *Lakewide Management* Annex, provided an update on activities to implement Lakewide Management Annex commitments, which include the development of a draft Lake Ecosystem Objectives Guidance Document and outreach and engagement

plans. The Co-Leads also noted that the first Lakewide Action and Management Plan (LAMP) Report, on Lake Superior, would be issued in 2015 and that the Annex's time-bounded commitment to develop a Nearshore Framework was on-track for 2016.

Annex Co-Lead Chris Korleski (U.S. EPA) discussed LAMP-related governance and reporting. The Co-Leads' preliminary recommendation was that a LAMP Partnership be established for each lake. Each Partnership would consist of a LAMP Working Group, to work on lake-specific interests/tasks/issues, and a LAMP Senior Management Committee, which would be convened for specific tasks such as the provision of guidance and direction. GLEC members were asked to send comments on lakewide governance to the Annex Co-Leads for consideration as they continue to refine their recommendations. Also discussed was the recommended reporting structure for future LAMP reports. It was proposed that future LAMP reports be clear and concise; include a short summary document as well as a technical document; and be focused on the 7 management actions outlined in the Lakewide Management Annex. This approach will be piloted for Lake Superior's LAMP and GLEC member organizations were encouraged to participate in its development.

Annex 3: Chemicals of Mutual Concern

Annex Co-Lead Vincenza Galatone (Environment Canada) presented an update on activities to implement *Chemicals of Mutual Concern* Annex commitments including current efforts to evaluate and recommend Chemicals of Mutual Concern and the development of a process by which non-governmental stakeholders could nominate chemicals for consideration as candidate Chemicals of Mutual Concern. It is expected that the first set of Chemicals of Mutual Concern will be presented to GLEC for discussion in May 2015.

Annex 4: Nutrients

Annex Co-Leads Susan Humphrey (Environment Canada) and Tinka Hyde (U.S. EPA) provided an update on activities to deliver on *Nutrients* Annex commitments with a focus on the time-bounded commitment to develop updated phosphorus targets for Lake Erie by 2016. A webinar for GLEC members is planned for May 2015, followed by public engagement proposed from June to August 2015 to seek input related to the draft phosphorus targets and objectives, which are to be finalized by February 2016.

Additional presentations included: 1) highlights of the efforts of Canadian federal and provincial agencies to review the ability of domestic policy mechanisms to achieve the to-be-established phosphorus objectives; 2) a summary from the Ohio EPA (Craig Butler) on the Toledo drinking water incident in August 2014; and 3) presentations from the U.S. EPA (Peter Gravett) and Health Canada (John Cooper) on domestic and binational efforts to develop drinking water guidelines and advisories for microcystin and other algal toxins.

Annex 5: Discharges from Vessels

Annex Co-Leads Chris Wiley (Transport Canada) and Lorne Thomas (U.S. Coast Guard), of the *Discharges from Vessels* Annex, provided an update on Transport Canada's and the U.S. Coast Guard's activities related to ballast water regulation. They noted the expected upcoming ratification of the International Maritime Organization's Ballast Water Convention. They also noted that while the transportation of heavy and Bakken crude on the Great Lakes currently does not occur, if and when it does, Transport Canada and U.S. Coast Guard regulations would apply to the transport. The Co-Leads will use the

upcoming annual Great Lakes Waterways Conference in February 2015 as an opportunity to engage in outreach and education to meet Annex commitments.

In addition, U.S. EPA presented information on current and future potential “No Discharge Zones” for U.S. waters of the Great Lakes. Under the Clean Water Act, states may request U.S. EPA to establish vessel sewage no-discharge zones if necessary to protect and restore water quality. Consideration of new zones reflects U.S. EPA’s interest in all sources of nutrient loadings to the Great Lakes. U.S. EPA continues to investigate the issues related to implementing additional zones, including possible impacts on shipping.

Annex 6: Aquatic Invasive Species

Annex Co-Lead Gavin Christie (Fisheries and Oceans Canada) , and Michael Hoff on behalf of the U.S. Annex Co-Lead, Todd Turner (U.S. Fish and Wildlife Service), provided an update of the activities being undertaken by the Parties and other responsible entities that support commitments in the *Aquatic Invasive Species* Annex. This update included information about the risk assessments being undertaken on various pathways such as shipping, recreational boating, and illicit trade; new AIS-related regulations being proposed or implemented by Ontario, Canada and the U.S.; new management tools such as the Great Lakes Commission’s software to assess the availability of invasive species via internet sales; risk assessment efforts of specific species; and a gap analysis of aquatic invasive species (AIS) education and outreach efforts.

A description of activities being undertaken to meet the time-bounded commitment to develop and implement an early detection and rapid response initiative was presented. Efforts are underway on all components of the initiative, including the development of species watch lists, the identification of priority surveillance locations, the development of surveillance monitoring and information sharing protocols, and the coordination of domestic and binational response actions. Annex Co-Leads indicated that the GLWQA commitment to develop and implement an early detection and rapid response initiative is being met by leveraging efforts of federal government agencies (DFO, USFWS, and U.S. EPA), provinces, states, the International Joint Commission, and the Great Lakes Commission and its Great Lakes Aquatic Nuisance Species Panel. The Early Detection and Rapid Response Initiative will continue to be refined and enhanced by implementing agencies.

Annex 7: Habitat and Species

Annex Co-Leads Susan Humphrey (Environment Canada) and Lynn Lewis (U.S. Fish and Wildlife Service), provided an update on key activities related to commitments outlined in the *Habitat and Species* Annex, including: work toward establishing a baseline of existing habitat in order to establish a target for net habitat gain and measure future progress; development of a public outreach presentation on native habitat and species; coordination with other Annex Subcommittees; and work underway on a gap analysis of programs and binational collaboration efforts to address habitat and species.

Annex Co-Leads discussed the time-bounded commitment to complete development and begin implementation of Lake-specific biodiversity conservation strategies for each Lake. Development of Biodiversity Conservation Strategies have been completed for Lake Ontario, Lake Erie, Lake Huron and Lake Michigan, and the Lake Superior Strategy is expected to be completed shortly. Annex Co-Leads indicated that the commitment to have biodiversity conservation strategies in place for each lake will be met in February 2015. The Annex Co-Leads acknowledged that the development of biodiversity

strategies involved significant collaborative effort amongst many government and non-government partners, with significant stakeholder and public input. Lake Partnership agencies will continue to identify and implement priority actions identified through Lake-specific strategies as appropriate. Examples of implementation activities were described for each Great Lake.

Annex 8: Groundwater

Annex Co-Lead Dale Van Stempvoort (Environment Canada) presented the *Groundwater Annex* implementation update which focused on the time-bounded commitment to publish a Groundwater Science Report that will assist in understanding and managing groundwater and its impacts on the Great Lakes. The development of the draft report is well underway and is expected to be available to GLEC and posted for public input by February 2015.

Annex 9: Climate Change Impacts

Wendy Leger (Environment Canada), on behalf of the *Climate Change Impacts Annex* Co-Leads Al Pietroniro (Environment Canada) and Doug Kluck (U.S. National Oceanic and Atmospheric Administration), provided an update on the quarterly publication of the binational "Quarterly Climate Impacts and Outlook", discussions with the Annex Subcommittees supporting other Annexes regarding climate change impacts information needs and discussions with other stakeholder groups.

A project to analyze the state of Great Lakes climate change science and creation of a database of climate change projections and information was highlighted that would identify recent research; identify trends, agreement and confidence in climate change science; and could be used to help prioritize climate change science needs for the other Annexes. This project is anticipated to be completed by March 2015.

Annex 10: Science

Annex Co-Lead Carl Richards (U.S. EPA) provided an update on activities of the *Science Annex* Subcommittee, including: 1) efforts to coordinate science-related issues across all GLWQA annexes; 2) an update on lake-specific science and monitoring undertaken through the Cooperative Science and Monitoring Initiative; 3) gathering input on data management and data sharing needs from the other Annex Subcommittees; and exploring the role of Traditional Ecological Knowledge in GLWQA activities.

On behalf of the *Science Annex* Co-Leads, Nancy Stadler-Salt (Environment Canada) and Paul Horvatin (U.S. Environmental Protection Agency) presented a suite of proposed Great Lakes Indicators, to be used to develop the State of the Great Lakes Report in 2016. The proposed indicators were aligned to the nine General Objectives of the 2012 GLWQA to allow reporting against these objectives. The indicators were developed taking into consideration a comprehensive review of past State of the Lakes Ecosystem Conference (SOLEC) Indicators and the eco-indicators recommended by the International Joint Commission.

Carl Richards also provided an overview of new monitoring coordination efforts for Lake Superior being led by U.S. EPA.

2012 GLWQA ARTICLE 6 NOTIFICATION

Jennifer McKay (Environment Canada) and Cam Davis (U.S. EPA) presented a notification process to help implement Article 6 (c) of the 2012 GLWQA. Article 6 (c) commits Canada and the U.S. to notify each other, through the Great Lakes Executive Committee, of planned activities that could lead to a pollution incident or that could have a significant cumulative impact on the waters of the Great Lakes. It was agreed that the Parties, GLEC members and observers could start implementing the notification process immediately and that the GLEC Secretariat begin issuing quarterly invitations to submit notifications. It was agreed that GLEC members and observers may submit suggested notifications at any time. Further, it was recommended that the process be considered draft until the next GLEC meeting in June.

NEWS FROM MEMBERS

The following GLEC members provided news or updates:

- Michael Goffin (Environment Canada) reported that in the first year of a \$50 million National Wetland Conservation Fund established under the Government of Canada's National Conservation Plan, a total of \$1.5 million was allocated to 17 projects in the Great Lakes basin.
- Dave Burden (Fisheries and Oceans Canada) outlined changes to federal fisheries protection including: focusing on sustainability of fisheries and managing key threats; stopping duplicative activities; pursuing enforcement and penalties through an environmental damages fund; notification of serious harm to fish or impact to Aboriginal fisheries; regulations; preventing AIS introduction and controlling their spread.
- Robert Fleming (Ontario Ministry of the Environment and Climate Change) provided an update on: work by Ontario related to nutrient management; regulation of intrabasin transfers; and the conclusion of negotiations by Canada and Ontario for a new Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, which is in the final stages of approvals.
- Andrew McAllister (Canadian Nuclear Safety Commission) highlighted the Fisheries and Oceans Canada-Canadian Nuclear Safety Commission Memorandum of Understanding outlining areas for cooperation and administration of the Fisheries Act, and noted that the Joint Review Panel hearings for the Deep Geologic Repository extended over 53 days and that the Panel received over 1900 submissions. The Panel is currently writing the Environmental Assessment report, which is due by May 6, 2015.
- Jennifer Danahy (on behalf of City of Ajax, Ontario) noted the presence of nuisance algae (*cladophora*) along the Ajax waterfront and highlighted work undertaken by the City to study the impacts of nuisance algae and determine phosphorus load reductions necessary for the city to address the problem.
- Susan Hedman (U.S. EPA) provided an update on the second Great Lakes Restoration Initiative Action Plan; the delisting of the Deer Lake Area of Concern and the White Lake Area of Concern; and the completion of management actions required to complete clean-up work at the Ashtabula River, Sheboygan River, Waukegan Harbor Areas of Concern.
- Jan Miller (U.S. Army Corps of Engineers) provided an update on the Chicago Area Waterway System (CAWS) electric barriers; the status of Great Lakes Mississippi River Interbasin Study; and updates on projects under GLRI, including evaluation of AIS technology, removal of 3 dams, and ongoing work with AOCs and sediment issues.
- Deborah Lee (National Oceanic and Atmospheric Administration) noted NOAA's expanded Harmful Algal Blooms program; including satellite imagery and near-real time microcystin monitoring.

- Dave Ullrich (Great Lakes and St. Lawrence Cities Initiative) highlighted cities' interest and efforts regarding climate adaptation, phosphorus and energy transport.
- Jim Zorn (Great Lakes Indian Fish & Wildlife Commission) expressed appreciation to the GLEC for their attention to Traditional Ecological Knowledge and stressed the importance of its incorporation and application in the implementation of the GLWQA.
- Jessica Tarbell (St. Regis Mohawk Tribe) provided an update on successes of the 2012-14 field studies and findings from GLRI funded projects in the St. Lawrence River AOC and how these results will support Mohawk cultural restoration initiatives, and future fishery monitoring with a multi-jurisdictional approach. She expressed interest in transboundary monitoring of the Grasse River Superfund Site.
- John Linc Stine (Minnesota Pollution Control Agency) provided an update on the St. Louis River AOC, where the first of 9 BUIs was removed.
- Joan Matthews (U.S. EPA) provided an update on Lake Ontario LAMP activities, Buffalo River and Rochester Embayment AOCs, and notification of a planned state hazardous waste facility.
- Don Zelazny (New York State Department of Environmental Conservation) provided an update on New York activities relating to Aquatic Invasive Species Annex 6, including updates to their State AIS Management Plan, and state initiatives relating to climate change adaptation.
- Timothy Bruno (Pennsylvania Department of Environmental Protection) noted several nutrients-related activities: Pennsylvania Lake Erie Harmful Algal Bloom Task Force's monitoring and response strategy, new real-time monitoring of algae in water intakes, and Best Management Practices for grape owners.
- Jon Allan (Michigan Department of Environmental Quality) provided information on beach monitoring for *e. coli*, and invasive species management.

COMMENTS FROM COMMISSION REPRESENTATIVES

Comments were provided from the following Commission representatives:

- Gordon Walker (International Joint Commission, Canada) introduced Trish Morris as the new Great Lakes Regional Office Director and provided comments on the IJC 2012-2015 Priorities including indicators, the Lake Erie Ecosystem Priority (LEEP) Report issued in February 2014; planning for the *Triennial Assessment of Progress Report*; activities on Great Lakes water levels and flows including Plan 2014, the Proposal for Lake Ontario and St. Lawrence River Regulation; the role of the new Great Lakes–St. Lawrence River Adaptive Management (GLAM) Committee in overseeing the monitoring, modeling and assessment of the regulation plans for Lake Superior and Lake Ontario; and an interest in ensuring that the climate change science work conducted in relation to the Commission's water level regulation supports GLWQA implementation.
- Bob Lambe (Great Lakes Fishery Commission) provided an update of activities under the Landscape Conservation Cooperative to address the issue of aquatic connectivity, including balancing the benefits of increased connectivity with the risks of aquatic invasive species movement; coordinating response activities to invasive species among fishery agencies in support of commitments in the *Aquatic Invasive Species Annex*; working on updating GLFC ecosystem objectives, and recognizing the connection between this work and Annex 2 Lake Ecosystem Objectives and the Nearshore Framework.
- Tim Eder (Great Lakes Commission) provided an update on Commission activities related to the *Aquatic Invasive Species Annex* including: the web crawler software that searches for unwanted AIS

sales and shipment into the Great Lakes region; a collaborative for the management of Phragmites; and a new Invasive Mussel Collaborative addressing control efforts for zebra and quagga mussels. The Commission has also established a nutrient working group to develop new and refine existing practices, programs and policies and to explore and advance market-based and other cost-effective incentive programs.

OBSERVER COMMENTS

Comments were provided from the following observers:

- John Jackson stressed the importance of public engagement under the 2012 GLWQA and noted that while binational.net is an important tool for engagement, more is needed. Mr. Jackson also expressed support for continuation of “forums” for each of the Great Lakes.
- Josh Ingribelli (Invasive Species Centre) provided an update on: the Centre’s new Asian carp website, www.asiancarp.ca, which includes webinars with subject matter experts; work with Fisheries and Oceans Canada and the Ministry of Natural Resources and Forestry to enhance outreach, early warning, and response activities; and the release of the Centre’s annual report.
- Kathryn Buckner (Council of Great Lakes Industries) commented that the process in place under the Chemicals of Mutual Concern Annex to designate Chemicals of Mutual Concern should be allowed to play out and that the chemicals currently being considered should be objectively assessed using this process in a fair way.

ACTION ITEMS

It was decided that:

- *Areas of Concern* Annex Co-Leads will make available: 1) a draft *AOC in Recovery Guidance Report* on binational.net by March 2015 for public input; and 2) make available a draft *Situation Analysis Report on Areas of Concern* on binational.net by April 2015 for public input.
- *Lakewide Management* Annex Co-Leads will return at next GLEC meeting with (1) a Lake Ecosystem Objectives Guidance Document; (2) a draft Nearshore Framework; and (3) a draft Lake Superior LAMP.
- *Chemicals of Mutual Concern* Annex Co-Leads will post on binational.net the binational process criteria used to evaluate and recommend Chemicals of Mutual Concern and the process by which non-governmental stakeholders can nominate chemicals for consideration as candidate Chemicals of Mutual Concern.
- *Nutrients* Annex Co-Leads will present draft revised phosphorus objectives for Lake Erie to GLEC in May 2015.
- *Aquatic Invasive Species* Annex Co-Leads will develop a write-up of the Early Detection and Rapid Initiative for binational.net.
- *Habitat and Species* Annex Co-Leads will announce on binational.net the achievement of the commitment to develop and implement lakewide habitat and species protection and restoration conservation strategies by 2015.
- *Groundwater* Annex Co-Leads will provide the draft Groundwater Science Report to GLEC by February 2015 and post the draft for public comment on binational.net when available.

- All Annex Co-Leads will provide input to the *Climate Change Impacts* Annex Co-Leads regarding their climate change science needs and how the information from the *Analysis of Great Lakes Climate Change Science* can best be used; *Climate Change Impacts* Annex Co-Leads to make available the final *Analysis of Great Lakes Climate Change Science* and visualization of this data by end of January 2015.

NEXT MEETING & ADJOURNMENT

The next Great Lakes Executive Committee meeting is tentatively scheduled for June 24 to 25, 2015 in Chicago.

Appendix A

December 2, 2014 GLEC MEETING PARTICIPANTS

Canadian Participants

1. Sean Backus, Section Manager, Great Lakes Water Quality Monitoring, Environment Canada
2. Lesley Baker, Regional Manager Environmental Services, Public Works and Government Services Canada
3. Sharon Bailey, Director, Food Safety & Environmental Management Branch, Ontario Ministry of Agriculture, Food & Rural Affairs
4. Dave Burden, Regional Director General, Fisheries and Oceans Canada
5. Mark Burrows, Acting Director, Great Lakes Regional Office, International Joint Commission
6. Bill Carr, Senior Manager, International Relations Policy, Office of International Relations & Protocol, Ministry of Intergovernmental Affairs
7. Gavin Christie, Fisheries and Oceans Canada
8. John Cooper, Director, Water & Air Quality Bureau, Health Canada
9. Jennifer Danahy
10. Bob Duncanson, Executive Director, Georgian Bay Association
11. Robert Fleming, Assistant Deputy Minister, Integrated Environmental Policy Division, Ontario Ministry of the Environment and Climate Change
12. Bonnie Fox, Manager, Policy and Planning, Conservation Ontario
13. Vincenza Galatone, Executive Director, Chemicals Management Division, Environment Canada
14. Jon Gee, Manager, Great Lakes Areas of Concern, Environment Canada
15. Michael Goffin, Regional Director General, Environment Canada
16. Nancy Goucher, Water Program Manager, Environmental Defence
17. Susan Humphrey, Associate Regional Director General, Ontario, Environment Canada
18. Josh Ingribelli, Asian Carp Program Officer, Invasive Species Centre
19. Courtney Jackson, Aamjiwnaang First Nation
20. John Jackson, Citizen Activist
21. Jennifer Keyes, Manager, Great Lakes & Water Policy Section, Ontario Ministry of Natural Resources & Forestry
22. Savitri Jetoo, McMaster University
23. Maxine Kingston, Director, Agriculture and Agri-Food Canada
24. Gail Krantzberg, Professor and Director, Centre for Engineering and Public Policy, McMaster University
25. Ash Kumar, Senior Policy Advisor, Great Lakes Environment Office, Environment Canada
26. Robin Lessard, Northern Ontario Field Unit Superintendent, Parks Canada
27. Wendy Leger, Water Resources Project Coordinator, Environment Canada
28. Madhu Kapur Malhotra, Senior Policy Advisor, Great Lakes Office, Land and Water Policy Branch, Ontario Ministry of the Environment and Climate Change
29. John Marsden, Manager, Great Lakes Issue Management and Reporting Section, Environment Canada
30. Catherine Masson, Consultant
31. Andrew McAllister, Acting Director, Canadian Nuclear Safety Commission
32. Dan McDermott, Sierra Club

33. Jennifer McKay, Manager, Great Lakes Environment Office, Environment Canada
34. Felicia Minotti, Senior Policy Advisor, Foreign Affairs, Trade and Development Canada
35. David Nanang, Natural Resources Canada
36. Carolyn O'Neill, Manager, Great Lakes Office, Land and Water Policy Branch, Ontario Ministry of the Environment and Climate Change
37. Dan Pujdak, Senior Policy Advisor, Chiefs of Ontario
38. Richard Raeburn-Gibson, Regional Director, Eastern Region, Ontario Ministry of Environment and Climate Change
39. Sarah Rang, Ontario Ministry of Environment and Climate Change
40. Jim Richardson, Director, Environmental Management Branch, Food Safety and Environment Division, Ontario Ministry of Agriculture, Food and Rural Affairs
41. Christine Rogers, Environment Consultation Worker, Aamjiwnaang First Nation
42. Ranissah Samah, Senior Policy Advisor, U.S. Affairs, Office of International Relations & Protocol, Ontario Cabinet Office
43. Nancy Stadler-Salt, Environment Canada
44. David Sweetnam, Executive Director, Georgian Bay Forever
45. Carla Torchia, Senior Policy Advisor, Great Lakes Environment Office, Environment Canada
46. Brian Tucker, Associate Director of Education and Way of Life, Métis Nation of Ontario
47. Dale Van Stempvoort, Section Head, Groundwater, Environment Canada
48. Allan Waffle, Georgian Bay Association
49. Gordon Walker, Acting Canadian Chair, International Joint Commission
50. Cindy Warwick, Engineering/Policy Adviser, International Joint Commission
51. Chris Wiley, Manager Technical Services, Transport Canada Marine Safety & Security
52. Nigel Wood, Ontario Ministry of Agriculture and Food
53. Jing Xu, Director, International Affairs Branch, Environment Canada
54. Ram Yerubandi, Water Science & Technology, Environment Canada

U.S. Participants

1. Capt. Paul Albertson, Prevention Division, 9th Coast Guard District, U.S. Coast Guard
2. Jon Allan, Director, Michigan Office of the Great Lakes, Michigan Department of Environmental Quality
3. Seth Ausubel, U.S. Environmental Protection Agency Region 2
4. Timothy Bruno, Chief, Office of the Great Lakes, Pennsylvania Department of Environmental Protection
5. Kathryn Buckner, President, Council of Great Lakes Industry
6. Craig Butler, Ohio Environmental Protection Agency
7. Wendy Carney, Deputy Director, Great Lakes National Program Office, U.S. Environmental Protection Agency –
8. Matthew Child, Deputy Director, Great Lakes Regional Office, International Joint Commission
9. Cameron Davis, Senior Advisor to the Administrator, U.S. Environmental Protection Agency
10. Thomas Easterly, Commissioner, Indiana Department of Environmental Management
11. Tim Eder, Great Lakes Commission
12. Lucas Evans, Great Lakes Policy Specialist, Little Traverse Bay Bands of Odawa Indians
13. Steve Galarneau, Director, Office of the Great Lakes, Wisconsin Dept. Natural Resources
14. Dereth Glance, International Joint Commission
15. Norman Grannemann, Great Lakes Program Coordinator, U.S. Geological Survey

16. John Haugland, GLEC Secretariat, U.S. Environmental Protection Agency
17. Susan Hedman, GLEC U.S. Co-Chair, U.S. Environmental Protection Agency
18. Michael Hoff, AIS Program Coordinator, U.S. Fish and Wildlife Service
19. Paul Horvatin, U.S. Environmental Protection Agency
20. Roger Knight, Fisheries Management Specialist, Great Lakes Fishery Commission
21. Chris Korleski, Director, Great Lakes National Program Office, U.S. Environmental Protection Agency
22. Bob Lambe, Great Lakes Fishery Commission
23. Deborah Lee, Great Lakes Environmental Research Laboratory, National Oceanic and Atmospheric Administration
24. Lynn Lewis, Assistant Regional Director – Ecological Services, U.S. Fish and Wildlife Service
25. Fred Luckey, U.S. Environmental Protection Agency Region 2
26. Joan Matthews, Director, Clean Water Division, U.S. Environmental Protection Agency Region 2
27. Dan Mejia, ESTH Officer, U.S. Department of State
28. Jan Miller, Program Manager, U.S. Army Corps of Engineers
29. Trish Morris, Director, GLRO, International Joint Commission
30. Dale Phenicie, Council of Great Lakes Industries
31. Lana Pollack, U.S. Co-Chair, International Joint Commission
32. Carl Richards, Division Director, Mid-Continental Ecology Division, U.S. Environmental Protection Agency Office of Research and Development
33. James Schardt, GLEC Secretariat, U.S. Environmental Protection Agency
34. Victor Serveiss, Environmental Advisor, International Joint Commission
35. John Linc Stine, Commissioner, Minnesota Pollution Control Agency
36. Jessica Tarbell, Environmental Resources Coordinator, St. Regis Mohawk Tribe
37. Lorne Thomas, Chief, External Affairs, 9th Coast Guard District, U.S. Coast Guard
38. Dave Ullrich, Executive Director, Great Lakes and St. Lawrence Cities Initiative
39. Jennifer Vanator, Great Lakes Program Coordinator, Great Lakes Indian Fish & Wildlife Commission
40. Darren Vogt, Chippewa Ottawa Resource Authority
41. Lyman Welch, Water Quality Director, Alliance for the Great Lakes
42. Charles Wooley, Deputy Regional Director, U.S. Fish and Wildlife Service
43. Don Zelazny, Great Lakes Programs Manager, New York State Department of Conservation
44. Jim Zorn, Executive Administrator, Great Lakes Indian Fish & Wildlife Commission

Others participated through webinar.