

# LEEDS GRENVILLE STEWARDSHIP COUNCIL

2017 Annual Report



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## Message from the Chair

2017 was another busy year for Leeds Grenville Stewardship!

From Wood Working for Wildlife workshops in local schools in the winter and spring, tree planting with high school students, planting and maintenance of a butternut grove as a compensation project, continued efforts in the recovery of the gray ratsnakes in the Frontenac Arch and outreach activities (to name just a few), the LGSC volunteers were kept busy! Read on to hear about all the details of our efforts in 2017

This year saw our ranks diminish somewhat with the “retirements” of long-standing volunteers – Kerry Coleman and Ted Royal. Another long standing member, Amy Mackie, moved onto an amazing career opportunity out of the United Counties. Our sincere thanks go you for all you have done for stewardship and the Council!

We cannot do our stewardship work in the United Counties without the support and encouragement of our many partners. In particular, the Rideau Valley Conservation Authority (RVCA) and the United Counties of Leeds and Grenville, provide administrative and financial support, respectively. This has provided an important foundation to support our volunteers and to leverage additional funding for stewardship projects.

We are thankful for all of the many partners who help us to deliver more than any of us could ever achieve on our own. We look forward to their continued friendship and cooperation.

Karen Brown

## HEALTHY AQUATIC ECOSYSTEMS

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### Hutton Creek Wetland Complex

The Hutton Creek Wetland is part of a 1445 hectares (3,571 acres) provincially significant wetland complex located in Elizabethtown-Kitley Twp. about 5 km south of the Village of Lombardy. The Rideau Valley Conservation Authority (RVCA) owns the dam at Motts Mills. LGSC has partnered with RVCA and Ducks Unlimited to replace the old dam and restore the wetland's diversity. The Council members involved in this project include Dwayne Struthers and Shaun Thompson.

In order to facilitate the construction of the new dam, RVCA secured ownership of the entire dam through a combined purchase and large land donation agreement. This also agreement also included ownership of the property immediately downstream from the dam.

After several years of delays construction finally began on replacing the Motts Mills dam in August of 2015. The dam was replaced with an earthen berm water structure. The berm was installed just upstream from the old dam. It is made of rock and clay and has two steel inlet chambers to adjust or hold water levels. Ducks Unlimited, who has vast experience and knowledge in designing and building these structures for wetland purposes, oversaw the construction. The South Kanata Development Corporation voluntarily chose to make a \$250,000 contribution to the Rideau Valley Conservation Foundation to jumpstart the dam replacement and wetland restoration.

Since the construction of the old dam in 1952, the Motts Mills Dam has

played an important role in maintaining an artificially controlled water level on about 772 hectares of the Hutton Marsh. The provincially significant wetland has been well known in the past as excellent waterfowl habitat as well as important habitat for a diversity of other species. Over time, the amount of open water area in the wetland has diminished along with the diversity of plants, habitat and wildlife. There has been ongoing interest in developing a plan to restore the wetland.

Now that the new dam is in place plans and approvals for a drawdown have been finalized, funding opportunities are being explored and hopefully work will start this summer to create more open water habitat in the wetland.

A 3-4 year plan has been developed by RVCA (in consultation with the Advisory committee) for the Hutton Creek Wetland drawdown. In order to develop channels and pools of open water work must first determine: a. what type of work has to be done to create channels and pools of water; b. what type of bottom (rock or clay) exists below the cattails and sediment in the wetland; c. the location of the channels to be developed; and, d. the best location for the pools of water (a clay base is ideal). The research information would also assist in identifying the type of equipment that would be best suited to completing the excavation for the channels and pools (a backhoe, long reach machine, high hoe or a bulldozer).

In 2017 some test holes were dug in the ice and some soil analysis conducted to determine the soil substrate in the wetland and the creek. The conclusion of this work was the need to dig more test holes to find some better locations to do wetland improvements.

A plan to use a drone to fly the wetland to identify vegetation and find potential new channels was delayed due to cost.

In 2018 more holes will be dug to continue the research into where new channels and open water will be developed. This work is being done in partnership and guidance from Ducks Unlimited. RVCA is also investigating some Blanding's turtle opportunities.

Dwayne, Shaun and Kerry also conducted a Marsh Monitoring on the Hutton Creek Wetland Complex in the spring of 2017, focusing on amphibians. The program is designed to collect information about the presence and abundance of bird and amphibian species in Great Lakes coastal and inland marshes. It will be interesting to compare the results of the survey to the survey results after the wetland has been fully restored.

*New earthen berm just after completion*



*View from Earthen Berm – summer 2016*



## Partnership with Ducks Unlimited to Monitor Marshes

Ducks Unlimited (DU) recently joined forces with Bird Studies Canada (BSC) to begin monitoring DU marshes on private lands utilizing the Great Lakes Marsh Monitoring Program protocol.

DU subsequently invited LGSC to participate to monitor DU marshes on private lands within the United Counties. Many of these marshes were well known to LGSC folks – two of which are on lands owned by members – so it seemed a natural fit to join forces.

The Amphibian Surveys are for:

Green Frog	Wood Frog
American Toad	Spring Peeper
Northern Leopard Frog	Gray Tree frog
Chorus Frog	Bull Frog

And the Bird Surveys are for:

American Bittern	Least Bittern
American Coot	Pied-Billed Grebe
Black Rail	Sora
Common Moorhen	Virginia Rail
King Rail	

Everyone enjoyed a crash course in identifying the calls of the target species and did monitor the following marshes in whole or in part:

1. Dopson - Both frog and bird surveys conducted
2. Elliott – Both frog and bird surveys conducted
3. Holmes - Frog surveys conducted
4. Struthers -Both frog and bird surveys conducted
5. Motts Mill – Both frog and bird surveys conducted
6. Limerick Forest – Frog surveys conducted

#### Monitoring at Struthers DU Wetland







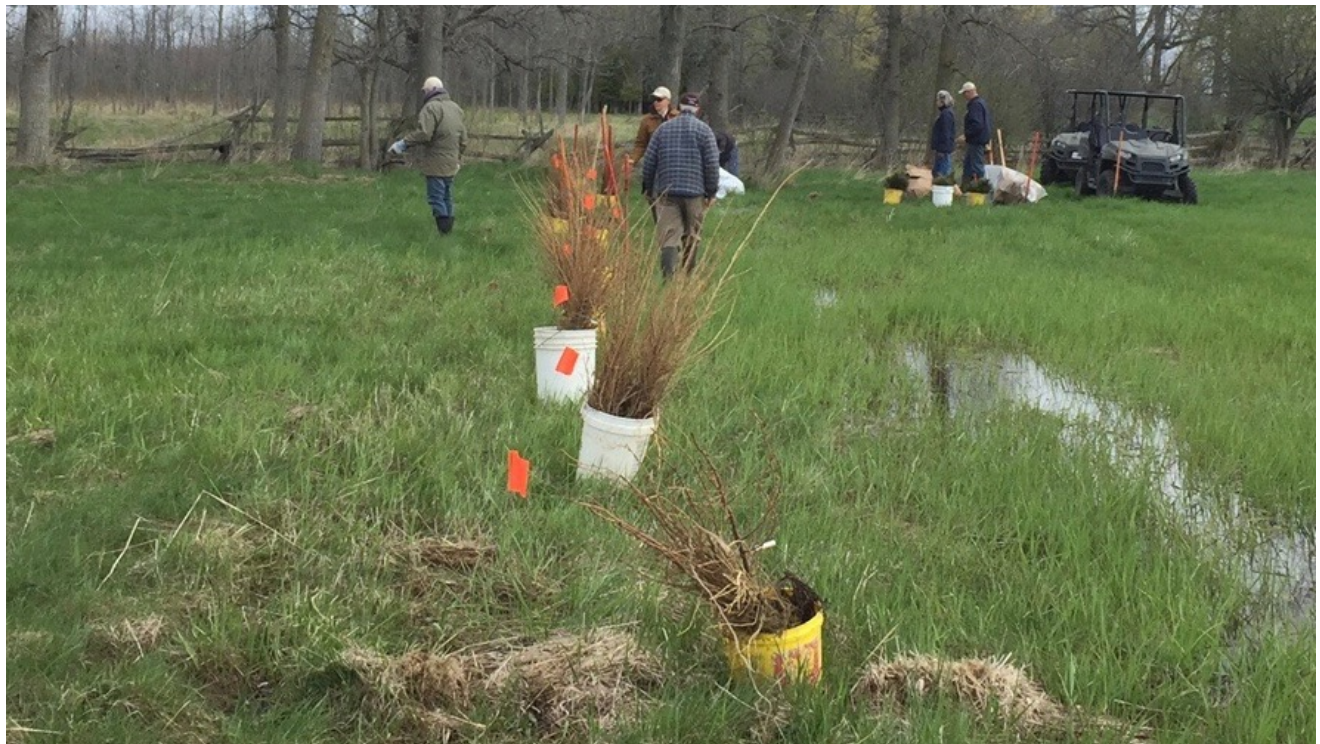
# SUSTAINABLE FORESTS

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## 50 Million Tree Program

2017 was LGSC's last year of tree planting under the Forests Ontario programs.

There were 2 sites to be planted, one new (1500) and one refill (1190). Athens District High School environmental program volunteered to help us with the new planting on the Carl Jowett property outside of Lyn. All went well that day and Carl was VERY pleased with it all. It was spot sprayed the same day by a contractor.



Students receiving instructions



A contractor completed the refill at the Lacelle property, in Lansdowne area, on the same day.

All LGSC survival assessments are now completed by RVCA and due to the extreme wet weather last year, the 2017 seedlings did not fare well.

Jowett - 30%

Lacelle – 53%

These assessments are completed by counting 10 trees in 1 row while keeping track of the live vs. dead; skip 1 row and do the same for as many rows as necessary to get 10% of the planting assessed.

## Butternut Recovery Program

LGSC partners with the Rideau Valley Conservation Authority in the delivery of the Butternut Recovery Program. Due to an abundance of seed in 2013, oodles of seedlings and seed were given across Eastern Ontario in spring of 2014. However, there was a severe shortage of Butternut seed in 2014, there were no seedlings given to LGSC in spring of 2015.

As in 2014, the Butternut in 2015, had no volume of seed / nuts. This meant that there were no seedlings to plant in spring in 2016. However in fall 2016, there was sufficient seed for Rideau Valley Conservation Authority to collect and plant.

In 2017 there were Butternut seedlings available for landowners to plant after 2 years absence due to lack of seed. 150 seedlings were given to 12 people in the County of Leeds and Grenville.

The survival rate for our County was 61% based on the information received last fall from 10 of those landowners.

There has been no indication from RVCA whether seedlings will be available for the spring of 2018 however they did do a collection in 2017 fall.

*Butternut tree range*



*Butternut canker killing this species*





Photos: L to R: Seedling, butternut seeds on a tree, seeds

## Butternut Compensation Project

This butternut compensation project came about as a result of a new industry being located in Edwardsburgh Cardinal Township near the Windmill east of Prescott.

In the process of the new industry obtaining an environmental permit, a number of butternut trees were identified, on this property, which would have to be removed to permit the construction of buildings and rail lines.

To compensate for the loss of this endangered species the Township agreed to allow a compensation plot on municipal owned land, for not only the trees being removed by this new industry, but extra trees, as needed in the future.

As a result, a butternut health assessment permit was obtained from the Ministry of Natural Resources and a multi-year Memorandum of Understanding developed between The Township of Edwardsburgh Cardinal, South Nation Conservation Authority and Leeds Grenville Stewardship Council for the planting and maintenance of butternut trees at the Blair Road site.

Thirty-nine butternut trees were planted along with forty red oak companion trees in alternating rows spaced three meters apart.

The property was mowed weekly from mid April to early October. Due to the wet summer in 2017 the gator watering system was not required.

At the official opening in October it was determined that the butternut trees had a 95% survival rate.





***Photo above: Standing in front of the grove are, from left, CREWS owner Clayton Jones, Township CAO/Clerk Deb McKinstry, Leeds-Grenville Stewardship Council's Dave Robertson, South Nation Forestry Technician Cheyene Brunet, Cliff Rogers and Jack Henry (Stewardship Council), Edwardsburgh Cardinal Mayor Pat Sayeau and South Nation representative Lawrence Levere.***

### **A healthy seedling**



## EDUCATION AND AWARENESS

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LGSC has long been committed to education and awareness campaigns concerning important environmental themes. In 2017 this tradition has continued in a variety of ways and focused on a diversity of themes as well as audiences.

### Pitch Pine Primer and Woodlot Tour

On a beautiful April morning some 30 folks came out to learn about a Pitch Pines, take a tour of a unique parcel of forested land and see the largest recorded pitch pine on record in Canada.



**Pitch Pine Primer  
and Woodlot Tour**

Tour one of the most unique forests in Ontario, just north of Elgin, Ontario. Its the largest stand of pitch pine in Canada.

You will also see the largest reported Pitch Pine on record in Canada.

Come and tour this interesting and beautiful forest, and learn about this unique species with an interesting history.

**April 29<sup>th</sup>, 2017**  
**11 am to 2:00 pm**

**Elgin Community Hall**  
**Elgin ON, K0G 1E0**

**\$20 per person**  
Lunch included

Preregister to hold your spot  
email: [onpitchpine@gmail.com](mailto:onpitchpine@gmail.com)

Tour limited to aprox 30 people.



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

This woodlot was discovered in 2009 when an OMNRF Managed Forest Tax Incentive Plan was completed. The native growing range of pitch pine is typically in the mid- to northeastern states and reaches into Canada only in Leeds County. This woodlot is dominated by Pitch Pine but also has mature and over-mature White Pine and Eastern Hemlock as a major component. Other tree species scattered throughout Red, Bur & White Oak and Hard and Soft Maple.

Pitch Pine was valued in shipbuilding for its relatively rot resistant lumber. Likely its slow growth rate and high pitch content contributed to this resistance. In addition Pitch Pine and the other southeastern pines [Pond, Loblolly and Shortleaf] were important producers of naval stores, such as, tar, pitch and turpentine.





## Children's Water Festival

LGSC is a proud sponsor and contributor to the Children's Water Festival hosted each year by the St. Lawrence River Institute.

The purpose of the program is to educate young people about the value and fragility of our water resources.

The Festival features approximately 30 hands-on Water Discovery Centers that address five different water related themes:

- Water Conservation,
- Water Protection,
- Water Attitude,
- Water Technology, and
- Water Science.

Within these themes, a variety of other issues are presented such as: groundwater and wells; septic systems; hydropower; contaminants in rivers and lakes; and invasive species. The stations are designed to be hands on, minds on, with an environmental flavor for the elementary students

The 2017 Spencerville Children's Water Festival was held on May 11<sup>th</sup> and 12<sup>th</sup> with 563 Grades Three and Four students (from 24 classes in 5 schools in Leeds-Grenville) attending over the two days.

In addition to those stations provided by the St Lawrence River Institute, Edwardsburg/Cardinal Public Library, South Nation Conservation Authority, Ontario Power Generation and, for the

second time, Leeds Grenville Stewardship Council each had a station.

In addition to a financial donation, LGSC had volunteers on hand during the two days. Dave Robertson and Cliff Rogers have worked hard to perfect the LGSC station. It is a very popular attraction demonstrating transpiration, guaranteed to soak all the participants.





## Woodworking for Wildlife

Leeds Grenville Stewardship Council volunteers actively support elementary school teachers through the Woodworking for Wildlife program. It is one of our most popular programs.

The program starts early in the winter as Garnet Baker, Dwayne Struthers and their many helpers convert their supply of Ottawa Valley white pine lumber into hundreds of pre-sawn and drilled bird box kits. Then they go to the classrooms.





After listening to a short presentation, each child in the class gets the opportunity to construct and take home a blue bird box. Council members and the teacher are always nearby to offer advice, but the children do the work.

As in other years, in 2017 the construction of box kits started early in the year with 7 volunteers assembling some 200 blue bird box kits.

LGSC volunteers visited 4 schools in the United County in 2017 including:

- Centennial Public School - Spencerville
- Toniata Public School – Brockville
- Meadowview Public School – Addison
- South Edwardsburg - Johnstown

In total 150 Grades 3, 4, 5 and 6 students participated and 173 Blue Bird Houses were assembled.

In excess of 85 hours of volunteer time goes into making this program a success.



## Envirothon 2017 – Limerick Forest



### ***Wetlands – Aquatics – Forestry – Species at Risk***

These were the topics presented at this year's High School Envirothon event held in Limerick Forest April 25, 2017.

12 local High school teams participated in this one-day event. Students are bussed out to the Limerick Forest Interpretative Center where there get to explore and learn about the natural environment.

Students are assigned to teams where they compete against other for total points over the day by answering a subject quiz based on the knowledge they learned that day.

## ***Winning Teams***

St. Michael's, Kemptville - 1st Place

St Mary's 2, Brockville - 2nd Place

St Mary's 7, Brockville - 3rd Place

In addition to the presentations each team had the opportunity to participate in a legacy project where students built 8 wood duck boxes supervised by volunteers from Leeds Grenville Stewardship Council.

The Envirothon Event is organized and hosted by the United Counties of Leeds and Grenville in partnership with the Leeds and Grenville Stewardship Council.

Many thanks to Geoff McVey and Rob Ross of the United Counties for their continuing support for this event.



## LGSC Student Bursary

The LGSC offers a Bursary yearly to graduating high school students in Leeds-Grenville who plan to further their education at the post-secondary level in the broad spectrum of Environmental studies (Forestry, Biology, Geography, etc.). In 2017 LGSC offered two \$500 Bursaries.

We receive many worthy applications from students who demonstrate both academic achievement and participation in extra-curricula activities as well as volunteerism in their local communities.

Our Award winners for 2017 were:

- James Reusing of Brockville Collegiate Institute who planned to attend University of Concordia to study Biology. James is pictured below accepting the Bursary from Pete Atkinson of BCI.
- Abbey Spence of Gananoque Intermediate and Secondary School who planned to attend Trent University to do a joint major in Bachelor of Environmental Science and Biology. Abbey is pictured below accepting the Bursary from Gwen Smith of GSS.



## 2017 Youth Summit for Environmental Leadership and Biodiversity

LGSC is proud to be a member of Ontario Nature and to sponsor tomorrow's environmental leaders to attend the annual youth summit. In 2017 Matthew Linehan attended the summit courtesy of LGSC sponsorship. See his thank you letter below.



Dear Leeds Grenville Stewardship Council,

My name is Matthew Linehan, I am 17 years old and am a grade 12 student at Nepean high school in Ottawa.

I want to say thank you so much for sponsoring me to take part in the Ontario Nature youth summit this year. It was a very valuable way for me to connect with a network of youth from across the province that also care deeply about the environment and conservation.

Over the summer I was part of an expedition with the Students on Ice foundation to the Canadian high arctic, where I learned firsthand about the effect climate change is having on the arctic and how it is causing a changing way of life for many. My goal in attending the youth summit was to share this message through a brief presentation to the entire group of students.

I really enjoyed my time at the summit, learned so much, and connected with so many people. I believe some of these connections are going to last a lifetime. Many of the other youth had so much information about how they are involved in environmental issues in their own communities and ways I can parallel that in mine.

I have just started up an environment club at my school, and the other students and the workshop leaders from the summit gave me so many great ideas for projects our school can work on to make ourselves more eco-friendly, and to make our community a more environmentally conscious place.

I am so grateful for your help in letting me take part in this summit, and I promise you it was a very worthwhile experience.

Thank you again  
Matthew



## SPECIES AT RISK

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### Gray Ratsnake



The gray rat snake is listed as threatened on the Ontario Species at Risk list.

In 2005 with funding support from OMNR, Garnet and Dwayne designed and built 12 wood framed, wire mesh nesting boxes to provide protection from egg predators.



The structures have been deployed throughout the eastern portion of Leeds-Grenville. They are filled annually with a variety of compost substrates designed to maintain a temperature around 30 degrees Celsius, which is necessary for egg incubation. In 2016 a fifth nesting box was added to the landscape and plans are underway to deploy several more.

Since 2009 evidence of over 1000 successful hatchings (egg shells) have been found in the nest boxes that are monitored annually.

- 2005 – year 1 – 9 eggs hatched
- 2009 – 24
- 2010 – 80
- 2011 – 151
- 2013 – 140
- 2014 – 184
- 2015 – 234
- 2016 - 200



Previous years also helped provide additional information about the little known phenomenon of parasitism on gray ratsnake eggs from the larvae of the postulated carrion beetle. At one location where nesting boxes have been successful, evidence on some of the eggs showed that they had been destroyed by the beetle larvae which emerge and predate upon the incubating eggs. This site is known to be used communally by gravid ratsnakes and one belief is that these communally used sites can be more susceptible to this parasitoid.

Traditionally, the nest box sites were monitored by LGSC in the late fall but it was determined from previous years of monitoring that on several occasions we were finding eggs that were yet to hatch or juveniles were just emerging. It was determined that this could risk the successful emergence of juvenile snakes and the timing for nest box monitoring would be done in the spring in the future as not to disturb emerging snakes or alter incubating eggs.



## Roundtable on Recovery Efforts for Gray Ratsnakes in the Frontenac Arch

In June of 2017 LGSC organized and hosted a roundtable with local organizations interested in, and involved in, efforts to recover the Frontenac Arch population of the Gray Ratsnakes.

Representatives attended:

Murphy's Point Provincial Park  
Charleston Lake Provincial Park

Ontario Ministry of Natural Resources – Kemptville and Kingston offices  
Thousand Islands National Park  
Thousand Islands Watershed Land Trust  
Lanark Stewardship Council  
Frontenac Stewardship Foundation  
Rideau Valley Conservation Authority

Discussions focused on current recovery efforts and three areas where there was agreement that further collective work is required:

### **1. Overall Benefits of Nest Boxes and Long term monitoring of boxes and hibernacula**

- a. We agreed that we need more monitoring and research into the ***overall benefits of the nesting box program***. While some felt the results of the LGSC project speak for themselves others thought that more monitoring of existing and proposed (under the ESA permit process) is in order. There was a conclusion that a further discussion on research needs to support the “overall benefits” policy under the ESA would be in order.

- b. Further discussion on **long term monitoring** suggested that the use of wildlife cameras was a possible cheaper low-tech option to telemetry work and that one possible project would be to ID the hibernacula previously located on QUBS land and recommence monitoring. This would be one contribution to the Recovery Strategies long term monitoring objective.
- c. There was agreement that it would be useful to identify other **hibernacula**. Thousand Is NP had an MSc Student who published a thesis on using topography and biological indicators to suggest where hibernacula might be located.

## 2. **Public Education and Outreach -**

Discussion entered around the need to better educate the public about the Gray Ratsnakes and try to change attitudes in the region. The Thousand Islands NP and the two Provincial Parks (Charleston and Murphy's Point) have naturalists on site in the summer who provide information to those who use the park facilities.

It was agreed that a broader strategy to engage folks is in order. Suggestions included:

- Engage Lake Associations by offering to make a presentation on the ratsnakes and recovery efforts.
  - Otty Lake Ass'n has asked Tobi Kiesewalter to talk to their AGM this July and copies of the landowner guide have been provided
  - Battersea/Loborough Lake Ass'n is meeting at QUBS - Elbow Lake Environmental Education Centre the 2nd Thursday in August and could be a good venue for a presentation

- Attend the Lake Links workshop this fall to promote presentations to the various lake associations for 2018
- Plan and hold one or two Open Houses to reach local folks ( i.e. not part of Lake Associations)
- Consider doing more Gray Ratsnake presentation in public schools in UCLG as part of the LGSC Woodworking for Wildlife (WFW) project.

### **3. Documenting sightings**

It was agreed that additional information on presence of the gray ratsnake in the area would be very beneficial - particularly as it relates to knowing their distribution across the landscape (i.e. how far east they occur?). It would be important to spread the word about recording sightings and the use of the "Friends Of" (Friends of Murphy's Point PP, Charleston Lake PP etc.) organizations would be a quick and effective way to increase reporting.

Two methods to report sightings:

1. Ontario Nature's Ontario Reptile and Amphibian Atlas (app)
2. Fill in the OMNR&F form

Work will continue over the coming years to further enhance efforts for the recovery of the Frontenac Arch population of the Gray Ratsnake.

## Turtles

The United County of Leeds and Grenville is home to many endangered species of turtles. LGSC and South Nation Conservation Authority have installed basking rafts, nesting sites and have fenced road shoulders to create nesting habitats.



We continue to care for the basking rafts in the creek and the fenced nesting areas on the road shoulders on the Skakum Road and have installed a raft to create basking sites in the Lord's Mills Quarry, which is home to Blanding's and Painted turtles.

In 2016 2 rafts were installed – the picture below is deploying a raft into



the South Nation River at Stephenson Road.



In 2017 two additional rafts were constructed using cedar posts.



The two rafts were placed in Cooligan Creek (which flows into Lower Beverly Lake) on March 3, 2017.



In previous years, working with the South Nation Conservation Authority, a rectangular cedar log crib-nesting site was installed at Stephenson Road. This site was selected due to reports and observations of heavy nest activity on the shoulder of the road. Habitat enhancements are designed to replicate natural turtle nesting areas typically found on roadsides.

## OUR COUNCIL

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### Council Members 2017





The strength of Leeds Grenville Stewardship Council is the volunteers who work tirelessly to make a difference on the ground. We have a diverse representation including rural and urban residents, landowners, farmers, and retirees from both the provincial and federal governments who live throughout the United Counties of Leeds and Grenville. What the group holds in common is a strong commitment to land stewardship.

Garnet Baker  
Karen Brown (Chair)  
Kerry Coleman  
Rhonda Elliott

Toledo  
Delta  
Oxford Mills  
Chantry

Jack Henry  
Donna O'Connor  
Amy Mackie  
Gary Nielsen  
Laura Parrott  
Dave Robertson (Treasurer)  
Cliff Rogers  
Ted Royal  
George Sheffield  
Lloyd Stone  
Dwayne Struthers  
Shaun Thompson

Brockville  
Elgin  
North Augusta  
Brockville  
Prescott  
Johnstown  
Brockville  
Brockville  
Chantry  
Forfar  
Toledo  
Mallorytown