

## Beneficial Use Impairments

# 11

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

### 2015 STATUS SUMMARY BENEFICIAL USE IMPAIRMENTS

#### BENEFICIAL USE STATUS: IMPAIRED

- BUI 1 Restriction on fish and wildlife consumption
- BUI 8 Eutrophication or undesirable algae
- BUI 13 Degradation of phytoplankton and zooplankton populations

#### BENEFICIAL USE STATUS: IMPAIRED - UNDERGOING REDESIGNATION

- BUI 3 Degradation of fish and wildlife populations
- BUI 4 Fish tumours and other deformities
- BUI 6 Degradation of benthos
- BUI 7 Restrictions on dredging activities
- BUI 9 Restrictions on drinking water or taste and odour problems
- BUI 10 Beach closures
- BUI 11 Degradation of aesthetics
- BUI 14 Loss of fish and wildlife habitat

**2** The BQRAP Restoration Council approved reports recommending a change in status for two Beneficial Use Impairments for circulation to the public for a 30 day comment period.

- Fish tumours and other deformities
- Restrictions on dredging

### Stormwater

**3** In 2015, there were 3 on-going projects to implement retrofit stormwater management facilities in urban areas (Herchimer Ave, Belleville, Picton and Deseronto). As well, opportunities to enhance stormwater treatment for phosphorus removal were investigated.

**9** Number of scientific research projects conducted on the Bay during the 2015 summer monitoring season.



[www.bqrap.ca](http://www.bqrap.ca)

## Habitat Enhancement Program

# 40,000

dollars allocated

- The number of restoration projects
- 6 - livestock fencing
- 3 - alternate watering systems
- 2 - shoreline naturalizations
- 10 - waterway plantings
- Total - 21



### Health Soils Program



The Healthy Soils Program provides farmers with free soils testing to identify baseline nutrient levels and help set target levels, helping to save money on fertilizer and reduce phosphorus runoff.

# 377

number of acres sampled

### 6 Videos

You can view our videos at [www.bqrap.ca](http://www.bqrap.ca)



### Marsh Monitoring Program

# 60

Potential volunteers attending the Marsh Monitoring presentation.

Every year, the Bay of Quinte Remedial Action Plan needs volunteers to monitor frogs and birds in local wetlands, as these species are great indicators of wetland health.



### 3 Algae Blooms



In 2015, there were three algae sightings that met the algae density criteria to be called blooms. However, there were 6 instances of smaller algae sighting that had levels of blue-green algae toxins that exceeded the MOECC drinking and recreational water standards.

### Long-term Monitoring Program

Annual monitoring continues. Water samples are collected and analyzed for general chemistry which includes nutrients such as phosphorus, algal toxins, and algae species identification.

### Satellite imagery

NASA satellite used to identify blue-green algae blooms.

# 10



The satellite provides images of the Bay approximately every 10 days. It uses wavelengths of light to identify colour differences and algae shows up in the brightest green/yellow light spectrum, due to the presence of chlorophyll within their cells.

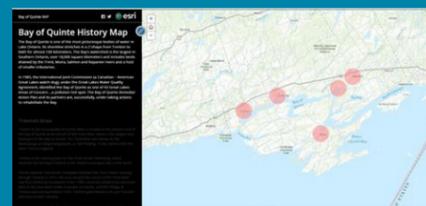
The data gathered over the next couple of years will be used to develop a model that will estimate algae concentrations in the bay. This will be an additional tool to complement the traditional sampling efforts and public reporting of algae sightings to the MOECC Spills Action Centre.

### History Journal

# 96

photos

The history journal is a visual walk through time. Providing a historical perspective on the water quality improvements to the Bay of Quinte.



You can find it on our web site.

### Be Septic Savvy

# 50

The number of site visits completed.

This educational program offered a free septic tank pump out and maintenance tips. Along with a shoreline assessment.

### Coastal Wetland Monitoring

# 15

In the summer, the Bay of Quinte RAP partners monitor for birds, frogs/toads, fish, aquatic invertebrates, water chemistry, and vegetation in coastal wetlands around Bay.



### Have Your Say about the Bay

In July, we ran a survey asking Bay of Quinte residents what they thought about the fish and wildlife populations and habitat in the Bay. Here are the results of the survey:

1. Do you go fishing on the Bay of Quinte? - 67% Yes
2. What species of fish do you prefer to catch? Walleye and Bass - were the top picks
3. Do you think there is a good balance of sport fish in the Bay? - 90% Yes
4. Do you think the Bay provides good habitat for a wide variety of fish? - 90% Yes
5. Do you think aquatic plants indicate good or poor water quality? - 89% Good
6. Did you know aquatic plants are good fish habitat? 100% Yes
7. What do you think of the water clarity in the Bay? - 66% thought it was good
8. What do you think about the amount of algae in the Bay? 39% thought it was fine and 61% thought it should be reduced.

## Office Updates

### Administration

- 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 - approved by Restoration Council
- Identification of projects and funding requirements to complete RAP objectives

### Meetings

- 4 Restoration Council meetings
- 1 Delisting Steering Committee conference call
- Numerous conference calls and emails with Technical Working Groups
- 10 BQRAP administration meetings
- Algae Monitoring meeting
- Phytoplankton & zooplankton criteria (1 conference call/1 face to face meeting)
- Attended Area of Concern conference

### 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
- Beach Monitoring - algae
- Septic Stewardship Program
- Habitat Enhancement Program
- South Sidney – GIS erosion project – soil testing program

### Communications

- Participated in the Hastings County Plowing Match and Farm show, Quinte Children's Water Festival, Trenton Woodlot Conference, Kawartha Farm Stewardship Collaborative Workshop and Quinte Farm Show
- Displays and presentations to community stakeholders and the public
- 12 monthly e-newsletters
- Developed and promoted interactive History Journal on website
- Completed 5 BUI video scripts and started production
- BUI #4 and #7 – re-designation materials for public input – infographics, video and ads
- BQRAP advertising- Quinte mall, Quinte Sports centre (arena boards)
- Promotion of the Habitat Enhancement, Septic Stewardship Program, Community Wildlife Monitoring Program, and Healthy Soils Program
- Print ads - EMC, Piction Gazette, Napanee Beaver, Intelligencer
- Print ads in specialty publications
- 10 press releases
- Initiated a public survey on fish and wildlife habitat and populations – BUI #3 & 14
- Continued updating of BQRAP website
- BQRAP on Facebook and Twitter - Digital awareness campaign
- Direct mail campaign for Septic Program and Healthy Soils program
- Held a Farm Stewardship Workshop



“What is man without the beasts? If all the beasts were gone, men would die from a great loneliness of spirit. For whatever happens to the beasts, soon happens to man. All things are connected.” — Chief Seattle (1780-1866)

## 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 • Public representative

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## ADMINISTRATION OFFICE

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# 2015

## Annual Report