



Wheatley River Improvement Group

November, 2010

State of the River

Introducing a regular feature reporting on the health of our river.

The summer of 2010 is now on record as the year that rivers across Prince Edward Island turned anoxic in places earlier than ever, and for longer periods of time. No fewer than fifteen watersheds were affected, an indication that the nitrates problem is only getting worse, despite our collective best intentions.

The Wheatley River estuary was one of the first to be affected; the sickly green colour associated with anoxia was evident on both sides of the Oyster Bed Causeway as early as June. By now we all know what is happening – elevated concentrations

of nitrates enter the water from non-point sources - fertilizers used in farming and to a lesser degree from septic systems - causing algae to grow in abundance, and then die. As it decomposes it uses the oxygen in the water, which turns whitish-green and starts to stink. The lack of oxygen can kill fish and invertebrates; the longer the anoxic event lasts, the more threatened are these populations.

In 2008, the Nitrates Commission made 32 recommendations to address this serious environmental concern. Few of the recommendations have been acted upon thus far.

Pilot Nitrate Study Launched

Over the next eight months, the Wheatley River watershed will be the site of a joint project between WRIG, the P.E.I. Federation of Agriculture, the Department of Agriculture, and the Department of Environment, Energy and Forestry.

The project has an ambitious goal: to reduce the nitrate level in the water enough to eliminate the anoxic events that have become commonplace from year to year in the Wheatley River estuary.

Erica MacDonald (Department of Agriculture) and Jennifer Roper (Federation of Agriculture) will work one-on-one with farmers to develop strategies for reducing farm nitrogen loading. They will be looking at current nitrogen levels and how altering cropping practices would affect those levels. Wheatley River watershed was chosen for this project because of 1) the high level of cooperation our farmers have shown, by taking part in nutrient management projects and developing environmental farm plans and 2) the record and commitment of our watershed group.

WRIG will receive extra support from the Department of Environment, Energy and Forestry for this project. We will form an advisory committee, which will include a number of local producers. Meetings will be held to develop an overall plan based on strategies identified during the process.

Other sources of nitrates, such as residential septic systems, will be examined as well. The plan will address what changes could be implemented to make a difference. This might include policy recommendations about the way land is developed, given the high rate of subdivision in this watershed and the potential for rapid and substantial growth in the number of septic systems.

A parallel project will take place in the Southwest River watershed (part of the Kensington North Watershed Groups), where there is a higher percentage of land in potatoes. Strategies and plans developed by the two groups may be quite different but ultimately, we are aiming for the same result – improved water quality in the estuary and in our groundwater.

Letter from the Chair

Another busy summer has flown by, and all around us we see the land, rivers, flora, and fauna at rest. I know that everyone involved in the Wheatley River Improvement Group can look back at a very busy, and productive summer. Throughout this past field season, our summer students, Connor Youngerman, Brodie MacLeod, Iddo Van der Geer and Brynley Horsfield, have spent hundreds of hours improving the condition of our streams and undertaking stream/habitat assessments. I would personally like to thank them for their exceptional work and commitment to enhancing this watershed.

Although you may not see people working in and around the stream these days, WRIG itself is far from resting. This is the time of year when we evaluate what has been accomplished, make plans for the coming seasons and move ahead into the next phases of our work.

While it is going to take a lot of our focus and a major commitment of time and energy, we are pleased that the PEI Department of Environment, Energy and Forestry, Watershed

Management division, the Department of Agriculture and the Federation of Agriculture have selected our group and this watershed along with the Kensington North Watershed groups' Southwest River to implement a major study on Nitrates in our groundwater, streams and river.

Many of our residents are very well aware of the continuing deterioration of water quality in our estuary and river as this past summer saw more frequent and more widespread anoxic and eutrophic events than any previous year, so with this study comes hope for conditions to improve.

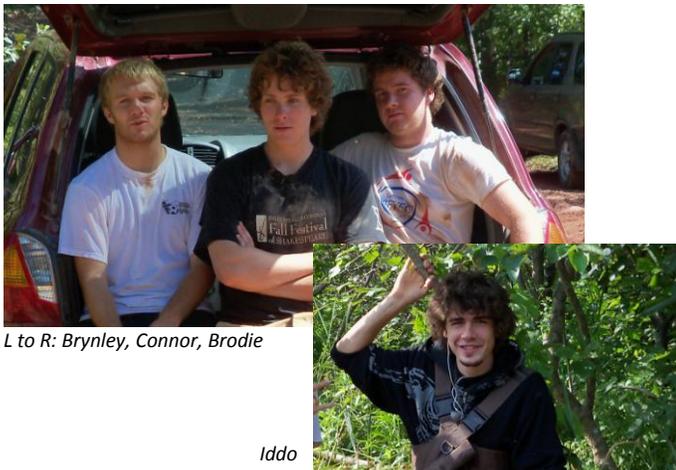
However, as with all studies and work in this watershed, we need the assistance and support of residents. This project will only be successful if we can encourage full involvement by all who live here.

Since the next Newsletter will not be sent out until after Christmas, I would like to wish everyone a happy and safe season. I also hope that I can count on everyone living within our watershed to help us improve it. Remember.... upstream, or downstream, we are all part of this watershed.

James Kemp

Report from the Field

Our field crew completed its summer term in late August. A combined 28 weeks of full-time work has resulted in trails being built, reaches of stream being reclaimed and improved, native trees being planted, and a complete riparian assessment performed. Over 800 trees and shrubs were planted in the riparian and buffer zones of the lower reaches of the Wheatley River.



L to R: Brynley, Connor, Brodie

Iddo

RIPARIAN ASSESSMENT

A summer student was jointly employed by WRIG and the Hunter/Clyde Watershed to perform stream assessments throughout both watersheds. Physical characteristics of the stream sites (e.g., water depth, percent sediment, canopy

cover, buffer zone size etc.) indicated their relative health. Problem areas (e.g., beaver dams, improper crossings, evident runoff sites etc.) were also identified. The completed assessment of Wheatley River watershed will provide future work crews with a helpful tool to determine which parts of the river require the most immediate work. The field crew performed an additional assessment of the river's health based on benthic invertebrate community composition.

STREAMWORK

Stream work was the predominant activity this season. Over 2 kilometers of clogged stream was reclaimed. Improvement projects took place on both main branches of the Wheatley River. The lower reaches of both feeding tributaries (one flowing from the Little Bungay Road; one flowing from the Art-Ford Cross Road) were active work-sites over the course of the summer. Brush-mats were installed throughout all the work sites where it was deemed suitable.

CONCLUSION

Many kilometers of the Wheatley River and its tributaries remain to be worked on. Alders need to be cleared, brush-mats installed, trails blazed, garbage picked up and collapsed crossings removed. More importantly, land-use practices need to change. Sedimentation, nutrient enrichment and forest destruction remain among some of the greatest obstacles to the reestablishment of Wheatley River to its natural state. WRIG is an exemplary force for environmental stewardship and ecological protection. It has truly been a privilege and a pleasure to be a part of it this year.

Connor Youngerman, Field Supervisor

WRIG Educating



WRIG interns Kerri Wheatley and Cory Zyla with UPEI Biology class. Also pictured: Ann Wheatley (L, no relation) and Jim Kemp (R)

The Wheatley River Hall was filled to capacity on Monday, October 4th, with first-year U.P.E.I. students enrolled in one of our Chairperson Jim Kemp's introductory biology courses. Organized by Coordinator Tracy Gallant, the session consisted of presentations by WRIG interns Cory Zyla and Kerri Wheatley, and by Sean Ledgerwood from the Department of Environment, Energy and Forestry. Tracy talked about the history of WRIG and introduced the DVD "A Song for Our River", and then rounded out the

afternoon by leading a tour of Rackham's Pond.



Tracy Gallant in the field

One of the goals of WRIG is to encourage better understanding of watersheds, the issues affecting their

health and strategies for addressing those issues. What better way to do that, than to invite people to spend an information-filled afternoon in Wheatley River.

Close to 500 students (from Grade 1 to University) have taken part in educational activities at Rackham's Pond. WRIG in partnership with Hunter/Clyde Watershed Group plans to develop more educational programming in this direction with a view to further engaging students and the wider community.

Cory & Kerri, WRIG Interns

in conjunction with the Canadian International Development Agency (CIDA), WRIG has welcomed two interns over the past few weeks. Cory Zyla from western Canada and Kerri Wheatley from PEI are enjoying what they describe as "the extraordinary opportunity to intern with two excellent organizations over the next 8 months: The Wheatley River Improvement Group (WRIG) in PEI and La Asociación Comunitaria Unida por el Agua y la Agricultura (ACUA) in El Salvador."

Both organizations are concerned with the management of water quality. ACUA's ongoing analysis of how climate change may impact regional water resources and communities promises to be fascinating. Here in Canada, through the excellent and engaging staff of WRIG, Cory and Kerri have learned about and applied many key principles of watershed management.

A DAY ON OUR RIVER FESTIVAL

WRIG's third annual Day on the River Festival was downsized a bit this year, then rescheduled by Hurricane Earl from September 4th to 11th. Even high winds and drizzle on the following weekend, failed to deter 300 yellow racing ducks escorted by a healthy entourage of WRIG supporters along Rackham's Lane and down to the pond to compete in this year's Wheatley River Rubber Duck Derby.



Rubber ducks unlimited



Led by local piper Mark Douglas and WRIG's Official Duck Master Allie McCrady, the crowd and the 2010 River Wardens, Haley Blacquiere, Calvin Gallant, Jacob Gallant and Adrien Buote marched boldly to the starting gate.

Many thanks to everyone who braved the stormy conditions to attend the race and to all who adopted racing ducks to make this year's fundraiser a great success.

RACKHAM'S POND - PHASE II

Visitors to Rackham's Community Pond this season have seen the remarkable transformation achieved in just 2 years. Many have enjoyed their time either connected to a fishing rod, walking the trails, swimming their dogs, picnicking, kayaking or just enjoying the beautiful scenery. Usage has far exceeded expectations and to our delight, visitors have taken very good care of and showed great pride in keeping the area clean, beautiful and almost litter free.

Elimination of sediment from the river and protection of the pond is paramount to WRIG and in this connection we have met and worked with the Dept. of Transportation and Infrastructure Renewal to improve clay road and crossing conditions above the pond area.

Phase II of the pond restoration project took place in late September when Wayne Boyer from Island Coastal Services returned with the extended reach Hymac excavator to dredge an 88 meter (289 feet) section of river bottom.



River depth here has been improved from 12-18 inches to 6 or 7 feet and will now serve as safe habitat for aquatic species and likely as a spawning area for brook trout for many years. The area will also serve as a catchment site for sediment flowing downstream, allowing silt to settle out here before it enters the much deeper pond and the river below.

Thanks once again to our partners for financial and technical support and to landowners Grant Rackham, Stephen Rackham, Eileen Axeworthy and Stewart MacRae for allowing the Hymac machinery access to the work site.

Community Events

- **Remembrance Day Ceremony, Thursday, November 11th 11 am - WR Cenotaph followed by a Service of Remembrance at the Wheatley River Hall**
- **An Old Fashion Christmas Concert, Saturday, November 20th 7:30 pm - WR Hall**



www.wrig.ca

With Facebook penetration now at 46% across PEI, webmaster David Gladstone reports that our website will soon add a link to the social media giant. We will also feature regular online updates on the Pilot Nitrate Study and other news as it happens. Let us know what you'd like to see on the site. Any and all ideas are welcome at david@wrig.ca.

Please Consider Joining Our Membership

Individual or Family \$10.00
Corporate or Supporting \$50.00
Simply clip this out and mail it to:

The Wheatley River Improvement Group
c/o Pierre-Yves Daoust
RR #3 Hunter River, PE
COA1NO

Name _____
Address _____
Telephone _____
Email - Would you like to be notified about upcoming WRIG meetings and events? _____
YES _____ No Thanks _____

Please visit us online at...
WRIG.Blogspot.com

