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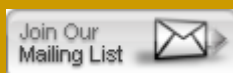
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Join the St. Clair River BPAC mailing list to stay up-to-date about St. Clair River RAP news and events.

A quarantined Earth Day but don't let that stop you

From picking up trash to biking, there are countless ways to make a difference for the planet. Taking steps to be a better environmental steward, what Earth Day is rooted in, is just as much about learning as it is about taking action. We can use this solitary time to reassess our current habits and develop new ones that are better for the planet.

We might all be struggling as we undergo drastic changes in our daily lives, but we can't deny the environment is benefiting from reduced human activity. What are your thoughts about the changes in the environment brought on by COVID-19?

While taking action on many traditional Earth Day activities are on hold – picking up litter, planting a tree, pulling invasive species – there are other activities you can do while staying safe at home. Perhaps you've discovered some places are a much closer walking distance than you thought and you'll continue to bike or walk to get around!

- If you're taking more frequent walks, bring gloves and a bucket to pick up litter
- Is your consumerism down? Are you driving less? Take a carbon footprint quiz. <https://www.footprintnetwork.org/resources/footprint-calculator/>
- Research a rain barrel or compost bin for your home. Do this together as a family or as a school project for your student
- The Alliance for the Great Lakes has produced a challenge to calculate your home water use: <https://greatlakes.org/2020/04/earth-week-water-challenge/>

Read up on these [11 actions for the planet](#) during a pandemic. What new eco-friendly habits have you've picked up these last few weeks?

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2017-2022 St. Clair River Area of Concern work plan

The Canadian Remedial Action Plan (RAP) Implementation Committee (CRIC) released their 2017-2022 St. Clair River Area of Concern (AOC) work plan in March 2020. The work plan identifies 47 actions remaining to re-designate all remaining Beneficial Use Impairments (BUIs) to Not Impaired and remove the St. Clair River from the list of Great Lakes AOCs.

The plan is available on the Friends of the St. Clair River website at www.friendsofstclair.ca.



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Contact Us

We love to receive your
feedback and comments, drop
us a line if you have a story
suggestion or comments.

[Donna Blue, St. Clair RAP
Coordinator](#)

[Ken Hall, FOSCR Webmaster](#)

Help FOSCR delist the St. Clair River

Friends of the St. Clair River is
a registered Canadian
charitable organization. Your
financial support for our
programs will help FOSCR
progress towards delisting the
St. Clair River as an Area of
Concern in the Great Lakes.

Contributions can be sent to:

[Mr. Terry Burrell
Friends of the St Clair River
514 Christina Street North
Sarnia, ON N7T 5W4](#)

All donations will receive a tax
receipt.

Call [Terry at 519-336-5545](#) for
more information,

PLEASE join us.

Port Huron works to stop sewer overflows into river after 21 years, state-ordered project nears completion

*(Article reprinted from The Voice, Port Huron MI, Written by Jim Bloch For MediaNews
Group)*



One of the biggest
historical sources of
pollution to the St. Clair
River is about to be
fully eliminated.

It has nothing to do
with Sarnia's Chemical
Valley.

It has everything to do
with stopping the
overflow of human
waste in the river.

Until 1999, the city of
Port Huron was

responsible for spewing more than 300 million gallons of combined storm and sanitary sewer water into the river annually.

Two decades ago, combined sanitary and storm sewers drained 2,400 acres of the city. When rainstorms overloaded the wastewater treatment plant, the combined stormwater and wastewater rushed into the St. Clair and Black rivers via 19 overflow points.

On March 23, the city council awarded a nearly \$2 million contract to Raymond Excavating Co., of Marysville, to separate the combined sewers in and around the Blue Water Bridge Plaza, a 12-acre area, that will wrap up a 21-year, \$178 million project.

"Mayor and council, this project will complete the combined sewer overflow elimination program that was required by the consent order the City entered in to with the Michigan Department of Environment, Great Lakes and Energy," said James Freed, the Port Huron city manager, in his memo to council.

Human waste and the Huron-to-Erie Corridor

For more than 120 years, residents, governments and eventually environmental groups have wrestled with the contamination of the St. Clair River, Lake St. Clair and the Detroit River due by untreated human waste.

Early in the 20th century, one of the consequences of the pollution was repeated epidemics of typhoid fever. Typhoid deaths averaged 85 per 100,000 in the region for the years 1888 to 1905.

"Below the towns of Port Huron and Sarnia, the waters of the St. Clair River for a stretch of about 34 miles are quite unfit for drinking purposes unless extensively treated," said the very first report in 1918 conducted by the International Joint Commission, founded in 1909 to deal with the trans-border pollution of the Great Lakes.

All of the cities, towns and individual homes that dotted the Huron-to-Erie corridor flushed their untreated waste into the waterways.

Before the advent of antibiotics, 20% of those contracting typhoid died; today, the death rate is 1% to 2%.

By 1948, the IJC, in its second major report, found that the problem had intensified.

Port Huron now

The city now ejects 309 million fewer gallons of combined storm and sanitary waste into the river than it did in 1998. As a result of 32 projects to date, the city has seen a 99% reduction in combined sewer overflows into the river.

"The remaining area served by combined sewers (Blue Water Bridge Area) is 12 acres with one overflow point with an estimated annual overflow volume of one million gallons," said Freed. The overflow point empties into the Black River.

The city secured the temporary and permanent easements on which the work will take place, an amalgam of city right-of-way, private property and Michigan Department of Transportation owned land.

"This project will be funded by the wastewater fund as well as funds from MDOT," Freed said. "The city council previously approved a contract with the MDOT during their August 13, 2018, meeting. MDOT's share of cost for this project is \$950,200.

Buchanan restoration project creates vital wildlife habitat.

The Buchanan Restoration Project is located north of the McDonald Creek Drain which flows into Bear Creek in the county of Lambton within the Sydenham River Watershed.

The St. Clair River has been designated as an Area of Concern (AOC) due to problems with water quality and environmental health, which have several impaired Beneficial Uses. These include non-point source pollution, biodiversity, quantity and quality of wildlife habitat and fragmentation of wildlife habitats.

The Buchanan Restoration Project located within the priority area of the St. Clair AOC and addresses concerns relating to non-point source pollution (NPS) and loss of riverine and upland habitat in this intensively farmed area.

The project is a former pasture retired by the owners to create wildlife habitat. They worked in partnership with Ontario

NativeScape to implement this project through the Alternate Land Use Services (ALUS) Lambton Program. Ontario NativeScape is the legal entity that facilitates the ALUS Lambton Program. Through a collaborative multi partner stewardship effort including: ALUS Canada, a Weston Family Initiative, Ducks Unlimited Canada, Friends of the St. Clair River, St. Clair Region Conservation Authority and Provincial and Federal Government Programs, the Buchanan's were able to retire 5.25 acres of environmentally sensitive farmland and convert it into a combination of wetland and grassland habitats that will result in improved water quality and wildlife habitat in the area.





Restoration enhancements included:

- **0.25 acre wetland creation** - installation of earthen berm with primary and secondary overflow, creation of sediment trap which overflows into newly created excavated wetland.
- **2.5 acre tallgrass prairie planting** – all disturbed areas after construction were seeded with Ontario native tallgrass prairie. Approximately 32 species of tallgrass prairie were seeded using a specialized Truax drill.
- **2.5 acres of existing forest** that will be conserved – Existing tree planting (2018)

The total project costs will exceed \$25,000. Friends of St Clair River will contribute \$5,000 towards the work. When complete the site will provide habitat benefits for many species, including connections between existing natural features. The wetlands will cause improvement to downstream water quality by retaining water in the wetlands and slowing agricultural drainage without affecting upstream cropland.

Today Oak Savannah and Tallgrass Prairie are two of the most endangered natural communities on the continent. Of the 542 species of plants officially considered rare in Ontario, approximately 20% of them are prairie related, surviving primarily in prairie fragments scattered throughout Southern Ontario.

Prairie is not simply a mix of grasses and flowers, but it is home to numerous species of wildlife. Most mammals are of the smaller variety and include red fox, coyote, American badger, eastern cottontail rabbit, meadow vole and the common shrew. Bird species such as bobolink, eastern meadowlark, and savannah sparrow and bobwhite quail thrive in the open spaces created by tallgrass prairie for food and shelter. The most obvious benefit provided is the diversity of invertebrates, like butterflies, grasshoppers, dragonflies, ants, beetles and spiders you will find hiding amongst the prairie.

The Buchanan Restoration Project has the bonus of creating excellent habitat for many of these species. The Restoration Project is also fortunate as it is located along a riparian area – McDonald Creek Drain where habitat creation has the added benefit to cut down on NPS pollution within the Sydenham River watershed that drains into the St. Clair River.

Research demonstrates newly restored wetlands provide clean water benefit

Excess phosphorus plays a key role in the increase in algae outbreaks. There is a need to better understand methods to reduce the nutrients in surface water run-off in southwestern Ontario. Wetlands constructed on marginal or fragile farmland play a big role in providing wildlife habitat, reducing the severity of floods, people's enjoyment of their property and downstream water quality.



A recent research study conducted by Ducks Unlimited Canada sought answers to questions about newly restored “edge of field” wetlands as an efficient means to capture phosphorus before it moves downstream. The researchers monitored eight recently restored wetlands in SW Ontario by determining the volume of phosphorus flowing into the wetlands and measuring the water flowing out of the wetland.

Research highlights

- Results indicate the restored wetlands act as “phosphorus sinks” with less phosphorus leaving the wetland basins than entering them.
- Total mean wetland retention capacity for phosphorus was determined to be 7.2 kg per hectare per year with a 39% overall means reduction efficiency.
- All eight wetlands efficiently captured soluble reactive phosphorus (SRP), the form of phosphorus considered most problematic for water quality in Lake Erie, with a mean SRP retention capacity of 3.4 kg per hectare per year and 59% reduction efficiency.
- Restored wetlands were found to function in a nutrient retention role in all four seasons, an indication that restored wetlands can be effective to reduce non-point source nutrients from entering Lake Erie.

Ducks Unlimited Canada has over 500 wetland projects completed in the Lake Erie watershed. The natural infrastructure of wetlands, grasslands and forests support productive landscapes and maintain watershed resilience. The many landowners and project partners are driving systematic change towards the “natural infrastructure” solution that is needed.

For more detail on the research visit:

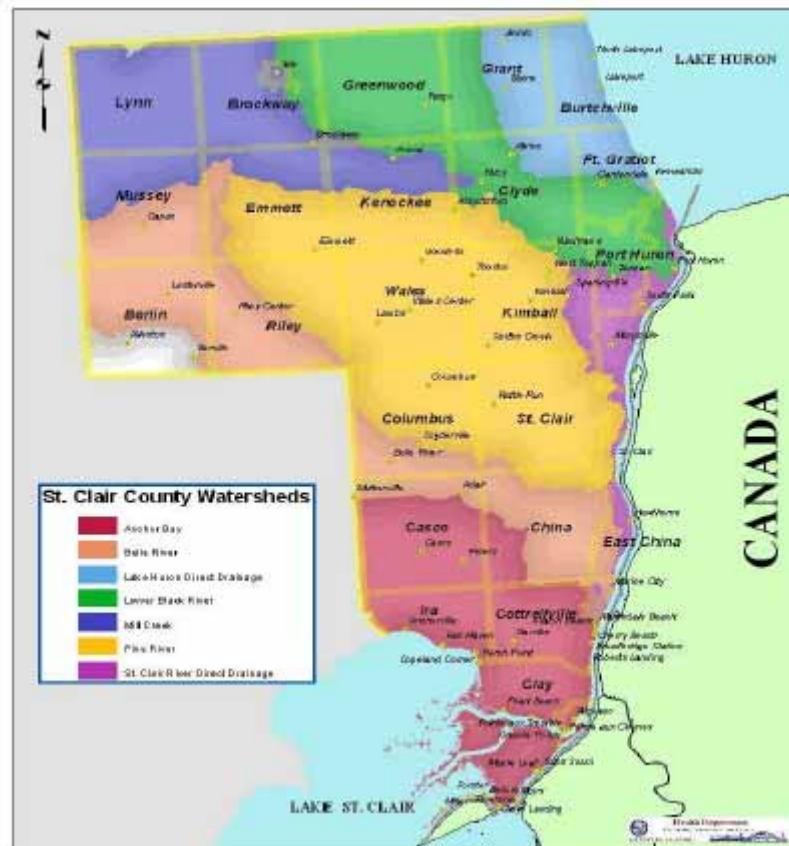
www.ducks.ca/stories/policy/the-power-of-small-wetlands-for-clean-water

Friends on both sides of the river

The St. Clair River is a 40-mile long river that begins underneath the Blue Water Bridges in Port Huron in St. Clair County, and is fed by Lake Huron at its northern end and empties into Anchor Bay in Lake St. Clair at its southern end. The St. Clair River forms the eastern boundary of St. Clair County, MI and serves as an international boundary between the United States and Canada. The cities of Port Huron, Marysville, St. Clair, East China, Marine City, and Algonac are along its course on the U.S. side.

The St. Clair River contains the largest threatened Lake Sturgeon population in the Great Lakes; surrounds ten islands, six of which are land of the Canadian Walpole Island First Nation; forms the largest freshwater coastal delta in North America; and provides drinking

water to 60% of St. Clair County's residents. For these reasons, the health of St. Clair County's water resources must be protected to preserve the quality of life for people, plants and wildlife.



Despite a century of development, challenges and pollution, the St. Clair River today is well-known for commercial and sport walleye fishing, world-class scuba diving and duck hunting, boating and sailing, and international freighter watching. The River supports plant and animal species listed as threatened and endangered by both State and Federal agencies, including: the Spotted Turtle, Lake Sturgeon, 5 different mussel species, Mooneye, and Painted Trillium. The River

also plays an integral role in the travel of migratory waterfowl and shorebirds.

Current threats to St. Clair County's watersheds are similar to those of other rapidly urbanizing areas including: pathogens from combined sewer overflows and wildlife waste; nutrients from agricultural and residential runoff; storm water runoff from impervious areas (i.e. parking lots, roads, driveways); toxic pollutants from industrial spills; aquatic and terrestrial invasive species; loss of wetlands and high quality habitats; and soil erosion causing sedimentation and log jams. These threats lead to consumption advisories for fish and drinking water, closed beaches, and impaired recreational activities. For the Blue Water Region to remain prosperous and sustainable, a united effort from the private, public, and non-profit sectors must promote and protect these significant natural features.

A little history

The St. Clair River was designated an *Area of Concern* in 1987 by the United States and Canadian governments due to poor management of pollution problems long before regulations were in place. For decades, communities along the St. Clair River thrived due to industry helping to build our region. When much of the industry moved on or folded, our River was left with a legacy of pollution and the communities that sit on the shore had to cope with environmental, health, and economic setbacks.

In response to this, partners on both sides of the River formed the St. Clair River Binational Public Advisory Council (BPAC) to oversee a plan restoring the River's health. Funding was needed to implement this plan.

As a result, in the early 1990's, Friends of the St. Clair River (Canada) was formed and a few years later Friends of the St. Clair River (U.S.) was incorporated to serve as the non-profit arm supporting BPAC on the American side of the River.

These non-profit Friends organizations filled the role as fiduciary to obtain grants supporting St. Clair River remediation projects. Thanks in part to these early efforts, substantial progress was made to the River's health, including: contaminated sediment cleanup projects, reductions in industrial chemical spills, and a decrease in fish and wildlife tumors and deformities.

However, in 2000, federal budget cuts in both countries slowed progress for the *Area of Concern* program and in 2002, Friends of the St. Clair River U.S. dissolved as an organization. BPAC limped along with little support.

Resurgence in volunteer energy following a 5-year absence resulted in the formation of a new non-profit on the U.S. side; and in 2007, Friends of the St. Clair River Watershed was granted IRS tax-exempt status. A grant from the Community Foundation of St. Clair County provided the necessary start-up funding. With a new identity and Board of Directors in place, progress began towards implementing education activities and formulating the structure for this new watershed-based organization. In 2013, the Board of Directors elected to drop the word “watershed” from the organization name and use “Friends of the St. Clair River”.

After thirty years of collaborating on international river restoration efforts and execution of numerous watershed management plans, St. Clair County’s waterways, collectively known as the “Blue Water Area”, are increasingly healthy and offer many recreational, social, and environmental opportunities.

IJC Great Lakes Water Quality Board Public Webinar Manure Management Report Recommendations



The Great Lakes Water Quality Board of the International Joint Commission (IJC) invites you to participate in a webinar about the board's recent report: [Oversight of Animal Feeding Operations for Manure Management in the Great Lakes Basin](#).

Register today at:

https://zoom.us/webinar/register/WN_21kXgoyvR3uXb8HhZeOiXA

Photo credit: MPCA

A panel of Great Lakes Water Quality Board members will provide information and answer your questions about the report's findings and recommendations.

Panelists Include:

Board Canadian Co-chair Gayle Wood, Ontario Conservation Authorities, retired

Member Mark Wales, Ontario Federation of Agriculture

Member Sandy Bihn, Lake Erie Waterkeeper

Member Joe Tomandl III, Dairy Grazing Apprenticeship

Panelists will answer audience questions submitted by registration or [email](#) before 5:00 pm ET Wednesday, April 29th, followed by questions submitted during the webinar. Audience feedback will also be collected by polling and a follow-up survey.

[Read the one-page infographic report summary here:](#)

St. Clair Region Conservation Authority Family Nature Fun Activities



response to the COVID-19 pandemic, the St. Clair Region Conservation Authority (SCRC) is offering fun, outdoor activities that families can do with their children to keep connected to nature while also adhering to 'social distancing' protocols.

Visit www.scrca.on.ca/familynaturefun for more information.

Let your painting skills shine by creating a nature-themed masterpiece by mixing soil and water.

Follow the SCRC on Facebook and Twitter to stay up to date on Family Nature Fun activities.

President's Corner – A word from Craig



In these unprecedented times, I'd to begin by saying that I hope that this newsletter brings at least a little good news into your day as you read through it.

Over the course of the last year the St. Clair River has continued to see consistent improvement in its overall environmental quality. Numerous organizations, land owners, industries and all levels of Government on both sides of the river should be commended on their continued commitment to help remove the St. Clair River as an Area of Concern.

Historically, the largest source of pollution entering the river was not chemical spills, but discharge of raw sewage via combined sanitary and storms sewers in Sarnia and Port Huron. Both of these cities have invested and continue to invest very large sums of capital funds into separating old, outdated combined sewers, helping to ensure the largest point source of pollution is a thing of the past.

Fish populations remain very high throughout the river system. Groups like the Bluewater Anglers need to be applauded for their tireless effort in providing people with an opportunity to catch Chinook Salmon, Rainbow Trout and Brown Trout. Although, not a native species to the Upper Great Lakes, Atlantic salmon are also becoming more and more common in the St. Clair River thanks to stocking programs in Michigan. Furthermore, a Ministry of Natural Resources and Forestry study released in the Spring of 2019 stated that an estimated 4 million walleye migrate through and reside in the St. Clair River. Incredible numbers to be sure. If there any positive to the social distancing situation we all find ourselves in, it's that fish populations and other aquatic life will certainly benefit over the short and long term by the decreased human presence on the river.

Moving forward, record high water levels on Lake Huron and thereby the St. Clair River continues to be a serious concern of municipalities and landowners. It's interesting to think that less than 10 years ago record low levels were the major concern.

In term of Beneficial Use Impairments, contaminated sediment at three locations in the St. Clair River remains the biggest hurdle for the river's removal as an Area of Concern. Engineering work continues and it hoped that in the near future removal will commence. FOSCR will provide updates on this work as available.

2020 was planned to be a very busy year for Friends of the St. Clair; however, like most events and activities, things have been put on hold for awhile. I know we are all waiting, hoping that life will return to normal soon.

On behalf of all members of Friends of the St. Clair River board of directors, I hope that you are staying safe emotionally healthy during these challenging times.

Craig Griffith
President
Friends of St. Clair River

<http://www.friendsofstclair.ca/>

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BPAC is a community-based partnership including governments, industry, first nations, academia, as well as environmental organizations and private citizens that work collectively in helping to improve the health of the St. Clair River. Our key goal is to implement the Canadian Remedial Action Plan (RAP) in order to restore the beneficial uses and remove the River from the list of Great Lakes Areas of Concern.



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