

# WATERLOGS OCTOBER 2016



Today, the Bay of Quinte is a healthy and vibrant ecosystem. Now, we must focus on keeping it that way. The RAP is developing long-term monitoring and management strategies to ensure the Bay remains healthy in the future.

## FROM THE BOTTOM UP



One of the main environmental challenges identified for the Bay of Quinte has always been the amount of phosphorus (nutrients) entering it from both urban and rural sources. For the general public this translates in to too much algae, which people notice most in areas close to shore as the summer progresses.

However, algae are an important component of a healthy ecosystem. They are a large group of diverse organisms that use photosynthesis to produce food and are at the base of the food web. Algae include phytoplankton, a mostly microscopic single-celled plant, which are eaten by small animals called zooplankton (microscopic animals) that drift in the water column. The zooplankton are in turn fed upon by larger zooplankton, and small fish. Then larger fish eat the smaller ones. At the top of the food web are fish-eating birds, large fish such as walleye, pike and bass and humans.

Every summer a long-term, multi-agency research and monitoring project called Project Quinte, which began in 1972, visits the Bay. The project monitors, compares and evaluates the Bay's response to implemented phosphorus control measures. As part of this project, Fisheries and Oceans Canada (DFO) monitors the phytoplankton communities in the Bay.



Every two weeks from May to the end of October, Fisheries and Oceans Canada visits the Bay. Currently, using several sites for monitoring and research, the shallow upper bay at Belleville, the middle part of the Bay at Napanee and Hay Bay, and the deeper lower Bay at Conway. Visiting different sites each trip, they take samples to measure the abundance and species of phytoplankton. As well as, other water quality parameters that influence the phytoplankton communities including: total phosphorus, soluble reactive phosphorus, light, clarity, temperature, turbidity, conductivity, wind speed and direction. Once the samples are collected, they are taken back to the laboratory and the work of identifying the population abundances and the species of phytoplankton begins. The research provides information on how the phytoplankton are responding to the ever changing conditions in the Bay like: invasive species, climate changes, fish population fluctuations, habitat alterations, and phosphorus (nutrients).



As with all things in life it's getting a balance, when there are excesses of anything problems arise. There has to be species abundance and diversity in the phytoplankton population to maintain a healthy food web. However, in the Bay of Quinte, the issue has always been the amount of excess algae produced by excess phosphorus. Phosphorus is a naturally occurring element essential for all life. But, excess amounts can cause problems with too much algae, causing negative impacts for recreational uses and threatening the health of the Bay.

## BAY OF QUINTE INTERPRETED

It's time to reveal to interpretations. Local artists have been working hard at interpreting the winning photos from the Photo Contest with a Twist 3. Now, the photos and the interpretations will be displayed at the Belleville Art Association gallery, as part of the November/December show. Drop by the gallery at 392 Front. St, Belleville and enjoy the Bay of Quinte

### Bay of Quinte Remedial Action Plan **Bay of Quinte Interpreted 3**

Thursday, November 17 - Saturday, December 10

**Belleville Art Association Gallery**

392 Front, St, Belleville, ON

How did area artists interpret these 10 winning photos from the Photo Contest with a Twist 3?

Meet all the artists at the opening reception  
Thursday, November 17 - 5:00 pm - 7:00 pm

**Photo Contest with a Twist 3 winning photographers:**

Julie Eckert, Justin Anderson, Abi Reid,  
Marilyn Dziuban, Mark Hopper, Sean Scally



**Bay of Quinte Interpreted artists:**

Cynthia Solomon, Tina Osborne, Doris Scott, Barbara Chappelle, Janice Edwards,  
Julie Eckert, Nancy Sherk, Shelia Grosso, M.T Rivers, Lori McFarlane,  
Michelle Hutchison, Penny Thompson, Aidan Haley, Margaret Ruttan,  
Gisele LeBlanc-Turner, Dawn Morin, DJ Sproat, CoraLee Babcock, Dona Knudsen.



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

In partnership locally with Lower Trent Conservation and Quinte Conservation

## LANDOWNER STEWARDSHIP PROJECTS

*You can help reduce excess algae and aquatic plant growth in the Bay.*

Our landowner stewardship programs can provide funding and assistance with design, permits, and other technical aspects of your project. Find out details at:

<http://www.bqrap.ca/communityprograms/landownerstewardship/>

## SUBSCRIBE TO OUR NEWSLETTER

**Why are fish and wildlife populations healthy and diverse in the Bay of Quinte.**

**Sign up for our newsletter to find out.**

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