Ganaraska Region Conservation Authority 2018 ANNUAL REPORT











A YEAR IN REVIEW

As the Ganaraska Region Conservation Authority (GRCA) wraps up another year, the Conservation Authority reflects on the continuous growth and prosperity it has experienced. Since its inception in 1946 as one of Ontario's earliest Conservation Authorities, the GRCA has been working with watershed municipalities, government partners, community members, organized stakeholders, and individual landowners to protect people and property from flooding and erosion, improve water quality, provide advice, and guidance on municipal planning matters, and provide education and recreational opportunities across local watersheds.

The many programs and services offered by the GRCA were well utilized throughout 2018, providing important environmental resources to the community. As the GRCA moves into its 73rd year as a leader in the field, the Conservation Authority continues to work under its vision of Clean Water Healthy Land for Healthy Communities.

In 2019, the Ganaraska Region watershed will continue to be enhanced and conserved by the local Conservation Authority.

Yours in Conservation,

Wendy Partner, Chair, Board of Directors Linda J. Laliberte, CPA, CGA, CAO/Secretary-Treasurer

SPECIAL THANKS

The GRCA is grateful for its partners in the community, and appreciates the continued support and encouragement. It is important to sustain the connection between a healthy watershed and healthy and strong communities. Thank you to those who continue to support Ganaraska Forest recreational and forest management; especially the volunteer forest patrollers, the Ontario Federation of Trail Riders, the Ganaraska Snowmobile, and Ganaraska Forest Horse Clubs.

Thank you to the Ministry of Education for providing three experiential education grants in support of the Ganaraska Forest Centre for the fourth consecutive year; to both Canada Summer Jobs and Parks and Recreation Ontario for supporting seasonal staff; to the Capstone Infrastructure Corporation for sponsoring the Centre's public events, including Owl Prowl and Under the Stars; and to the Vanhaverbeke Foundation for their very generous support of the education program, with a particular focus on STEM (Science, Technology, Engineering and Math) skills development.

A special thank you to the dedicated committee members, volunteers, local businesses, organizations, artists and attendees of the annual fundraiser in support of the Ganaraska Forest Centre outdoor education program. The GRCA is looking forward to the 30th annual Ontario Federation of Anglers & Hunters / Ganaraska Forest Centre Conservation Dinner in April 2019.

Thank you to all of our partners who furthered the restoration and preservation of local watersheds in 2018, including:

- Lakefront Utility Services for supporting young environmental enthusiasts and the GRCA Nature Nuts Summer Camp
- Ontario Power Generation for supporting the Spring Water Awareness Program (SWAP) being offered to grade 4 students across the Ganaraska watershed
- TD Tree Days and Northumberland YMCA for planting 300+ trees and shrubs at the Cobourg YMCA location
- Chris Ketola for leading the 2nd Annual Northumberland BioBlitz in the Ganaraska Forest
- Union Gas for their continued support of conservation projects
- East Central Farm Stewardship Collaborative for enhancing agricultural stewardship practices



GANARASKA FOREST CENTRE

The Ganaraska Forest Centre (GFC) is home to the Conservation Authority's outdoor education program where thousands of students, from across eight different school boards, visit for a day or overnight to learn about their environmental footprint, become familiar with the natural world around them, and learn technical skills such as GPS training, wilderness first aid, and outdoor survival skills. Taught by the GRCA's Ontario-certified teaching staff, students from Kindergarten to Grade 12 receive the life-long gift of nature by experiencing meaningful, hands-on learning in an outdoor classroom.

In 2018, the GFC began the process of earning accreditation with the Ontario Camps Association (OCA), a province-wide safety and quality assurance agency. School boards are requiring OCA accreditation before permitting their students to participate in off-site activities. Receipt of this accreditation means that the GFC meets the Board's standard for student safety and provides the outdoor education centre with Approved Excursion Vendor status for visiting teachers. This process will give the GFC valuable, recognizable standing above other, non-accredited educational facilities. Following an in-depth monitoring process, the Centre looks forward to receiving accreditation in the summer of 2019.

When students are not in residence, the Ganaraska Forest Centre is transformed into a magical wedding venue, where stunning outdoor ceremonies and low-key, do-it-yourself wedding receptions occur almost every weekend throughout the year.

And not to be missed in 2018, were the GRCA's most successfully attended Nature Nuts Summer and March Break Camps.

GANARASKA FOREST RECREATION

The Ganaraska Forest continues to attract outdoor enthusiasts from across southern Ontario and beyond with its vast network of trails spread over 11,000 acres of forest. Throughout the year, work continued on implementing recommendations that came out of the renewed Forest Management Plan for the Ganaraska Forest. A new Terms of Reference for the Ganaraska Forest Recreational Users Committee (GFRUC) is now in place and members of the committee identified several priority areas that will be worked on over the coming years, including improved trail maintenance, control of invasive species and ongoing communications between GRCA staff, the Board of Directors, and the GFRUC. The hiring of a Conservation Lands Technician in the fall of 2018 will be of great benefit in assisting with the maintenance of trails within the forest.

The colour coded looped trails that begin at the Ganaraska Forest Centre are the most popular trails in the forest for non-motorized recreational activities. In the winter this trail system is groomed and track-set for cross-country skiing, and during the rest of the year these trails are enjoyed by hikers, horseback riders and mountain bike riders. Over 100 trail marker signs were replaced on this trail system in 2018.

Work continued on integrating the 200 acre property donated by the Vanhaverbeke family into the Central section of the Ganaraska Forest. The existing trail system has been mapped and cleared and two short sections of new trail were developed to link the existing trail network together.

There were a total of 1,817 forest members in 2018. Off-road vehicle riding continued to be the most popular activity, followed by horseback riding, hiking and mountain biking. Day pass sales totalled 5,542 for all recreational activities offered in the Ganaraska Forest.



GEOGRAPHIC INFORMATION SYSTEM (GIS)

GRCA's GIS department supported many Watershed Services projects throughout the year. The partnership with the Municipality of Port Hope to provide GIS and mapping support to all departments, including parcel fabric and zoning layers, continued throughout 2018. GRCA also provides leadership and support in Geospatial Sciences to neighbouring partners and stakeholders. Valued partnerships, such as these, enable the GIS department to evolve and offer the best quality in base data production. Thanks to leadership and data provided by the Province of Ontario, the GRCA has watershed-wide LiDAR coverage which has allowed the Conservation Authority to produce the first watershed-wide high-quality 3D terrain model in its history.

The Conservation Authority looks forward to continuing to investigate innovative and cost effective ways of implementing 3D elevation and remote sensing GIS data to improve and maximize efficiency in daily workflows. Concurrently, the GRCA applies these solutions on a daily basis for the benefit of the watershed through programs such as the Northumberland Digital Elevation Model Program. GRCA will remain working closely with federal, provincial, and other partners in developing effective technical solutions to pressing water resource issues, namely flood disaster mitigation and climate change.

ENVIRONMENTAL ADVISORY PLANNING AND REGULATIONS

In 2018, the GRCA provided input on 69 municipallycirculated minor variances, severance, zoning, and Official Plan amendments. Comments with respect to natural hazards and natural heritage, consistent with the Provincial Policy Statement (2014), were provided to our partner municipalities for their consideration as an approval authority. GRCA staff reviewed and provided input on 7 new subdivisions and 13 ongoing subdivisions within the watershed. In addition, 14 site plan applications for major development proposals (i.e. commercial, industrial) were reviewed. GRCA received and provided responses on a total of 155 formal inquiries and/or pre-consultation requests. Furthermore, GRCA issued 77 permits under the *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (O. Reg. 168/06).*

GRCA planning staff have joined the Conservation Authority Section 28 Committee which seeks ways to improve service delivery standards. In addition, GRCA planning staff meet regularly with the Greater Golden Horseshoe Planners and Conservation Authority Coastal Working Group to share ideas and ensure that staff have the most up-to-date knowledge on matters affecting Conservation Authorities. GRCA, along with Lower Trent Conservation and Central Lake Ontario Conservation Authority, have commenced updating the shoreline hazards document.

STEWARDSHIP

The GRCA offers a full array of stewardship programs to assist landowners, homeowners, community groups, schools and businesses in achieving their environmental restoration goals. Whether it is upgrading a water well to current standards, planting a pollinator shrub or conserving rainwater, the GRCA is able to lend a hand.

In 2018, the GRCA continued to offer financial assistance to individuals, clubs, schools and businesses within the Municipality of Clarington, Municipality of Port Hope, Township of Hamilton, and Town of Cobourg. Through the Clean Water-Healthy Land Financial Assistance Program (CWHLFAP), a total of 19 environmental projects were funded for a total allocation of \$19,747.40. The monetary value of these projects was approximately \$134,000.00.

The CWHLFAP supports the implementation of recommendations of GRCA Watershed Plans, the Natural Heritage Strategy and many other planning documents. The CWHLFAP is supported by the above mentioned, as well as the Regional Municipality of Durham and Lakefront Utility Services Inc.

Over 57,000 trees and shrubs were planted across local watersheds through various programs. Trees and shrubs are available for sale through the GRCA Tree Seedling Program, or are provided for free through the Trees for Rural Roads program offered in partnership with the Municipality of Clarington and the Municipality of Port Hope. For landowners with larger properties to plant, reforestation services were also delivered, with funding provided through the Durham 5 Million Tree Program and the provincial 50 Million Tree Program.

Each year, the GRCA works within local communities to carryout projects and events. For 2018 these "special projects" included a TD Tree Day event, in partnership with the Northumberland YMCA; a dam decommission on Graham Creek, in partnership with Ontario Power Generation; and a rain barrel sale in support of local conservation projects, in partnership with RainBarrel.ca.

DRINKING WATER SOURCE PROTECTION

In 2018, the GRCA worked in partnership with its member municipalities and others to implement the Ganaraska Source Protection Plan, which came into effect in 2015. The fourth year of implementation has seen more significant threats managed or removed, and the GRCA continued to work with municipalities to address municipal emergency and planning policies in regards to source water protection.

2017 annual reports submitted in 2018 by the Regional Municipality of Durham, Municipality of Clarington, Municipality of Port Hope, Township of Hamilton and Town of Cobourg, the Ganaraska Region Source Protection Authority, various provincial ministries and owners of pipelines indicate that the implementation of the Ganaraska Source Protection Plan is well underway.

A work plan to review and update the Ganaraska Source Protection Plan and the Ganaraska Assessment Report was submitted to the Ministry of Environment, Conservation and Parks in late 2018 for consideration. If approved, updates will include revisions to Intake Protection Zones for the Town of Cobourg, Municipality of Port Hope and Village of Newcastle; updates to the Orono Wellhead Protection Area; and clarification of certain policies for improved implementation.



WATERSHED MONITORING

The GRCA completed the Ganaraska Region Monitoring Report in 2018. The report is a summary of data collected and analyzed within the watershed, taking a science-based approach to highlight and explain conservation issues within our jurisdiction, including water quality/quantity concerns. Staff are actively monitoring the quality and quantity of the water resources of the region, as well as the terrestrial and aquatic organisms that inhabit our watersheds. By conducting monitoring, the Conservation Authority is tracking trends in watershed health and identifying areas in need of restoration.

Over several years, summer students and staff collected baseflow data on almost every tributary to identify groundwater contributions (i.e. springs, seeps). The data has been mapped to point out specific locations across the watersheds where groundwater is discharging into streams. These springs and seeps provide all of the baseflow in our streams and are a constant source of high quality cold water during the hot summer weather.

In 2018, GRCA continued to collect water quality samples to track conditions in our local streams as part of its Watershed Monitoring Plan. Through partnerships with Toronto and Region Conservation Authority and the Ministry of the Environment, Conservation and Parks, GRCA also collected storm event samples to study the relationship between land-use and the water quality of Lake Ontario.

Monitoring the changes in baseflows from year to year is a good way to detect the impact of climatic variations on water resources; while changes in water quality can indicate variations in land use or the way we manage activities on the landscape.

GROUNDWATER PROGRAM

Well site visits were made to a number of locations where homeowners approached the Conservation Authority with well and/ or water quality problems in 2018. GRCA assists landowners with private wells to apply best practices for water quality and supply.

The GRCA continued to manage its portion of the Provincial Groundwater Monitoring Network (PGMN), jointly undertaken by the province and the Conservation Authority to monitor water levels in a small number of wells across the watershed and in the Ganaraska Forest, and to monitor groundwater levels in a network of piezometers located in streambeds where active groundwater discharge is occurring. These monitoring programs allow the GRCA to observe and evaluate changing groundwater conditions over both the short and long term, so that information can be provided to area residents on the severity of groundwater level declines that may be occurring due to drought conditions, or to document long-term changes in groundwater influx to streams that may be occurring in response to a changing climate. Water level results from the PGMN program (since 2012) were reviewed and corrections/adjustments made to the data where necessary.

Cooperation on groundwater issues and projects continued with Conservation Ontario and the Conservation Authorities Moraine Coalition (CAMC). In association with CAMC, an updated database of groundwater and information for the GRCA region was installed at the Conservation Authority, which will allow improvements to be made to some of the existing maps showing groundwater conditions in our area and provides additional information that can be used for making site assessments to address local issues.

FLOOD FORECASTING & WARNING

Warmer temperatures during the winter of 2018 led to a spring-like flood event on February 21st. Thick ice had built up on the Ganaraska River, while rain beginning on the 19th saturated and melted the snowpack causing runoff. Air temperatures peaked at 11°C at 8pm on the 20th, sending more snowmelt runoff downstream, which caused the ice cover to start breaking up. Ice jams occurred in the lower portion of the river, which raised water levels and flooding concerns. The Municipality of Port Hope took appropriate action and called in heavy machinery to open a channel in the river so that water and ice could flow freely out to the lake. During that event, the river rose by 1.3m above the normal summer level.

As the climate warms, more mid-winter rain events are expected, which may shift the peak annual flows away from the traditional spring freshet and reduce spring flow volumes overall.

Another high water event occurred on April 16th, as nearly 50mm of rain fell over a 27-hour period. The resulting runoff caused the Ganaraska River to rise by 0.9m above normal, which is typical for peak flows during the springtime.

In 2018, GRCA issued two Watershed Conditions Statements for winter runoff events, two more for the April runoff and an additional two for fall runoff. A Flood Watch was also issued during the April 16th rainstorm; however, no significant flooding was reported.

Spring flow conditions eventually subsided and drier weather moved in for the next three months. By mid-July, watershed conditions were showing early signs that a late summer drought was starting. However, regular well-timed summer rains in late July, August and September were just enough to sustain soil moisture, groundwater levels and stream flows through the hot weather of the summer. Water supplies gradually recovered as they typically do in the fall, and overall, 2018 was a normal year with approximately 890mm of total precipitation.

CLIMATE CHANGE

The GRCA is dedicated to taking a leadership role in understanding and promoting actions that adapt to or mitigate climate change. The current focus and methods of sustainable natural resource management are being evaluated, and possibly modified, to address a changing climate.

The Conservation Authority continued to give priority, in terms of staff time and resources, to the Durham Community Climate Adaptation Plan (DCCAP) by participating in the Natural Environment Climate Change Collaborative.

In addition, the GRCA continues to implement the GRCA Climate Change Strategy and incorporate climate change considerations into its programs and services.



TERRESTRIAL ECOLOGY

In 2018, the GRCA participated in the 2nd Annual Northumberland BioBlitz in partnership with the Rice Lake Plains Joint Initiative and the Biodiversity Education and Awareness Network to inventory the Ganaraska Forest flora and fauna within a 48-hour time frame. The event consisted of more than 35 expert biologists and skilled naturalists who positively identified 514 species; 68 avian species, 11 mammals, 3 reptiles, 4 amphibians, 118 insect species, 296 plant and tree species, 5 fungi species, 4 arachnid species, and 1 fish species.

A big focus of the Terrestrial Ecology Program in 2018 was on invasive plants. GRCA's Terrestrial Ecologist sat on the Ontario Invasive Plant Council as Vice-President for over ten years. With this expertise, numerous presentations on the problem of invasive species and plants took place over the year, as well as the annual invasive species walk at GRCA's Millennium Conservation Area. Throughout the Millennium Conservation Area, the following invasive species have been identified: European Buckthorn, Dame's Rocket, Autumn Olive, Garlic Mustard, Black Locust, Non-native Honeysuckle, Manitoba Maple, Phragmites, and Wild parsnip.

Although all invasive species are undesirable, some species such as the Wild Parsnip can pose a threat to both human health and forestry health. The plant produces a sap containing chemicals that can cause the human skin to react to sunlight, resulting in intense burns. In order to manage such a plant, and protect visitors to the conservation area, GRCA applied a chemical spray treatment to approximately 800 Wild Parsnip steams around the area.

AQUATIC ECOLOGY

The GRCA collaborated in a variety of aquatic assessments, management and research in 2018. Assessments focused on monitoring and compiling aquatic resource information for Wilmot Creek, Cobourg Creek and Wesleyville Creek.

Monitoring on Wilmot Creek consisted of examining the watershed health and fish community trends at the six long-term fish community health assessment stations. The Conservation Authority continued to monitor the Sea Lamprey weir on Cobourg Creek, in partnership with Sea Lamprey Control Center staff, capturing a total of 2,419 fish composed of 26 different species. GRCA also worked with Carleton University, monitoring migration patterns of adult White Sucker on Cobourg Creek. White Suckers were captured at the lamprey weir and assessed for any fin clips or tags, and that information was transferred to Carleton students for further analysis.

The GRCA continued its partnership with Ontario Power Generation, conducting a detailed fisheries assessment on Wesleyville Creek. Four new sites were added to the existing four long-term fish community sites, where the focus was Brook Trout and Rainbow Trout abundance and long-term population status. In addition to monitoring, the Conservation Authority completed several fisheries habitat improvement projects, including the continuation of removing and/or mitigating fish passage constraints at culverts on Wesleyville Creek and a private dam removal on Graham Creek to support fish passage at these structures.



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NATURAL HAZARDS

Midtown Creek Flood Damage Reduction Pond

Over the last number of years, the GRCA has been working with the Town of Cobourg to develop options to control flooding on Midtown Creek through the historic downtown core. In 2016/17, the Conservation Authority provided the Town with a significant amount of data and analysis to assist in developing concepts for potential flood reduction measures. In 2017, the Town's consultant commenced the Municipal Class Environmental Assessment (EA) which assesses and ranks the alternatives. The Class EA was completed in 2018 and the preferred alternative is a flood damage reduction pond upstream of the future Kerr Street extension. In 2018, the consultants worked on finalizing the detailed design documents with the GRCA.

Erosion Protection Works

A private dam, located within a reach of Graham Creek, is surrounded by agricultural and cattle grazing lands. In collaboration with the land owner, a healthy riparian corridor with tall grasses, herbs and shrubs has been established by GRCA to increase channel stability and water quality. Despite the plantings, spring water velocities outflanked the dam located downstream of a channel bend. In 2018, GRCA retained a geomorphologist to design a realigned channel to bypass the dam and reconnect with the original watercourse downstream, replicating the existing conditions as much as possible while ensuring stability of the banks and channel bed. A local contractor was hired, and the works were successfully completed. To reduce erosion further, overbank treatments such as live staking and planting were applied. GRCA monitored this project, completed in partnership with Ontario Power Generation, during and after the construction phase.

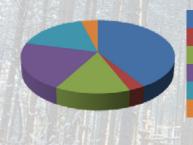
Lake Ontario Shoreline Hazard Management Plan

In 2018, the GRCA, in collaboration with Central Lake Ontario Conservation Authority and Lower Trent Conservation, were successful in obtaining funding through the National Disaster Mitigation Program to complete the Lake Ontario Shoreline Hazard Management Plan. A similar study was previously completed in 1990, and was in great need of updating. The Conservation Authorities sent out Requests for Proposals to qualified coastal engineering firms to complete a study which will provide the tools to minimize danger to life and property damage; ensure that shoreline development adequately addresses hazards; and ensure that new development does not impact environmental features and functions of the shoreline. The contract was awarded to Zuzek Inc., and the Notice of Study Commencement was released in October with work continuing into 2019.

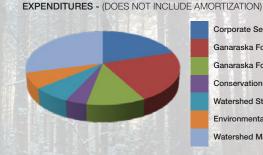
Floodplain Risk Assessment

In 2017, the GRCA commenced a Flood Risk Assessment for Ward 4 of the Municipality of Clarington. The study identified and analyzed 26 Flood Damage Centres (FDC) and ranked them in terms of vulnerability based on adaptive capacity and sensitivity. Only one FDC was determined to require additional study, which centre is located on the main branch and two tributaries of Foster Creek in the Village of Newcastle. In 2018, the Conservation Authority updated very early floodplain mapping on the two tributaries (the main branch mapping was updated in 2012) in order to accurately assess the potential for flood damage. The study will go further to quantify flood damages and provide valuable background data in order to make informed decisions regarding future flood reduction measures.

REVENUES



Municipal Levy : 41% Grants : 3% Ganaraska Forest : 14% User Fees & Sales : 21% Ganaraska Forest Centre : 17% Other : 4%



Corporate Services : 20% Ganaraska Forest Centre : 22% Ganaraska Forest : 11% Conservation Land Mgmt : 4% Watershed Stewardship : 7% Environmental Advisory : 7% Watershed Management : 29%

FOREST MANAGEMENT

2018 marked the first full year of management under the renewed Ganaraska Forest Management Plan (FMP) 2018 - 2038. The FMP provides guidance for the sustainable management and conservation of the Ganaraska Forest and its resources. Several eligible forested areas in Millennium Conservation Area, Port Hope Conservation Area and Ball's Mill Conservation Area were entered into the Managed Forest Tax Incentive Program. These properties will be managed under the direction of the Ganaraska FMP, ensuring that good forest management occurs across all of the GRCA's forested areas.

While there were no major outbreaks of insect or disease, the Ganaraska Forest continues to see issues with red pine decline, beech bark disease and terrestrial invasive species such as dogstrangling vine. In fall 2018, the 64.7 ha Bullen Property in the West Forest was surveyed for invasive plant species. With the help of Ontario Heritage Trust and the Credit-4-Product Program at Fleming College, approximately 4.0 km of trail was mapped in detail for infestations of several high-priority species. Each forest stand on the property was also assessed for a complete picture of the infestation on the property. This project will be instrumental in future management efforts on the property and across the GRCA watershed.

Four timber harvest contracts were completed in 2018. Ben Hokum & Son Ltd. of Killaloe completed two contracts for the scheduled thinnings of 44.9 ha of red and white pine plantations in the East Forest. Lavern Heideman & Sons Ltd. of Eganville completed the final two harvest contracts; both selective harvests of approximately 58.0 ha of red and white pine plantations in the Central and East Forest. Harvest inspections were carried out on a weekly basis to ensure that the conditions and guidelines of the FMP and harvest contracts were honoured and that logging damage was minimized.

FINANCIAL SUMMARY

In 2018, the budget totaled \$3,847,806.00, which is an increase from 2017. The municipal general levy was increased by 2.5% and was adjusted in accordance with the current value assessment figures. The general levy for 2018 was \$959,403.00 which represents about 25% of the total budgeted revenues.

This past year there were several capital projects within the Conservation Authority, which are mainly funded by the watershed municipalities and described within the annual report. The GRCA continues to partner with others on important initiatives. As well, the Source Protection Planning program continued, which remains to be fully funded by the Province.

The chart above shows the actual revenues for 2018. The levy shown is a combined total of general and benefiting levy. The Ganaraska Forest timber sales of \$154,692.00 and memberships of \$293,019.00, as well as the revenues from Treetop Trekking of \$43,750.00 are included in the Ganaraska Forest revenue. The User Fees & Sales consist of the revenues from the Stewardship programs, Watershed Services, as well as the Water Resources fees. The category of "Other" includes directly funded projects of the Conservation Authority. This includes \$58,604.00 for the Trent Conservation Coalition Source Water Protection initiative.



2018 Ganaraska Region Conservation Authority Staff and Board

Corporate Services

Linda Laliberte Alyssa Butters Amy Griffiths Cody Brown George Elgear Ian Jeffrey Jeff Moxley Julie Verge Kim Baldini Matt Reaume Michelle Giddings CAO/Secretary-Treasurer GIS Technician (as of April 2018) Marketing & Communications Officer GIS Technician (until April 2018) General Superintendent GIS/Remote Sensing Specialist GIS Coordinator Corporate Services Assistant Finance Clerk GIS Technician (as of April 2018) Bookkeeper

Watershed Services

Leslie Benson Interim Director of Watershed Services Grea Wells Manager, Planning and Regulations (until May 2018) Fisheries Biologist (until February 2018) Brian Morrison Christie Peacock Water Resources Engineer (until February 2018) Jessica Mueller Watershed Hydrogeologist Joanne Mav Administrative Assistant, Planning and Regulations Interim Stewardship Technician (until July 2018) Kelly Gibson Ken Thaier Planning and Regulations Coordinator (as of August 2018) Ken Towle Terrestrial Ecologist Kevin Lukawiecki Engineering Assistant (until May 2018) Lindsay Champagne Watershed Biologist (as of October 2018) Water Resource Technician Mike Smith Nadeem Paracha Water Resource Engineer (as of August 2018) Pam Lancaster Stewardship Technician

Ganaraska Forest Centre/Ganaraska Forest

Linda Givelas Aaron Staples Brianna Bourke Gus Saurer Heathyr Francis Katherine Gray Megan Hennessy Meghan Robinson Ryan Goodall Shayne Pilgrim Steve McMullen William Lemieux GFC Property Manager Outdoor Education Instructor Gatehouse Keeper (as of November 2018) Forest Technician Part-Time Outdoor Education Instructor Gatehouse Keeper (until November 2018) Outdoor Education Instructor Weekend GFC Technician (as of October 2018) Outdoor Education Instructor GFC Technician Forest Recreation Technician (as of October 2018)

Full Authority Board

Wendy Partner Jeff Lees Brian Darling Forrest Rowden Heather Stauble John Fallis Louise Ferrie-Blecher Mark Lovshin Ray Benns Willie Woo Chair, Municipality of Clarington Vice-Chair, Municipality of Port Hope Town of Cobourg Town of Cobourg City of Kawartha Lakes Township of Cavan Monaghan Municipality of Port Hope Township of Hamilton Township of Alnwick/Haldimand Municipality of Clarington

Summer Students

Austin Veleke Helen Liu Mitch Dwyer William Lemieux Conservation Areas Technician Assistant Water Resource Technician Assistant Water Resource Technician Assistant Ganaraska Forest Technician

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