

2015 Binational Lake St. Clair Conference



Binational Lake St. Clair Conference
Chatham, Ontario
October 21, 2015

Understanding and Managing Lake St. Clair Proceedings

In Partnership With
Environment Canada

Ontario Ministry of the Environment and Climate Change

Michigan Department of Environmental Quality

United States Environmental Protection Agency

Lake St. Clair Canadian Watershed Coordination Council

*(Environment Canada, Ontario Ministry of the Environment and Climate Change,
Ontario Ministry of Natural Resources and Forestry, Ontario Ministry of Agriculture Food and Rural Affairs,
Upper Thames River Conservation Authority, Lower Thames Valley Conservation Authority,
St. Clair Region Conservation Authority, and Walpole Island First Nation)*

Agenda



8:30	Registration and Coffee	
9:00	Introduction	Ted Briggs, MOECC Luca Cargnelli, EC
9:10	Welcomes	Randy Hope, Mayor Chatham-Kent Chief Daniel Miskokomon, Walpole Island First Nation Don Pearson, LTVCA
9:20	Four Agency Managers Welcome	Chris Korleski, US EPA
Session 1: Governance Moderator – Ted Briggs		
9:30	The 2012 GLWQA and Governance of Lake St. Clair	Chris Korleski, US EPA
9:45	Update on the Canadian and U.S. Lake St. Clair Management Plans	Rose Ellison, US EPA Luca Cargnelli, EC
10:10	The St. Clair – Detroit River System Initiative’s 10 Year Strategy	Rich Drouin, MNRF
10:25	Panel Discussion	
10:40	<i>Break</i>	
Session 2: Nutrients Moderator - Chris Harrington		
11:00	Phosphorus and Cyanobacteria in Lake St. Clair	Jason Lehouillier, MOECC
11:15	Binational Lake Erie Basin Nutrient Targets	Jody McKenna, EC
11:35	U.S. EPA’s National Coastal Conditions Assessment	Beth Hinchey Malloy, US EPA
11:45	Thames River Water Quality Assessment: Nutrient Trends	Karen Maaskant, UTRCA
12:05	Panel Discussion	
12:15	<i>Lunch</i>	
Session 3: Ecosystem Moderator - Rick Hobrla		
1:15	Habitat Rehabilitation in the Lake St. Clair Watershed	Rose Ellison, US EPA Jake Lozon, RLSN
1:35	Status of the Lake St. Clair Fish Community and Fishery	Megan Belore, MNRF
1:55	Controlling <i>Phragmites</i> in Ontario: Challenges, Successes, Next Steps	Dr. Janice Gilbert, Nature Conservancy of Canada
2:10	What Determines Environmental Behaviour in Rural Landowners in Southwestern Ontario?	Silke Nebel and Jeff Brick, UTRCA
2:25	Panel Discussion	
2:40	Program Ends - Meet for Bus Tour	
3:00 - 5:00	Bus Tour (optional): Thames River and the St. Clair National Wildlife Area	

Introduction



The Lake St. Clair conference, held every two years, provides a binational forum to exchange information on Lake St. Clair's changing environment and the actions and tools needed to manage these changes. The conference is intended for resource managers, local officials, elected representatives, citizen's organization, First Nations, business/industry representatives, local residents and others with an interest and involvement in the restoration and protection of the Lake St. Clair ecosystem. The conference offers a valuable opportunity to learn more about Lake St. Clair and helps facilitate collaborative efforts for the implementation of actions.



Chief Daniel Miskokomon, Walpole Island First Nation, welcomed the group to their territory and expressed his desire for all of us to work together to improve the health of the Great Lakes.



Chatham-Kent Mayor, Randy Hope, kicked off the conference with a compelling challenge that all agencies work together across borders to protect the Great Lakes – a vital resource to the region, the country, and the world.



Don Pearson, General Manager of the Lower Thames Valley Conservation Authority, set the stage for the presentations to come by talking about the importance of sharing information and working together to move the yardstick forward in terms of protecting the Great Lakes.

Special thanks to Courtney Butler, Coop Student, Ontario Ministry of Agriculture, Food and Rural Affairs for preparing notes for this summary.



The 2012 GLWQA and Governance of Lake St. Clair Chris Korleski, United States Environmental Protection Agency

- The Great Lakes Water Quality Agreement of 2012 is a vital and viable agreement
- Annex 2 deals with lakewide management: every lake should be looked at as a whole and include governments, First Nations, stakeholders and the public
 - Lakewide Action and Management Plans (LAMPs) will be developed for each Great Lake
 - While the LAMP is the plan – it is the binational lake partnerships that will make the plan come to life
 - Lake St. Clair falls within the governance of Lake Erie, however it is important that Lake St. Clair is recognized as an ecosystem in its own right, as well as its connection to Lake Erie



Partnerships are important, but in order to get things done it has to be backed up by money. We need more agricultural conservation programs and better monitoring in several areas. Even if funding continues on nutrient related issues, we cannot address every acre and point source problem. Partnerships are vital, progress is being made, and people are talking about the nutrient issue

Chris Korleski: korleski.christopher@epa.gov

Update on the Canadian and U.S. Lake St. Clair Management Plans Rose Ellison, United States Environmental Protection Agency Luca Cargnelli, Environment Canada

Canadian Management Plan - Luca Cargnelli

- Lake St. Clair Canadian Watershed Coordination Council was formed in 2002 and has become a focal point for sharing information between organizations with a goal of linking projects and efforts to issues regarding Lake St. Clair
- 2005 - Canadian Technical Report examined existing conditions and identified management issues
- 2006 - Consultation Report summarized input gathered during an extensive consultation process
- 2008 - Canadian Management Plan built on the previous two reports and made recommendations based on issues on the Canadian side of Lake St. Clair, but support binational goals
- 2011 - Canadian Work Plan was completed to back up the actions and recommendations coming out of the Management Plan:
 - supports implementation, research, monitoring and reporting
 - includes 34 recommendations and 102 actions to support them, the majority of which rely on existing local, provincial or federal programs



Priority Watershed - Thames River:

- The Thames River is a priority watershed under the Canadian LSC Management Plan and the Lake Erie LAMP
- There is a major agricultural presence, however, the watershed includes significant urban areas
- The Thames River Clear Water Revival is a multi-jurisdictional watershed strategy to improve the health and vitality of the Thames River and its watershed
 - Identify and address water quantity management issues
 - Improve water quality of the Thames River and reduce the river's impact on Lake St. Clair
 - Strengthen community connections with the Thames River and understanding of its relationship to the Great Lakes
 - Understand traditional ecological knowledge and how it can inform water resource management decisions
 - Strengthen collaboration among water managers
- This water management plan has representatives from municipalities, provincial ministries, federal departments and First Nations
- The Water Management Plan will be completed in 2016. In the meantime, a number of projects are underway, including development of improved digital elevation models and hydraulic modelling, improved water quality data management, water quality assessment project, and agricultural stewardship.



United States Management Plan - Rose Ellison

- 1999 - Lake St. Clair Management Plan was proposed and pulled together federal governments from the US and Canada, Conservation Authorities, NGOs, etc.
- 2004 - Lake St. Clair Comprehensive Management Plan was finalized. The basis for the Canadian concerns were reflected in the plan but not necessarily implemented in the US
- 2010 - Watershed Assessment Plan – this was the first step in the development of our Strategic Implementation Plan (SIP)
- 2012 - Lake St. Clair SIP was completed – this is our core document
- 2015 - SIP updated



US Management Plan Priority Areas:

- Phragmites Control
 - St. Clair/Anchor Bay Phragmites Control and Education Project
 - Develop a management structure for Lake St. Clair collaborative invasive species control and for early detection for all communities around Lake St. Clair
- Habitat Restoration and Protection
 - Since 2010, 8 major projects around Lake St. Clair (not including river projects) have been completed
 - \$19 million provided since 2010
- Real-time Monitoring System
 - Networking has been established between all the wastewater treatment systems and made available to the public
 - Water treatment plants and jurisdictions are included – great database that could be used for other purposes
 - 24 hour monitoring through this system allows for early detection
 - Unable to find a sustainable funding source – program did not disappear but lost some connectedness
- Remaining Priorities:
 - Integrating modelling with monitoring
 - Eliminating illicit discharges into Lake St. Clair
 - Development of the Lake St. Clair Watershed Information Management System



Looking Forward

- Management of Lake St. Clair needs to consider other GLWQA initiatives or programs such as:
 - Lake Erie lake ecosystem objectives
 - Great Lakes nearshore framework
 - Lake Erie binational nutrient reduction strategy
 - Cooperative science and monitoring initiative
 - Lake Erie biodiversity conservation strategy

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The St. Clair - Detroit River System Initiative's Ten Year Strategy

Rich Drouin, Ontario Ministry of Natural Resources and Forestry

Background

- Hundreds of years of misuse and abuse within the area
- 10 years of multi-agency planning, research and implementation

Challenges

- Organizing diverse fields of interest, mandates and expertise
- Governance, decision making and roles
- Cost

Collective Impact

- Different sectors coming together and agreeing on common goals
- Create, foster and facilitate knowledge sharing, collaborative efforts and program support

Strategic Vision

- Thriving ecosystem managed with science-based practices
- Purpose: coordinate research and management needs
- Common agenda: restoration and protection through adaptive, coordinated science
- Outcomes: prioritized projects with decisions based on science and monitoring

Partnership Agreement

- Purpose: to coordinate research and management efforts to achieve the measurable goals towards the shared vision

Subcommittees

- Communication: develop methods and products to communicate annual outputs
- Monitoring: develop monitoring work plan and prioritize criteria
- Science: develop science strategy with relevant working hypotheses and evaluation indicators





Priority Management Actions

- Address beneficial use impairments to de-list Areas of Concern
- Improve water quality through point source reductions
- Increase biodiversity through protection
- Increase indigenous fish stock production
- Reduce impacts on habitat, biodiversity and fisheries from aquatic invasive species

Next Steps

- Analyze science and monitoring database
- Develop monitoring work plan with surveys and indicators
- Develop science strategy relevant with research hypotheses and evaluation indicators
- Implement habitat improvement projects to remove loss of fish and wildlife habitat beneficial use impairment

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Phosphorus and Cyanobacteria in Lake St. Clair

Jason Lehouillier, Ontario Ministry of the Environment and Climate Change

Great Lakes surveillance program

- 3 distinct concerns:
 - Drinking water treatment and supply
 - Beaches and recreational areas
 - Potential for fish kills
- Samples collected every 2 weeks at 3 sites in Lake St. Clair from July to October
- Sampling includes net hauls of algae and cyanobacteria, water column profiles, secchi depth transparency, water samples for nutrients, ions, and benthic invertebrates at deep water sites



Cyanobacteria Working Group

- Established in 2012 with a goal of getting prepared for expected blooms
- 60 members from several agencies
- Reviewed existing protocols, established mechanisms to share information to effected communities
- Smaller technical committee meets weekly during bloom season

Blue Green Algae Extranet Site

- July 2015, MOECC blue green algae extranet site launched – allows people to access the most recent data and results regarding blooms. For now it is restricted, but looking to go public. (Available via internet with a user name and password - to request access contact Jason)
 - News section of updates from around the province
 - Blog that is maintained by the MOECC on the samples they have taken with real-time information
- www.ontario.ca/environment-and-energy/blue-green-algae

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Binational Lake Erie Basin Nutrient Targets

Jody McKenna, Environment Canada

- Algal and cyanobacteria blooms in Lake Erie have been increasing since 1990s
- Environmental impacts: fish and wildlife habitat, animal health, ecosystem function
- Economic impacts: \$4 - \$5.5 billion over the next 30 years
- Human health: algal toxin production affects drinking water quality
- Blooms are not a new problem
 - Huge problem in the 1960s and 70s – resulted in the first Canada-United States Great Lakes Water Quality Agreement in 1972
- New factors in play:
 - Climate change – high intensity storms, high temperatures and longer growing seasons
 - Population growth – phosphorus discharges increase
 - Aquatic invasive species – water clarity nutrient flows changed by zebra & quagga mussels
 - Bioavailable phosphorus increasing
- Recommended reduction targets:
 - 5 Lake Erie Ecosystem Objectives based on sub-basins
 - Eliminating algae is not the goal, it is to maintain a healthy level
 - By 2016, revise the loading targets and allocations between Canada and US
 - By 2018, move from understanding targets to implementing action plans
 - Objectives and targets development task team consisting of 25 experts across Canada and US to develop the targets
- Proposed Binational Phosphorus Load Reduction Targets:
 - Minimize extent of hypoxic zones – 40% reduction in total phosphorus entering the western and central basins of Lake Erie
 - Maintain algal species consistent with healthy aquatic ecosystems in nearshore waters – 40% reduction in spring total and soluble reactive phosphorus loads in priority watersheds
 - Maintain cyanobacteria biomass at levels that don't produce concentrations of toxins that pose a threat to human or ecosystem health – 40% reduction in spring total and soluble reactive phosphorus loads from the Maumee River
- Consultation on these targets took place this past summer, working to incorporate input into high level responses
- On track to have targets finalized by February 2016 – next step is development of domestic action plans and how to allocate load reduction between Canada and the US



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U.S. EPA's National Coastal Condition Assessment

Elizabeth Hinchey Malloy, United States Environmental Protection Agency

The U.S. EPA's National Coastal Condition Assessment

- The goal is to answer 2 questions:
 - What percent of the coastal waters are in good, fair or poor conditions, and what are the key stressors?
 - What is the relative importance of key stressors such as nutrients and pathogens?
- The program targets marine coastal areas and Great Lakes shorelines
- Assessment undertaken every 5 years and follows the National Aquatic Resource Surveys approach:
 - Randomized design to report on condition of each resource nationally and on a regional basis with documented confidence
 - Standard field and lab protocols
 - National QA and data management, EPA training and quality assurance plan
- Measured parameters
 - Water column: conductivity, temp, pH, DO, PAR, secchi disc depth, etc.
 - Sediment: TOC, %silt/clay, chemistry, toxicity, benthic macrofauna
 - Fish: whole fish tissue, fish fillet
- Overview of the 2010 Great Lakes NCCA
 - 450 sites across all lakes – indicators got a rating of good, fair, poor (biological, chemical, physical and recreational/human health)
- Fresh water coastal waters design
 - No more than 5 km out or 30 m deep
 - 45 sites per lake
 - 10% revisit
 - Additional Great Lakes sites (152 embayment sites, 50 national park sites)
- Next steps
 - 2010 report coming soon
 - 2014 and 2015 Huron-Erie corridor to be analyzed and reported out
 - Develop new Great Lakes benthic index for near shore (?)
- For access to the data, contact Sarah Lehman:
lehman.sarah@epa.gov



Elizabeth Hinchey-Malloy: hinchey.elizabeth@epa.gov



Thames River Water Quality Assessment: Nutrient Trends

Karen Maaskant, Upper Thames River Conservation Authority

Thames River Watershed

- Highly agricultural watershed, around 600,000 population
- Flow rates affected by higher gradients in the head waters and extremely low gradients from London to Lake St. Clair
- 3 major dams for flood control in the upper portion alter water flows
- Half the land is tile drained



Lake Erie findings

- March - May runoff determines scale of July blooms
- Tributaries are major source
- Phosphorus attaches to sediments flowing into the lake

Water Quality Assessment Project

- Project team consisting of governments, municipalities, conservation authorities, and the University of Western Ontario
- Goals, to better understand:
 - What areas and sources contribute to nutrients
 - When most nutrients get into the river
 - Delivery to Lake St. Clair
 - Climate and extreme weather impacts

Monitoring data

- 83 quality stations, 26 stream gauges, 30 wastewater treatment plants
- Time period 1986 – 2012
- Looking at total phosphorus, dissolved phosphorus, suspended solids, nitrogen, nitrate

Trends across watershed

- Phosphorus from headwaters to middle: DRP decreases, TP no trend. In lower reach of Thames: TP increasing, DRP no trend
- Sediment decreases in the north Thames River, increases in the lower Thames River (London to mouth), no trend in the South Thames River
- Upper Thames - 40,000 tonnes/year
- Lower Thames - 74,000 tonnes/year



Trends over time

- Total phosphorus flow-weighted concentrations decreased significantly with time
- No consistent improvement for dissolved phosphorous, sediment, total nitrogen
- Improvement in WWTP effluent phosphorus levels over time

Seasonal trends

- Phosphorus highest in late winter and spring
- River flows seasonally distinct: high flow (Mar-April) decreasing (May-Sept)

Sources of Phosphorus

- Non-point sources dominate loads (eg. fertilizer, waste, detergents)

Reservoir and Impoundments

- Decrease load in spring, high flows
- Increase in summer through internal phosphorus load: release phosphate from bottom sediments during warm, low-oxygen conditions
- Aged impoundments become source of nutrients including legacy nutrients (eg. Fanshawe reservoir's internal load is 4-16t in summer from bottom sediments moving downstream)

Annual average total phosphorus loads

- Adaptive effect of phosphorus through the system
- Continues to increase down the river as sources contribute through the river

Estimated annual export from the Thames River

- 342 metric tonnes/yr total phosphorus
- 187 metric tonnes/yr dissolved phosphorus
- 113,000 metric tonnes/yr suspended sediment
- load from the Detroit and Maumee Rivers are about 10x greater than the Thames River
- Loads in spring and winter are highest – targeting BMPs for these times is essential
- Mainly non-point source across the watershed – enhance urban and rural non-point source implementation across watershed
- Some subwatersheds have proportionally higher loads – target added implementation in those areas

Recommendations:

- Better monitoring of extreme flow conditions in all seasons
- Continued monitoring to measure progress in load reductions

Moving forward

- It takes time with non-point sources to achieve and measure improvement, but it can be done
- Making steady but gradual progress as seen in river trends despite challenges

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Habitat Rehabilitation in the Lake St. Clair Watershed Rose Ellison, United States Environmental Protection Agency Jake Lozon, Rural Lambton Stewardship Network Habitat

United States Environmental Protection Agency

- Pt. Aux Chêne Reef – sturgeon spawning reef, looking to attract more species
- St. Clair flats – trying to tie restoration activities together
- Harsens Island/Krispin Drain Habitat Restoration – focus on the native seed stack and eradicating Phragmites
- St. Clair Delta Middle Channel
- Peleton Drain Wetland Treatment System – yet to be funded
- Salt River Marsh – increase marshland area
- Harley-Ensign Coastal Marsh – putting in wetlands and trying to improve the mouth of the Clinton River
- St. Clair Coastal Marsh – large project to develop nearshore marsh complexes
- Clinton River Spillway and Fish Habitat – native plants, habitat restoration

Rural Lambton Stewardship Network:

Restoration work in the St. Clair River AOC

3 main coastal wetlands; Bay Lodge, Rex Club 14, Mud Creek Club:

- Bay Lodge
 - Privately owned, including 160 acres of prime wetland habitat
 - 2km of shoreline, impacted by Phragmites
- Rex Club 14
 - Family owned, 60 acres in total
 - Operated as popular hunting and fishing lodge
 - Severely degraded from Phragmites
- Mud Creek Club
 - About 3,000 acres
 - 210 acres of Phragmites were controlled. Sprayed with weather mac (glyphosate)

Many measures were taken to restore wetland habitat:

- Controlled burning of Phragmites, rolling it and creating fire breaks
- Using weather max (glyphosates)
- Excavation
- Habitat clusters created
- Native grasses planted
- Walking trails



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Status of the Lake St. Clair Fish Community and Fishery

Megan Before, Ontario Ministry of Natural Resources and Forestry

- 110 fish species in Lake St. Clair waters including several species at risk
- Provides spawning habitat for 45 species of fish
- Lake St. Clair important Lake Sturgeon habitat
 - Tagging project occurred in 2014 during a 4 month period
 - In the study, 40% of the fish were recorded on the receivers, showing the importance of the habitat to the sturgeon

Existing Assessment Programs

- Michigan spring trap net index
 - Evaluates adult fish community composition
- Ontario fall trap net index
 - Evaluates adult fish community composition
 - In recent years, very little change in catch rates, but much lower than in the 1970s and 80s
- Michigan trawl index
 - Abundance of smallmouth bass and yellow perch
- Ontario young-of-the-year index
 - Assesses nearshore community composition and YOY abundance
- Angler diary program
 - Volunteer sport catch reporting program
 - Supported by Ontario and Michigan





Common Sport Fish

Yellow perch, walleye, smallmouth bass, muskellunge

- Yellow perch
 - Fished year round
 - Half total fishing effort in Michigan targets yellow perch
 - Michigan recreational fishing is larger than Ontario's, but they follow the same trends
- Walleye
 - On average, in St. Clair River over 50,000 walleye were harvested (driver of Michigan sport fishery)
 - Walleye catch rates have been lower compared to 1970s and 80s
- Smallmouth bass
 - Strong year classes in 2010 in both Michigan and Ontario
 - 4,598 tagged in anchor bay
 - 573 tags reported by anglers from 2002-2014
- Muskellunge
 - 26% of all charter fishing trips target them
 - In recent years, decline in Michigan trap rate, however it's not the case in Ontario
 - ~99% of all muskies caught on Lake St. Clair are released
 - Binational Detroit River creel survey conducted in 2015 will give a comprehensive look at fish in the entire river



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Controlling Phragmites in Ontario: Challenges, Successes, Next Steps Dr. Janice Gilbert, Nature Conservancy of Canada

- By the 1990s large spread of Phragmites had occurred, creating significant challenges for ecosystem managers.

Phragmites is a Strong Competitor

- Seed can disperse within a 10 km radius and can persist through winters
- Readily colonizes along moist, exposed soils (coast lines)
- Spreads underground via rhizomes; exponential growth
- Very adaptable: variable water levels, high and low nutrient sites, acidic sites
- Strong competitor for nutrients
- Allopathic



The Threat

- Loss of recreation opportunities
- Negative impacts on tourism
- Decline of property values
- Liability issues
- Loss of biodiversity
- Threat to species at risk

Need to change human behaviour

education, incentives, public pressure, policy, fines

Examples:

- More cleaning of heavy equipment which is contributing to the spread
- Educating farmers about what they can do
- Being proactive with northern communities
- Stopping ATV activity in sensitive areas



Challenges in controlling Phragmites using our current tools

- Mechanical (cutting, covering, drowning) – labour intensive
- Chemical for non-flooded sites (“weathermax”, “visionmax”)
- Can do harm if not doing it properly; timing and site specificity is critical
- Presence of desirable species; how can we protect them but eradicate the invasive?
- How do we deal with wetness?
- Remote areas, large scale sites, high wind and wave sites

Successes

- Municipality of Kincardine
 - Management plan in place, municipality invests \$30,000/year
 - Herbicides, prescribed burns, cutting/drowning practices
- Kettle point, Lake Huron
 - Backpack spraying, local community informed especially on roads

At a cross roads – not making headway – need a six-step plan:

- Control along roads and agricultural ditches
- Requires access to appropriate herbicides for over water and aerial application
- Public education campaigns need to be put in place with government support
- Need long-term funds
- Has to be locally driven, supported by all levels of government
- Detailed plans need to be in place

Ontario Phragmites Working Group

- Great work being done, but a lot more needs to be done
- Don't ignore this problem, otherwise it will only get worse and more expensive

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What Determines Environmental Behaviour in Rural Landowners in Southwestern Ontario? Silke Nebel and Jeff Brick, Upper Thames River Conservation Authority

- This study sought to understand conservation behaviour and attitudes of rural landowners in the Upper Thames and Grand River watersheds. “Why do some people cut down trees while others spend money to plant them?”
- The study involved surveys mailed to rural routes in the Upper Thames and Grand River watersheds (about 80% coverage) in 2013. The response rate was 18% (3,227 usable surveys)
- The study found that environmental attitude and economic factors are the strongest predictors of environmental behaviour
- They suggest that enrolment in voluntary land stewardship programs might be increased by providing information about the effects of ecosystem loss, and by providing financial incentives for participation
- In a larger social context, outreach programs by government agencies could focus on improving pro-environmental attitudes, which in turn is likely to result in more pro-environmental behaviour of landowners.

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Bus Tour



Tim Dick, Director, Drainage, Asset and Waste Management, Municipality of Chatham-Kent
Jason Wintermute, Water Management Supervisor/GIS Specialist, LTVCA
Randall VanWagner, Environmental Project Coordinator, LTVCA
John Haggeman, St. Clair National Wildlife Area, Environment Canada

The tour included discussion on the importance and impact of agricultural drainage in the lower Thames River watershed and its implication for management of Lake St. Clair. A tour of the wetlands at the St. Clair National Wildlife Area provided insights into this internationally important coastal wetland.



Attendees



Timothy Backhurst, Clinton River PAC
Rick Battson, St. Clair Region Conservation Authority
Rajesh Bejankiwar, International Joint Commission
Megan Belore, Ontario Ministry of Natural Resources and Forestry
Mary Bohling, Michigan Sea Grant
Ted Briggs, Ontario Ministry of the Environment and Climate Change
Courtney Butler, Ontario Ministry of Agriculture Food and Rural Affairs
Bonnie Carey, Lower Thames Valley Conservation Authority
Luca Cargnelli, Environment Canada
Erin Carroll, St. Clair Region Conservation Authority
Jeff Carter, Ontario Farmer
Mathew Child, International Joint Commission
Tom Copeland, City of London
Dorienne Cushman, Ontario Ministry of Agriculture Food and Rural Affairs
Melissa Damaschke, Erb Family Foundation
Torey Day, Walpole Island First Nation
Tim Dick, Municipality of Chatham-Kent
Ngan Dieppe, Ontario Ministry of the Environment and Climate Change
Lonnie Dodge, Caldwell First Nation
Josie Dodge, Caldwell First Nation
Pat Donnelly, City of London
Matt Doss, Great Lakes Commission
Rich Drouin, Ontario Ministry of Natural Resources and Forestry
Chris Durand, St. Clair Region Conservation Authority
Rose Ellison, USEPA
Jim Francis, Waterford Fisheries Station
Janice Gilbert, Ontario Pragmites Working Group
Brent Guerink, Macomb County Planning & Economic Development
John Haggeman, St. Clair National Wildlife Area
Chris Harrington, Upper Thames River Conservation Authority
Cleyo Harris, Michigan Department of Natural Resources
George Henry, Chippewas of the Thames First Nation
Georgeann Herbert, Detroit Public Television
Louise Hillier, Caldwell First Nation
Beth Hinchey Malloy, USEPA
Richard Hobrla, Michigan Office of the Great Lakes
Randy Hope, Mayor, City of Chatham-Kent
Courtney Jackson, Aamjiwnaang First Nation
Clint Jacobs, Walpole Island First Nation
Kennon Johnson, Walpole Island First Nation
Sharilyn Johnston, Aamjiwnaang First Nation
Tom Kissner, Chatham-Kent Public Utilities Commission
Chris Korleski, USEPA Great Lakes National Program Office
John Lawrence, Sunrise Rotary Club – Clean Water Project

Jason Lehouillier, Ontario Ministry of the Environment and Climate Change
Stephen Lichota, Macomb County Health Department
Brian Locke, Ontario Ministry of Natural Resources and Forestry
Jake Lozon, Rural Lambton Stewardship Network
Karen Maaskant, Upper Thames River Conservation Authority
Dan McDonald, Ontario Ministry of the Environment and Climate Change
Jody McKenna, Environment Canada
Chief Daniel Miskokomon, Walpole Island First Nation
Patricia Morris, International Joint Commission
Silke Nebel, Upper Thames River Conservation Authority
William Parkus, Southeast Michigan Council of Governments
Don Pearson, Lower Thames Valley Conservation Authority
Robert Pettit, Environmental Consulting and Technology
Dennis Plain, Aamjiwnaang First Nation
Darrell Randell, Ducks Unlimited Canada
Jenn Richards, Ontario Ministry of Natural Resources and Forestry
James Ridgway, Environmental Consulting Technology
Peter Roberts, Ontario Ministry of Agriculture Food and Rural Affairs
Christine Rogers, Aamjiwnaang First Nation
Claire Sanders, Detroit River Canadian Cleanup
Ron Sands, Walpole Island First Nation
Gerry Santoro, Macomb County Planning & Economic Development
Jessica Schnaithmann, Lower Thames Valley Conservation Authority
Don Shropshire, Municipality of Chatham-Kent
Kelli Smith, St. Clair Region Conservation Authority
Katie Stammler, Essex Region Conservation Authority
Donna Strang, St. Clair Region Conservation Authority
Tara Tchir, Upper Thames River Conservation Authority
Michael Thomas, Michigan Department of Natural Resources Lake St. Clair Fisheries Station
Valerie Towsley, Lower Thames Valley Conservation Authority
Anne Vaara, Clinton River Watershed Council
Randall Van Wagner, Lower Thames Valley Conservation Authority
Jessica Van Zwol, St. Clair Region Conservation Authority
April White, Environment Canada
Greg Wilcox, St. Clair Region Conservation Authority
Danalynn Williams, Aamjiwnaang First Nation
Naomi Williams, Walpole Island First Nation
Todd Wills, Michigan Department of Natural Resources
Jason Wintermute, Lower Thames Valley Conservation Authority
Laurie Wood, Environment Canada