

STATUS: UNIMPAIRED

- BUI 4 Fish tumours and other deformities
- BUI 7 Restrictions on dredging activities

STATUS: SUBMITTED FOR REDESIGNATION APPROVAL

- BUI 3 Degradation of fish and wildlife populations
- BUI 6 Degradation of benthos
- BUI 14 Loss of fish and wildlife habitat

STATUS: REDESIGNATION PROCESS UNDERWAY

- BUI 1 Restriction on fish and wildlife consumption
- BUI 9 Restrictions on drinking water or taste and odour problems
- BUI 10 Beach closures

STATUS: IMPAIRED

- BUI 8 Eutrophication or undesirable algae
- BUI 11 Degradation of aesthetics
- BUI 13 Degradation of phytoplankton and zooplankton populations

A Beneficial Use Impairment (environmental challenge) is a condition that interferes with the enjoyment of a water use.

Public Consultation

A public consultation was implemented from April 3 - May 5, 2017 to get input from the public on whether or not they agreed with changing the status of 3 of the environmental challenges.

- Degradation of fish and wildlife populations
- Degradation of benthos (underwater bugs)
- Loss of fish and wildlife habitat

The public comments were incorporated into the final reports and sent to the Federal and Provincial governments for formal approval to redesignate each of the environmental challenges to unimpaired.

Bay of Quinte - Swimmable, Drinkable & Fishable

Beach Closures - The RAP assesses the data from four beaches that are monitored by the Health Unit - Centennial Park at Deseronto, Kingsford Mills on the Salmon River, Frankford Park on the Trent River and Centennial Park at Northport.

The RAP target is Health Unit beach posting days should not exceed 20% of the annual swimming season (Victoria Day to Labour Day). Currently, these beaches are meeting or exceeding this target.

Restrictions on drinking water or taste and odour problems - If you live in one of the urban centres around the Bay of Quinte, your drinking water comes from the Bay or one of its tributaries.

Today, treated drinking water from the Bay of Quinte is monitored for compounds that can cause taste and odour problems or health issues. It must meet Ontario Drinking Water Quality Standards, which are some of the strictest in the world. Ontario takes a multi-faceted approach to drinking water protection. It's a world-class system that safeguards our water from source to tap.

Degradation of fish and wildlife populations and Loss of habitat - The challenges related to fish populations and habitat and underwater bugs have all met the scientific criteria necessary to change their status.

A Summer of Science

To remove the Bay from the bi-national Areas of Concern list, all the criteria outlined for the 11 environmental challenges identified for the Bay must be met. To accomplish this, numerous BQRAP partner agencies are on the water collecting research data for a variety of water quality indicators like: fish populations, wetland habitat, phosphorus levels, algae species, and water chemistry

Ministry of Natural Resources and Forestry (MNRF) ensure Bay of Quinte fish remain healthy and diverse by operating programs that monitor the fish community. **BQRAP staff and Quinte Conservation** monitor 15 coastal wetlands for: water quality, underwater bugs, fish and wildlife, and vegetation. As well, every two weeks from May to October monitoring occurs for water quality, including algae species and their concentrations, at nine sites around the Bay from the Murray Canal to Picton Harbour.

Project Quinte - which began in 1972. Monitors, compares, and evaluates the Bay's response to implemented phosphorus control measures.

Fisheries and Oceans Canada (DFO) monitors the phytoplankton and zooplankton communities, underwater plant growth and a host of other water quality indicators in the Bay.



Lake Sturgeon Research Project

In 2017, MNRF released twenty young Lake Sturgeon, implanted with tracking tags, into a tributary of the Bay of Quinte. By tracking their survival and the habitat used by these fish, the hope is this information could lead to establishing an additional spawning population. It will take over 20 years to find out if these fish return to the release site to breed or any of the other tributaries running into the bay. In the meantime, a lot of research data about their movements and survival rates will be collected. Today, there are strict regulations and/or elimination of commercial and recreational fishing of Lake Sturgeon in Ontario.

Stewardship Projects

Habitat Enhancement Program

There were a total of 15 participants in the Habitat Enhancement Program. Seven of these projects were plantings along the shoreline, 5 were livestock fencing, 2 were shoreline naturalization, and 1 was a water quality improvement project.

Healthy Soils Program

There were a total of 24 participants in the healthy soils program. A total of 137 samples were collected over 1402.5 acres.

Cover Crops

There were a total of 10 participants in the cover crops project. There was a total of 664 acres planted.

Be Septic Savvy

There was a total of 21 participants in the Septic Stewardship program. Seventeen households completed a septic pump out and 4 completed a septic pump out and repairs.

Stormwater Projects

In 2017, there were 3 on-going projects to assess retrofit stormwater management facilities in urban areas of Belleville, Picton and Deseronto. The Belleville project (Herchimer Ave) has received its Environmental Compliance Approval and construction is planned for 2018. The Environmental Assessments for Picton and Deseronto were both completed and the next phase will be to obtain environmental compliance approvals. One new project was started in the City of Belleville (Foster Ave) and there are plans for 2 additional assessments to enhance stormwater treatment for phosphorus removal.



Phosphorus Management Strategy

The main issue with the Bay of Quinte has always been the amount of excess nutrients (phosphorus) entering it from a number of sources both urban and rural. As the Bay gets closer to being removed from the Areas of Concern list a Phosphorus Management Strategy is under development to ensure it doesn't back slide to conditions that required a RAP in the first place.

Osprey Monitoring with Twitter



As a pilot project citizen scientists were asked to use Twitter on their smart phones to locate and monitor Osprey's nests around the Bay of Quinte. The goal is to establish a long-term monitoring program to ensure the Osprey population remains healthy and abundant.

Marsh Monitoring

Every year, volunteer citizen scientist monitor local wetlands for frogs and wetland birds. The data is submitted to Bird Studies Canada to track long term population trends. The BQRAP hosts an evening presentation by Quinte area naturalist Tery Sprague to help recruit new citizen scientists. This year, 31 people attended the presentation.

1 in a 100 year flood

In 2017, the Bay of Quinte experienced a 1 in a 100 year flood due to an excessively wet spring. Water levels remained high well into the summer months.





Bay of Quinte Remedial Action Plan Annual Report 2017



A frog does not drink up the pond in which it lives.
Native American proverb

ADMINISTRATION SERVICES AND SUPPORT

- Maintained BQRAP office – communications, technical and administrative
- Budget management, agreements, contracts, proposals, reports
- Coordinated monitoring, technical and science projects on the Bay of Quinte
- Continued work outlined in BQRAP De-listing Workplan – as presented to AOC Leads
- Identification of projects and funding requirements to complete RAP objectives
- 3 Restoration Council meetings
- 2 Delisting Steering Committee conference calls
- Numerous conference calls and emails with Technical Working Groups
- 8 BQRAP administration meetings
- Assisting with GLPI project selection

TECHNICAL PROJECTS AND MONITORING ON THE BAY OF QUINTE BY RAP PARTNERS AND BQRAP STAFF

- Project Quinte ecosystem monitoring at long-term offshore stations
- Water sample collection for algal communities and toxin analysis in tributaries and open water locations in bay
- Annual offshore fish population monitoring
- Monitoring of aquatic invertebrates, water quality, and submerged aquatic vegetation in fifteen coastal wetlands in the Bay of Quinte
- Monitoring of near-shore fish communities
- Monitoring water temperatures for Fish Habitat model
- Coordinating and tracking progress of Technical Working groups in BUI criteria development/confirmation and status
- Septic Stewardship Program, Habitat Enhancement Program, Healthy Soils Program
- Technical Coordination between studies led by Dr. Agnes Richards (ECC), Dr. George Arhonditis (UTSC), and Dr. Maria Dittrich (UTSC); to be used in BUI-8 assessment & phosphorus management strategy
- Contributing to draft BUI-11 delisting criteria; organization of 'Aesthetic Survey' by conservation authority monitoring staff

- Technical input to the studies being used to assess BUI-13
- Organization of Bay of Quinte Session (Session #6) – 2018 IAGLR Conference
- Ongoing coordination of remaining BUIs (1, 8, 11 and 13)
- Ongoing development of the Phosphorus Management Strategy

COMMUNICATIONS

- Participated in the Hastings County Plowing Match, Quinte Children's Water Festival, Trenton Woodlot Conference, Quinte Farm Trade Show
- Displays, presentations, and workshops to community stakeholders and the public e.g., Healthy Soils Workshop, Secrets in the Soil Lunch and Learn, Bayside Secondary School, Community Wildlife Monitoring evening, Lennox and Addington Stewardship Council, National Farmers Union, Hastings Stewardship Council, MNFR Sturgeon Release event
- 12 monthly newsletters
- Completed Annual Report
- Promoted interactive History Journal on website
- Promoted invasive species awareness – water soldier
- Promoted Winter on the Bay Series
- Completed BUI video for presentation at Doc Fest Documentary Film Festival
- BQRAP advertising- Quinte Sports Centre (arena boards)
- Promotion of the Habitat Enhancement, Septic Stewardship and Healthy Soils Programs
- Produced videos for Healthy Soils and Habitat Enhancement programs
- Print ads - EMC, Piction Gazette, Napanee Beaver, Intelligencer
- 10 press releases
- Radio interviews – Mix 97 & CJBQ
- Radio spots – Community Wildlife Monitoring (Mix 97, CJBQ), Nature Notes (Loyalist College) Have Your Say about the Bay (Classic Hits & Cool 100)
- Continued updating of BQRAP website
- BQRAP on Facebook and Twitter - Digital awareness campaign
- Summer of Science on the Bay Series – DFO, MNRF, QC
- Promoted Osprey Monitoring Program
- Public Consultation for Degradation of fish and wildlife populations, Degradation of benthos and Loss of fish and wildlife habitat

RESTORATION COUNCIL

- Lower Trent Conservation • Quinte Conservation • Environment and Climate Change Canada • Ontario Ministry of the Environment and Climate Change
- Ontario Ministry of Natural Resources and Forestry • Fisheries and Oceans Canada • Ontario Ministry of Agriculture, Food and Rural Affairs
- Mohawks of the Bay of Quinte • CFB Trenton • City of Quinte West • Deseronto • Public representative

STAFF

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ADMINISTRATION OFFICE

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