



GRAND Actions

The Grand River watershed newsletter



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Cover photo

Along the Grand River in Cambridge, Ontario. Repair of the floodwall along the dike is planned for 2019.



Floodwalls through Cambridge, Ontario

GRCA 2019 budget

The Grand River Conservation Authority will spend more than \$35 million this year on programs that protect life and minimize property damage from flooding and erosion, improve the health of the Grand River watershed, connect people to the environment through outdoor experiences and manage land holdings in a responsible and sustainable way.

The budget was approved by the GRCA board on Friday, February 22, 2019. The board is made up of 26 members appointed by the municipalities in the Grand River watershed.

Municipalities will contribute about \$11.6 million in general municipal levy to the GRCA in 2019, about 33 per cent of the GRCA's total budget. The municipal levy portion is up 2.5 per cent this year, which works out to approximately \$10.84 per watershed resident. The municipal levy

portion of the budget is allocated to each member municipality using the "Modified Current Value Assessment" as outlined under Regulation 670/00 of the Conservation Authorities Act.

Government grants totalling just under \$4.9 million represent about 14 per cent of the budget. This includes funding for major maintenance of water control structures, the source protection program, floodplain mapping projects, and rural water quality landowner grants.

Finally, the GRCA generates more than \$15.4 million or 44 per cent of its own revenue through revenue sources such as camping fees, park admissions, nature centre programs, hydro sales, property rentals, tree sales, planning permits and donations raised by the Grand River Conservation Foundation (GRCF). The remaining 9 per cent of the 2019 budget is funded through reserves.



Budget Highlights

Drinking Water Source Protection Plan:

The GRCA continues to work on the updates and implementation of a Drinking Water Source Protection Plan for each of the four watersheds in the Lake Erie Source Protection Region, including the Grand River watershed, as part of the provincial Source Protection Program under the Clean Water Act, 2006. Along with supporting municipalities and other agencies in implementing the plans, the focus in 2019 is on completing updates to the Grand River Source Protection Plan, including water quantity risk assessment studies, development of water quantity policies, updating water quality vulnerability assessments, and the development of the first annual progress report for the Grand River Source Protection Plan.

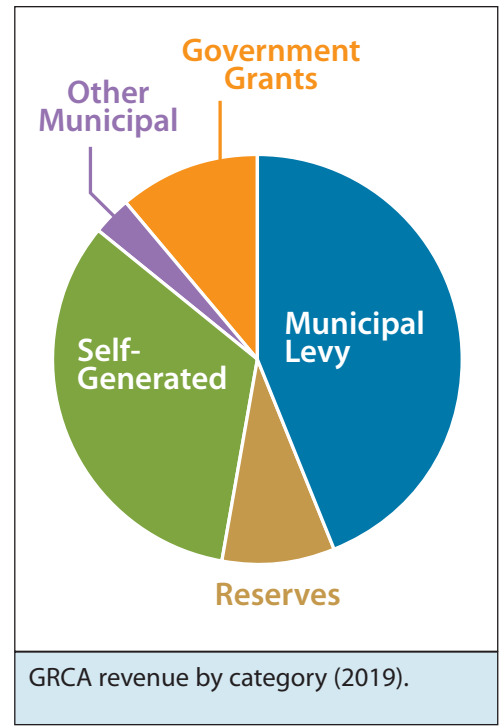
Water Management Plan: The Water Management Plan was endorsed in 2014 as an update to the 1982 Grand River Basin Study that charts a course of actions to reduce flood damages, ensure water supplies, improve water quality and build resilience to deal with climate change. Municipal, provincial and federal government and Six Nations Water Managers meet quarterly to

report on the progress of the commitments in the Plan. Two reports are underway and expected to be completed in 2019: a technical report on the state of water resources in the Grand River watershed and a summary report on the status of implementation of the Plan.

Hazard Tree Management: In April 2018, the GRCA received approval from the Ministry of Natural Resources and Forestry to use up to \$1.8 million from the Land Sale Reserve for hazard tree management over a three year period. This funding has allowed the GRCA to accelerate its program of tree risk management to ensure the health and safety of the public using GRCA lands. This program will continue through 2019 and 2020.

Water Control Structures: Major water control capital projects planned for 2019 include completion of an ice jam study, floodwall repairs and the design work of the stoplog closures of the railway openings along the Brantford dikes, repair of the floodwall along the Cambridge dike coordinated closely with City of Cambridge river access projects, gate control system upgrades and concrete repair designs at Conestogo dam, standby generator

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GRCA revenue by category (2019).

enhancements and temporary stoplog design to allow isolation of gates at Shand Dam, concrete and embankment repairs at Wellesley Dam, gate refurbishment at New Dundee Dam, and concrete and embankment repairs at St. Jacobs Dam.

GRCA Conservation Areas: The GRCA manages one of the largest networks of conservation areas in the province. The 11 fee-for-use conservation areas and the Luther Marsh Wildlife Management Area are collectively called Grand River Parks, and provide a wide range of recreational opportunities. Admission, camping and other fees cover operating costs and capital project costs. Major conservation area capital projects planned for 2019 include a new washroom in the day use area at Byng Island, expansion of the Pines seasonal campground at Elora Gorge, a new workshop and trailer storage area at Guelph Lake, playground replacements at Brant Park, installation of automatic entry gates at Pinehurst Lake and Guelph Lake, and the replacement of the existing washroom building at Elora Quarry. Planning will also be undertaken for a new day use area at Elora Gorge, expected to be constructed in 2020.

Full details of the GRCA 2019 Budget are provided in the February 22, 2019 board report, which can be found at www.grandriver.ca.

WHAT'S HAPPENING

Public comments invited on updates to the Drinking Water Source Protection Plan for the Grand River watershed

Members of the public are invited to read and comment on the Draft Updated Drinking Water Source Protection Plan for the Grand River watershed. The plan has been prepared under the Clean Water Act, 2006 to protect municipal sources of drinking water and ensure their sustainable use into the future.

The Grand River Source Protection Plan was approved by the Ontario Ministry of the Environment, Conservation and Parks in November, 2015. Since then, updates have been proposed that affect Dufferin County (Township of Melancthon and Township of Amaranth), Oxford County (Community of Bright), the Region of Waterloo, Perth County (Township of Perth East), the County of Wellington (Township of Puslinch and Town of Erin) and the City of Brantford.

See the Plan

Public comments and questions about the changes presented in the draft updated Source Protection Plan are welcome. The draft updated plan is available for review online at www.sourcewater.ca. A printed copy of the draft updated plan is also available for review at the Grand River Conservation Authority (400 Clyde Road, Cambridge) or at each of the following locations:

- Township of Melancthon Municipal Office (157101 Highway 10, Melancthon)
- Township of Amaranth Municipal Office (374028 6th line, Amaranth)
- Oxford County Administration Building (21 Reeve St., Woodstock)
- Region of Waterloo Administrative Headquarters (150 Frederick St., Kitchener)
- Township of Perth East Municipal Office (25 Mill St. East, Milverton)
- Puslinch Township Office (7404

Wellington Rd. 34, Puslinch)

- Town of Erin Municipal Office (5684 Trafalgar Rd., Hillsburgh)
- Continuous Improvement Desk, Brantford City Hall (100 Wellington Square, Brantford)

A public meeting will be held for residents of Bright in Oxford County on Monday, April 15, 2019 from 6 p.m. to 8 p.m. at the Plattsville Lions Hall (68 Mill St. E, Plattsville). This meeting will focus on technical study results for the Bright water system, and will include opportunities for those in attendance to ask questions of Lake Erie Source Protection Region staff.

Comments may be submitted in writing to:

E-mail: comments@sourcewater.ca

Mail: Ilona Feldmann, Source Protection Program Assistant, Lake Erie Source Protection Region, c/o Grand River Conservation Authority, 400 Clyde Road, P.O. Box 729, Cambridge, ON N1R 5W6

Comments will be received until Tuesday, May 21, 2019.

Guelph Lake Nature Centre: Celebrating hands-on engagement

By Bronwen Buck,
GRCA Volunteer Coordinator

If you visit the site of the new Guelph Lake Nature Centre, you may be in for a surprise. In 2015, it was a windblown field bordered by an evergreen forest. Now, the site within Guelph Lake Conservation Area boasts a mosaic of thriving habitats. These include a pollinator meadow, ponds for water study, and new forests featuring a variety of native trees. A lookout, footbridge, chickadee feeding spots and trails offer connecting features.

Clear vision, intense collaboration, and the help of many hands have propelled this transformation. GRCA anticipates that 20,000 students plus visitors to the conservation area will visit annually when the doors open in the fall of 2020.

Since nature takes longer to establish than brick and mortar, forward-thinking is key.

Volunteers have contributed hundreds of hours to this vision since 2015. They have



Ontario and Alberta youth participating in a 4H club-to-club exchange pose for a triumphant team photo. They helped blaze a forest trail loop at the site of the New Guelph Lake Nature Centre in 2018.

eagerly built on the work begun by GRCA staff and other professionals. Tasks include wildflower seeding, tree planting, seed collecting and trail blazing. They know they are playing an essential role in helping the GRCA connect people with the environment through outdoor experiences.

Blazing a forest trail

Recently, corporate teams and youth groups have helped make a 650 metre trail through the plantation and nearby young forest. This self-contained loop will offer children the freedom to explore its nooks and crannies without fear of getting lost.

Josh Brander is a 4H teen who was involved in the trail project as part of a club-to-club exchange last summer. “I enjoyed volunteering for this project, because we were able to blaze a trail for generations to enjoy,” says Josh. “The experience connected to my 4H values and helped me learn about the relationship between our community and nature.”

For nearly 20 years, corporate sponsor RBC Foundation has supported a number of GRCA projects like this one, with donations of more than \$130,000 and volunteers who help with the hands-on work.



RBC has supported the new Guelph Lake Nature Centre campaign with donations and with hands-on support. RBC Day of Service Volunteers have helped plant and improve the new learning grounds at the site of the new Guelph Lake Nature Centre.

“For the third consecutive year, my RBC colleagues from the North Guelph community and I will work with the GRCA to plant trees at the new Guelph Lake Nature Centre,” says Peggy O’Neill, Relationship Manager, RBC Group Advantage. “The GRCA has been a wonderful host, providing us with the tools and resources we need to ensure the trees we plant can thrive. As a resident of Guelph, I’m fortunate to live and work near such a beautiful conservation area. I’m also so proud to work for an organization committed to helping our communities prosper.”

Celebrating community support

National Volunteer Week (April 7-13) is a time to reflect on the role of all those who freely offer to play a role in a sustainable future. The groups who have lent their stewardship skills for this project deserve many thanks.

They have problem-solved, embraced teamwork and offered leadership skills. They are unafraid to do some heavy lifting, get their hands dirty and follow through with tasks. Many have returned annually, often matching their assistance with

donations and tools. They have grit.

The new nature centre is slated to be a hub for community connection. Due to willingness of these groups to help, it will have a strong foundation of hands-on engagement from the start.

Contact

GRCA engages volunteers primarily via group/team workdays. If you are interested in helping in the future, please visit www.grandriver.ca/volunteer.

Making a difference

Each year, volunteers continue to enhance watershed health. In celebration of National Volunteer Week #NVW2019, here is a snapshot of their impact throughout the watershed in 2018:

- 2,636 volunteers engaged via tree planting and workdays
- 6,899 volunteer hours contributed
- 14,275 trees and shrubs planted, and additional 2,500 trees tended/pruned
- 4,493 wildflowers planted
- 49 cubic metres of invasive species removed
- 7 km of maintenance and blazing
- 1,700+ lbs garbage collected

Rotary partnership does good for Guelph Lake

When the Rotary Club of Guelph was formed in Guelph in 1920, its members made a commitment to “Service Above Self”, supporting their community in many ways. For more than a decade, that commitment has included the GRCA and

the Grand River Conservation Foundation (GRCF). And as the Club's 100th anniversary draws near, the partnership has continued to grow.

In 2007, Club Past President Dr. Clare Rennie approached the GRCA with the idea of creating a new forest. His vision was to protect the natural environment in Guelph, while actively engaging the community in planting trees.

A 100 acre parcel of land was chosen near Guelph Lake Conservation Area, and in the spring of 2008 the Guelph Lake Rotary Forest was launched. The Club organizes an annual Earth Day community planting event. They cover the cost of trees to plant; GRCA provides the trees and teaches people how to plant them.

Since then, thousands of people have joined the Rotarians to plant trees each spring. Many groups and families have attended every year, no matter the weather. Sometimes they check in on the trees they have planted in previous years. So far, about 50,000 trees have been planted.

In 2020, the Rotary Forest will be complete, just in time for the Club's 100th anniversary. Over time many strong relationships have been built, as the forest grows.

In 2017, the Club's Centennial Committee approached the GRCA and GRCF to become their official partners in the celebration. They committed a total donation of \$600,000 to a "mega-project" at Guelph Lake comprised of:

- a leading contribution to the new Guelph Lake Nature Centre;
- development of an astronomy program at Guelph Lake Conservation Area;
- a trail link between the Rotary Forest and the new nature centre area; and
- an additional trail connecting city trails with the Rotary Forest and conservation area.

All of these projects will encourage people to visit Guelph Lake Conservation Area, with a linked-up trail system and its new amenities.

Carolyn Weatherson, Rotary's Centennial Committee Co-Chair who will also be the

Club President in 2019-2020, is very excited about the plans. "Guelph Lake Conservation Area is an outstanding resource for the people of Guelph, and this partnership will make it even better. Our Club's vision is that Guelph Lake will become the place to go for hiking, star watching and developing a love for the outdoors."

The new nature centre is planned to open by the fall of 2020, replacing the existing centre which was originally a single family home.

Each year more than 20,000 students visit the centre for curriculum-based outdoor education programs, environmental camps and outreach activities such as eco-birthday parties.

The Centre will be located within Guelph Lake Conservation Area and will also

support the 200,000 people that visit the park annually.

GRCA has already begun to offer star parties at the current Guelph Lake Nature Centre, in partnership with the Royal Astronomical Society of Canada. Since there is almost no development around Guelph Lake, there is limited light pollution, which makes it a good spot for astronomy.

Information about upcoming events is available on the GRCA's Events Calendar: www.grandriver/events.

Park visitors will see many changes to the future nature centre site in 2019. The road access, bus turnaround and parking lot will be completed by June through a partnership with Conestoga College's Heavy Equipment Operator Program. Teams of conservation



The Guelph Lake Rotary Forest has been planted entirely by the community. The Rotary Club organizes an annual community tree planting event and covers the cost of the trees to plant. The GRCA provides the trees and teaches people how to plant them. So far, about 50,000 trees have been planted at the site.

volunteers will blaze a forest trail of about 800 metres next to the site of the new centre, complete with learning areas such as a chickadee feeding station, fire pit and other habitats. And this summer, construction on the Rotary Trail connecting the Rotary Forest to the nature centre area will begin.

“This is the culmination of many years of preparation. It will be fantastic to open our doors to the community next year,” says Sara Wilbur, Executive Director of the Grand River Conservation Foundation. “Guelph Lake will be a very different place in 2020!”

More than \$2 million has been committed for the new centre through the Nature At Your Doorstep campaign. To donate to the project and learn what’s new, please visit www.grcf.ca.

Restoring tallgrass communities and grassland ecosystems

By Kevin Tupman,
GRCA Natural Heritage Specialist

Tallgrass communities and grasslands are ecosystems not seen that often in the Grand River watershed. That’s because they are in decline, and as a result, so are a lot of wildlife that depend on this type of habitat. Tallgrass communities include savannahs, woodlands, and tallgrass prairies, and are treeless or nearly treeless ecosystems. Grasslands are habitats dominated by grasses and forbs, but may not include tallgrasses.

Historically, these ecosystems covered vast

expanses of central North America. Tallgrass prairies, specifically, are a globally imperiled ecosystem and one of the most endangered ecosystems in Canada. These ecosystems once flourished in southern Ontario, but today less than three percent of the 2,000 square kilometres of tallgrass habitat historically in southern Ontario remains. In the Grand River watershed, small isolated remnant patches of this habitat are scattered throughout Brant County, Haldimand County and Waterloo Region. So why are they in decline?

Habitat removal is the primary reason for the decline of tallgrass communities and grassland ecosystems, but other factors also threaten habitat loss including invasion by exotic species, habitat degradation and changes in land use practices.

Recognizing that these ecosystems are in decline, the GRCA is doing its part to help tallgrass communities and grasslands in the Grand River watershed. The GRCA uses comprehensive and adaptive methods to improve and maintain these declining ecosystems. Some of these methods include tree and shrub cutting or removal, mowing, herbicide application and sometimes, burning.

Often when restoring a tallgrass community or grassland, the GRCA needs to prepare the site. This can be done by cutting and removing any invasive woody vegetation. This may include the use of heavy machinery, chainsaws or volunteers pulling the plants out. At times, the GRCA will hire a contractor to apply herbicide to the stumps or trunks of the woody vegetation to help reduce any new growth or root shoots. Herbicide application is vital when controlling invasive plants, such as buckthorn and autumn olive.

Another approach to restoring tallgrass communities and grasslands that the GRCA uses is mowing. This approach can be very effective and efficient when trying to restore and maintain vast areas of habitat. At the Luther Marsh Wildlife Management Area, the GRCA maintains hundreds of hectares of grassland through mowing. Some years, GRCA staff mow more than 30 hectares of grassland to stop it from converting to a shrub thicket.



Brant Conservation Area, 10 days after a prescribed burn (2015). Fire transforms the landscape, destroying what is there, but creating an environment perfect for establishing a healthier and more biodiverse habitat.

The GRCA also uses fires to improve tallgrass communities and grasslands on GRCA owned lands. The flames transform the landscape, destroying what is there, but create an environment perfect for establishing a healthier and more biodiverse habitat.

Following a burn, within 1-2 weeks, tiny new green shoots begin to appear amid the blackened surface. These green shoots become the foundation for a new tallgrass community or grassland.

Such fires, called “prescribed” burns, are a tool to recreate fire-driven ecosystems. Prescribed burns promote native vegetation, improve critical and sometimes at risk wildlife habitat, enrich soils and restore important community types that require fire to be perpetuated.

However, carrying out a prescribed burn to increase this habitat isn't as easy as it may sound. It requires a lot of preparation beforehand, a well-developed plan and trained professionals.

The GRCA hires a contractor to develop a burn plan, to ensure a safe, secure and effective prescribed burn. A prescribed burn plan that follows Ministry of Natural Resources guidelines for prescribed burning is developed before the event. It identifies burn intensity, duration, pattern and other important details. The GRCA implements a communication plan to notify people of the prescribed burn. This includes communication with the local fire department, prior to and while the burn is occurring.

Immediately following a prescribed burn, GRCA staff spread native tallgrass prairie or grassland seeds directly on the nearly blackened surface. These native seeds help improve and increase desirable plant species on the site, thus improving biodiversity and making the property better for wildlife and pollinators.

Through these land management approaches the GRCA hopes to improve native biodiversity and increase tallgrass communities and grasslands across land owned by the GRCA throughout the Grand River watershed.

A new home for Bullwinkle

Bullwinkle the bullfrog is thoroughly enjoying his new digs at the Guelph Lake Nature Centre!

Bullwinkle, when just a tadpole, was part of a non-intrusive research study at a university. Due to research practices and animal care protocols at universities, the tadpole could not be released into the wild after the study, so he found a permanent new home as one of the GRCA's 'creature teachers'.

Thanks to a grant from the Guelph Community Foundation the nature centre was able to purchase a new larger habitat for Bullwinkle. Bullfrogs are the largest species of frog in Ontario and Bullwinkle was outgrowing his previous home.

They are native to the Eastern parts of Canada and the United States. Male bullfrogs, like Bullwinkle, can reach up to 15 cm in body length and females reach up to 20 cm.

GRCA's Creature Teachers

At GRCA nature centres, creature teachers are not pets and staff never go into nature and capture animals for the purpose of education. The animal species that have found a home at one of the nature centres

cannot be released back into the wild for a number of reasons, for example, due to injury, imprinting or simply not knowing where they came from. Native species require special permits from the Ministry of Natural Resources and Forestry in order to be kept in captivity.

When kids visit GRCA nature centres, one of their favourite things to do is to interact with living things. Nature Centre staff take excellent care of the teaching animals, and handle them with care and respect at all times.

“Our creature teachers are great ambassadors for wild animals and an important educational tool. The opportunity to handle or view an animal up close is a great way to learn about living things,” explains Greg Meredith, Environmental Education Specialist at the Guelph Lake Nature Centre. “These animals are used to teach about the needs of living things, adaptations, biodiversity, native species, classification of living things, ecosystems/habitats and values.”

To learn more about these animals and the various programs at GRCA nature centres visit www.grandriver.ca/naturecentres.



Animals, such as this bullfrog at Guelph Lake Nature Centre, are used to teach about the needs of living things, adaptations, biodiversity, native species, classification of living things and more. This large tank was purchased thanks to a grant from the Guelph Community Foundation.



THE GRAND CALENDAR

Nature Centre PD Day Camps

April, May, June

During our PD Day Nature Adventure Camps, your child will experience fun hands on seasonal activities and games that aim to inspire and educate. Campers will spend the day outdoors, exploring the fields and forests around the nature centre. There will be a campfire lunch on each of the days. For details and to register, visit www.grandriver.eventbrite.ca.

Rotary Forest Earth Week Tree Planting is scheduled for Saturday, April 27 at the Guelph Lake Rotary Forest in partnership with the Guelph Rotary Club. The Brant Tree Coalition has two events planned, one in Paris on Saturday, April 27 and another just outside of Brant Park on Sunday, April 28. More information is available at www.grandriver/events.

Wild Wee Ones Spring Sessions

May, June

Wild Wee Ones is a nature play program for children ages 3 - 5 and their parent or guardians, taking place entirely outdoors exploring the fields and forests of Shade's Mills Conservation Area, rain or shine, hot or cold. The program is offered on Fridays from 9:30 -11:00 am. For upcoming dates and more information, visit the GRCA's Events Calendar at www.grandriver/events.

Home School Forest Fridays Spring Sessions

May, June

Join other home schoolers in nature discovery at Shade's Mills Conservation Area for a 6 week immersive nature program focused on outdoor learning, play and place making. The program is perfect for home-schooled children or families who wish to provide their children with an opportunity to build a connection to local landscape and community outside of the classroom. This 6 week program is offered every Friday from 1:00 p.m. to 3:30 p.m. For details, visit www.grandriver/events.

Tree Planting Events

April 27-28

A number of community tree planting events will be taking place this spring. The

Annual GRCA Tree Sale

May 10

The Grand River Conservation Authority's annual tree sale takes place at the forestry barn at the GRCA head office, in Cambridge on Friday, May 10, 8 a.m. to noon. Trees available include small bare-root seedlings, two or three foot potted trees and five to seven foot saplings of many species. In addition to trees, the sale includes native wildflower seed mixes and wildflower plugs. The sale is first come, first served and line ups start early. For more information, visit www.grandriver/events.

About Grand Actions:

This newsletter is produced several times a year by the Grand River Conservation Authority.

Submissions:

Submissions may be edited. We do our best to publish items; however, we are not able to guarantee publication.

More information:

Current and back issues as well as subscription information is available online at www.grandriver.ca/GrandActions.

For more information please contact the GRCA Communications department.

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Cambridge, ON N1R 5W6



Overstock from the GRCA's planting programs is sold at the annual tree sale.

This publication is printed on Rolland Enviro100, an FSC certified, environmentally-friendly paper. The paper is manufactured using 100% post-consumer fibre and is processed chlorine-free using biogas energy.

