



## **2016-2017 PEI Watershed Management Fund Report**

### **Ellen's Creek and Hermitage Creek Watershed Management Project**

**ELLEN'S CREEK WATERSHED GROUP INC 2014  
CHARLOTTETOWN, PEI**

Prepared for



**Forests, Fish and Wildlife Division**

April 30, 2017

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## 1.0 EXECUTIVE SUMMARY

Our measure of project success is simple, are we succeeding in growing the brook trout population as an indicator of a healthy watershed in Ellen's Creek, Hermitage Creek and Hazard's Creek? In Ellen's Creek, we believe we are. In 2017, we saw more brook trout, and larger brook trout the full length of Ellen's Creek than any season since we began in-stream rehabilitation in 2014. With our partners, the Government of Canada, the Province of PEI, the PEI Wildlife Conservation Fund, and the City of Charlottetown, we believe we can accomplish the same in Hermitage and Hazard's Creek.

## 2.0 ORGANIZATION CONTACT INFORMATION

**Main Contact:** Norman Dewar, Watershed Coordinator

**Mailing Address:** 43 Summer Street, Charlottetown, PE, C1A 2P9

**Email:** [normdewar@gmail.com](mailto:normdewar@gmail.com)

**Phone:** 902-569-9115 (H) or 902-393-6461 (C)

## 3.0 GOVERNANCE

According to our bylaws, the ECWG Board of Directors is comprised of a minimum of three and a maximum of seven members.

Board of Directors 2016-2017

Name	Position	Sector
Darragh Mogan	Chairperson	Homeowner
Norman Dewar	Acting Secretary	Watershed Coordinator
Doug Miller	Treasurer	Homeowner
Barry Maze	Webmaster	Homeowner
David Kidd	Director	Angler

Since ECWG formed in 2009, we have lost three board members (relocated), and gained two. We recognize the need to recruit more board members from different sectors, and have identified this as a goal in our 2017-2018 work plan.

The watershed group meets on the first Thursday of each month at the West Royalty Community Centre at 7:00 p.m. Minutes from past meetings are posted on our website once approved. The meetings are open to anyone who wishes to attend. Participation at meetings is between 5-6 people which has been stable since the formation of our group in 2009. A representative from the Wright's Creek Environmental Management Committee attends our regular monthly meeting. In 2016-17, we held 6 meetings. We do not normally meet from June to September. Minutes from our monthly meetings are available to the public @ <http://www.ellenscreekwatershed.ca/meetings.html>.

According to our Bylaws, membership is open to any persons, and/or corporations, who live in the Ellen's Creek Watershed, any person or corporation who owns real property in the watershed, or operates a business in the watershed, or who have lived or operated a business in the area at least 6 months. Membership is currently free of charge.

We do not have a physical office. However, the West Royalty Community Centre is used as an operational base during the summer field season and the City of Charlottetown has granted us permission to use the Committee Room in the Centre for meetings.

## 4.0 COMMUNICATION AND OUTREACH

### a.) Communication;

We use Twitter for news. We post regularly updates on Facebook on the work we are doing, and occasionally repost items of interest. Our reach on Facebook for some posts has hit over 1800. We maintain a webpage presence as an information repository. We don't publish a newsletter due to the cost, and questionable effectiveness. Our communication strategy is working and has improved public awareness of ECWG and what we do.

#### Twitter



**Ellen's Creek WG**

@EllensCreekPEI

Building capacity in PEI Watershed Groups.  
Trout Unlimited Canada Stream  
Rehabilitation Training @RobMitchellMLA



RETWEETS

4

LIKES

3



4:51 PM - 23 Jun 2016 from Hunter River, Prince Edward Island

*Facebook*

 **Ellen's Creek Watershed** in  Charlottetown, Prince Edward Island.

Published by Norman Dewar (7) · 31 October 2018 · 

Macphail Woods Ecological Forestry Project, you grow big trees! Here Dan and Eric from Macphail Woods are wrangling this red oak monster into place as part of the Living by the Creek Project. It was at least 16 ft tall. We use large caliber trees like this to jump start riparian zone rehabilitation in areas where there are no trees or shrubs. Macphail Woods is our preferred source for large native trees. They are always perfectly pruned with a well developed root system. We have had great success with them.



The photograph shows two men, Dan and Eric, working in a field. They are pulling a large, thick red oak tree trunk into place. The trunk is leaning against a stack of cut logs. In the foreground, there is a large green tarp. The background features a grassy field, a white building, and a line of trees under an overcast sky.

1,872 people reached [Boost post](#)

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In the News

Our Habitat Stewardship Project, Living by the Creek, was featured in a City of Charlottetown Press Release and was covered by CBC PEI, both on the radio and online under the smartly worked title, "[Ellen's Creek and its brook trout get help with life in the City](#)".

### Ellen's Creek and its brook trout get help with life in the city

Living by the Creek project to help repair riparian zone

By Kevin Yan, CBC News | Posted: Oct 21, 2016 2:02 PM AT | Last Updated: Oct 21, 2016 2:02 PM AT



Worker Kate Barnes does some planting in the riparian zone of Ellen's Creek. (Submitted)

61 shares

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A creek that runs through the north of Charlottetown is getting some help recovering from urban encroachment.

Ellen's Creek starts near Royalty Junction Road in Winsloe and runs down to Queen Elizabeth Park, where it joins with North River.

The Ellen's Creek Watershed Group has received government help for its Living by the Creek project, which will encourage property owners along the creek to take better care of the riparian zone, that area where the stream meets the land.

**"It's better to let nature go a little bit wild."**

- Norman Dewar

"The big thing, and the ongoing thing, is to change people's attitudes," said watershed group co-ordinator Norman Dewar.

"People like things nice and pretty and everything under control when it comes to nature. Sometimes it's better to let nature go a little bit wild."

#### A habitat for birds and fish

The group will encourage property owners to leave a strip of wildness along the edge of the stream. In some cases it will offer free native trees, shrubs and plants for planting in the riparian zone.

A healthy riparian zone is excellent habitat for birds, said Dewar, and makes for a better ecosystem in the stream, which is home to brook trout and other fish.

The total budget for the project is just over \$46,000. The federal government is contributing \$19,200. The city and other partners are putting up the same amount in in kind contributions, including help from city workers.

The city is also contributing \$4,000 in cash, as is the watershed group itself.

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Weather

Saturday	Sunday	Monday	Tuesday
 16°C	 8°C	 7°C	 8°C
Wednesday			
 8°C			

[More Weather](#)

On Oct 25, 2016, we attended the Green Communities Session which was sponsored by the City of Charlottetown, and were honored with a special mention for the work our group is doing. This conference was attended by organizations, municipalities, and governments from across PEI and the Maritimes.

## b.) Outreach;

#1: We demonstrated the Enviroscape Watershed Model (purchase was a joint project in 2014 between ECWG and UPEI Let's Talk Science) at the Earth Expo held April 23, 2016 at the Farm Centre which was covered by The Guardian. An estimated 450-500 people attended.

**THE GUARDIAN**  
MONDAY, APRIL 25, 2016  
www.theguardian.pe.ca

**province**

WATERSHEDS

# Sowing sustainable seeds

Environmental lessons get driven home to young Islanders

BY MITCH MACDONALD  
THE GUARDIAN

Seeds of sustainability were sown into the minds of young Islanders this weekend.

A spray bottle, some Gatorade mix and a small watershed model, was all that was needed to explain to many youngsters the complicated issue of runoff entering streams during Saturday's sixth annual Family Earth Expo held at the P.E.I. Farm Centre in Charlottetown.

Norman Dewar, of Ellen's Creek Watershed Group, spent much of the day sprinkling the Gatorade mix on top of the model, which included all the basics of a watershed from farm and streams to industrial areas and parking lots.

From there, kids were allowed to re-create a rainfall with the spray bottle and witness the effects firsthand.

"They can see how contaminants in soil and oil on roads run off into the streams and lakes," said Dewar. "It's supposed to demonstrate anything on land will eventually end up in the streams."

One of the most important lessons came from water model trays which, thanks to a sponge underneath, soaked up much of the runoff.

"We're trying to demonstrate how trees can prevent soil runoff," said Dewar, who was surprised at how easily most kids grasped the concept. "Some kids come over, look at the parking lot and say well, that's not good, everything is going to run off that." That's something that not every grown-up can get their head around.

The expo was hosted by the P.E.I. Sierra Club and saw a number of family-friendly science-based fun including seed planting, information booths by green businesses and environmental groups, electric cars on display and more.

Booths calling for electoral reform and a moratorium on fracking in the province were also at the event, while presentations were held on a number of topics, from combating white-nose syndrome in bats to the proposed energy east pipeline.

Organizer Jordan MacPherson said booths like the watershed help teach children some of the more abstract ideas surrounding environmentalism.

"Adults can get them, but to communicate them to a kid there needs to be something there for them... I think it's beneficial to everyone when you have things like that to get their attention," he said.

Proceeds from the day will go towards supporting the Club's Wild Child Program, which teaches kids about wildlife and the watershed.

MacPherson said the upbeat nature of the event also helped bring in some unfamiliar faces.

"When this is focused on fun and the community, you see faces that you don't always see when you hold a meeting," he said.

"It's great because you know you're introducing new ideas to people who haven't heard them before instead of preaching to the choir."

MITCH MACDONALD@PEI.GU  
twitter.com/With\_PEI

**COURT** **CRIME**

2) We sponsored a City Arbor Day event on May 20, 2016. Eight Grade 6 classes (200 students) planted 140 native trees and shrubs at the West Royalty Community Centre.

3) We hosted a RBC Bluewater Day on June 4, 2016. The 14 volunteers divided into two groups. One completed a stream cleanup while the second planted trees and shrubs at the site of our 2015 Sherwood Road Crossing Rehabilitation Project.



## 5.0 OTHER COMMUNITY INVOLVEMENT

We joined with the Cornwall and Area Watershed Group and Winter River Tracadie Bay Watershed Group for a stream rehabilitation day in the North River Watershed.

## 6.0 ACTIVITIES REPORT

### Activity Status Update

2016-2017 Work Plan	Status
Implement goals and actions outlined in the City of Charlottetown Brook Trout Conservation and Protection Plan.	Ongoing progress through the Charlottetown Urban Watershed Committee (CUWC).
Continue fish and wildlife habitat restoration on the Ellen's Creek and Hermitage Creek Watersheds: a) In-stream flow restoration through the removal of plastic and other garbage from the stream bed; b) Removal of in-stream barriers to fish migration created by fallen trees, debris and garbage; c) Riparian zone enhancement through the planting of native trees and shrubs, and the release of native species through the removal of invasive species such as glossy buckthorn and chinese knotweed.	Complete. Ellen's Creek (3.5 km) requires on-going annual maintenance because of the high human impact of a growing urban population (80% of our in-stream work in 2016). Hermitage Creek and Hazard's Creek (20% of our in-stream work in 2016 but % will increase in 2017).
Expand our riparian health public awareness project.	Expanded through our HSP "Living by the Creek Project"
Measure stream and spring flow rates. This is a very important activity but to depends on access to accurate water flow measurement equipment.	Stream and spring flows were documented but flow rates were not taken because we could not obtain the equipment required.
Resume surface water chemistry testing.	Full chemistry profile by the PEI Analytical Lab at 2 monitoring locations. In 2017, collaborating with HC on a City-wide surface water assessment project.
Organize and host one or more community volunteer events.	Organized and hosted 2 community volunteer events.
Complete a large storm water demonstration in collaboration with the City of Charlottetown.	Through the CUWC, advanced a stormwater demonstration project at Simmons Sports Centre.

Plan and source partners for a 2017 storm water project.	In progress. Contacts made in 2016. Project in Hazard Creek scoped. Work continuing in 2017.
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## Over and Above

1.) Our Habitat Stewardship Project, “Living by the Creek “, was not included in our work plan as approval was received after our WMP application was submitted. Urban encroachment into the riparian zones was identified in the City of Charlottetown Brook Trout Conservation and Preservation Plan 2015 as a major challenge to the future health of the brook trout in Ellen’s Creek. This project attempted to address the issue of urban encroachment through the following activities; on-site consultation on riparian zone best management practices with landowners, rehabilitation through the planting of native trees, shrubs and plants, and the development and distribution of a practical guide for urban landowner riparian zone best management practices.

The results to date;

- Outreach to landowners through social media, and local media coverage resulted in 6 private landowners who wished to make improvements in the riparian zone on their property.
- Approximately 1.0 sq km of Riparian Zone was improved in 6 private properties, 2 public properties, and 1 commercial property through the planting of 20 large caliber trees, 60 1 gal trees and 120 1 gal shrubs.
- A 4-page riparian zone best management practices guide was created which includes a self-assessment guide. The 250 fan fold brochures from the fact sheet are being created for mail distribution this spring.
- Educational signage produced that will be placed in 2017.

2.) Arranged for stocking of Hermitage Pond with brook trout.

3.) We believe we are the only watershed group on PEI that tracks changes in stream habitat through the ongoing collection of data related to garbage removed, stream flow, and changes in the stream bed.

## 7.0 PROJECT PHOTOS

### 1. Stream Blockage Removals:

RBC Blue Water Crew clearing what is a chronic blockage at the large box culvert under the Charlottetown Bypass. We delayed clearing this blockage until after the smelt eggs at this location hatched.



Before (Large dead spruce trees are very common cause of blockages on Ellen's Creek because of historic land use as cattle pasture. They can very quickly block a stream. This tree fell December 2015. The photo was taken in July/2016.



After



Low water levels, and lots of sun encouraged the growth of watercress which can become invasive. Excessive growth alters stream flow and traps sediment. Normally, it is a minor issue but not 2016.



## 2. Smelt Run:

In 2016 saw the largest and most sustained smelt run in Ellen's Creek in memory. For the first time, smelt spawned above the Lower Malpeque Road at the Bypass box culvert.

Smelts schooling at the Lower Malpeque Road Culvert



Smelt eggs below the box culvert at the Charlottetown Bypass



### 3. Riparian Zone Rehabilitation:

Planting trees and shrubs in a side slope created by housing development. This was our first use of sweet fern in a rehabilitation project.





Planting large caliber trees in the old Gates Mill pond basin.

## 5. Garbage Removal:

Photo below was taken in Hazzard Creek below the Bypass. The volume of garbage we remove is relatively unchanged but in Ellen's Creek, we are removing older, "vintage" garbage which may be an indication the stream bed is slowly rehabilitating to where it was 40-50 years ago.

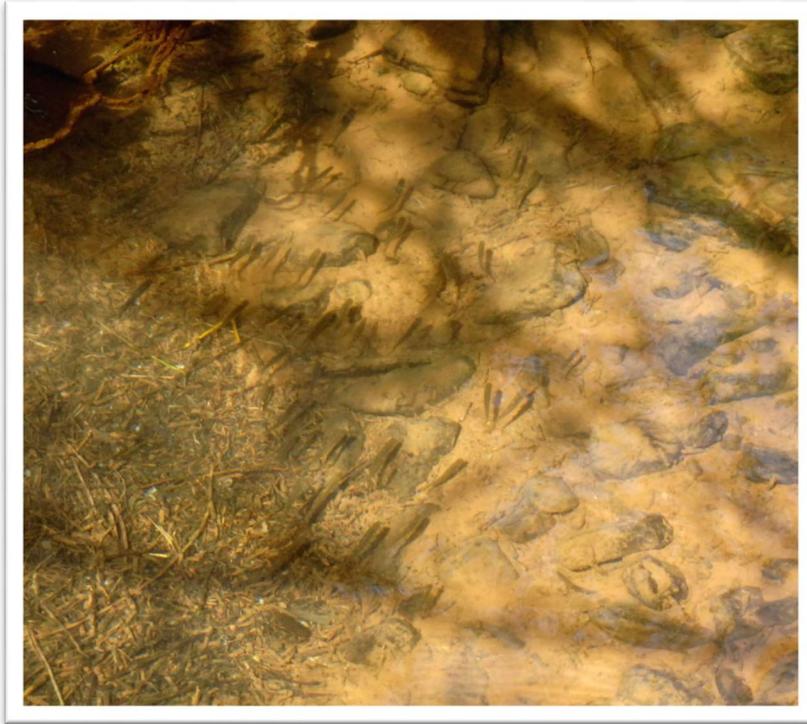


## 5. Invasive Species:

There are single purple loosestrife plants randomly scattered through Ellen's Creek that we dig up and remove. However, there is a large patch near Capital Drive. It is too large to dig out so we cut all the flower heads and removed them. We will monitor this site to see if it reduces the infestation.



## 6. Project Outcomes:



We saw more schools of young of the year brook trout in more locations in Ellen's Creek than any other field season.



and more large brook trout than ever before when we did our electrofishing survey.

We are also seeing evidence of more angling activity. Below is an obviously well used fishing spot.

