

St. Clair River Area of Concern Update



The St. Clair River was identified as an Area of Concern (AOC) in 1987 under the Great Lakes Water Quality Agreement between Canada and the United States due to a lengthy history of urban and industrial development. For over 30 years, the local community, First Nations, and all levels of government have been working together to improve the water quality and aquatic habitat of the St. Clair River, with the ultimate goal of removing it from the list of Great Lakes Areas of Concern.

St. Clair River Area of Concern

BENEFICIAL USE IMPAIRMENTS (BUIs)

The progress towards restoring an AOC is measured through the status of 14 Beneficial Use Impairments (BUIs). A BUI is a common use or feature of a waterway that has been impacted due to local pollution. BUIs cover a range of aquatic health indicators such as contaminant levels in local fish, habitat quality and water quality.

BUIs are identified as Impaired (impacted by local pollution), Not Impaired (not impacted by local pollution) or Requiring Further Assessment (additional research and study required to determine status). Once all BUIs are identified as Not Impaired, an AOC can be removed from the list of Great Lakes AOCs.

Presently, the St. Clair River has four remaining BUIs identified as Impaired (red), two BUIs identified as Requiring Further Assessment (yellow) and eight BUIs that are Not Impaired (green). The eight BUIs that are designated as Not Impaired includes six that have had their status re-designated since the St. Clair River was identified as an AOC.



2012-2017 REPORT OF ACCOMPLISHMENTS

The Canadian Remedial Action Plan (RAP) Implementation Committee (CRIC), tasked with organizing and executing activities required to restore the St. Clair River AOC, recently released their 2012-2017 Report of Accomplishments. In this report, progress made between 2012 and 2017 in completing the necessary actions required to re-designate all BUIs to Not Impaired was identified. Significant progress was made during this time, with 77% of the 87 actions identified as completed, in progress or on-going.



2012-2017 Report of Accomplishments Cover

What's happened since 2017?

Three Beneficial Use Impairments were re-designated to "Not Impaired" in 2018 and the status report for "Fish Tumours or Other Deformities" was completed recommending a "Not Impaired" status!

Significant advancement in the restoration of the St. Clair River was highlighted through comprehensive surveys and monitoring. As a result, restoration targets were achieved for:

- Bird and Animal Deformities or Reproductive Problems BUI
- Beach Closings BUI
- Restrictions on Dredging Activities BUI

BIRD OR ANIMAL DEFORMITIES OR REPRODUCTIVE PROBLEMS

Leopard frog (*Rana pipiens*) embryos and snapping turtle (*Chelydra serpentina*) eggs exposed to St. Clair River water and sediment experienced high hatching success rates. Deformity rates observed in frogs collected from the Walpole Island Delta were low and below the average natural level observed in the wild (5%). In addition, contaminant levels measured in both species were low.



Frog deformity monitoring

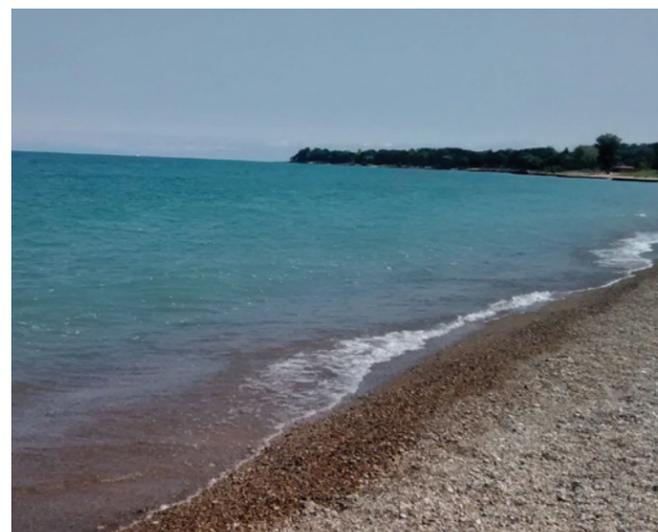


Leopard Frog



BEACH CLOSINGS

Beach closures occur at swimming areas across the Great Lakes but were the result of frequent overflows from wastewater treatment plants and combined sewers in the St. Clair River. Improvements to these municipal systems have led to low *E.coli* levels at local beaches and swimming areas within the AOC, reducing the number of closures at beaches monitored by local Health Units.



Canatara Park beach

RESTRICTIONS ON DREDGING ACTIVITIES

Routine dredging is required in the St. Clair River to promote the safe passage of shipping traffic through this important corridor. Past dredging activities required the special disposal of dredged material due to elevated contaminant levels which constituted a significant cost to proponents. Current contaminant levels in sediment dredged from the St. Clair River navigational channel are low and current practices see the re-use of the material for beach nourishment, construction fill and asphalt production.

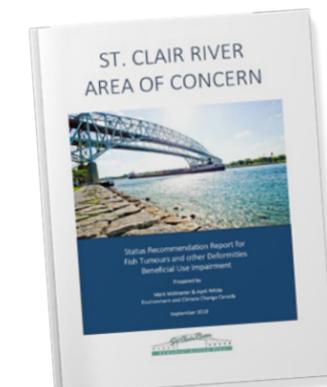


Dredging in the St. Clair River

FISH TUMOURS OR OTHER DEFORMITIES

Requiring Further Assessment

A draft assessment report was completed in 2018 recommending the status of this BUI be re-designated to Not Impaired. This recommendation was based on the findings of two scientific studies conducted on Walpole Island First Nation. Brown bullhead (*Ameiurus nebulosus*) fish were collected in 2013 and 2014 from the Walpole Island Delta and assessed for liver tumour prevalence in 2016. Visual inspections of the fish were positive and no liver tumours (neoplasms) were observed in any of the 61 fish collected, suggesting contaminants in local sediment are not negatively impacting this fish population. The Not Impaired status recommendation was supported by the CRIC, initiating the public and Indigenous engagement process, an important step in the BUI re-designation process.



Fish Tumours or Other Deformities Report Cover

What's happened since 2017?



Swan Lake Marsh (70 hectares) – Walpole Island First Nation

HABITAT PROJECTS

Through the dedication of our many partners, over 400 habitat projects have been completed within the St. Clair River AOC. This translates into over 200 hectares (500 acres) of improved fish and wildlife habitat. Twelve shoreline restoration projects have been completed along the St. Clair River shoreline and a long-term Fish and Wildlife Habitat Conservation Plan has been drafted to guide future habitat restoration activities.



Griffore Wetlands (2.5 hectares)
Rural Lambton Stewardship Network



Connor Marsh (8 hectares)
Rural Lambton Stewardship Network

SEDIMENT MANAGEMENT PROJECT

In 2019, the Detailed Engineering and Design Plan phase for contaminated sediments was initiated for the St. Clair River. Funded through Environment and Climate Change Canada, the Ministry of the Environment, Conservation and Parks, and Dow Canada, the project will see the development of a logistical plan to remediate the three remaining areas of contaminated sediment in the river.

2017-2022 ST. CLAIR RIVER AREA OF CONCERN WORK PLAN

The CRIC finalized their next work plan, spanning a five-year period between 2017 and 2022. The plan identifies the 47 actions remaining to re-designate all BUIs to Not Impaired and remove the St. Clair River from the list of Great Lakes AOCs.



St. Clair River Area of Concern
2017-2022 Work Plan Cover



We are making progress, but work continues today!
More information on the St. Clair River Area of Concern including all reports and publications can be found at friendsofstclair.ca