

waterlines

COVEHEAD-BRACKLEY WATERSHED NEWS

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WATERSHED ENHANCEMENT PLANS 2012

FCBB is planning another busy summer and fall completing the following watershed enhancements:

- Complete Wildlife Species Indicator surveys
- Host 4 Molson-Evergreen stewardship events
- Clean all 5 streams from springs to estuaries
- Install more brush on existing brush mats
- Plant 500 native trees and shrubs with rabbit protection
- Build an accessible fishing dock at Cass's Pond
- Complete erosion reduction measures on Covehead Bay
- Build and hang additional bird and bat boxes
- Monitor local eagle and duck banding
- Participate in Canada Day celebrations with a display booth
- Educate on shoreline erosion reduction
- Test streams, springs, ponds, estuaries and bays with new water testing equipment
- Develop more wetlands and wetland education
- Measure silt depths in estuaries
- Clean Covehead and Brackley Bay shorelines
- Host tours for schools, politicians and resource persons
- Install interpretive signs at Cass's and Marshall's ponds
- Host a Youth-Eco-Learning Day
- Plant more salt-resistant shrubs along shoreline erosion sites
- Complete development of a Wildlife Habitat Assessment Plan
- Complete and mail 2012 newsletters
- Test for nitrates in drinking water
- Establish and measure erosion monitoring points
- Monitor anoxic events in Bays
- Host summer resident meeting



2012 FCBB crew: Max, Nathan, Wanson, Brianna and Justin.

CONNECT WITH FCBB ONLINE

FCBB is developing a new website at www.fcbbwatershed.ca and creating a Facebook page (search for "Friends of Covehead Brackley Bays") where we can display current activities, and share

photos and progress. Community input, questions and suggestions are welcome!

FCBB will still maintain a presence on our community website, www.stanhopecovehead.pe.ca

Sign up for the Molson Canadian Red Leaf Projects
Saturday, June 30, 2012
molsoncanadian.ca

NUTRIENT MANAGEMENT AND WATER QUALITY

FCBB tests many groundwater (springs) and surface water (ponds, streams, estuaries) locations on a weekly basis over the summer. By testing for temperature, dissolved oxygen, pH, phosphate and nitrates at the same locations each year, we are able to make comparisons of water quality and note any changes and improvements.

FCBB hopes to work with the many great farmers in our community to help identify potential areas of runoff and excess nutrients. We would like to further reduce the amounts of excess nutrients that percolate down through the soils and enter the waterways through many of the 125 springs in our watershed.

Three excellent studies have been completed by PEI Departments of Environment and Agriculture, Agriculture and Agri-Food Canada and participating producers. One study, *Nutrient Management*

and Water Quality measured nitrate levels leaving the root zone using different fertilizer types and compared crop yields using organic and chemical fertilizers.

Another study, *Investigation of Groundwater Nitrogen Cycling in 2 Agricultural Watersheds on PEI*, compared the presence of nitrates in groundwater in different watersheds using different timings of organic and chemical fertilizer and different tilling practices.

A third study, *Evaluation of Potato Calculator Software and Environmentally Smart Fertilizer for Reducing Nitrate losses*



in Potato Production on PEI, evaluates the use of a computer software Potato Calculator to predict the timing and amounts of nitrogen application for optimum crop uptake and growth as well as examining the results of a slow-release nitrogen fertilizer (ESN).

These studies are all free and available at the information racks at Agriculture Canada Research on University Avenue, Charlottetown. Each study provides good discussions and conclusions regarding optimum use and timing of nitrogen-based organic and chemical fertilizers on common PEI agricultural crops.

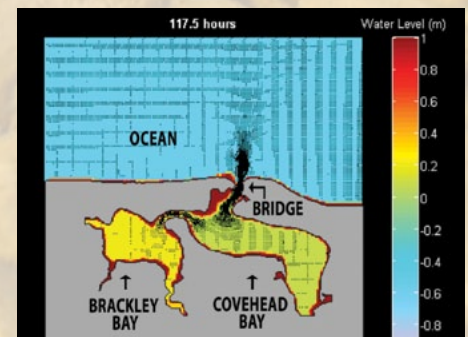
Uptake and use of the suggestions provided would increase the amounts of nitrogen used by the crops thereby reducing the amount of nitrogen remaining to percolate to the water table, underground streams and PEI waterways.

MODELLING PROJECT FOR COVEHEAD & BRACKLEY BAYS

Research is underway to evaluate the flushing (tidal water exchange) in Brackley Bay. High and low tides flow through the narrow opening at Covehead Bridge, resulting in restrictions and tide delays. Also, a deposit of sand, vegetation and shells appears to be growing across the mouth of Brackley Bay. After consultation with Fisheries

and Oceans Canada regarding removal of this obstruction, we were advised that modelling would need to be completed to determine the impact of any dredging.

Mark MacNeil, an oceanographic consultant from Halifax, will be completing a hydrodynamic model proposal for Covehead basin (Brackley Bay and Covehead) to illustrate the problem.



WILDLIFE SURVEYS



Eagle's nest at Bell's Creek.

Provincial Forest, Fish and Wildlife staff are working with the Friends of Covehead-Brackley Bay to develop a simple method for assessing wildlife populations and health in PEI watersheds. Six indicator species (ruffed grouse, black duck, bald eagle, leopard frog, beaver and brook trout) were selected for annual spring surveys to indicate the overall health of other watershed wildlife. FCBB has completed evaluations of species richness (the

number of different species seen in the watershed) and an assessment of watershed strengths, weaknesses, opportunities and threats.

We are currently collaborating with Provincial Wildlife staff on watershed heterogeneity (comparisons of different types of habitat within the watershed) and determining a percentage of protected area in the watershed (available from Provincial 2010 aerial photos).

PARKS CANADA TOP FIVE ECOSYSTEM INVADERS

Alien invasive species are organisms that have been introduced outside their natural home range and that spread rapidly. In some cases, these species can have detrimental impacts on ecosystem structure, productivity, nutrient cycles and soil chemistry.

Parks Canada considers the early detection of invasive alien species critical for ecosystem protection and is monitoring forest, coastal and wetland ecosystems for five priority alien invasive plants:

- Japanese knotweed
- Garlic mustard
- Glossy buckthorn
- Purple loosestrife
- Scotch pine

One of the biggest challenges is that these plants can easily be unknowingly introduced as seeds are carried on shoes

or transported in materials such as soil or road gravel. The early detection of these ecosystem invaders will permit timely action at a stage where the impacts on the ecosystem are not significant. Parks Canada has tested a variety of treatment options to control or eliminate these plants. Many of these plants are persistent and pulling the plants can have adverse effects, resulting in an increase in the number of plants.

You can help!

Obtain an invasive species identification guide from Parks Canada. Watch for the top five alien invaders during your visit to PEI National Park and report sightings. Landowners can survey their properties for alien species. Parks Canada can provide specific instructions on how to eradicate the species.

For more information or to contact Parks Canada, please email us at: PNIPE.PEINP@pc.gc.ca or call us at (902) 566-7050.



Parks Canada staff taking measures to eliminate an alien invasive species - Japanese knotweed.

CLIMATE CHANGE AND EROSION REDUCTION

PEI has 3,300 km of coastline and has experienced a 30 cm rise in sea



level between 1911–2000. Predictions for 2000–2100 include 100 cm of sea level rise with an additional 60 cm storm surge every 2 years. The exterior coastline of PEI experiences the most severe erosion with one location in Savage Harbour having lost 200 metres of shoreline since 1962. However, PEI bays and estuaries still lose shoreline from the same forces (wave action, sea level, storms, temperature, freeze and thaw, runoff, and human causes) but to a lesser extent.

FCBB has been measuring erosion rates and in 2010, constructed a low-

cost demonstration site on Covehead Bay at an exposed area. On December 21, 2010 a perfect storm of high tides, storm surge and high northwest winds removed 50 cm of shoreline bank beside the demonstration area (control area).

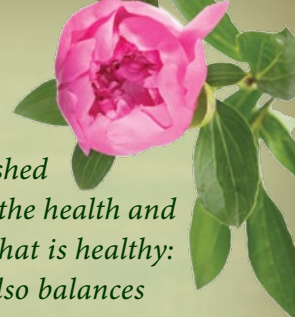
This year FCBB, with assistance from PEI Transportation & Public Works, Island Coastal, and Island Construction will complete another 50 metres of low-cost shoreline protection covering the vulnerable area. This will demonstrate the value of low-cost erosion reduction methods as well as protect the nearby walking trail and highway.

FISHING DOCK AT CASS'S POND

FCBB is constructing a fishing dock at Cass's Pond that will allow access for wheelchairs along with fishers of all ages. The platform will extend over the water by 3 feet and have a bench at the back of the 12 feet by 12 feet deck as well as an access ramp.

An interpretative sign showing the pond wildlife will be attached to the dock, as well as a sign designating the structure in memory of David Latimer, a long-time advocate and co-chair of FCBB. Construction has begun and will be completed by August.





Friends of Covehead-Brackley Bay Inc. (FCBB) is a community-based volunteer organization established in 2000 and incorporated in 2001. It was formed by a group of community members concerned with the health and sustainability of the Covehead-Brackley watershed area. Its mandate is to create a watershed area that is healthy: one which nourishes the land and water; one which is sustainable to native flora and fauna; and, also balances the interests of residents, including those working in aquaculture, forestry, agriculture, fisheries and tourism.

PUBLIC PARTICIPATION EVENTS

On the morning of June 3rd, 45 people signed up for the Molson Evergreen Covehead Bay Beach Cleanup. A full truckload of garbage was collected



along the eastern shore of Covehead Bay. That afternoon, 50 people signed up for Molson Evergreen long-lived tree and wildlife shrub planting around a new watershed wetland. All participants received a t-shirt, beer, snacks and a ticket to the Cavendish Beach Music Festival.

Two more stewardship events will be held with Molson Evergreen, FCBB and Parks Canada. People

can sign up for the Molson Canadian Red Leaf Project events by going to molsoncanadian.ca and following the link to sign up for the events on Facebook. Participants will meet at Richard's Seafoods at Covehead Wharf, board a bus to Stanhope Place, and then on to the event locations.

The date and times are:
Saturday, June 30, 10:30 am – 12 noon
 and/or
Saturday, June 30, 1:30 pm – 3:00 pm

CHARITABLE STATUS ACHIEVED

Friends of Covehead-Brackley Bay have achieved Charitable Status from Revenue Canada. This means we are able to offer charitable receipts for donations that can be used as deductions from income tax. Eligible donations include money; ecologically

sensitive land for conservation and education; capital property like a 4-wheel drive truck in good condition; and, personal property like art.

Donors receive a charitable receipt which is then used to reduce payable taxes at the rate of \$415.20 for every

\$1,000 in value up to 75% of your net income for money and capital property and up to 100% for ecologically sensitive land. Please contact FCBB Board of Directors, Verner Smitheram (672-2400) or Wanson Hemphill (672-2182) for more information.

FUNDING PARTNERS

Friends of Covehead-Brackley Bay Watershed wish to thank the many funding partners and great volunteers, without which, very little could be accomplished.

2012 Funding Partners:

- PEI Dept. of Environment, Labour & Justice
- PEI Dept. of Transportation & Infrastructure Renewal
- Honourable Robert Vessey
- TD Friends of the Environment
- Home Depot Foundation
- Royal Bank Community Fund
- Canon Take Root Program

- Environment Canada
- Greening Spaces Program
- Parks Canada
- PEI Jobs For Youth
- PEI Wildlife Conservation Fund
- Walmart-Evergreen Program
- North Shore Community Council
- Evergreen Foundation
- Canada Summer Jobs
- FCBB Volunteer Board of Directors

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Parks Canada
 Parcs Canada

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Please visit our websites:

www.stanhopecovehead.pe.ca
www.fcbbwatershed.ca

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