

LEEDS GRENVILLE STEWARDSHIP COUNCIL

2016 Annual Report



Message from the Chair

2016 was a watershed year in many ways for the Leeds Grenville Stewardship Council:

- Work on creating a Sustainable Pasture for the Leeds Community Pasture wrapped up after 7 years of work to protect streams and wetlands;
- At Motts Mills the dam was finally replaced and the stage is now set for another multi-year wetland restoration project on the Hutton Creek watershed;
- LGSC joined forces with Ducks Unlimited and Bird Studies Canada to monitor marshes for frogs and birds; and
- The demand for our Education and Awareness work continues to grow.

The dedicated and hardworking volunteers who worked on over 25 environmental projects throughout the United Counties of Leeds and Grenville in 2016 are a source of inspiration and pride!

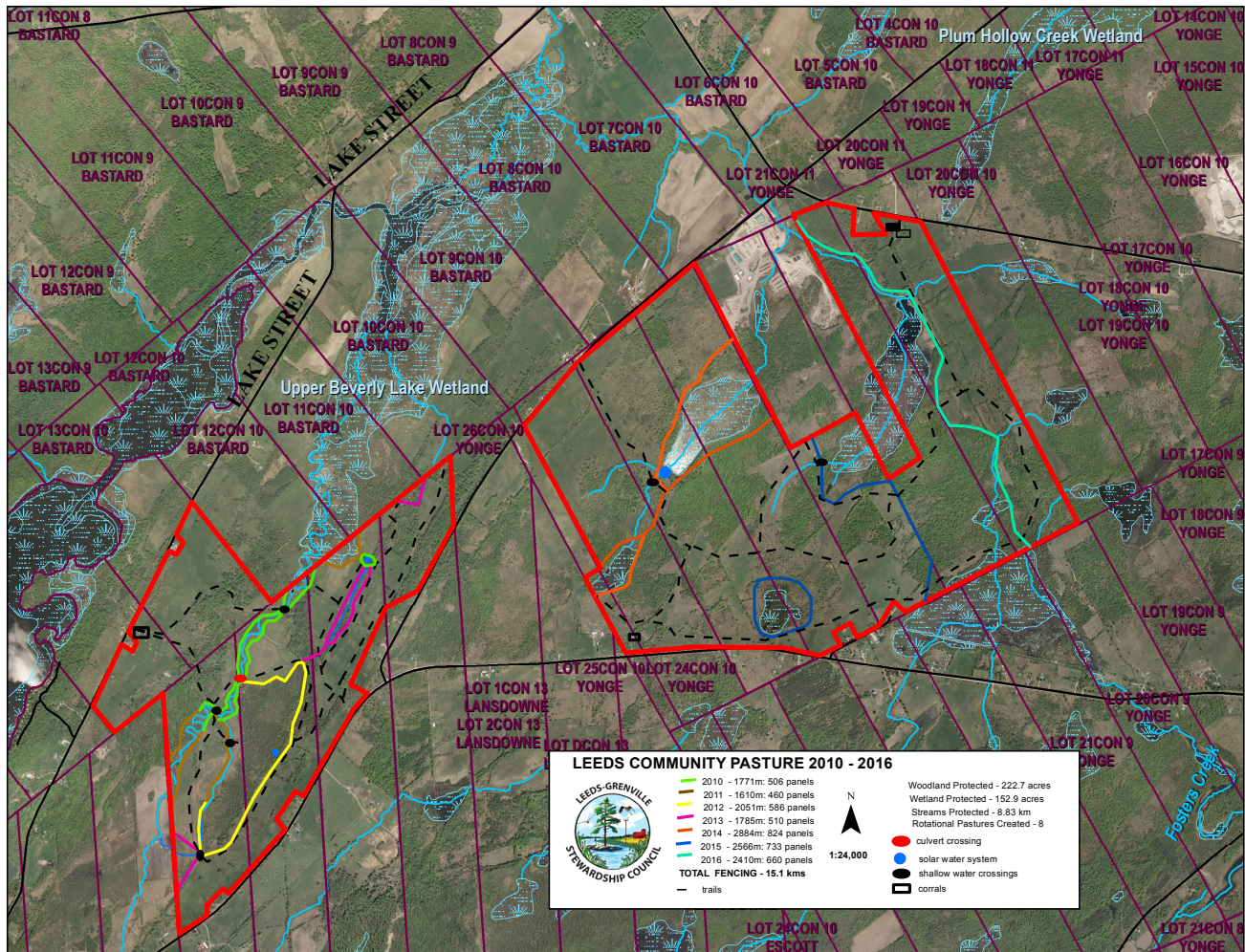
But we cannot do our stewardship work in the United Counties without the support and encouragement of our many partners. In particular, the Rideau Valley Conservation Authority (RVCA) and the United Counties of Leeds and Grenville, provide administrative and financial support, respectively. This has 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

Leeds Community Pasture – Creating a Sustainable Pasture



Leeds-Grenville Stewardship Council (LGSC) has been coordinating efforts by Leeds County farmers, farm organizations and the Leeds Community Pasture Association to exclude cattle from the upper reaches of the Gananoque River Watershed, which feeds the St Lawrence River, to improve water quality. The rationale has been to decrease nutrient loading into the headwaters to decrease phosphorus loadings and improve dissolved oxygen in the streams and lakes of the system: including

Charleston, Upper Beverley and Lower Beverley. Over 1500 cattle have been excluded from the water to date.

The Leeds Community Pasture Association (LCPA) owns and manages a 607 hectare (1500 acre) property, one of 11 Community pastures in Ontario, which is located near Soperton. The Pasture is divided physically into two parcels know as the West Pasture and East Pasture. Up to 25 Eastern Ontario farmers graze their cattle at the Pasture in the summer. LGSC and the Leeds Community Pasture Board have been working together over the last 7 years to ensure the long-term sustainability of the pasture.

The wetlands on the East Pasture are quite extensive covering some 111 hectares (276 acres) fed by natural springs. This water eventually flows into an arm of Soperton Creek. The West Pasture is bisected by Soperton Creek and contains grasslands, woodlands and wetlands. The wetlands and creek form a large part of the headwaters of the Gananoque River watershed, all of which runs into Upper Beverly Lake (parts of which are designated as a provincially significant wetland) and then southwards through the Frontenac Arch Biosphere and ultimately into the St Lawrence River. The Biosphere Reserve is an area designated by UNESCO in 2002 because of its internationally renowned natural heritage.

Trumpeter Swans, wood ducks, blue winged teal, ring neck ducks and mallards frequent the largest wetlands on the pasture and Upper Beverly Lake. Known species- at-risk in and around the Beverly Lakes include musk, northern map and snapping turtles, least bittern, black tern, bald eagles (active nest on Upper Beverly), gray rat snake and grass pickerel, all of which will benefit from water quality improvements.

Sections of the shoreline habitat and wetlands in the Community Pasture were accessible by cattle and had been eroded, resulting in increased nutrient and soil inputs to the stream, wetlands and downstream lakes

and loss of wildlife habitat and connectivity.

West Pasture

Over a 4-year period, some **11,430 meters of continuous cattle exclusion fencing** was constructed on both sides of Soperton Creek and its tributaries. **4 bed level crossings** were incorporated to allow cattle to access other paddocks and still protect the creek. **2 solar watering systems** were installed on both ends of the pasture and some **5000 trees and shrubs** were planted along the creek to restore riparian habitat. **30 nesting boxes** (wood duck, kestrel, blue bird/tree swallow) were installed. Volunteer labourers, including students from Athens District High School, were instrumental in the success of the project. Volunteers from Leeds Grenville Stewardship Council helped build fences, donated heavy equipment, and built and installed birdhouses.

None of this would have been possible without the support of Environment Canada's EcoAction program, Wildlife Habitat Canada, Trees Ontario, and the Ontario Ministry of Natural Resources' Land Stewardship and Habitat Restoration program.

Before fencing – cattle crossing over Soperton Creek



After fencing – same crossing as above





East Pasture

Work started on the East Pasture fencing project in June 2014. Over the following three years some ***7, 860 meters of continuous cattle exclusion fencing*** were installed to protect the wetlands and to recreate rotational pastures. ***One solar watering system*** was installed and some ***40 nest boxes*** for bluebirds, tree swallows and ducks were installed. As with the West Pasture the many contributions of the volunteers from Athens District High School and Leeds Grenville Stewardship Council were vital to the success of the project. Students help lay out rails for the fence builder and Council members helped build fences, donated heavy equipment and built and installed bird houses.

Environment Canada's EcoAction program, Wildlife Habitat Canada, TD Friends of the Environment Foundation, and the Ontario Ministry of Natural Resources Land Stewardship and Habitat Restoration program once again supported this work.

LGSC also formed an important partnership with Thousand Islands Watershed Land Trust and Ducks Unlimited (DU). DU has worked to rebuild the water control structure on the East Pasture to ensure the maintenance of open water important for the conservation of water and waterfowl.



Environmental Outcomes

- 222.7 acres of Woodland protected
- 152.9 acres of Wetland protected
- 8.83 kms of Stream protected
- 8 rotational pastures created

Partners included:

- Environment Canada's Eco Action program
- Wildlife Habitat Canada
- Ontario Ministry of Natural Resources and Forestry's Land Stewardship and Habitat Restoration Program
- TD Foundation's Friends of the Environment Program
- Athens District High School
- Leeds Community Pasture Board
- Thousand Islands Watershed Land Trust
- Ducks Unlimited and the Great Lakes Community Guardian Fund



Hutton Creek Wetland Complex

The Hutton Creek Wetland is part of 5660 acre 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, Shaun Thompson and Kerry Coleman.

In order to facilitate the construction of the new dam RVCA secured ownership of the entire dam as well as well as 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 300 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.

Dwayne, Shaun and Kerry also conducted a Marsh Monitoring on the Hutton Creek Wetland Complex in the spring of 2016, 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



SUSTAINABLE FORESTS

50 Million Tree Program

In 2015 LGSC decided that, in the future the only tree planting it would continue with, would be with local schools participating. Two sites were prepared for spring of 2016 but with school board cutbacks there was no funds for transportation. Therefore only one site that involved 2 schools was planted. Lyn Public School and Athens District High School participated in the planting of another Burnbrae property that had had a very low survival rate with the “Trees for Peace” program.

Unfortunately the 2016 summer drought led to a huge failure for many 1 to 20 year old young trees.

Survival assessments were completed on 2012, 2015, and 2016 planting sites in October 2016. A total of 101,550 trees were assessed on the 21 sites in these 3 years. Average survival rates for each year are as follows:

- 2012 plant: 66%
- 2015 plant: 65%
- 2016 plant: 45%.

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.

LGSC volunteers waiting for the bus to arrive



Students receiving instructions

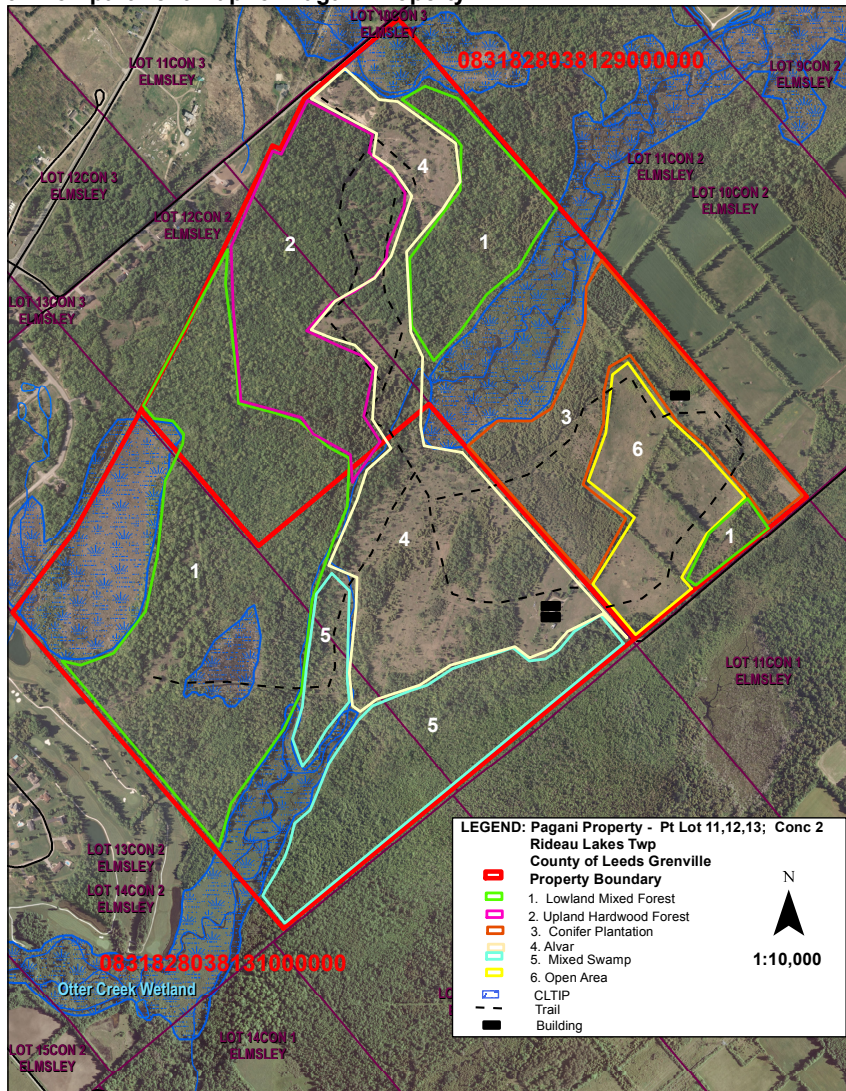


Managed Forest Tax Incentive Program

Donna wrote plans for 13 properties in the winter of 2015/16 totaling 338 acres. Two plans were completed during the summer as the owner had deceased.

The map below, needed to complete a Managed Forest Approved Plan, is one made for a large property with many compartments

6. Compartment Map for Pagani Property



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. They have offered Butternut seedlings to plant in spring of 2017 to those interested and will keep tally of survival rates.

Butternut tree range



Butternut canker killing this species



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

Kemptonville Woodlot Conference 2016

The LGSC was a sponsor for the 29th annual Kemptonville Woodlot Conference that was held on February 24, 2016, at the North Grenville Municipal Centre. As usual the conference was a success and LGSC is proud not only to sponsor but also members actively participate each year.

EDUCATION AND AWARENESS

LGSC has long been committed to education and awareness campaigns concerning important environmental themes. In 2016 this tradition has continued in a variety of ways and focused on a diversity of themes as well as audiences.

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 twenty-five, 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 2016 Spencerville Children's Water Festival was held on May 11th and 12th with 534 Grades Three and Four students, from seven schools in Leeds-Grenville, attending over the two days

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 near at hand to offer advice, but the children do the work.

In 2016 the construction of box kits started early in the year with 7 volunteers assembling some 260 blue bird box kits.

LGSC volunteers visited 6 schools in the United County in 2016 including:

- Front of Yonge Mallorytown,
- Sweets Corners Lyndhurst,
- Lyn Public School,
- Commonwealth PS Brockville,
- Vanier P.S. Brockville, and
- South Crosby P.S. Elgin.

In total 151 Grades 4, 5 and 6 students participated and 169 Blue Bird Houses were assembled.

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



Duck Box Construction for Friends of Limerick Forest



Last year the Friends of Limerick Forest were in the market for duck boxes and funded LGSC to construct 10 boxes for deployment in the forest. Thanks to Dwayne and Garnet for their craftsmanship!

Envirothon 2016 - Leeds and Grenville



Limerick Forest once again hosted the annual Envirothon event in April 2016. Leeds Grenville Stewardship works in partnership with United Counties of Leeds and Grenville to make the day a success.

This event is an opportunity to get students out doors to learn about our natural environment. High school students from within the United Counties participated in this one-day event, where they learn first hand about forestry, wildlife and aquatics.

Local High school compete against each other over the course of the day by answering a series of small quiz's based on the knowledge they learned

that day.

This year, the team of Jenna Malone, Laurin Manthis and Alex Wharton from St. Mary's High School from Brockville were the overall winners.

This one-day is a very popular event held in the Interpretative Centre at Limerick Forest.

Special Thanks to Geoff McVey and Rob Ross for their efforts in making this event a huge success.



LGSC Student Bursary

The LGSC offers a \$500 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 2016 LGSC offered two \$500 Bursaries.

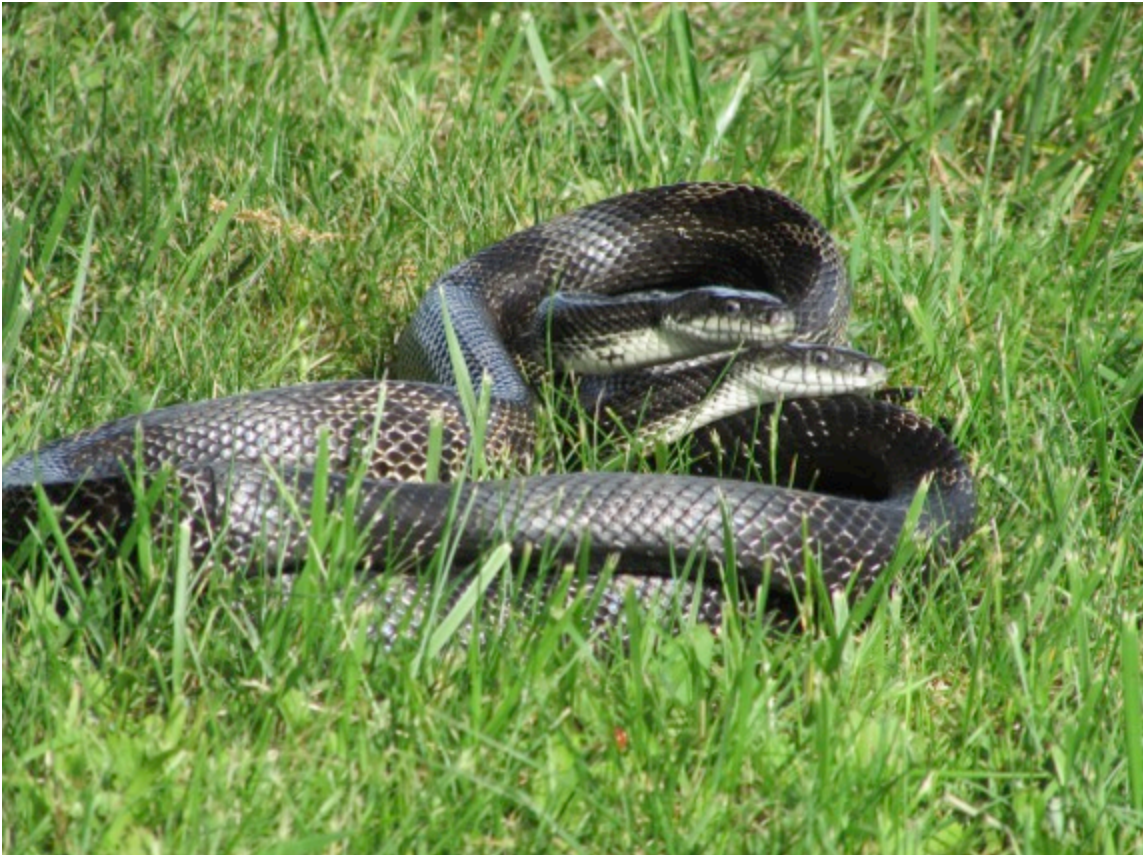
We receive many worthy applications from students who demonstrate both academic achievement and participation in extra-curricula activities as well as volunteerism in their local communities.

Our Award winners for 2016 were:

- Robyn Canning of Rideau District High School who planned to attend the University of British Columbia; and
- Tristan Bischof of Athens District High School who planned to attend Sir Sandford Fleming College.

SPECIES AT RISK

Gray Ratsnake



The gray ratsnake 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 800 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



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.



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.

This year 2 rafts were installed – the picture below is deploying a raft into the South Nation River at Stephenson Road.



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.

Cliff Rogers, Dave Robertson and Ted Royal will continue maintenance and additions to the rafting turtle sites as part of the ongoing program.

OUR COUNCIL

Council Members 2016



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	Toledo
Karen Brown (Chair)	Delta
Kerry Coleman	Oxford Mills
Rhonda Elliott	Chantry
Jack Henry	Brockville
Donna O'Connor	Elgin
Amy Mackie	North Augusta
Gary Nielsen	Brockville
Laura Parrott	Prescott
Dave Robertson (Treasurer)	Johnstown
Cliff Rogers	Brockville
Ted Royal	Brockville
George Sheffield	Chantry
Lloyd Stone	Forfar
Dwayne Struthers	Toledo
Shaun Thompson	Mallorytown