

BAY OF QUINTE REMEDIAL ACTION PLAN

Healthy Bay • Healthy Community



Annual Report 2012

The Bay of Quinte is a healthy and vibrant ecosystem we must protect for future generations. In October 2012, the State of the Bay Forum was held and 60 scientists gathered to evaluate the state of the Bay. Good news, overall the Bay is in great shape. Now, the question becomes, how do we maintain and expand on the accomplishments of the RAP.

“Humankind has not woven the web of life. We are but one thread within it. Whatever we do to the web, we do to ourselves. All things are bound together. All things connect.” ~ Chief Seattle, 1855



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
- Attended IAGLR Conference
- Review of 2006-2011 workplan and status of 80 recommendations to develop new workplan
- Organized and held State of the Bay Forum
- Filled a position to assist with Natural Heritage Strategy and Habitat Enhancement Program, this person then started work on the Septic Inspection Program in January 2013

MEETINGS

- 6 Restoration Council meetings
- 4 Delisting Steering Committee meetings
- Numerous conference calls and emails with Technical Working Groups
- 6 Phosphorus Modeling meetings
- 2 Habitat Enhancement Program meetings
- 7 BQRAP administration meetings
- 2 BQRAP team meetings (LTC & QC)

TECHNICAL PROJECTS AND MONITORING

- Project Quinte ecosystem monitoring at long-term offshore stations
- Water sample collection for nutrients, 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 nearshore fish communities
- Monitoring water temperatures for Fish Habitat model
- Phosphorus model completed for the Bay – initiated work on watershed phosphorus model
- Continued development of Natural Heritage Strategy including meetings with all municipalities
- Coordinating and tracking progress of Technical Working groups in BUI criteria development/confirmation and status

CONFERENCES

- IAGLR/ SLRIES Conference

COMMUNICATIONS

- Completed Bay in a New Way campaign – fishing charter prize awarded
- Launched Photo Contest with a Twist 2
- State of the Bay Public Information Session
- Participated and assisted in organization of the Quinte Children's Water Festival
- Participated in the Hastings County Plowing Match & Farm Show
- Displays and presentations to community stakeholders and the public
- 2 semi-annual newsletters
- 12 monthly enewsletters
- BQRAP advertising - Quinte Mall, Quinte Sports Centre (arena boards)
- Radio campaigns – Bay in a New Way, photo contest, Habitat Enhancement Program, State of the Bay evening
- Interviews with local newspapers and on radio
- Print ads - EMC, Picton Gazette, Napanee Beaver, Intelligencer
- 7 press releases
- Continued updating of BQRAP website
- BQRAP on Facebook and Twitter
- Maintained BQRAP on line library
- Information requests – university & college students, teachers, public

RESTORATION COUNCIL

Lower Trent Conservation • Quinte Conservation • Environment Canada • Ontario Ministry of the Environment • Ontario Ministry of Natural Resources • Fisheries and Oceans Canada • Ontario Ministry of Agriculture, Food and Rural Affairs • Mohawks of the Bay of Quinte • CFB Trenton

STAFF

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ADMINISTRATION OFFICE

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WHAT IS A BENEFICIAL USE IMPAIRMENT?

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

2012 STATUS SUMMARY BENEFICIAL USE IMPAIRMENTS

BENEFICIAL USE STATUS: IMPAIRED

- BUI 1 Restriction on fish and wildlife consumption
- BUI 8 Eutrophication or undesirable algae
- BUI 11 Degradation of aesthetics
- BUI 13 Degradation of phytoplankton and zooplankton populations

BENEFICIAL USE STATUS: IMPAIRED, PENDING FURTHER ANALYSIS

- BUI 9 Restrictions on drinking water or taste and odour problems
- BUI 10 Beach closures
- BUI 14 Loss of fish and wildlife habitat
- BUI 6 Degradation of benthos

BENEFICIAL USE STATUS: RECOMMENDED AS NOT IMPAIRED

- BUI 3 Degradation of fish and wildlife populations

BENEFICIAL USE STATUS: NOT IMPAIRED

- BUI 2 Tainting of fish and wildlife flavour - Has never been considered Impaired
- BUI 4 Fish tumours and other deformities - Status changed from 'Requires Further Assessment' on November 23, 2010
- BUI 5 Bird or animal deformities or reproduction problems - Has never been considered Impaired
- BUI 7 Restrictions on dredging activities - Status changed from "Impaired" on March 20, 2012
- BUI 12 Added costs to agriculture or industry - Has never been considered Impaired

PHOSPHORUS MODELS

In 2012, the BQRAP collaborated with the University of Toronto on the development of a phosphorus model for the Bay and a watershed phosphorus loading model. Together these models will provide the RAP with the information it needs to develop a Phosphorus Management Strategy for the Bay. This document will guide future management actions, which will ensure the Bay doesn't return to the conditions that required a Remedial Action Plan.

ALGAE WATCH PROGRAM

Monitoring continues year-round. Water samples are collected and analyzed for general chemistry which includes nutrients such as phosphorus, algal toxins and algae species identification.

The Bay in a New Way campaign was designed to encourage people to think about the Bay as the healthy and vibrant ecosystem that it has become after years of rehabilitation. Each month, a different BUI was featured highlighting a positive improvement to the BUI. To engage the public, the chance to win a fishing charter was offered as a prize for collecting all the Bay in a New Way ads. The winner was Brad Annis, he and a couple of friends enjoyed a great day of fishing provided by sponsor Bay of Quinte Charters.



Everything is dinner in the food chain

The food chain is a complex system that requires a balance of prey and predators. The return of the Osprey to the Bay is an indicator of a generally healthy and abundant food chain; from the small aquatic creatures at the bottom of the food chain up to this top predator.



Fishing charter winner Brad Annis

BIG ISLAND - EAST

In February 2012, the RAP started a habitat improvement project in Big Island Marsh. Water levels in Lake Ontario are regulated and, where naturally fluctuating water levels are controlled, wetland habitat quality is compromised. The lack of periodic flooding and lowered water levels results in the establishment of extensive stands of cattails, at the expense of other plant community types, mostly the meadow marsh community. This type of single species environment does not provide diverse and productive wetland habitat. Excavating channels through the cattails addresses the loss of fish and wildlife habitat by providing increased open water.

Over the summer months, RAP staff monitored the channels and found they are supporting numerous fish and wildlife species, including species at risk (Blandings Turtle, American Eel).



STATE OF THE BAY



photo by Doug Knutson



The State of the Bay Forum brought together 60 scientists from varying local, provincial and federal agencies to present their research on the status of the Beneficial Use Impairments (BUI) that influence the Bay's ecosystem. It was two days of discussion and debate, mostly positive. The overriding theme was the Bay of Quinte is a unique ecosystem that must be protected for future generations. In the evening, a public event was held at Meyers Pier. The public had the chance to review and ask questions about the status of the 10 BUI's, and the MNR fisheries assessment vessel was open for tours. The State of the Bay Forum Status Report is available on our website www.bqrap.ca.

NATURAL HERITAGE STRATEGY

Over the past year, RAP staff have been developing a Natural Heritage Strategy for the Bay of Quinte. A Natural Heritage System is a way of connecting natural features and areas on the landscape by preserving the linkages between the areas, so you don't end up with isolated pockets but rather a network of interconnected natural areas. Once the strategy is complete, it will be presented to all the municipal stakeholders surrounding the Bay with the hopes they will incorporate it into their decision-making.