

# A MESSAGE FROM THE DETROIT RIVER CANADIAN PUBLIC ADVISORY COUNCIL

*"One of the best approaches to planning for climate change is to conserve as much healthy, intact and interconnected habitat as possible." Nature Conservancy of Canada, Spring 2016*

On May 5, the Windsor Star reported that Honeywell Corporation in Amherstburg is selling its 156 acre industrial package including the General Chemical site. Thirty million dollars in remediation has been carried out including the cleanup of the soda ash settling ponds, an important factor in the health of the lower Detroit River. In 2005 PAC was the only environmental NGO to support the Ontario MOECC position that the company should clean up the settling ponds. American law eventually forced US based General Chemical to do so.

The never-ending saga of Ojibway Shores on the river continues. The parties are still attempting to work out a deal whereby the ecological gem will be preserved in its green state. During early construction of the new Gordie Howe Bridge, there appears to be no encroachment of the property. PAC continues to urge the City of Windsor to rezone as parkland approximately 30 acres of industrial green space between Ojibway Shores and Black Oak Heritage Park.

Congratulations to the Essex County Field Naturalists and their president Jesse Gardner Costa. The club submitted to the Windsor Port Authority their 2014-2015 Bioblitz Report, an amazingly well researched document. On Ojibway Shores' 33 acres alone the scientists uncovered 28 federally and provincially protected species, even more evidence that the property must be saved.

Uncertainty surrounds possible multi million dollar cuts to the US Environmental Protection Agency and the Great Lakes Restoration Initiative. PAC has given support to our US counterpart, the Friends of the Detroit River. E-mails condemning the proposed cuts were forwarded to EPA Administrator Scott Pruitt and Michigan Senators Debbie Stabenow and Gary Peters.

I wish to thank the dedicated members who have attended our meetings and put up with my attempts to chair them. Without their support, PAC would just be another voice crying in the environmental wilderness. Sincere appreciation goes out to the dedicated DRCC staff, Claire Sanders and Gina Pannunzio. Thank you for making my task much easier.

Respectfully submitted,  
**Tom Henderson, Chair**  
**Gord Harding, Vice Chair**




The Detroit River Canadian PAC is a group of citizen volunteers and representatives from non-government organizations dedicated to improving the health of the Detroit River ecosystem. If you are interested in getting involved, please contact the RAP Coordinator.

The Detroit River Canadian Cleanup (DRCC) is a community-based initiative launched in 1998 to cleanup, enhance, restore and sustain the Detroit River Ecosystem.

Partnerships within the DRCC aim to promote and implement the cleanup plan called a Remedial Action Plan (RAP) to protect, enhance and restore the Detroit River in order to remove it from the list of Great Lakes Areas of Concern. The DRCC's members provide leadership in identifying partnerships and funding opportunities to support and complete cleanup goals for the Detroit River.

and many dedicated citizens like you!


 /Detroit-River-Canadian-Cleanup

 /detroitriverrap

 /DetroitRiverCC

 /detroitrivercanadiancleanup

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311-360 Fairview Avenue West,  
Essex, Ontario N6M 1Y6  
postmaster@detroitriver.ca  
www.detroitriver.ca  
519-982-3722



# Detroit River Canadian Cleanup

# Annual Report

# 2016 - 2017

We cherish the Detroit River as a special place and we want to share the reasons why with as many people as possible!

How? Through school visits, photo contests, film screenings, boat tours, community tree plantings, and litter clean ups, we told the inspiring story of the revival of the Detroit River to over **6,300** people this year. We also celebrated a major milestone of two beneficial use re-designations to 'not impaired' on World Rivers Day.

**Are you interested in learning more about improving the health of the Detroit River?**  
**Visit our website [detroitriver.ca](http://detroitriver.ca).**



**Community Cleanups**



**of Garbage Collected**



**6,500**

**Trees, Shrubs & Wildflowers Planted**



**2,000+**

**Fantastic Volunteers :)**

WAY OVER! 



# POLLUTION REDUCTION

The DRCC continues to implement projects in the watershed to reduce the potential for pollutants to reach the Detroit River. In 2016/17, ERCA planted seven buffer strips (which trap sediment and filter nutrients) and installed two soil erosion control structures to help prevent surface water from carrying top soil from fields into local streams.



# HABITAT

The Habitat Work Group continues to look for more opportunities to increase fish and wildlife habitat in the river. Potential aquatic restoration sites have been identified, primarily for fish spawning and shelter in shallow coastal areas. Evaluating these sites to focus investment dollars for maximum value has to consider ecological, practical and economic factors. To do this, the work group created a decision matrix for ranking the proposed sites using ecological planning principles. Additionally, in 2016, the Shoreline Design Manual was updated to include a decision matrix and a map to help landowners decide which fish-friendly shoreline erosion protection techniques is best for them.

# Wetland Health

Since 2007, the Canadian Wildlife Service has monitored the health of four wetlands in the Detroit River. Wetland health is measured by assessing the water quality, submerged aquatic vegetation, and marsh bird communities. While water quality in our wetlands has been improving, further monitoring in the Canard River watershed will help determine where to mitigate erosion issues to further improve water quality. The vegetation in the wetlands has been found to be in good condition however, a recent decline in the marsh nesting birds is prompting further investigation for our Degradation of Fish and Wildlife Populations BUI.

# Restoring Forests and Prairies

In 2016-17, ERCA restored a total of **12 hectares (30 acres)** to Carolinian upland forest or tallgrass prairie. All project decisions were guided by the priorities outlined in the Essex Region Natural Heritage System Strategy (ERNHSS) and are consistent with the habitat priorities of the Detroit River RAP. Since 2000, a total of **426 hectares (1,054 acres)** of land has been restored in the Detroit River watersheds through this program!

# MONITORING AND RESEARCH

Progress on restoring the river is measured by 14 beneficial use impairments, or BUIs. A beneficial use is the ability of all living organisms (including humans) to use the Great Lakes without adverse effects. As of 2017, the Detroit River Canadian Area of Concern (AOC) has 7 impaired beneficial uses, 6 unimpaired, and 1 requiring further assessment. The projects and research described here provide the scientific evidence to determine when a BUI is no longer impaired.



## Fish tumours or other deformities

Tumours in fish are linked to PAHs, an environmental contaminant associated with industries such as steel production. To assess the Fish Tumours BUI in the Detroit River in 2016, 30 Brown Bullhead were collected for liver tumour analysis. This will add to a previously collected dataset of 99 Brown Bullheads and we can then assess whether tumours are more or less prevalent in the Detroit River than at other locations in the Great Lakes.

that the benthic community in the Detroit River is typical of what a connecting river environment would support. There are no toxic effects to the benthos from the sediment and the benthic community is similar to upstream sites in the river. This work shows that the river has improved over time and the numerous cleanup projects are helping. DRCC will request the re-designation of the Degradation of Benthos BUI to “not-impaired”.



## Restrictions on dredging activities

Dredging occurs every 3 to 4 years in one area of the Lower Detroit River to maintain water depth for commercial ships. The dredged sediment is tested for contaminants to determine a proper disposal location. The sediment has been shown to contain some heavy metals, PAHs, and PCBs, and therefore is taken to a confined disposal facility in accordance with provincial guidelines. Due to changes in guidelines and regulations, the use of a confined disposal facility is no longer considered a restriction on dredging, while open water disposal is a much more restrictive option and is discouraged because of impacts to fish habitat. Therefore, the DRCC will recommend that the Restrictions on Dredging Activities BUI be re-designated to ‘not impaired’ in the Detroit River Canadian AOC.



## Bird deformities or reproduction problems

Environment and Climate Change Canada are continuing to monitor Tree Swallows in nest boxes at four locations along the Detroit River. Tree swallows feed on insects that emerge from the bottom of the river where they may be exposed to toxic chemicals. Nests were monitored for occupancy and reproductive success (clutch size, hatching success, fledging success, weight at fledging). Data will be collected in 2017 on the reproductive success of these birds and contaminants in their eggs, including PCBs and mercury. Cormorant artificial incubation studies were also completed in 2016.



## Mapping our Progress

GLIER has created the Delist Areas of Concern (AOC) Metadata and Mapping System tool for the DRCC. The goal of this web-based database is to consolidate Detroit River research in one place to help better understand the overall health of the river. Researchers, government agencies, and the public will be able to browse this online library containing geospatial data (i.e., data associated with a geographic location) and non-geospatial data (e.g., reports, presentations, photographs, databases, etc.) related to scientific research and monitoring of the river.



## Degradation of benthos

The environmental quality of the Detroit River is reflected by the kinds of insects living in the sediment. In 2016, researchers reviewed sediment chemistry and benthos data collected from extensive sampling events. They found

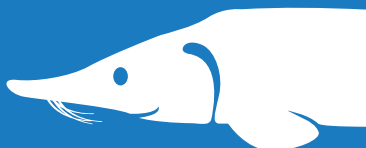
# Lake Sturgeon Success

U.S. Fish and Wildlife Service (USFWS) researchers now estimate there are over **6,000** Lake Sturgeon in the Detroit River, and over **30,000** in the corridor from Lake Huron to Lake Erie, making it one of the healthiest populations of sturgeon in the Great Lakes!

Over the past century, fish populations in the Detroit River have been impacted by the construction of shipping channels, loss of coastal wetlands, ‘hardening’ of shorelines, water pollution, and dredging of limestone bedrock that was spawning habitat for Lake Sturgeon and other native fish species. The Lake Sturgeon population in the Detroit River is estimated to be about only 1% of its former abundance. The creation of the Lake Sturgeon spawning reef at Fighting Island demonstrates binational collaboration, partnership and stewardship of shared resources. The success of this fish habitat restoration strategy will help strengthen and improve the fishery in the Detroit River and the entire Great Lakes, and the data collected will help us to assess the Degradation of Fish and Wildlife Populations BUI.

For more information about these and other restoration projects taking place in the St. Clair – Detroit River, please visit [www.scdrs.org](http://www.scdrs.org).

**6,000**  
Lake Sturgeon!



# Acronyms

<b>AOC</b>	Area of Concern
<b>BUI</b>	Beneficial Use Impairment
<b>DRCC</b>	Detroit River Canadian Cleanup
<b>ERCA</b>	Essex Region Conservation Authority
<b>ERNHSS</b>	Essex Region Natural Heritage System Strategy
<b>GLIER</b>	Great Lakes Institute for Environmental Research
<b>PAC</b>	Public Advisory Council
<b>PCB</b>	Polychlorinated biphenyl
<b>RAP</b>	Remedial Action Plan