

ADOPTED by Council at its meeting held March 19, 2012 [M164-2012]

/AA

Windsor, Ontario March 19, 2012

REPORT NO. 58 of the
ENVIRONMENT & TRANSPORTATION STANDING COMMITTEE
of its meeting held February 22, 2012

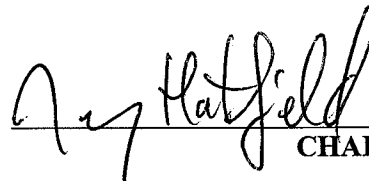
Present: Councillor Hatfield, Chair
Councillor Payne
Councillor Sleiman
Councillor Valentinis

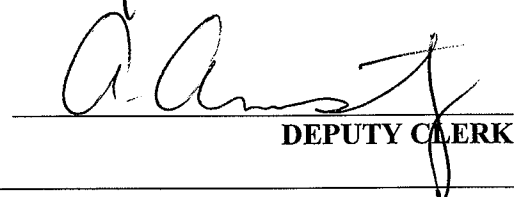
Regrets: Councillor Halberstadt

That the following recommendations of the Environment and Transportation Standing Committee **BE APPROVED:**

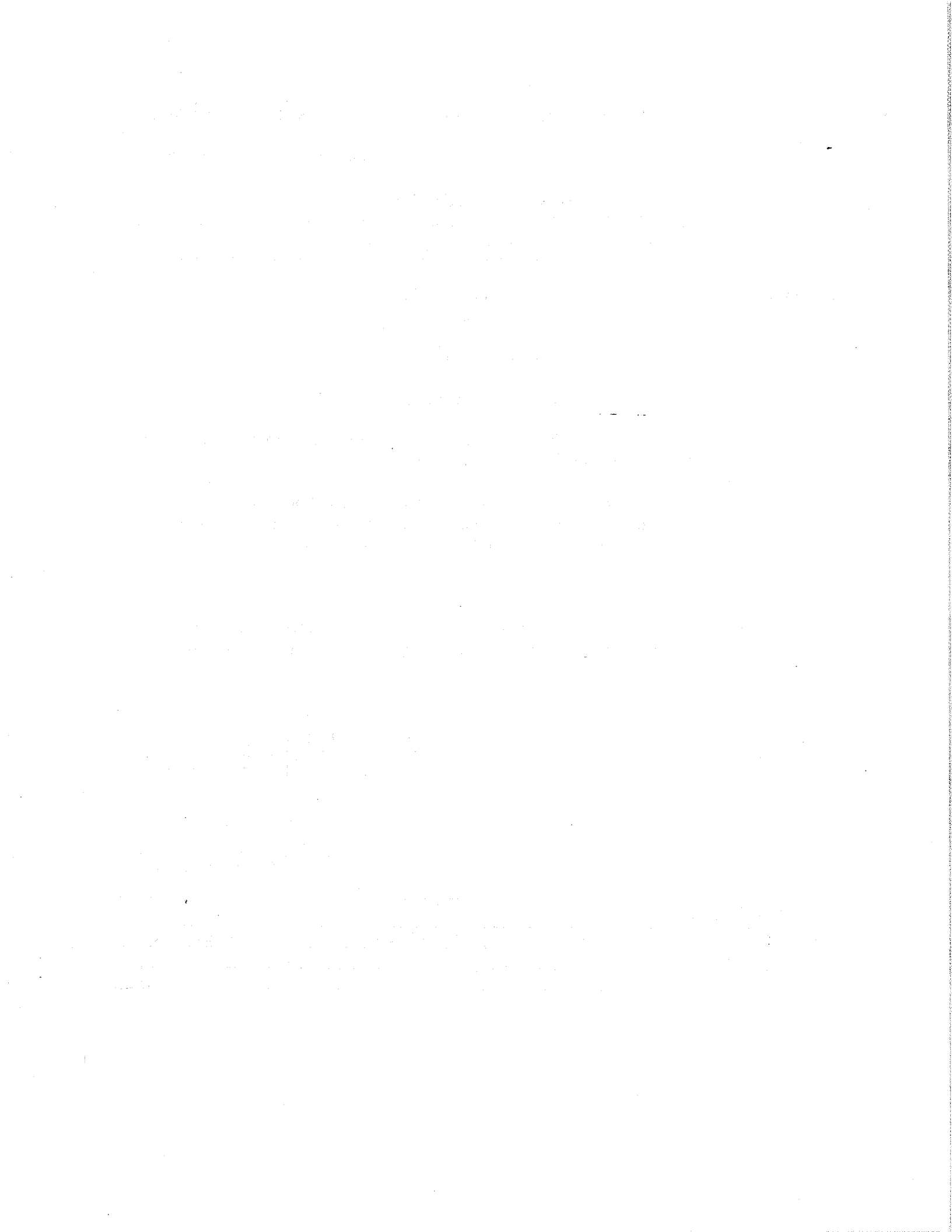
Moved by Councillor Sleiman, seconded by Councillor Payne,
THAT the minutes of the Windsor Essex County Environment Committee of its meeting held January 5, 2012 **BE RECEIVED** for information.
Carried.

Clerk's Note: The minutes of the Windsor Essex County Environment Committee of its meeting held January 5, 2012 are attached as background information.


CHAIRPERSON


DEPUTY CLERK

NOTIFICATION:				
Name	Address	Email Address	Telephone	FAX
WECEC members				



KK/
Windsor, Ontario January 5, 2012

A meeting of the **Windsor Essex County Environment Committee** is held this day commencing at 5:30 o'clock p.m. in the YQG Windsor International Airport Board Room, there being present the following members:

Councillor Alan Halberstadt, Co-Chair
Charlie Wright, Co-Chair
Mark Bartlett
Pauline Cheslock
Matthew Child
Dean Clevett
Derek Coronado
Rick Coronado
Roger Dzugan (alternate for Mark Bartlett)
Paul Henshaw
John Miller
Phil Roberts
Tamara Stomp
Radwan Tamr (arrives at 5:40 p.m.)

Regrets received from:

Karen Fallon

Also present are the following resource personnel:

James Bryant, County Engineering Department
Averil Parent, Environment & Sustainability Coordinator
Beau Wansbrough, Planner II
Karen Kadour (A) Committee Coordinator

1. **CALL TO ORDER**

Councillor Halberstadt, Co-Chair calls the meeting to order at 5:32 o'clock p.m. and the Committee considers the Agenda being Schedule "A" **attached** hereto, matters which are dealt with as follows:

2. **ADDITIONS TO THE AGENDA**

None.

3. **DECLARATIONS OF CONFLICT**

None.

4. **MINUTES**

Moved by M. Bartlett, seconded by M. Child,

That the minutes of the meeting held December 1, 2011 **BE ADOPTED AS AMENDED** to add the word "*reduced*" to the phrase "*and further, that the reduced summer schedule for Transit Windsor BE ELIMINATED as it limits ridership*".

Carried.

5. **BUSINESS ARISING FROM THE MINUTES**

5.1 **Speaker Series – Elizabeth May, Leader, Green Party of Canada**

A. Parent advises that Elizabeth May, Leader, Green Party of Canada has been confirmed as part of the "Green Speaker Series" to speak on January 28, 2012 at the Dr. David Suzuki Public School, 6320 Raymond Street at 10:30 o'clock a.m.

Moved by T. Stomp, seconded by P. Cheslock

That **APPROVAL BE GIVEN** to an upset amount of \$200.00 as an honorarium for Elizabeth May, Leader Green Party of Canada to speak at the Dr. David Suzuki Public School, 6320 Raymond Street, Windsor, Ontario on January 28, 2012 at 10:30 o'clock a.m.

Carried.

5.2 **Renewable Energy Media Campaign**

A. Parent indicates that the Media Campaign is underway and notes she will contact the solar industry to ensure their support. She notes the Campaign will encompass all forms of renewable energy as outlined in the Green Energy Act.

5.3 **New WECEC Appointments**

A. Parent reports that contact has been made with the University of Windsor and St. Clair College regarding the creation of two student positions on WECEC.

Moved by T. Stomp, seconded by C. Wright,

That the Terms of Reference for the Windsor-Essex County Environment Committee **BE AMENDED** to replace the 2 positions (city/county representatives) with two student representatives (from the University of Windsor and/or St. Clair College).

Carried.

6. **COORDINATOR'S REPORT**

The December 2011 WECEC Monthly Report is received for information.

7. **SUBCOMMITTEE REPORTS**

7.1 **Air**

An e-mail from D. Coronado dated January 10, 2012 entitled "EPA Issues First National Standards for Mercury Pollution from Power Plants" is **attached** as Appendix "A".

7.2 **Transportation**

D. Clevert indicates that a motion will be provided by the Office of Brian Masse, MP relating to "higher speed rail".

7.3 **Provincially Significant Wetlands**

Discussion ensues relating to the letter dated December 6, 2011 sent to Mr. Ron Stang (WindsorOntarioNews.com) on behalf of WECEC regarding his article entitled "No de-icing airplanes....at an airport?" M. Child suggests that any future letters sent on behalf of WECEC be vetted by the Committee.

R. Tamr leaves the meeting at 6:34 o'clock p.m.

M. Child requests that members have an opportunity to review the Black Oak Video.

Councillor Halberstadt, Co-Chair states he recently spoke to representatives from the Mobility Group regarding the compensation lands who advised that the Ministry of Natural Resources is the deciding body relating to compensation/mitigation. He adds that a meeting has been convened with the Mobility Group on January 20, 2012 to discuss the compensation strategy. He states that the time and location of the meeting will be provided to interested members wishing to attend.

8. **NEW BUSINESS**

Notice of Motion – Blue W Community Based Tap Water Promotion Campaign

A. Parent indicates that the Blue W Community is a non-profit group which encourages businesses to offer municipal tap water free of charge to Windsor residents.

She notes when a business embraces the initiative, a sign is placed in the storefront that promotes free tap water for the public.

Moved by M. Bartlett, seconded by P. Cheslock,

WHEREAS the City of Windsor has adapted a policy to promote tap water at municipal buildings therefore promoting a choice between tap water and bottled water; and

WHEREAS the reduction of bottled water consumption decreases the amount of energy consumed to handle the waste and/or recycling of plastics; and

WHEREAS the promotion of readily available free tap water positively affects the low socio-economic sector; and

WHEREAS tap water available in the summer contributes to the Regional Heat Alert and Response Plan therefore potentially decreasing the amount of heat related illness; and

WHEREAS tap water represents a healthier choice to individuals, specifically children when compared to sugar laden soft drinks; and

WHEREAS businesses offering tap water free of charge may be seen as socially and environmentally responsible therefore increasing commercial foot traffic and aligning shops with community interests;

THEREFORE BE IT BE RESOLVED that the City of Windsor and the County of Essex participates in the Blue W Community-based Tap Water Promotion Campaign which encourages businesses to offer municipal tap water free of charge to Windsor residents. This will be promoted through the Blue W website and smart phone applications, a media campaign as well as store front window stickers.

Carried.

8.2 Lake Erie Algal Blooms

M. Child distributes the "Lake Erie Lakewide Management Plan – Annual Report 2011", attached as Appendix "B".

M. Child succinctly provides the following information relating to the Lake Erie Algal Blooms:

- Water quality in the Great Lakes has been deteriorating due to increases in biologically available nutrient loadings. Harmful algal blooms and swimming beach postings or closures are resulting with increasing frequency.
- Non-point sources of pollution (pollution associated with diffuse land uses) are the primary driver of current water quality problems.
- Algal growth is driven to a large degree by phosphorus loadings.
- Biologically available phosphorus is typically found in phosphorus applied to lawns, gardens and agricultural areas, as well as livestock and human waste.

- Weather is also driving current algal problems – more frequent and intense storms increases runoff and erosion and flushes phosphorus into the watercourses and into the Lakes.
- Many local activities targeting reductions in phosphorus loadings were presented.
- Several suggested areas for WECEC involvement in phosphorus reductions were discussed.

It is suggested that the Provincially Significant Wetlands Subcommittee review and formulate strategies to reduce phosphorus loading locally.

Moved by M. Bartlett, seconded by D. Clevett,

That the Lake Erie algal blooms issue **BE REFERRED** to the Provincially Significant Wetlands Subcommittee for the purpose of formulating strategies to reduce phosphorus loading locally.

Carried.

9. COMMUNICATIONS

- 9.1 The WECEC letter of support for the Zero Waste opposition campaign to the Detroit Incinerator is deferred to the February 2, 2012 meeting.
- 9.2 The WECEC request to revise the WindsorOntarioNews.com article is received for information.

M. Bartlett announces that an “Alternative Energy Teach-In” will be held on January 7, 2012 from 1:00 o’clock p.m. to 5:00 o’clock p.m. at the Caboto Club, 2175 Parent Avenue. The flyer for the Alternative Energy Teach-In is distributed and attached as Appendix “C”.

10. DATE OF NEXT MEETING

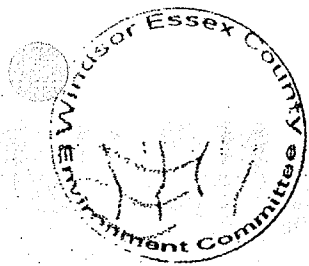
The next meeting will be held on Thursday, February 2, 2012 at 5:30 o’clock p.m. in the YQG Windsor Airport Board Room.

11. ADJOURNMENT

There being no further business, the meeting is adjourned at 7:30 o’clock p.m.

Councillor Halberstadt, Co-Chair

Committee Coordinator (A)



AGENDA
and Schedule "A"
to the minutes of the meeting of the
WINDSOR-ESSEX COUNTY ENVIRONMENT COMMITTEE
Thursday, January 5th, 2012
Meeting at 5:30p.m.
At YQG WINDSOR INTERNATIONAL AIRPORT
BOARD ROOM

1. **CALL TO ORDER**

2. **ADDITIONS TO THE AGENDA**

3. **DECLARATION OF CONFLICT**

4. **MINUTES**

Adoption of the minutes of the meeting held December 1st, 2011 – *emailed separately.*

5. **BUSINESS ARISING FROM THE MINUTES**

5.1 Speaker Series – Elizabeth May, Leader, Green Party of Canada

5.2 Renewable Energy Media Campaign

5.3 New WECEC Appointments

6. **COORDINATORS REPORT**

WECEC Coordinator Monthly Report – *attached.*

7. **SUBCOMMITTEE REPORTS**

7.1 Air

7.2 Transportation

7.3 Provincially Significant Wetlands

NEW BUSINESS

8.1 **Notice of Motion:** Blue W community-based tap water promotion campaign

Whereas:

The City of Windsor has adapted a policy to promote tap water at municipal buildings therefore promoting a choice between tap water and bottled water;

Whereas:

The reduction of bottled water consumption decreases the amount of energy consumed to handle the waste and/or recycling of plastics;

Whereas:

The promotion of readily available free tap water positively affects the low socio-economic sector;

Whereas:

Tap water available in the summer contributes to the Regional Heat Alert and Response Plan therefore potentially decreasing the amount of heat related illness;

Whereas:

Tap water represents a healthier choice to individuals, specifically children when compared to sugar laden soft drinks;

And Whereas:

Businesses offering tap water free of charge may be seen as socially and environmentally responsible therefore increasing commercial foot traffic and aligning shops with community interests;

Therefore Be It Resolved That:

City Council participates in the Blue W Community-based Tap Water Promotion Campaign which encourages businesses to offer municipal tap water free of charge to Windsor residents. This will be promoted through the Blue W website and smart phone applications, a media campaign as well as store front window stickers.

8.2 Lake Erie algal blooms – attached.

8.3 WECEC Strategic Plan Review – attached.

9. COMMUNICATIONS

9.1 WECEC letter of support for the Zero Waste opposition campaign to the Detroit Incinerator – attached.

9.2 WECEC request to have WindsorOntarioNews.com article changed— attached.

10. DATE OF NEXT MEETING

The next meeting will be held on Thursday, February 2nd, 2011 at the YQG Windsor Airport Board Room at 5:30 o'clock p.m.

11. ADJOURNMENT

Kadour, Karen

From: Derek Coronado [dcoronado@cogeco.net]
Sent: January 10, 2012 1:44 PM
To: Kadour, Karen
Subject: News Release: EPA Issues First National Standards for Mercury Pollution from Power Plants

Hi Karen. Below is the press release related to one of the topics discussed during the Air Quality report at WECEC. Cheers.

CONTACTS:

Enesta Jones (News Media Only)

jones.enesta@epa.gov

202-564-7873

202-564-4355

Doretta Reaves (Non Press Inquiries)

Reaves.doretta@epa.gov

202-564-7829

FOR IMMEDIATE RELEASE

December 21, 2011

EPA Issues First National Standards for Mercury Pollution from Power Plants

Historic 'mercury and air toxics standards' meet 20-year old requirement to cut dangerous smokestack emissions

WASHINGTON – The U.S. Environmental Protection Agency (EPA) has issued the Mercury and Air Toxics Standards, the first national standards to protect American families from power plant emissions of mercury and toxic air pollution like arsenic, acid gas, nickel, selenium, and cyanide. The standards will slash emissions of these dangerous pollutants by relying on widely available, proven pollution controls that are already in use at more than half of the nation's coal-fired power plants.

EPA estimates that the new safeguards will prevent as many as 11,000 premature deaths and 4,700 heart attacks a year. The standards will also help America's children grow up healthier – preventing 130,000 cases of childhood asthma symptoms and about 6,300 fewer cases of acute bronchitis among children each year.

"By cutting emissions that are linked to developmental disorders and respiratory illnesses like asthma, these standards represent a major victory for clean air and public health— and especially for the health of our children. With these standards that were two decades in the making, EPA is rounding out a year of incredible progress on clean air in America with another action that will benefit the American people for years to come," said EPA Administrator Lisa P. Jackson. "The Mercury and Air Toxics Standards will protect millions of families and children from harmful and costly air pollution and provide the American people with health benefits that far outweigh the costs of compliance."

"Since toxic air pollution from power plants can make people sick and cut lives short, the new Mercury and Air Toxics Standards are a huge victory for public health," said Albert A. Rizzo, MD, national volunteer chair of the American Lung Association, and pulmonary and critical care physician in Newark, Delaware. "The Lung Association expects all oil and coal-fired power plants to act now to protect all Americans, especially our children, from the health risks imposed by these dangerous air pollutants."

More than 20 years ago, a bipartisan Congress passed the 1990 Clean Air Act Amendments and mandated that EPA require control of toxic air pollutants including mercury. To meet this requirement, EPA worked extensively with stakeholders, including industry, to minimize cost and maximize flexibilities in these final standards. There were more than 900,000 public comments that helped inform the final standards being announced today. Part of this feedback encouraged EPA to ensure the standards focused on readily available and widely deployed pollution control technologies, that are not only manufactured by companies in the United States, but also support short-term and long-term jobs. EPA estimates that manufacturing, engineering, installing and maintaining the pollution controls to meet these standards will provide employment for thousands, potentially including 46,000 short-term construction jobs and 8,000 long-term utility jobs.

Power plants are the largest remaining source of several toxic air pollutants, including mercury, arsenic, cyanide, and a range of other dangerous pollutants, and are responsible for half of the mercury and over 75 percent of the acid gas emissions in the United States. Today, more than half of all coal-fired power plants already deploy pollution control technologies that will help them meet these achievable standards. Once final, these standards will level the playing field by ensuring the remaining plants – about 40 percent of all coal fired power plants - take similar steps to decrease dangerous pollutants.

As part of the commitment to maximize flexibilities under the law, the standards are accompanied by a Presidential Memorandum that directs EPA to use tools provided in the Clean Air Act to implement the Mercury and Air Toxics Standards in a cost-effective manner that ensures electric reliability. For example, under these standards, EPA is not only providing the standard three years for compliance, but also encouraging permitting authorities to make a fourth year broadly available for technology installations, and if still more time is needed, providing a well-defined pathway to address any localized reliability problems should they arise.

Mercury has been shown to harm the nervous systems of children exposed in the womb, impairing thinking, learning and early development, and other pollutants that will be reduced by these standards can cause cancer, premature death, heart disease, and asthma.

The Mercury and Air Toxics Standards, which are being issued in response to a court deadline, are in keeping with President Obama's Executive Order on regulatory reform. They are based on the latest data and provide industry significant flexibility in implementation through a phased-in approach and use of already existing technologies.

The standards also ensure that public health and economic benefits far outweigh costs of implementation. EPA estimates that for every dollar spent to reduce pollution from power plants, the American public will see up to \$9 in health benefits. The total health and economic benefits of this standard are estimated to be as much as \$90 billion annually.

The Mercury and Air Toxics Standards and the final Cross-State Air Pollution Rule, which was issued earlier this year, are the most significant steps to clean up pollution from power plant smokestacks since the Acid Rain Program of the 1990s.

Combined, the two rules are estimated to prevent up to 46,000 premature deaths, 540,000 asthma attacks among children, 24,500 emergency room visits and hospital admissions. The two programs are an investment in public health that will provide a total of up to \$380 billion in return to American families in the form of longer, healthier lives and reduced health care costs.

More information: <http://www.epa.gov/mats/>

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LAKE ERIE LAKEWIDE MANAGEMENT PLAN

Annual Report 2011

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What is the LaMP?

Under the Great Lakes Water Quality Agreement, the governments of Canada and the United States agreed to restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem.

This is accomplished in part through the development and implementation of binational Lakewide Management Plans (LaMPs) for each lake. Lake Erie LaMP participants have identified ecosystem goals and objectives and assessed the state of lake. Through the development of issue related strategies, the LaMP will identify actions required to restore and protect the lake and evaluate the effectiveness of those actions.

The Lake Erie LaMP is coordinated by a committee of water quality natural resource managers from both Canada and the United States, with participation from federal, provincial, state and local governments that have a role in implementation.

For more information about the Lake Erie LaMP, visit: www.binational.net or <http://www.epa.gov/glnpo/erie.html>.

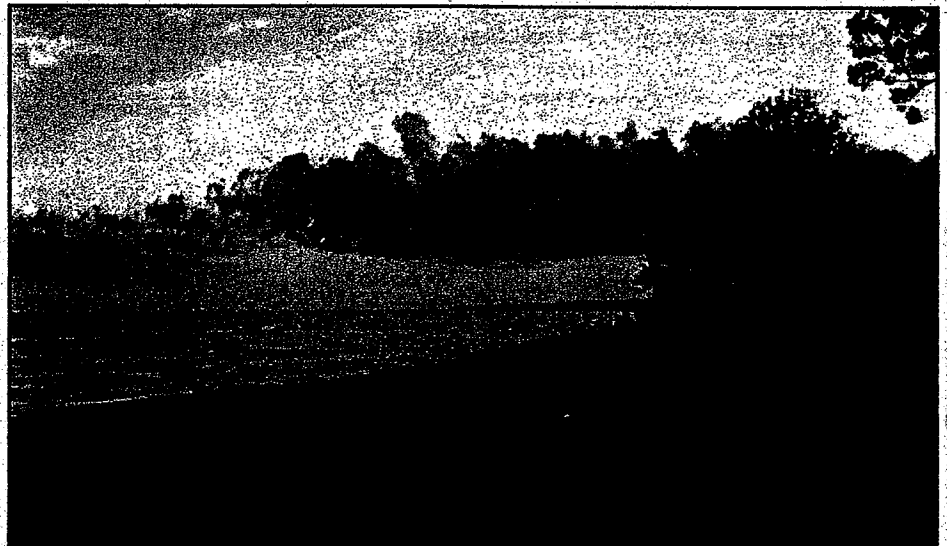
Overview

The Lake Erie ecosystem is unique. It is the shallowest and the most biologically diverse of all the Great Lakes. The Lake Erie watershed is home to over 11 million people, supports one of the largest freshwater fisheries in the world, and provides many recreational and tourism opportunities due to the presence of numerous beaches and extensive wetland complexes. It is sensitive to pressures from urban and rural land uses, such as excessive nutrient inputs, habitat loss and degradation and the introduction of non-native invasive species.

Lake Erie Lakewide Management Plan (LaMP) participants continue to tackle the challenge of managing this variable and sensitive ecosystem. This Annual Report summarizes recent progress, as well as challenges and next steps. Highlights in this 2011 report include:

- An update on the setting of indicator targets for total phosphorus concentrations in Lake Erie;
- An update on the Great Lakes Restoration Initiative (GLRI) and Canada-Ontario Agreement (COA);
- An update on algae and a call to action to address the issue;
- Potential impacts of climate change on hypoxia (areas of low dissolved oxygen) in Lake Erie;
- An update on the development of the Binational Biodiversity Conservation Strategy for Lake Erie

Although progress continues, there is still much work to be done. If you would like to know more, please visit the website at www.binational.net or use the contacts listed on the back page. ♦



A view of Lake Erie at Long Point Provincial Park, Ontario.
Credit: © Ontario Parks.



LAKE ERIE LAKEWIDE MANAGEMENT PLAN

Annual Report 2011

Accomplishments

Lake Erie Total Phosphorus Targets Set, Nutrient Management Strategy Developed

As part of its leadership role in restoring Lake Erie, the Lake Erie LaMP Management Committee set and agreed to indicator endpoints for total phosphorus concentrations for surface water (see table). These targets are based on the best available science, and when achieved, will reduce problem algal blooms in the Lake. This will, in turn, improve fish and wildlife habitat and recreational use of the lake, reduce additional costs for drinking water treatment, and improve hypoxia (low oxygen) in the central basin.

**Targets for Total Phosphorus Concentrations
Lake Erie and Watershed**

Habitat Type	Desired Ecological Endpoint* (µg/L)
Offshore	
Western Basin	15
Central Basin	10
Eastern Basin	10
Nearshore	20
Tributaries	32
Coastal Wetlands	one recording of <30 µg/L annually

*Mean Annual Total Phosphorus Concentration µg/L

The Lake Erie Binational Nutrient Management Strategy identifies the strategic actions required to move towards the achievement of these endpoints. As the implementation of the Nutrient Management Strategy moves forward, new research and monitoring will continue to fill knowledge gaps and may lead to the refinement of these targets. This will help to ensure that the targets are ecologically credible and sustainable to meet the vision, goals and objectives of the Lake Erie Binational Nutrient Management Strategy.

As part of its commitment to adaptive management, the LaMP Management Committee will closely monitor research advancements and recommend appropriate adjustments to nutrient management actions and targets to assure that sound science continues to serve as the basis for responsible public policy.

Government Funds Flowing to Great Lakes Projects
Through the Great Lakes Restoration Initiative, nearly US\$18 million went to about 30 projects within the Lake Erie Basin to address LaMP priorities such as phosphorus reduction, habitat restoration, and the creation of monitoring programs that will establish measurements of nearshore health.

Detailed information on all GLRI projects can be found at: <http://greatlakesrestoration.us/>.

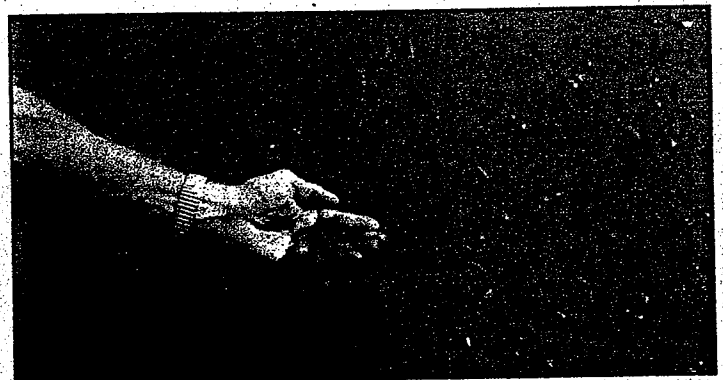
In Canada, action on LaMP priorities are supported through projects delivered under the Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA). For an overview of recent successes and accomplishments that have taken place, as well as challenges that are being faced under COA, go to <http://www.ec.gc.ca/greatlakes>, click on Canada-Ontario Agreement, and then *Keeping the Great Lakes Great* under 2007-2010 COA. ♦

Challenges

Taking Action to Manage Nutrients in Lake Erie

Lake Erie water quality has taken a turn for the worse. The algal blooms that threatened the Lake Erie ecosystem in the 1960s and 1970s have returned, and the extent and duration of anoxia/hypoxia in the central basin continues to increase. Growth of *Cladophora*, a type of algae, has once again become a problem in nearshore zones, and botulism outbreaks are believed to be linked to the interrelationships between *Cladophora*, zebra and quagga mussels and round gobies. Although it does not appear that total phosphorus loads are increasing lakewide, total phosphorus concentrations in the nearshore are, and significantly increased loads of soluble reactive phosphorus (a measure of the most biologically available form of phosphorus from non-point sources) have now been measured in the Maumee and Sandusky rivers. While the mechanisms behind these changes are areas of active scientific investigation, there is an urgent need now for coordinated and strategic nutrient management actions.

The success of the Lake Erie Binational Nutrient Management Strategy will depend on the commitment from various stakeholders to join forces and to change how nutrients are currently used, applied, transported and discharged. Multiple jurisdictions, in both Canada and the United States, will be responsible for on the ground implementation actions.



Harmful algal blooms as viewed from the docks in front of the Stone Laboratory on Gibraltar Island, Ohio - August 2010.
Photo credit: Dr. Jeffrey M. Reutter, Stone Laboratory, Ohio State University.



Next Steps

Developing a Binational Biodiversity Conservation Strategy

Biological diversity, or biodiversity, refers to the variety of life, as expressed through genes, species, and ecosystems, and is shaped by ecological and evolutionary processes. The full spectrum of biodiversity is essential to maintaining the ecological functions, processes, and connections that sustain us and provide many economic and social benefits. The biodiversity of Lake Erie is under stress from multiple factors, including degradation of water quality in tributaries and open waters; climate change; aquatic and terrestrial invasive species; loss and fragmentation of habitat; rapid residential and industrial growth; altered hydrology; and agricultural practices that result in excess nutrients and sediments flowing into tributary streams or significant alterations of watershed hydrology. Natural resource management agencies and their partners around the Lake Erie watershed have recommended the creation of a Lake Erie Biodiversity Conservation Strategy (Biodiversity Strategy) that will include long-term strategies to restore and protect the chemical, physical, and biological integrity of the Lake Erie ecosystem.

Through Great Lakes Restoration Initiative funding and support from Environment Canada, The Nature Conservancy and The Nature Conservancy of Canada are currently working with a broad network of U.S. and Canadian scientists, natural resource professionals, non-profit organizations, the Lake Erie LaMP work group, and other stakeholders, to create the Biodiversity Strategy, which will highlight the conservation features (e.g., species, systems, processes, functions) that represent the biodiversity of the lake, identify the key threats to these features, and propose long-term strategies that, when implemented, will conserve a functioning system. The Biodiversity Strategy is expected to be completed by Fall 2012. For further information, please contact Doug Pearsall, The Nature Conservancy, at dpearsall@tnc.org.



Lake Erie's wild species and spaces will benefit from the Binational Biodiversity Conservation Strategy.
Photo credit: © Jim Schmidt, provided by U.S. National Parks Service.

Algal Blooms increasing in Western Lake Erie

Lake Erie is once again experiencing significant harmful algal blooms. The hot summer of 2010 produced a sickly and unprecedented bloom of toxic blue-green algae in western Lake Erie. Scientists working on Lake Erie, blame high concentrations of phosphorus and high water temperatures for the re-emergence of algal blooms on course to be the worst in 30 or 40 years. Loadings of soluble reactive phosphorus from the Maumee and Sandusky rivers have been the highest and second highest respectively since records began in 1975. In 2009, harmful algal blooms led to swimming advisories along Ohio's Lake Erie shoreline for the first time since the 1970s.

Hypoxia to Worsen with Climate Change

Zones of hypoxia (areas of low dissolved oxygen) have increased in the Great Lakes over the past 50 years and represent a significant threat to the health and economy of the lakes. Research now suggests that this will continue to worsen with climate change.

Hypoxia is linked to eutrophication. Eutrophication occurs when nutrients from point sources (e.g. wastewater discharge) and non-point sources (e.g. runoff from croplands) cause algae to proliferate. Bacterial decomposition of dead algae leads to areas of low dissolved oxygen on the lake bottom.

Lake Erie has likely always experienced zones of hypoxia in the late summer due to natural factors, with the central basin being the most vulnerable. Although late summer hypoxia is a natural phenomenon in Lake Erie, summer oxygen depletion rates increased during the 1950s and 1960s due to increased phosphorus loadings. Phosphorus reduction programs led to improved conditions until the late 1990s, when bottom water hypoxia returned to pre-action levels, with increases in non-point sources pinpointed as the most likely cause.

Climate change will likely exacerbate the development of hypoxic conditions in Lake Erie, as well as the occurrence of other related ecological problems, such as harmful algal blooms. For example, climate change is expected to increase precipitation, which will promote increased runoff of nutrients to coastal ecosystems. Expected long-term ecological changes from climate change will mean an earlier onset of hypoxia each year and, possibly, a longer overall duration. As our understanding of climate change impacts become better understood, this new knowledge will be applied to current nutrient reduction strategies within the basin. For more information on hypoxia, go to <http://www.whitehouse.gov/sites/default/files/microsites/ostp/hypoxia-report.pdf>.



LAKE ERIE LAKEWIDE MANAGEMENT PLAN

Annual Report 2011

Special Events

Great Lakes & St. Lawrence Cities Initiative Conference

Location: Niagara Falls, ON

Date: June 15-17, 2011

For More Information:

<http://www.glsicities.org>

State of the Lakes Ecosystem Conference

Location: Erie, PA

Date: October 26-27, 2011

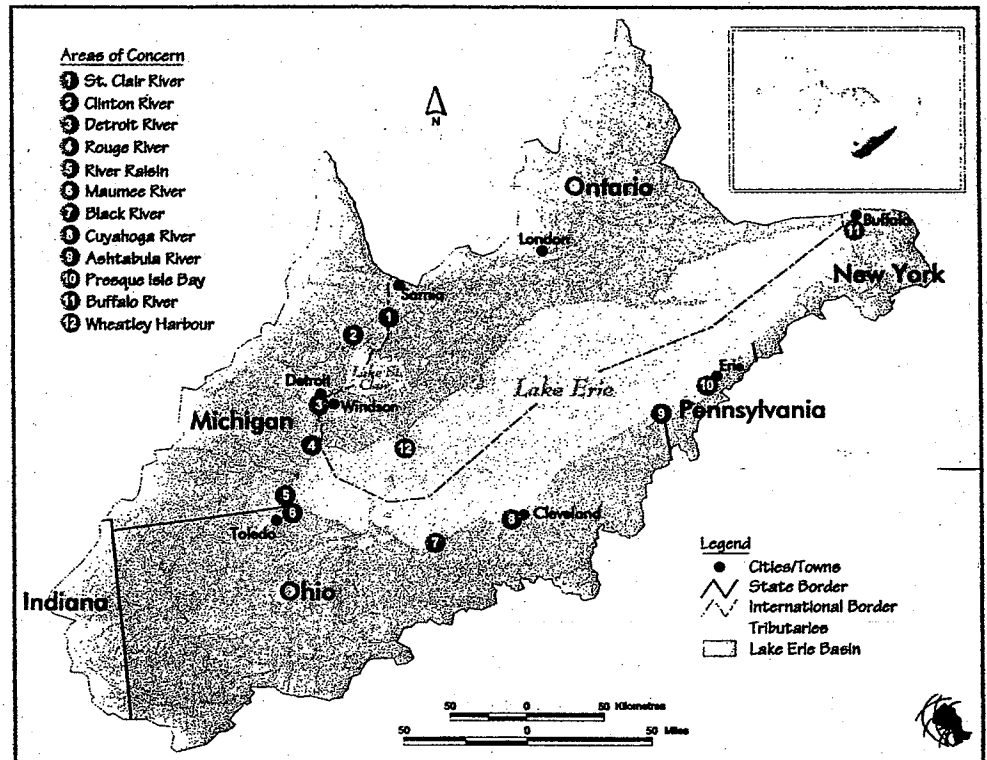
For More Information:

<http://www.solecregistration.ca>

Catalogue No.: En161-7/2011E-PDF

The Lake Erie Drainage Basin

The Lake Erie ecosystem naturally functions in three distinct basins. Its shoreline includes Point Pelee, the most southerly point in Canada, as well as portions of Ontario and the states of Michigan, Ohio, Pennsylvania and New York.



For More Information:

For more information about the Lake Erie Lakewide Management Plan, visit the website at www.binational.net or contact:

In Canada:

Kelly Phillips
Environment Canada
4905 Dufferin St.
Toronto ON Canada M3H 5T4
greatlakes-grandslacs@ec.gc.ca

In the United States:

Dan O'Riordan
U.S. Environmental Protection Agency
77 West Jackson Blvd., G-17J
Chicago IL USA 60604-3511
oriordan.daniel@epa.gov

For more information about the Lake Erie Binational Public Forum, please contact:

In Canada:

Theresa Hollingsworth
Upper Thames River Conservation Authority
1424 Clarke Road
London ON Canada N5V 5B9
hollingswortht@thamesriver.on.ca

In the United States:

Joe Logan
Ohio Environmental Council
1207 Grandview Avenue #201
Columbus OH USA 43212-3449
joe@theoec.org

SYSTEM CHANGE ! NOT CLIMATE CHANGE

ALTERNATIVE ENERGY TEACH-IN

The climate crisis is real and requires action. While the federal government lags behind, we can come together in our communities to reduce emissions, one home at a time.

Join our FREE teach-in and learn about green energy and conservation strategies. Learn how to make your home more energy efficient, become aware of government programs and grants, and learn about income from Green Energy projects.

Date: January 7th 2012

Time: 1:00 pm till 5:00 pm

Place: Caboto Club 2175 Parent Ave. Windsor, Ontario

Sean Moore; *CEO of Unconquered Sun, manufacturer and installer of PV solar panels.*

Joseph Passa; *OAA, MRAIC, LEED AP, Architect with Passa Associates Inc.*

Klaus Dohring; *President of Green Sun Rising, designer and installer of Thermal and PV solar systems.*

Mark Bartlett; *President of the CAW Windsor Regional Environment Council.*

Harry French; *Director of Community Power Services, Ontario Sustainable Energy Association – Via Online Webinar*

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