



# THE CITY OF WINDSOR

COUNCIL SERVICES DEPARTMENT

VALERIE CRITCHLEY  
CITY CLERK

IN REPLY, PLEASE REFER  
TO OUR FILE NO. \_\_\_\_\_



February 21, 2013

**TO: ALL MEMBERS OF THE WINDSOR-ESSEX COUNTY ENVIRONMENT COMMITTEE**

\* The minutes of the Committee meeting held February 7, 2013 are attached.

The next meeting of the Windsor-Essex County Environment Committee is scheduled as follows:

**Thursday, March 7, 2013  
5:30 o'clock p.m  
Lou Romano Water Reclamation Plant  
4155 Ojibway Parkway**

Please notify the undersigned at 519-255-6222, ext. 6430, if you are unable to attend.

Yours very truly,

Karen Kadour  
Committee Coordinator

KK/  
Windsor, Ontario February 7, 2013

A meeting of the **Windsor Essex County Environment Committee** is held this day commencing at 5:30 o'clock p.m. in the Board Room, Lou Romano Water Reclamation Plant, 4155 Ojibway Parkway, there being present the following members:

Charlie Wright, Co-Chair  
Alan Halberstadt, Co-Chair  
Councillor Hilary Payne  
Mark Bartlett  
Pauline Cheslock  
Dean Clevett (arrives at 5:37 p.m.)  
Derek Coronado  
Rick Coronado  
Jesse Costa Gardner  
Roger Dzugan (alternate for Mark Bartlett)  
Paul Henshaw  
Tamara Stomp  
Radwan Tamr (arrives at 6:02 p.m.)

**Guests in attendance:**

Richard Wyma, Director, Essex Region Conservation Authority (ERCA)  
Chitra Gowda, Water Quality Specialist, ERCA

**Regrets received from:**

Evan Freeman-Gibb  
Karen Fallon  
John Miller  
Mike Nelson  
Phil Roberts

**Also present are the following resource personnel:**

James Bryant, County Engineering Department  
Beau Wansbrough, Planner II  
Karen Kadour, Committee Coordinator

1. **CALL TO ORDER**

Charlie Wright, 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. **DECLARATIONS OF CONFLICT**

None disclosed.

3. **MINUTES**

Moved by R. Dzugan, seconded by P. Cheslock,  
That the minutes of the Windsor Essex County Environment Committee at its meeting held January 7, 2013 **BE ADOPTED** as presented.  
Carried.

4. **PRESENTATION**

Richard Wyma, Director, Essex Region Conservation Authority is present to provide information relating to the Trail On Campaign and Canada's response to the International Wildlife Reserve. A brochure entitled "Essex Region Conservation Authority – Greenways & Trails Trail on Campaign" is distributed and ***attached*** as Appendix "A".

The salient points of discussion relating to the Trail On Campaign are as follows:

- Essex Region Conservation Authority - Chrysler Canada Greenway: The vision started in 1995 with a 50 km trail (developed in partnership with Chrysler Canada, senior levels of government, and support from individuals, corporations and others in the community).
- The Chrysler Canada Greenway opened in 2000 and has become one of the most important trails in the region for hiking, cycling, running, cross-country skiing and horseback riding.
- Essex Amherstburg Greenway - This vision was shared with CN who, based on the success of the Chrysler Canada Greenway, donated the 22 km abandoned rail line between Essex to Amherstburg to the Essex Region Conservation Foundation in 2003.
- With support of local communities, service clubs and senior levels of Government, ERCA has prepared the trail infrastructure and built 5.5 kilometres of the trail within the municipality of Essex which intersects with the Chrysler Canada Greenway.
- Plan underway to link the Windsor Essex Parkway to the Lasalle Trails.

- Doable for Windsor, Tecumseh and Lasalle to link into the Chrysler Canada Greenway
- Town of Leamington undertaking bike path trail to Pointe Pelee.
- Information relating to the Trail On Campaign to be placed on the WECEC website.

The salient points of discussion relating to the Detroit River International Wildlife Refuge are as follows:

- Detroit River International Wildlife Refuge is the only wildlife refuge in North America and was established in 2001. It is managed jointly by the United States Fish and Wildlife Service and the Canadian Wildlife Service.
- Located along the western coast of Lake Erie and much of the southern portion of the Detroit River.
- The Wildlife Refuge consists primarily of coastal wetlands, several islands in the Detroit River and waterfront parks. It also includes Humbug Marsh, which is classified as a wetland of international importance.
- Gaps identified are the declining Federal and Provincial support for environmental issues. This area is the most threatened part of the Great Lakes.
- Priority natural area on the Canadian side is focused on the Lake Erie watershed. The boundary is located where the watersheds drain into Lake Erie.
- Next step is to work with local municipalities in advancing initiatives on the Canadian side.

Moved by Councillor Halberstadt, seconded by P. Cheslock,  
That the verbal report of Richard Wyma, Director, Essex Region Conservation Authority relating to the Trail On Campaign and the Detroit River International Wildlife Refuge **BE RECEIVED** and further, that information relating to the Trail On Campaign **BE PLACED** on the WECEC website.

Carried.

## 5. BUSINESS ARISING FROM THE MINUTES

### 5.1 Fluoride Campaign Update

Windsor City Council at its meeting held January 28, 2013 approved the following motion:

Moved by Councillor Dilkens, seconded by Councillor Jones,  
**CR18/2013** That **Report No. 45 of the Environment & Transportation Standing Committee**, of its meeting held January 25, 2012 regarding the fluoridation of the water system **BE RECEIVED**,

and further,

That City Council **PASS** a by-law **DIRECTING** the Windsor Utilities Commission to **CEASE** the fluoridation of the City of Windsor water supply while ensuring continued regulatory compliance, and that the savings from this action **BE DIRECTED** to oral and health nutrition education in Windsor and Essex County, for a period of 5 years, to be spent at the discretion of the Community Development and Health Commissioner.

Carried.

Councillors Valentinis, Gignac and Payne voting nay.

Councillor Halberstadt advises R. Dzugan presented on behalf of WECEC at the City Council meeting. He states D. Coronado provided a written submission extolling the toxicity of fluoride.

6. **COORDINATOR'S REPORT**

No report at this time.

7. **SUBCOMMITTEE REPORTS**

7.1 **Air**

D. Coronado indicates the proposed environmental impact statement for Fermi II has been published. He states his organization (Citizen's Environmental Alliance) will comment on the statement.

D. Coronado advises the Department of Energy will lift the moratorium on recycled radioactive metal.

7.2 **Transportation**

Councillor Halberstadt indicates WECEC met with representatives from the Windsor Bicycling Committee regarding the proposed bike lane across the new International Crossing. The subcommittee submitted comments to the Ontario Ministry of Transportation regarding their recently released *Cycling Strategy*.

7.3 **Provincially Significant Wetlands**

No report.

7.4 **Water Quality**

No report.

## 7.5 Surplus Parks Strategy

Councillor Halberstadt states a meeting was recently held regarding the closure of South Tilston Park.

R. Dzugan notes he attended the meeting and the residents are opposed to the closure of the park. He indicates information was provided relating to possible options to naturalize the park or to create a community garden. He advises the neighbours are willing to purchase playground equipment out of pocket.

Councillor Halberstadt indicates the next hearing to consider the closure of Titcombe Park will be held on March 5, 2013. He notes the Province owns Titcombe Park and wishes to naturalize the park.

Charlie Wright, Co-Chair advises St. Clair College is interested in having a board member sit on WECEC.

Moved by M. Bartlett, seconded by R. Dzugan,

That board member representation on the Windsor Essex County Environment Committee from St. Clair College **BE REFERRED** to the WECEC Membership Subcommittee to discuss the matter and to report back at the March 7, 2013 meeting.

Carried.

## 8. NEW BUSINESS

### 8.1 Generator Design of Canada Inc.

A more detailed breakdown of the invoice supplied by Generator Design of Canada Inc. is requested.

Moved by Councillor Halberstadt, seconded by Councillor Payne,

That approval for an expenditure in the upset amount of \$661.90 payable to Generator Design of Canada (as part of the Energy Conservation Campaign) **BE DEFERRED** to the March 7, 2013 meeting of the Windsor Essex County Environment Committee.

Carried.

### 8.2 Green Speaker Series – Proposal for Green Speaker Series

Councillor Halberstadt indicates the cost to retain Dan Burden, Executive Director and Cofounder of the Walkable & Livable Communities Institute for the Green Speaker Series is approximately \$10,000. He suggests each of the Business Improvement Areas (BIA's) contribute \$250-\$500, the St. Clair Architectural Society contribute \$1,000

and WECEC also contribute \$1,000. He states the BIA's will be contacted to determine their interest in this initiative.

9. **COMMUNICATIONS**

- 9.1 The article from Jamie Choi – Avaaz.org dated January 19, 2013 entitled “Attack of the Frankenfish” is received for information.

Councillor Halberstadt requests Communication #16 from the City Council meeting held January 21, 2013 be added as an Agenda item for the March 7, 2013 meeting of WECEC. The letter from the Chair of the Great Lakes and St. Lawrence Cities Initiative Mayor of Milwaukee regarding Asian Carp in the Great Lakes and St. Lawrence, is ***attached*** as Appendix “B”.

10. **DATE OF NEXT MEETING**

The next meeting will be held on March 7, 2013 at 5:30 p.m. at the Lou Romano Water Reclamation Plant.

11. **ADJOURNMENT**

There being no further business, the meeting is adjourned at 7:15 o'clock p.m.

\_\_\_\_\_  
Charlie Wright, Co-Chair

\_\_\_\_\_  
Committee Coordinator



**AGENDA**  
**WINDSOR-ESSEX COUNTY ENVIRONMENT COMMITTEE**  
held on Thursday, February 7, 2013  
**Meeting at 5:30p.m.**  
**At LOU ROMANO WATER RECLAMATION PLANT**

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1. **CALL TO ORDER**

2. **DECLARATION OF CONFLICT**

3. **MINUTES**

Adoption of the minutes of the meeting held January 7, 2013 – *to be e-mailed separately.*

4. **PRESENTATION**

Director, Essex Region Conservation Authority, Richard Wyma: Introduction to the Trail On! Campaign and Canada's response to the International Wildlife Reserve

5. **BUSINESS ARISING FROM THE MINUTES**

5.1 Fluoride Campaign Update

6. **COORDINATORS REPORT**

No report.

7. **SUBCOMMITTEE REPORTS**

- 7.1 Air
- 7.2 Transportation
- 7.3 Provincially Significant Wetlands
- 7.4 Water Quality
- 7.5 Surplus Parks Strategy

8. **NEW BUSINESS**

8.1 Motion to approve an expenditure in the upset amount of \$661.90 payable to Generator Design of Canada Inc.(as part of the Energy Conservation Campaign) – *invoice is attached.*

8.2 **Green Speaker Series – Proposal for Green Speaker Series**

Proposal to invite Dan Burden, Executive Director and Cofounder of the Walkable & Livable Communities Institute for the next Green Speaker Series – Background information is *attached.*

9. **COMMUNICATIONS**

9.1 Article from Jamie Choi – Avaaz.org dated January 19, 2013 entitled "Attack of the Frankenfish" – *attached.*



9.2 Windsor Star Article entitled “Hazardous Goods Bound for Bridge?” – *attached.*

10. **DATE OF NEXT MEETING**

The next meeting will be held on March 7<sup>th</sup>, 2013 at the Lou Romano Water Reclamation Plant at 5:30 o'clock p.m.

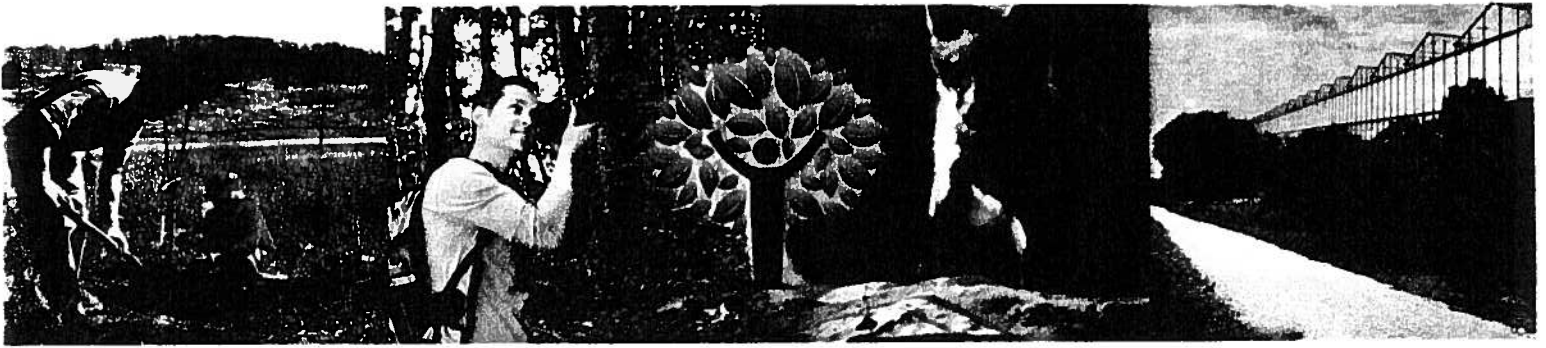
11. **ADJOURNMENT**

Greenways & Trails

# TRAIL ON CAMPAIGN



APPENDIX "A"



## Essex to Amherstburg Greenway: An Invitation to Donors & Partners

We share a vision of a connected community.

One where families can enjoy the sounds of nature while having an active lifestyle. Where residents cycle to and from destinations. And where hikers can explore and appreciate our region.

Trails can do this for our community. They improve the overall character of a community and provide residents with the opportunity to enjoy the diverse environment around them. They provide a sense of place and belonging.

### The Vision

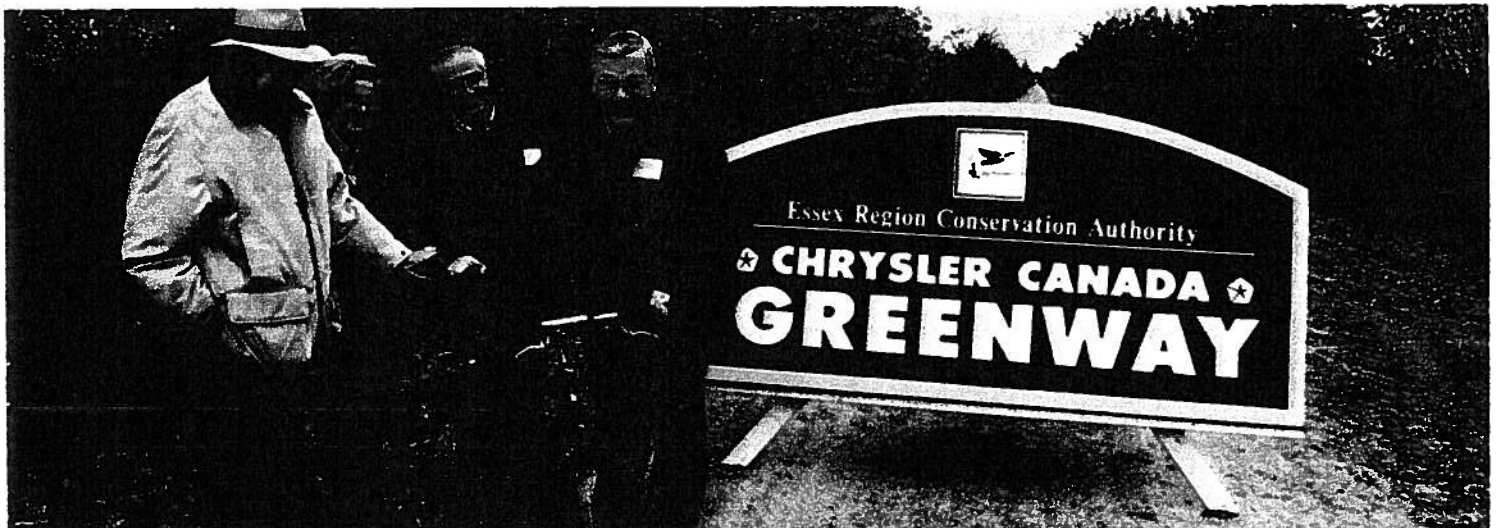
#### Chrysler Canada Greenway: Our First Regional Trail

The vision started in 1995 with the Chrysler Canada Greenway, a 50 km trail acquired and developed in partnership with Chrysler Canada, senior levels of government, and support from individuals, corporations and others in the community. Since its opening in 2000, the Greenway has become one of the most important trails in the region for hiking, cycling, running, cross-country skiing, and horseback riding. It has become a destination for tourists, has inspired local businesses and industry along the route; and is used a destination by the VIA Bike Train and Windsor Eats tours.

Since 1973, the Essex Region Conservation Authority (ERCA) has been working to improve the environment of the Windsor-Essex region. ERCA began building trails in 1975 and with the Foundation, continued to expand the number of Conservation Areas and trails throughout the region. Today, Holiday Beach, Hillman Marsh, John R. Park Homestead and other Conservation Areas invite visitors to hike through wooded areas, wetlands, or even canoe along waterways such as Cedar Creek, to experience the variety of what the Essex region has to offer.

#### Essex-Amherstburg Greenway: Continuing Connections

The vision was then shared with CN who, based on the success of the Chrysler Canada Greenway, donated the 22km abandoned rail line between Essex to Amherstburg to the Essex Region Conservation Foundation in 2003. Since then, again with the support of local communities, service clubs and senior levels of Government, ERCA has prepared the trail infrastructure and built 5.5 kilometres of the trail within the municipality of Essex which intersects with the Chrysler Canada Greenway, bringing our vision of a region connected by trails one step closer to reality.



# Community Benefits

Trails support active lifestyles that improve health and help to prevent diseases such as heart disease, diabetes, and some cancers. Exercise in natural areas and trails reduce stress and improve mental health. Additionally, trails help to create jobs. The Ontario Trails Council estimates that trails contribute at least \$2 billion each year to the provincial economy. A multi-use recreational trail that connects municipalities can be used as a safe transportation route, improving the bicycle-friendliness of our community. Linking municipalities by trails is expected to lead to a healthy and more active Windsor-Essex community.

Trails in our region improve the overall character of a community and provide residents with the opportunity to enjoy the diverse environments and natural beauty of a region. Trails help create a sense of place and a sense of belonging.

## Your Support Will

ERCA's Greenways and Conservation Areas connect with families and individuals across the region. By supporting Greenway development you will

- Encourage the community to spend more time outdoors
- Protect and improve our local environment
- Promote healthy living
- Increase tourism and provide leads to economic development
- Create a sustainable community



Donation level	Available	Opportunity
\$50,000 + 15% (\$7,500)	3	<p><b>Community Entrances</b></p> <p>Community Entrances are individually named to provide profile for local industries, agencies, or individuals, and provide opportunities for names to appear on signage, maps and trail documents, and partner websites. Development at Community Entrances includes parking lots, picnic or sitting areas, trail extensions and other minor facilities to support trail access and use.</p> <p>Community entrance sponsors will receive exposure as a presenting sponsor for a specific entrance, designed to attract attention and new users to the Greenway. Recognition panels/kiosks at each entrance provide opportunities for recognition of partners at various levels to reduce signage on trails.</p>
\$25,000	10-15	<p><b>Build a Kilometre</b></p> <p>Through sponsoring a kilometre of new trail, donors can support greenway and trail development by contributing towards building 22 kilometres of the multi-use recreational trail. ERCA has already undertaken much of the infrastructure work – bridges and culverts have been installed and railroad ties have been removed. Presenting sponsors receive exposure through marketing and on-site recognition.</p> <p>Sponsor donations can be pledged over two or more years.</p>
\$10,000	15	<p><b>Trail Blazer</b></p> <p>Trail Blazer sponsors contribute to the overall building of the trail and receive recognition on signage and gates. Sponsor donations can be pledged over two or more years.</p>
\$5,000	20	<p><b>Trail Sponsors</b></p> <p>Trail Sponsors contribute to the overall building of the trail and receive recognition on donor recognition signage.</p>
\$2,500	10	<p><b>Picnic tables</b> with recognition plate.</p>
\$1,000	5	<p><b>Recycling Bins</b> with recognition plate</p>
\$500	20	<p><b>Benches</b> with 4" x 8" metal sign on bench</p>



# Canada South Coast Trails

Greenways & Trails  
Connecting  
People and  
Landscape



### Legend

- ERCA Greenway
- Essex to Amherstburg Greenway
- Chrysler Canada Greenway
- Leamington (Owned) to Lakeshore Rail Trail
- Canada Southern Railway (CASO) - Proposed Trail



1:200,000



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## Sustainability

Together, ERCA and ERCF provide leadership in creating a sustainable community that recognizes the links between environmental health, human health, and economic health. Green spaces, trails and a healthy environment directly contribute to our region being recognized as a place of choice for people to live, visit, and invest in Ontario and Canada.

## Habitat

The vast majority of our publicly accessible Conservation Areas include a well developed trail system. Without these trails, the public would not have the ability to fully experience and appreciate our natural areas. Trails not only provide people with the means of enjoying our Conservation Areas, but also have a number of benefits that extend well beyond the boundaries of our woodlots and wetlands. Our regional trails protect and improve our local environment by enhancing wildlife habitat by connecting separate woodlots to improve the ability of wildlife to move through this region.

If you wish to receive more information on how you can help the Foundation, or on how to donate, Please contact the Essex Region Conservation Foundation directly at **519-776-5209** or by email at [foundation@erca.org](mailto:foundation@erca.org) or [www.ourgreenlegacy.org](http://www.ourgreenlegacy.org)

### About the Essex Region Conservation Foundation

The Essex Region Conservation Foundation (ERCF) was established in 1977 to receive and maintain funds for charitable, educational, conservation and heritage purposes related directly or indirectly to the conservation, restoration, development and management of natural and heritage resources in the Essex Region.

The majority of our Greenway lands are regenerating naturally. The total corridor width required for the trail is only 10 meters wide, while the actual property width of the Greenways range from 20 - 30 metres, which provides more than 113 hectares or 278 acres of naturalized lands and habitats.

## Funding The Greenway

The Foundation is currently fundraising for these trail projects. The community is anxious to have the trails complete, and partners such as the Towns of Essex and Amherstburg, trails committees, Active Living Committees, the County of Essex, local elementary and secondary schools, service clubs like Lions and Rotary, the Share the Road Committee of Essex, the Windsor-Essex Health Unit and many other public and private organizations have supported the completion of a regional trail network. The Foundation intends to raise the funds needed to link the region through development and acquisition as well as creating exiting natural areas and entrances. Enhancing these opportunities will help secure a healthier community and environment.



The Foundation's Mission is to create opportunities for every member of the community to invest in the environment of the Essex region, and create a natural legacy for future generations. The Foundation works to improve the human, economic and environmental health of the Essex Region by raising money for projects undertaken by The Essex Region Conservation Authority.



E1 2013



CITY OF WINDSOR  
COUNCIL SERVICES

JAN 18 2013

RECEIVED

COUNCIL AGENDA  
COMMUNICATIONS

JAN 21 2013

16

January 18, 2013

Dear GLSLCI Mayors:

Stopping the introduction of invasive species to our waters has been a very high priority for the Great Lakes and St. Lawrence Cities Initiative since our organization was founded. We have emphasized this issue even more with the Asian carp crisis. We have done a great deal of work over the past three years on the Chicago Area Waterway System report "Restoring the Natural Divide," and have consistently advocated for uniform, protective, achievable ballast water standards for ships. With the serious nature of the Asian carp threat, we need to look for more ways to address this problem.

We recently agreed to work with a group called "Freshwater Future" on this matter. This initiative includes having cities across the Great Lakes and St. Lawrence River basins pass city council resolutions that emphasize the serious nature of the problem and the urgency of finding a solution. The focus of the resolution is on physical separation of the Chicago Waterway System and restoring the natural divide between the Great Lakes and Mississippi River basins.

It would help the cause significantly if your city council would pass such a resolution, and I ask that you take this up with them. If you choose to do so, please let our Executive Director David Ullrich know at [david.ullrich@glslcities.org](mailto:david.ullrich@glslcities.org) and provide him with a copy of any resolution that is passed. Also, please contact Dave if you have any questions.

Thank you for all you do for the Great Lakes and St. Lawrence and our organization.

Sincerely,

Tom Barrett, Chair  
Great Lakes and St. Lawrence Cities Initiative  
Mayor of Milwaukee

APPENDIX "B"

## **MODEL RESOLUTION ON ASIAN CARP**

### **Keeping Asian Carp Out of the Great Lakes and St. Lawrence**

**WHEREAS, the Great Lakes and St. Lawrence represent the largest body of surface fresh water in the world and are a vibrant, diverse ecosystem that is critically important to the economic well-being and quality of life of the Canadian and U.S. populations in the basin ;**

**WHEREAS, over 180 invasive species have entered the ecosystem over the years and caused widespread damage and disruption to the natural balance of the system, as well as significant economic damage;**

**WHEREAS, one of the most serious threats ever presented by invasive species currently comes from Asian carp, including silver, bighead, and black varieties;**

**WHEREAS, these varieties of carp were introduced to the southern United States for use in fish farms for algae control in the 1970's and escaped into the Mississippi River system as a result of floods and other means over the years;**

**WHEREAS, the invasive carp have migrated northward through the Mississippi River system over the years to a point where they are as far north as Wisconsin and Minnesota, and into Indiana, Ohio, and Pennsylvania, as well;**

**WHEREAS, the invasive carp have established dominant populations in many places in the river systems, reducing significantly or eliminating populations of the more desirable species of fish because of their voracious food consumption and prolific reproduction;**

**WHEREAS, the invasive carp are threatening to enter the Great Lakes at a number of points across the basin, but none appear to present as great a threat as the Illinois River and Chicago Area Waterway System;**

**WHEREAS, many federal, state, provincial, and local government agencies in the United States and Canada have worked diligently and expended tens of millions of dollars over the past 10 years on a variety of projects to stop the migration of the invasive carp and keep them out of the Great Lakes;**

**WHEREAS, the U.S. Army Corps of Engineers constructed and currently operates an electric barrier near Romeoville Illinois on the Chicago Sanitary and Ship Canal that seems to have helped slow or stop the movement of the invasive carp toward Lake Michigan;**

**WHEREAS, the U.S. Army Corps of Engineers is conducting a multiyear, comprehensive study across the U.S. side of the Great Lakes basin called the "Great Lakes and Mississippi River Interbasin Study" (GLMRIS) that examines 19 separate locations where invasive carp could cross from the Mississippi River Basin to the Great Lakes Basin, and considers a large number of potential ways to stop the further migration;**



WHEREAS, including the invasive carp, there are 39 invasive species in the two basins that present a threat to cross over into the other basin in the near future;

WHEREAS, once an invasive species establishes itself in an ecosystem, it is exceedingly difficult to eradicate it, and it often inflicts serious damage on the ecosystem and imposes major costs in the form of efforts to control it;

WHEREAS, invasive species have already inflicted hundreds of millions in damage across the Great Lakes and St. Lawrence, and invasive carp pose a serious threat to the \$7 billion sport and commercial fishery that support the economy and help define the culture of the entire region;

WHEREAS, Canadian and U.S. citizens across the basin have expressed serious concern about the invasive carp and other invasive species, and are demanding prompt action;

WHEREAS, the Great Lakes and St. Lawrence Cities initiative has taken the position by resolution that physical separation of the Mississippi River and Great Lakes basins in the Chicago Area Waterway System provides the most effective means of keeping the invasive carp from reaching Lake Michigan;

WHEREAS, the Great Lakes and St. Lawrence Cities Initiative and Great Lakes Commission completed a report entitled "Restoring the Natural Divide" on January 31, 2012 that established the feasibility of physical separation of the two basins in the Chicago Area Waterway System that would also maintain or enhance water quality, flood control, and transportation in the System.

NOW, THEREFORE, BE IT RESOLVED, that the invasive carp in the Mississippi River system pose one of the greatest threats to the integrity and well-being of the Great Lakes and St. Lawrence ecosystem, including the 40 million Canadians and Americans who live there;

BE IT FURTHER RESOLVED, that preventing the invasive carp from entering the Great Lakes and St. Lawrence ecosystem needs to be approached with the greatest sense of urgency by all those responsible for dealing with this matter;

BE IT FURTHER RESOLVED, that physical separation is the most effective way to keep invasive carp from entering Lake Michigan through the Chicago Area Waterway System, and such barriers would also prevent the movement of many other invasive species from one basin to the other;

BE IT FURTHER RESOLVED, that physical separation is feasible and can be done in a way that maintains or enhances water quality, flood control, and transportation in the system;

BE IT FURTHER RESOLVED, that the U.S. Army Corps of Engineers should take all necessary steps accelerate its process to complete its work on the Chicago Area Waterway System portion of the study no later than December 2013, and give fair and thorough consideration to the physical separation option;

**BE IT FURTHER RESOLVED**, that the U.S. Army Corps of Engineers and all cooperating U.S. and Canadian agencies continue operation of the electric barrier, intensive commercial fishing, and other methods to keep the invasive carp out of the Great Lakes while a long term solution is found and implemented.

**BE IT FURTHER RESOLVED**, that additional work should be undertaken immediately to develop more details of the "Restoring the Natural Divide," report, with a special emphasis on ways to finance the necessary infrastructure investments;

**BE IT FINALLY RESOLVED**, once a preferred option is identified, all parties should move forward to implement the solution in an expedited fashion with the greatest sense of urgency.

# City of Milwaukee

Office of the City Clerk

200 E. Wells Street  
Milwaukee, Wisconsin 53202

Certified Copy of Resolution

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**FILE NO: 121031**

..Number

121031

..Version

SUBSTITUTE 1

..Reference

..Sponsor

ALD. KOVAC, WITKOWSKI AND PUENTE

..Title

Substitute resolution expressing urgency and support for efforts relating to protecting the Great Lakes from invasive species.

..Analysis

This resolution urges protection and separation of the Great Lakes and St. Lawrence ecosystem from waters with invasive species, specifically Asian carp. Since invasive carp in the Mississippi River system pose one of the greatest threats to the integrity and well-being of the Great Lakes and St. Lawrence ecosystem, this resolution supports physical separation of Lake Michigan from the Mississippi River through the Chicago Area Waterway System. In addition, the U.S. Army Corps of Engineers and all cooperating U.S. and Canadian agencies are encouraged to continue operation of the electric barrier, intensive commercial fishing, and other methods to keep invasive carp out of the Great Lakes until a long-term solution is found and implemented.

..Body

Whereas, The Great Lakes and St. Lawrence represent the largest body of surface fresh water in the world and are a vibrant, diverse ecosystem that is critically important to the economic well-being and quality of life of the Canadian and U.S. populations in the basin; and

Whereas, Over 180 invasive species have entered the ecosystem over the years and caused widespread damage and disruption to the natural balance of the system, as well as significant economic damage; and

Whereas, One of the most serious threats ever presented by invasive species currently comes from Asian carp, including silver, bighead and black varieties; and

Whereas, These varieties of carp were introduced to the southern United States for use in fish farms for algae control in the 1970's and escaped into the Mississippi River system as a result of floods and other means over the years; and

Whereas, Invasive carp have migrated northward through the Mississippi River system over

the years to a point where they are as far north as Wisconsin and Minnesota, and into Indiana, Ohio, and Pennsylvania, as well; and

Whereas, Invasive carp have established dominant populations in many places in the river systems, reducing significantly or eliminating populations of the more desirable species of fish because of their voracious food consumption and prolific reproduction; and

Whereas, Invasive carp are threatening to enter the Great Lakes at a number of points across the basin, but none appear to present as great a threat as the Illinois River and Chicago Area Waterway System; and

Whereas, Many federal, state, provincial and local government agencies in the United States and Canada have worked diligently and expended tens of millions of dollars over the past 10 years on a variety of projects to stop the migration of invasive carp and keep them out of the Great Lakes; and

Whereas, The U.S. Army Corps of Engineers constructed and currently operates an electric barrier near Romeoville, Illinois, on the Chicago Sanitary and Ship Canal that has helped slow or stop the movement of the invasive carp toward Lake Michigan; and

Whereas, The U.S. Army Corps of Engineers is conducting a multiyear, comprehensive study across the U.S. side of the Great Lakes basin called the "Great Lakes and Mississippi River Interbasin Study" (GLMRIS) that examines 19 separate locations where invasive carp could cross from the Mississippi River Basin to the Great Lakes Basin, and considers a large number of potential ways to stop the further migration; and

Whereas, Including invasive carp, there are 39 invasive species in the 2 basins that present a threat to cross over into the other basin in the near future; and

Whereas, Once an invasive species establishes itself in an ecosystem, it is exceedingly difficult to eradicate it, and it often inflicts serious damage on the ecosystem and imposes major costs in the form of efforts to control it; and

Whereas, Invasive species have already inflicted hundreds of millions of dollars in damage across the Great Lakes and St. Lawrence, and invasive carp pose a serious threat to the \$7-billion sport and commercial fishery that support the economy and help define the culture of the entire region; and

Whereas, Canadian and U.S. citizens across the basin have expressed serious concern about invasive carp and other invasive species, and are demanding prompt action; and

Whereas, The Great Lakes and St. Lawrence Cities Initiative has taken the position by resolution that physical separation of the Mississippi River and Great Lakes basins in the Chicago Area Waterway System provides the most effective means of keeping invasive carp from reaching Lake Michigan; and

Whereas, The Great Lakes and St. Lawrence Cities Initiative and Great Lakes Commission

completed a report entitled "Restoring the Natural Divide" on January 31, 2012, which is attached to this file; and

Whereas, The "Restoring the Natural Divide" report established the feasibility of physical separation of the 2 basins in the Chicago Area Waterway System that would also maintain or enhance water quality, flood control and transportation in the System; now, therefore, be it

Resolved, By the Common Council of the City of Milwaukee, that invasive carp in the Mississippi River system pose one of the greatest threats to the integrity and well-being of the Great Lakes and St. Lawrence ecosystem, including the 40 million Canadians and Americans who live near the Great Lakes and St. Lawrence; and, be it

Further Resolved, That preventing invasive carp from entering the Great Lakes and St. Lawrence ecosystem needs to be approached with the greatest sense of urgency by all those responsible for dealing with this matter; and, be it

Further Resolved, That physical separation is the most effective way to keep invasive carp from entering Lake Michigan through the Chicago Area Waterway System, and such barriers would also prevent the movement of many other invasive species from one basin to the other; and, be it

Further Resolved, That physical separation is feasible and can be done in a way that maintains or enhances water quality, flood control and transportation in the system; and, be it

Further Resolved, That the U.S. Army Corps of Engineers should take all necessary steps to accelerate its process to complete work on the Chicago Area Waterway System portion of the study no later than December 2013, and give fair and thorough consideration to the physical separation option; and, be it

Further Resolved, That the U.S. Army Corps of Engineers and all cooperating U.S. and Canadian agencies continue operation of the electric barrier, intensive commercial fishing, and other methods to keep invasive carp out of the Great Lakes until a long-term solution is found and implemented; and, be it

Further Resolved, That additional work should be undertaken immediately to develop more details of the "Restoring the Natural Divide," report, with a special emphasis on ways to finance the necessary infrastructure investments; and, be it

Further Resolved, Once a preferred option is identified, all parties should move forward to implement the solution in an expedited fashion with the greatest sense of urgency.

..Drafter  
LRB144247-2  
Amy E. Hefter  
11/15/2012



I, James R. Owczarski, City Clerk -, City Clerk, do hereby certify that the foregoing is a true and correct copy of a(n) Resolution Passed by the COMMON COUNCIL of the City of Milwaukee, Wisconsin on December 18, 2012.

*James R. Owczarski*

James R. Owczarski, City Clerk -

January 09, 2013

Date Certified

# RESTORING THE NATURAL DIVIDE

SEPARATING THE  
GREAT LAKES AND  
MISSISSIPPI RIVER BASINS  
IN THE CHICAGO AREA  
WATERWAY SYSTEM

JANUARY 2012 // GREAT LAKES COMMISSION  
GREAT LAKES AND ST. LAWRENCE CITIES INITIATIVE  
[www.glc.org/caws](http://www.glc.org/caws)



# Restoring the Natural Divide

## Separating the Great Lakes and Mississippi River Basins in the Chicago Area Waterway System

### Overview

THE GREAT LAKES COMMISSION AND THE Great Lakes and St. Lawrence Cities Initiative led a project to develop and evaluate alternatives for physically separating the Great Lakes and Mississippi River basins in the Chicago Area Waterway System to prevent the movement of Asian carp and other aquatic invasive species (AIS). This report summarizes the results of the project and shows that separation can be achieved while also maintaining or enhancing water quality, flood management, and transportation. The engineering and economic analyses suggest that separation is feasible and provide a solid foundation on which further dialogue to advance a long-term solution to the AIS threat can proceed. Separation is defined as stopping the flow of water by placing physical structures at key points in the waterway system.

### The Chicago Area Waterway System

The Chicago Area Waterway System (or CAWS) includes an approximately 130-mile<sup>1</sup> array of natural and constructed rivers, canals, locks and other structures in Chicago and northwest Indiana. Constructed beginning in the 1890s, the waterway system diverted water from Lake Michigan and created a connection across the mid-continental divide to the Mississippi watershed. There are five connections between the CAWS and Lake Michigan, and the Chicago Sanitary and Ship Canal connects the system to the Illinois River and the Mississippi River watershed. The CAWS provides important benefits to the Chicago region, including conveying treated wastewater, supporting commercial shipping, managing flood water, and moving recreational boats and tour boats. However, the system faces significant challenges in these areas and has the potential to better serve residents, businesses and visitors.

### Restoring the Natural Divide

Separation is needed to prevent the movement of Asian carp and other AIS between the Great Lakes and Mississippi River basins in the Chicago-area waterways. Asian carp, in particular, are an imminent threat; in 2010 a bighead carp was collected from Lake Calumet, just five miles from



**Silver carp**, shown here, often feed in schools at the surface and can jump up to 10 feet out of the water when disturbed by boats.

Lake Michigan.<sup>2</sup> Recent research confirms that they can survive and spread in the Great Lakes, and that the CAWS is the most likely point of entry.<sup>3</sup> Current control efforts for the carp are vital, including the electric barriers in the Chicago Sanitary and Ship Canal. However, these efforts are incomplete, costly to maintain, and vulnerable to failure. The electric barriers will not stop the spread of all AIS and may not stop small Asian carp.<sup>4</sup> Monitoring continues to find carp DNA between the barriers and Lake Michigan.<sup>5</sup>

In addition to Asian carp, separation will prevent future AIS from entering the Great Lakes or Mississippi River basins via the CAWS. The U.S. Army Corps of Engineers has identified 39 AIS with a high risk of passing into either the Great Lakes or Mississippi River.<sup>6</sup> More than 250 non-native species are already established in one or both of the basins, and invasive species cost the Great Lakes region alone an estimated \$200 million annually.<sup>7</sup> For these reasons, separation appears to be the best long-term option to prevent Asian carp and other AIS from invading the Great Lakes or Mississippi River basins through Chicago-area waterways.

### Economic Analysis

Like most major infrastructure projects, the costs of separation are substantial. However, they will be spread over nearly 50 years and will likely be shared among different groups within and beyond the Chicago area. At a regional level, the least expensive alternative would cost households in the Great Lakes region approximately \$1 per month or just over \$11 annually from 2012 through 2059. Adding households in the Mississippi River basin reduces the cost to just \$4 a year during this timeframe. Given the widespread concern over the threat from Asian carp, and the benefits to the populations and economies of the two large watersheds, congressional funding support would be justified.

Separation could generate significant benefits for the Chicago region and the Great Lakes and Mississippi River basins as a whole, with the potential for between \$1.4 billion to \$9.5 billion in long-term savings from avoided AIS control costs and damages alone, as well as improved water quality, strengthened flood protection, and modernized shipping facilities. While the separation costs will be incurred over a limited timeframe, the benefits will be enjoyed indefinitely. Without separation, new AIS will likely pass through the CAWS, with the potential to cause significant economic and environmental damage. The documented costs from past AIS damages and controls—estimated at up to \$500 million annually just for



zebra mussels—illustrate the future costs that separation will help avoid. The project's technical report concludes that "stopping a single AIS from transferring between basins could avoid billions of dollars in economic loss."

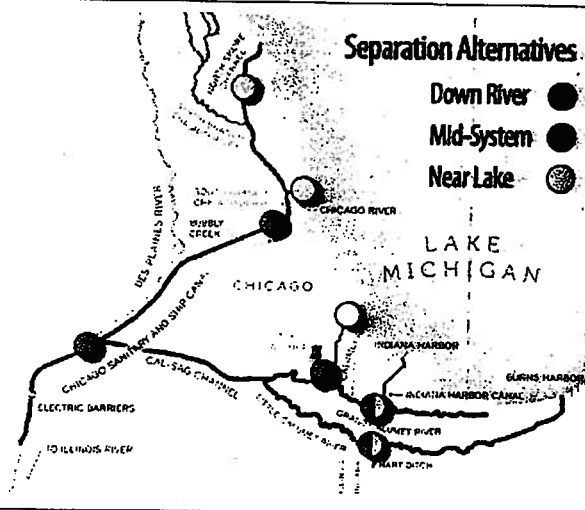
### The Separation Alternatives

Three separation alternatives are identified that illustrate the advantages and disadvantages of placing barriers in different parts of the CAWS. The Down River, Mid-System, and Near Lake alternatives refer to the location of the barriers relative to Lake Michigan. Each alternative includes the location for barriers to divide the flow of water in the CAWS; improvements needed to maintain the system's benefits; the timing for implementation; and the costs. The report does not identify a preferred alternative. However, the Mid-System Alternative is the most viable. The costs (presented in 2010 dollars) reflect only the new investments that will be required beyond baseline expenditures already planned or underway, as well as the cost of the barriers themselves. It is noteworthy that the costs of just the barriers are a small proportion—approximately 3 percent—of the total investments needed for separation to succeed. Because of uncertainty about future regulatory standards, a range of costs are shown for the water quality investments required by separation. Finally, implementation depends on completion of Chicago's Tunnel and Reservoir Plan (TARP) for water quality improvement and flood management, scheduled for 2029.

Each of the separation alternatives stops the open flow of water between Lake Michigan and the Mississippi River watershed via the CAWS and maintains or enhances the system's benefits through investments in flood management, water quality and transportation.

### Next Steps

The report shows that separation is feasible and can be accomplished in a way that maintains or enhances other vital uses of the Chicago waterway system. The report, and the collaborative process through which it was prepared, provides a strong foundation for developing and advancing a solution that benefits the Chicago region and the Great Lakes and Mississippi River basins as a whole. ▀



### Down River Alternative

This alternative includes a single barrier between the confluence of the Chicago Sanitary and Ship Canal and the Cal-Sag Channel and the Lockport Lock. This has the advantage of requiring only one barrier. However, it has significant impacts on water quality, transportation and flood management.

Separation barriers:	\$109 million
Flood management:	\$2.98 billion
Water quality:	\$290 million to \$5.85 billion
Transportation:	\$560 million
Timeline: Phase I:	One-way barrier with flood water bypass (lake to river) and all transportation improvements completed by 2022.
Phase II:	Two-way barrier completed by 2029
Total Investment:	\$3.94 - \$9.5 billion

### Mid-System Alternative

This alternative includes four barriers, one each on the South Branch of the Chicago River just upstream of Bubbly Creek, north of T.J. O'Brien Lock on the Calumet River, and on the Grand Calumet and Little Calumet rivers. This alternative poses the fewest challenges for stormwater management, flood management and transportation compared to the other two alternatives.

Separation barriers:	\$140 million
Flood management:	\$1.89 billion
Water quality:	\$180 million to \$1.2 billion
Transportation:	\$1.04 billion
Timeline: Phase I:	One-way barrier with flood water bypass (lake to river) and all transportation improvements completed by 2022.
Phase II:	Two-way barrier completed by 2029
Total Investment:	\$3.26 - \$4.27 billion

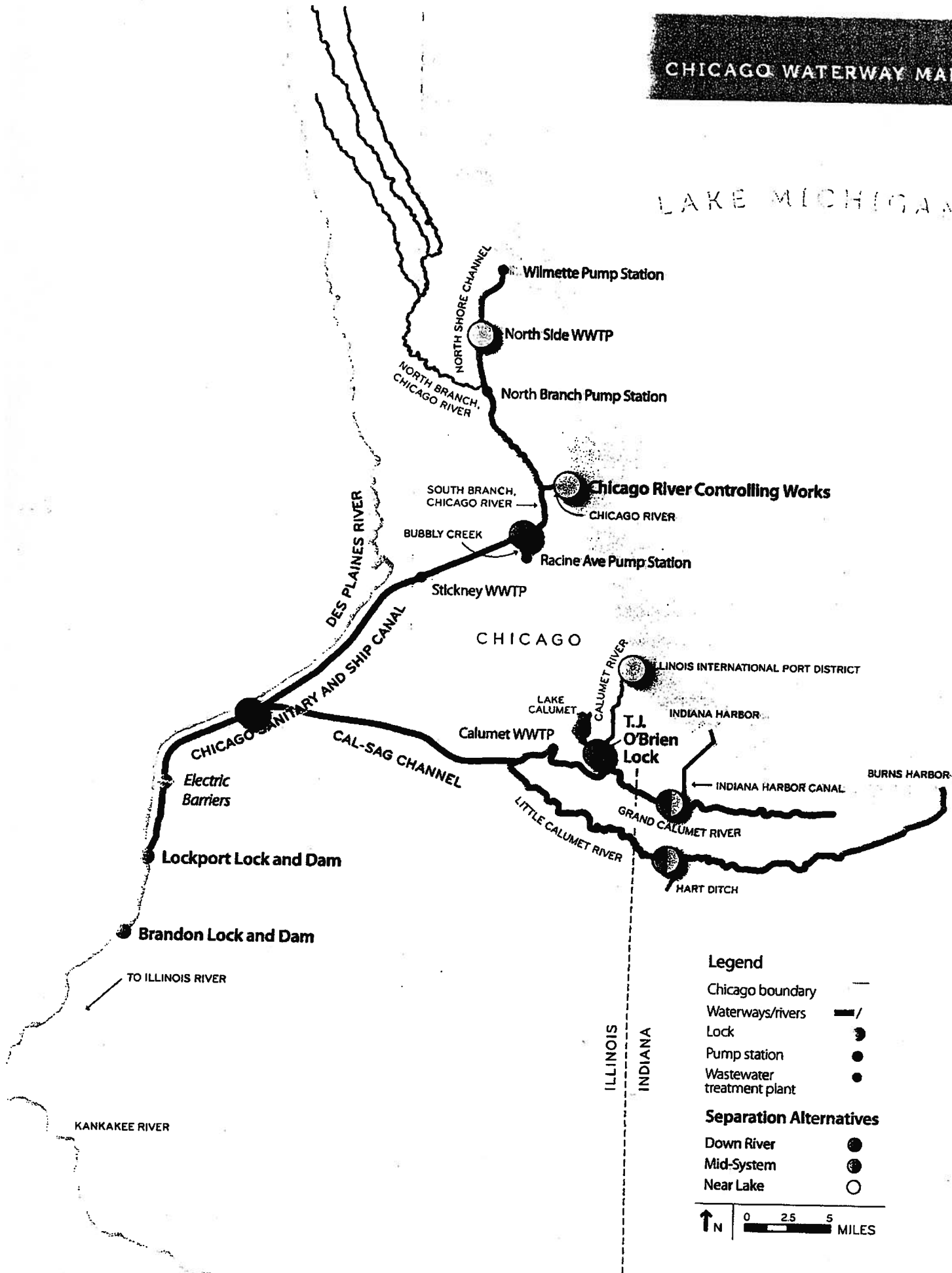
### Near Lake Alternative

This alternative requires five barriers, one each north of the North Side Wastewater Treatment Plant (WWTP) on the North Shore Channel, at the mouth of the Chicago River, at the mouth of the Calumet River, and on the Grand Calumet and Little Calumet rivers. It poses significant challenges for flood management and transportation.

Separation barriers:	\$140 million
Flood management:	\$3.82 billion
Water quality:	\$120 million
Transportation:	\$5.45 billion
Timeline:	Chicago River barriers completed by 2029 (with completion of TARP) Calumet River barriers completed by 2026 (with completion of new port facilities)
Total Investment:	\$9.54 billion

# CHICAGO WATERWAY MAP

LAKE MICHIGAN



### Legend

- Chicago boundary —
- Waterways/rivers —/—
- Lock ●
- Pump station ●
- Wastewater treatment plant ●

### Separation Alternatives

- Down River ●
- Mid-System ●
- Near Lake ○

