

Quinte Conservation Annual Report

Who We Are

Quinte Conservation is one of Ontario's 36 Conservation Authorities. We are a community based environmental protection agency. Our main goal is to ensure the healthy co-existence between the community, its environment and its economy. Our area of jurisdiction includes the watersheds of the Moira, Napanee and Salmon Rivers and all of Prince Edward County. We provide important conservation advisory services to our 18 local municipalities within our 6,000 square kilometer region. We own over 12, 000 hectares of land and 39 water control structures. Our success is based on local initiative, watershed jurisdiction and partnerships in resources management.



2011

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New Floodwall at McLeod Dam



A very big project for 2011 was the installation of a new floodwall at the McLeod Dam in Belleville. There were three reasons for the new floodwall; to replace the old and deteriorating flood barrier, to stabilize the dam and to create more efficient operation of the hydro plant.

The original PVC liner that was installed in 1978 had started to decay. The embankment above the dam was reshaped with imported granular material and compacted. The embankment was then covered with a filter fabric made of heavy non-woven geotextile. The fabric was then sprayed with a polyurea liner. The liner is then covered with gravel and larger stones. The finished product looks like a rocky slope. This new floodwall should have a forty year lifespan.

Additional work was also completed on the Obermeyer gate to reduce the "sagging" of the gate during low flow operation. The joints between the gate panels did not bolt together well during original installation. This allowed some flexing between panels and water to push one side of the gate down, giving the appearance of improper function. The supplier paid for the materials for the repair.

The McLeod Dam was built to protect the downtown Belleville area from ice related flooding by providing a storage area to safely collect ice during the spring thaw. During 2007 - 2008 the dam was modified in order to produce green energy. The hydro project produces enough energy to power 400 homes.



Quinte
CONSERVATION

CLIMATE CHANGE 2011 Update

Scientific predictions about the effects of climate change are becoming a reality. Scientists are forecasting that over the next 100 years the temperature in this area may increase by as much as 4 to 5 degrees Celsius and precipitation decrease by 10%. The combined effect of this would have significant impact on our local water resources. To keep informed and up to date on this potential Quinte Conservation is participating in a monitoring program to assist in monitoring of climate change impact in the long term. Through participation in a province wide project the Skootmatta subwatershed in the northern portion of our region was chosen as one of 5 areas in the province for detecting potential impacts from climate change.

This area was chosen due to minimal development and a relatively long period of record available for climate data, stream flow and water quality. To enhance this ongoing monitoring the frequency of water quality sampling has been increased and instrumentation has been obtained to allow continuous monitoring of quality through the spring, summer and fall months. Groundwater monitoring has also been added through installation of a monitor well and use of a logger to measure water levels continuously. This well will also be used to monitor water quality.



Protecting Our Watersheds

Approximately 117,000 people live within the Moira, Napanee, and Salmon River watersheds and Prince Edward County.



NEW FLOOD FORECASTING TOOL

in the Quinte Region

Quinte Conservation, in cooperation with Mississippi Valley Conservation, has recently purchased a new flood forecasting tool that will assist staff to manage hydrologic and hydraulic data that is used to develop forecasts for flood events. The software is called WISKI and was developed by Kisters. It polls and logs data from remote gauging stations and prepares hydrographs on a scheduled basis. The software will also perform complex calculations on the data and can combine geospatial information from other departments to assist in expanding our understanding of the watershed.

We intend to use this software to help reveal changes in the ecology, water quality, water quantity, and fisheries that may result from climate change. The system is integrated with GIS and can help to improve our external communication by showing watershed conditions in a geographic medium.

It will take some time to import the various data sets that have been collected over decades, but when the data warehouse is complete we expect that we will be able to combine knowledge

2008 Flood event on Moira River



from the various environmental programs much more effectively. For example, data from our groundwater monitoring wells is collected and warehoused at Ministry of the Environment in Toronto. Surface water quality data is collected and warehoused in Ministry of the Environment in Kingston. Snow data is collected and warehoused in Ministry of Natural Resources in Peterborough. Fisheries, wetlands, flow data are all stored in other locations. This program will help us to maintain all this data in house and use it readily.

In the future, we plan to reconstruct our flood forecasting program within the Kisters environment and will be able to produce flood forecasts and low flow forecasts in an instant.

PROGRESS ON SOURCE WATER PROTECTION IN 2011



2011 was the 'year of policy development' for the Quinte Region Source Protection Committee. The policies will form part of the plan, due in 2012, to

protect 11 local sources of municipal drinking water from contamination and overuse.

Committee members and many local people, serving on specialized working groups provided input and feedback on concepts as they evolved into draft policies over the course of many months. Working group members had expertise in agriculture, municipal planning, fuel, septic systems and emergency planning and system operation.

Each new version of the draft policies was improved until, in October, the policies were ready to be reviewed by 42 policy implementers in a process called 'pre-consultation'. The purpose was to obtain feedback from municipalities and

government ministries, prior to taking the draft policies to the public in 2012. By December the committee had received many constructive comments on the drafts with more input expected early in 2012.

Throughout 2011 presentations were made to local municipal councils and meetings were held with municipal staff to keep them apprised of the committee's progress.

The science based study, called the Assessment Report, upon which the policies are based, was approved by the Ontario Ministry of the Environment.

Under the Ontario Drinking Water Stewardship Early Response Program six projects were completed and three were in progress at the end of the year. Up to 80% funding is available to private landowners for stewardship projects on private property located near municipal wells and intakes.

For more information visit
www.quintesourcewater.ca.

ALGAE WATCH 2011 Update

2011 marked the second year Quinte Conservation coordinated the Bay of Quinte Algae Watch program. It is funded by both provincial and federal agencies. The program is successful with the help from individuals at Environment Canada, the Ontario Ministry of Environment, municipalities, Lower Trent Conservation and Quinte Conservation.

Water samples were collected biweekly in the summer and fall at nine sites located throughout the Bay. New in 2011, nine additional sampling sites are sampled on a biweekly basis at rivers and creeks: Trent River, Potter Creek, Moira River, Blessington Creek, Salmon River, Marysville Creek, Selby Creek, Napanee River and Marsh Creek (Picton).

The purpose of the program is to collect data to get a better spatial and temporal understanding of the algae communities, blue-green algae toxins, taste and odour compounds associated with algae; to identify key contributing factors of algae bloom outbreaks in the Bay in hopes of developing methods for predicting and managing algae bloom events in the Bay of Quinte; and to help assess the status of the Bay of Quinte Remedial Action Plan Beneficial Use Impairments.

2011 Board Members

John Wise
Jackie Denyes

Quinte Conservation Chair
Quinte Conservation Vice-Chair

Moira River Watershed Advisory Board

Jackie Denyes, Chair
Rita Cimprich, Vice-Chair

Eythel Grant

Mike Kerby
Egerton Boyce
Tom Lafferty
Terry Cassidy
Justin Bray
Dale Grant
Robert Sager
Irene Martin

City of Belleville
Municipality of Marmora
and Lake
Addington Highlands
Township
Centre Hastings Municipality
City of Belleville
City of Belleville
City of Quinte West
Municipality of Tweed
Stirling / Rawdon Township
Township of Madoc
Tudor and Cashel
Townships

Napanee Watershed Advisory Board

John Wise, Chair
Iain Gardiner, Vice-Chair
Carl Bresee
Edgar Tumak
Heather Fox

Roger Cole

William Robinson

Township of Stone Mills
Tyendinaga Township
Loyalist Township
Town of Deseronto
Township of Central
Frontenac
Township of Greater
Napanee
Township of South
Frontenac

Prince Edward Region Watershed Advisory Board

Janice Maynard, Chair
Jim Dunlop, Vice-Chair
Barb Proctor
John Drechsler
Ray Hobson
John Thompson
George Underhill

County of Prince Edward
County of Prince Edward
County of Prince Edward
County of Prince Edward
County of Prince Edward
County of Prince Edward
County of Prince Edward

2011 Conservation Staff

Terry Murphy

Paul McCoy
Bryon Keene
Keith Taylor
Tammy Smith
Harry Stinson
David Smallwood

Catherine Sinclair
Brad McNevin
Tim Trustham
Samantha Shannon
Anne Carr
Darrin Tone
Christine McClure
Lucille Fragomeni

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Mark Boone
Julie Munro
Lynette Lambert

Nancy Marshall

Liping Kong
Andria Anakons
Jennifer May-Anderson

Maya Navrot

Nicole Campbell

Terry Sprague
David Dies
Jennifer White
Mary Gunning
Nicole Irvine
Tiffany Empey

General Manager / Secretary
Treasurer
Planning and Development Manager
Water Resources Manager
Source Water Protection Manager
Corporate Services Manager
Field Operations Manager
Forestry and Field Operations
Manager
Regulations Officer
Regulations Officer / Biologist
Ecologist / Planner
Technical Administrative Assistant
Technical Administrative Assistant
Water Resources Engineer
Water Resources Engineer
Source Water Protection
Communications Coordinator
GIS Database Specialist
Hydrogeologist
Surface Water Specialist
Environmental Water Quality
Technician / Health & Safety
Source Water Protection
Administrative Assistant
Accounting Clerk
Director of Records / Health & Safety
Communications and Marketing
Specialist
Conservation Education
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Coordinator
Naturalist
Field Operations Supervisor
Environmental Technician
BQRAP Environmental Technician
Algae Watch Project Leader
Algae Watch Technical Assistant

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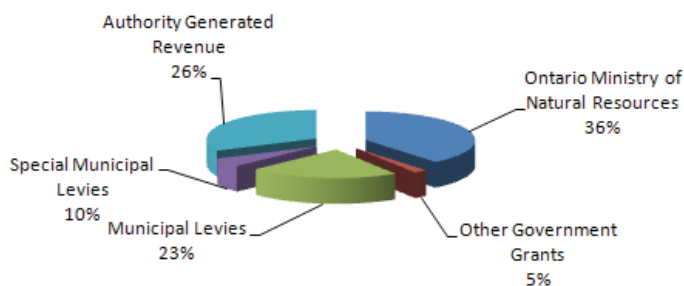
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quinteconservation.ca

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2011 Revenue



2011 Expenditures

