

Annual Report 2022





Ausable Bayfield Conservation Authority

Annual Report 2022

Working with you to protect life, property, water, soil, and habitat for all living things.

What's Inside

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The Ausable Bayfield Conservation Authority (ABCA) acknowledges the original stewards of this land, the Haudenosaunee and Anishinaabe. We recognize the Huron Tract Treaty signed in 1827. We recognize that this territory was subject to the Dish with One Spoon wampum, under which multiple nations agreed to care for the land and resources including plants and animals, in peace. As shared stewards of this land and water, the ABCA is grateful to have the opportunity to work in this territory.

Front Cover Photo:

Jada Burt was 2022 Junior Conservationist with Ausable Bayfield Conservation Authority.

Jada is from Lucan and is a graduate of Medway High School in Arva.

She is attending the University of Guelph to complete her BSc in Marine and Freshwater Biology.

In this photo, Jada holds a Creek Chub fish at an Ask a Biologist event at Ridgeway.

The Junior Conservationist program is possible thanks to Ausable Bayfield Conservation Foundation (ABCF) and all the people in the community who support the Foundation with their donations.

Mission

Protect, improve, conserve, and restore the watershed in partnership with the community

Vision

Healthy watersheds where our needs and the needs of the natural environment are in balance

Forging partnerships for strong conservation future

By Dave Jewitt, Chair, Ausable Bayfield Conservation Authority (ABCA) Board of Directors

In 2021 we celebrated our 75th anniversary. In 2022, we worked to build the foundation for the next 75 years of local conservation. We work closely with our 12 member municipalities, and other partners, to build that foundation.



Dave Jewitt

In 2022 we took our motto, '*Creating Awareness, Taking Action*,' seriously. We provided flood forecasting and warning to our municipalities. We protected life and property through regulations and planning. We taught the watershed stewards of tomorrow through conservation education. We monitored the state of our watershed resources. We reduced risk, enhanced our watershed, and built resiliency. We did this by working with the community and supporting tree planting, wetlands, erosion control, stormwater management, and rural and urban stewardship. Those are just some of the important programs and services we provide. There is great value to the ecological services and natural infrastructure we build.

Chair's Message

It has been my honour to serve on the ABCA Board of Directors as Chair since I was elected in February of 2022. I took over the reins from Past Chair Doug Cook. I would like to thank Doug for his dedicated service and to congratulate Marissa Vaughan for assuming the role of Vice Chair.

The entire Board has worked diligently to use fiscal prudence while also fulfilling our duties to protect life and property and watershed resources. In 2022, we approved an Integrated Accessibility Policy and Plan; a Land Acquisition Policy; a Land Disposition Policy; and ABCA Land Acquisition Plan (2022-2024). We maintained and upgraded dams. We adapted during the pandemic to deliver services and entered a new phase with a return to in-person meetings. We implemented requirements of recent changes to the *Conservation Authorities Act*.

The work we do is only possible thanks to our municipal partners, residents of our watershed communities, partner government departments and ministries, and our other community partners. I thank you all.

Ausable Bayfield Conservation Authority (ABCA) Board of Directors – 2022



Dave Jewitt, Chair
Central Huron



Marissa Vaughan, Vice Chair
South Huron; Perth South



Doug Cook, Past Chair
Lambton Shores; Warwick



George Irvin
Bluewater



Mike Tam
West Perth



Bob Harvey
Adelaide Metcalfe; Middlesex Centre



Alex Westman
Lucan Biddulph



Ray Chartrand
Huron East



Adrian Cornelissen
North Middlesex



Brian Horner

General Manager
Sec.-Treasurer



Abigail Gutteridge

Corp. Services
Coordinator



Tina Crown

Financial Services
Coordinator



Sharon Pavkeje

Corporate
Services Assistant



Tim Cumming

Communications
Specialist



Kate Monk

Projects
Coordinator



Tracey McPherson

GIS/IT
Coordinator



Aaron Clarke

DWSP GIS
Specialist



Elizabeth Balfour

GIS
Technician



Denise Iszczuk

Conservation
Educator



Nina Sampson

Conservation
Educator



Jada Burt

Junior
Conservationist
(Summer pos.)

Corporate Services staff members help the Ausable Bayfield Conservation Authority (ABCA) Board of Directors, committees, departments, member municipalities and the public.

Community, staff work to preserve, enhance our watershed

By Brian Horner, General Manager and Secretary-Treasurer

Once again, in 2022, I would like to thank our dedicated staff and I would like to thank our watershed residents and other partners who preserve and enhance this watershed.

Our staff are resilient. They find ways to achieve program success even as they deftly adapt to change and challenges.

Our staff members protect life and property from natural hazards such as flooding and erosion; instill a stewardship ethos in the next generation; gather needed data; and facilitate practical actions that preserve our watershed resources including water quality, soil health, and habitat.

Staff cannot do it alone. Success is only possible with support of our 12 member municipalities, community partners and funding partners, departments and ministries, and landowners of Ausable Bayfield watersheds.

General Manager's Report

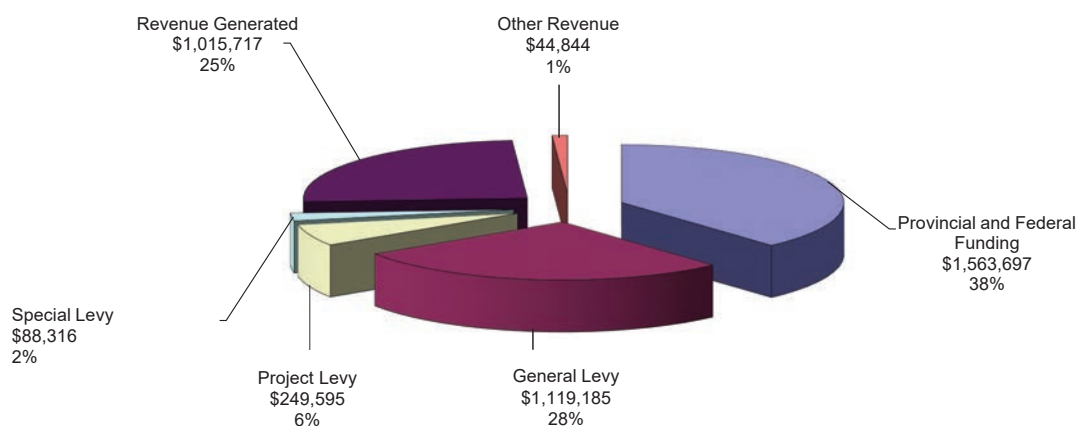
We were honoured to present the Conservationist of the Year Award, in 2022, to Denys Farms Inc. – Jim, Dan and Mike Denys, of the Parkhill area, for more than 25 years of conservation farming. This year's winners, along with award winners in previous years, exemplify the stewardship that benefits an individual property while building green infrastructure that benefits the entire watershed community.

Thanks to our hard-working staff and to all our residents and landowners for caring about their watershed community and taking the actions that preserve and enhance this watershed for generations to come.

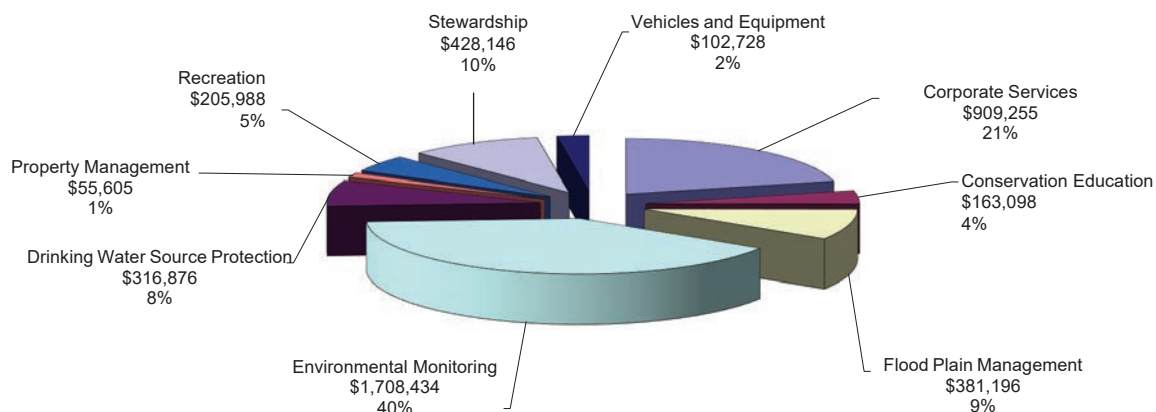
We look forward to working with you closely, in the year and years to come, to continue the momentum of these watershed improvements.

2022 Financial Summary

2022 Sources of Revenue – Total Revenue \$4,081,353 (Unaudited Figures)



2022 Department Expenses – Total Expenses 4,271,325 (Unaudited Figures)



ABCA is a leader leveraging funds for greater benefit

By Brian Horner, CPA, General Manager and Secretary-Treasurer

Ausable Bayfield Conservation Authority (ABCA) continues to be one of the leading conservation authorities in Ontario when it comes to leveraging local levy dollars with third-party funding to make more positive actions possible.

Thanks to the approval of grant and funding applications submitted by ABCA staff during the year the local levy dollars represented approximately 34 per cent of total revenue compared to other conservation authorities across the Province of Ontario that had similar levies representing approximately 50 per cent of their total revenue.

Similar to the past few years our conservation authority has continued to

Financial Summary

leverage every local dollar generated with approximately \$2 in additional funding, compared to the provincial average that is dollar for dollar amongst most other conservation authorities.

The unaudited financial results show this conservation authority again coming in around budget as the \$190,000 loss includes \$176,000 of amortization. Staff have continued to do a terrific job in bringing projects in at, or better than budgeted costs.

We again would like to thank our member municipalities for their continued involvement and commitment to their local watershed.



Digital mapping is crucial for all Ausable Bayfield Conservation Authority (ABCA) programs.

Staff protect data through cyber security upgrades

By Tracey McPherson, GISP, GIS/IT Coordinator

In 2022, information technology (IT) staff continued to focus on cyber security needs to protect Ausable Bayfield Conservation Authority (ABCA) data assets.

IT/IM Actions taken in 2022:

- Trained staff in computer security (dealing with Phishing).
- Replaced five workstations and other older/failed network components, purchased two Chromebooks, and equipped more staff with tools for productive meetings.
- Supported the import and retrieval of water quantity and water quality data from the WISKI system used in flood forecasting models and other projects and studies.

IT/IM results:

- More secure system.
- Modern equipment allows staff to work more efficiently, more securely, and maintains the whole system.
- Data management systems allow efficient capture, storage, and retrieval of vast amount of data used in daily activities.

Geographic Information Systems (GIS), Information Technology (IT) and Information Management (IM)

Cyber security tools include but are not limited to firewalls, anti-virus software, backups, and staff training. Staff monitored and updated server and desktop operating systems and software as another set of tools to maintain a secure system.

Geographic Information Systems/IT staff used their database skills to take full advantage of the Water Information Systems KISTERS application for retrieval, storage and analysis of water quantity and quality data. Many GIS activities in 2022 continued to focus on our ArcGIS Enterprise system by adding more mapping layers and functionality.

GIS actions taken in 2022:

- Added more data layers to ArcGIS Enterprise. 200 + individual data layers now available to staff.
- Completed mapping, data, and analysis for staff, consultants, and partners.

GIS results:

- Data for decision making and design.
- Support for internal and partner projects and programs.



The conservation area becomes the school as local secondary school students do a river study at Clinton Conservation Area.

Conservation education staff plant seeds of knowledge

By Denise Iszczuk, Conservation Educator

Conservation educators with Ausable Bayfield Conservation Authority (ABCA) connected with 11,000 people in 2022.

ABCA's conservation educators linked people with important community conservation activities through programs such as special events, non-profit programs, school programs and special activities such as river safety education. (Chart 1).

Conservation educators planted different conservation seeds throughout the year.

Secondary school students were certified in new skills developed through team-building, Global Positioning System (GPS), and Leave No Trace principles.

Conservation Education

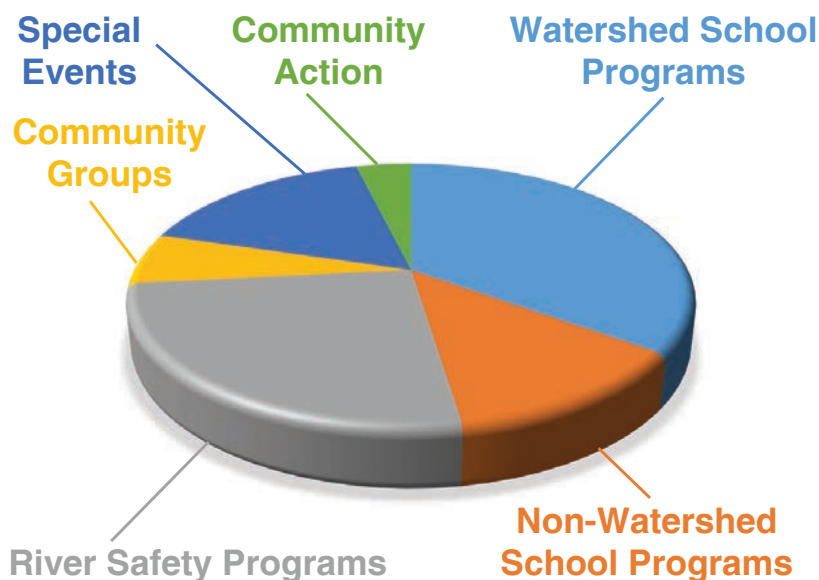
A new program about water pollution and micro plastics engaged students of the Huron-Perth Catholic District School Board.

In another new development, ABCA staff offered six nature-themed one-day camps in the summer. We were happy to run camps at different locations around the ABCA watershed area, including at Morrison Dam, Rock Glen and Clinton conservation areas.

Twenty-one of twenty-nine watershed schools, with 3,800 students, took part in a field trip, virtual program or schoolyard program.

Continued on next page

Conservation Education Programs 2022



Conservation education program categories, as percentages, in the ABCA area.



Campers discover nature at WILD (Wonder, Investigate, Learn and Discover) nature day camps.

Thousands of students learn about water safety

Continued from previous page

Conservation education staff at Ausable Bayfield Conservation deliver programs that pollinate ideas for healthier communities.

Some highlights of pollination of ideas and action through education include:

- 2,800 students participated in learning about how to make good decisions around water so they will stay safe.
- Seaforth Public School and Parkhill-West Williams Public School were Watershed Champions as they took action to improve their schoolyards for future learning activities.
- 1,600 students celebrated water, soil and living things during April Earth Day events.
- 137 people attended Owl Prowl events in October and November.

We acknowledge the important investment that watershed municipalities make in conservation education. Conservation education staff grow this support with further sponsorship from Cordelio Power, NextEra Energy Canada, LP, and Ausable Bayfield Conservation Foundation. The support of these additional resources made it possible for conservation education staff to develop new and creative educational programs and methods of program delivery. These program innovations included more outside time at conservation areas and at schoolyards.

Conservation Education



Students learn about the health of their local river through water bugs (macroinvertebrates).

Conservation education staff at Ausable Bayfield Conservation are thankful to teach and connect residents with the living things in the watershed and in the traditional territories of the Anishinaabe and Haudenosaunee.

We thank all who contribute to conservation education.



Ausable Bayfield Conservation Authority (ABCA) river watch includes monitoring ice and high water conditions. This February 2022 photo shows the Ausable River at Springbank.

Calling staff first always best way to avoid unnecessary costs

By Geoffrey Cade, Manager of Water and Planning

The reader will see, in the following reports, that the Water and Planning Department at Ausable Bayfield Conservation Authority (ABCA) proactively strives to protect watershed residents – whether that be their sources of drinking water or through flood forecasting and warning, municipal planning input, and *Conservation Authorities Act* regulations.

In our regulations role, despite our work, ABCA sometimes must react to activities which challenge our efforts to help keep residents safe. Proponents do, on occasion, initiate works which are contrary to the *Conservation Authorities Act*. Sometimes this is an unintentional misstep. Unfortunately, sometimes it is not. In either case, the conservation authority reluctantly has to assume an enforcement role.

When faced with these issues ABCA staff members spend significant time and effort seeking a resolution through cooperation. Our staff work, as best we can, with a proponent to seek a resolution through an acceptable compromise. The vast majority of enforcement issues are resolved this way.

However, despite these efforts, if the proponent is unable or unwilling to solve the problem, ABCA must turn to the courts. Unfortunately, over the last few years we have seen a greater number of concerning activities requiring court action. We wish to avoid these situations but, through our legal responsibilities, we must consider

Municipal Plan Input/Planning Report

By the numbers – Planning 2022

Minor Variances	21
Severances	30
Official Plan Amendments	4
Zoning Bylaw Amendments	21
Lawyer Inquiries	49

unintended impacts to residents, including to the proponent themselves.

In addition to landowners, contractors can also find themselves responding to enforcement activities. In recent years contractors have paid significant fines to the Province of Ontario for doing work which is contrary to the *Conservation Authorities Act*.

Ausable Bayfield Conservation Authority does not wish to be in this position so we strongly urge landowners and contractors to contact ABCA staff in advance of starting any proposed works in a regulated area. In an effort to avoid the need to litigate, we actively educate the public about our regulatory role and the reasons why contacting us first is always the best policy. We hope this educational initiative can help to limit the number of cases that end up in court.

We would like to thank the majority of property owners and contractors who do contact us first and, in so doing, avoid fines, delays, and unnecessary costs.

Contacting staff first can help to avoid project delays

By Daniel King, MEPP P.Eng., Regulations Coordinator

From water levels on the Great Lakes to riverine erosion, the work of the regulations program proves the idiom that the only constant is change. While Natural Hazards we measure at Ausable Bayfield Conservation Authority (ABCA) have always been dynamic in nature, 2022 saw continued changes to the pattern of inquiries and changes to the *Conservation Authorities Act* itself.

Through these changes, Ausable Bayfield Conservation Authority continued to regulate development within Hazardous Lands under the *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation* (Ontario Regulation 147/06). ABCA Regulations Program staff continued to provide services to landowners, contractors, and the public.

In 2022, ABCA staff continued to see interest in properties with existing development in regulated areas both inland and on Lake Huron. Regulations and Planning staff continued to support real estate transactions for properties regulated by ABCA with our property inquiry service. Anyone considering new construction in regulated areas is encouraged to avail themselves of this service. It continues to be important for proponents to consult the ABCA regulatory mapping available on our website and seek early advice from ABCA Staff to avoid project delays due to re-designs.

Enforcement of the regulation continues to be a challenge that ABCA staff set out to address. A number of charges were laid in 2019, 2020 and 2021 which are at different stages within the Provincial Offences Court in Ontario. These types of charges are only brought by ABCA staff as a last resort.

Regulators are charged with protecting public safety. When required, we exercise enforcement efforts to ensure contractors are following the rules. Contractors, and their clients, who are not in compliance, risk fines, legal action, and damage to their

Ontario Regulation 147/06 – Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses

2022:

- 128 Level 1 or 2 Permits issued
 - 95 Minor Works Permits issued
 - 10 drain reports reviewed
 - 33 drain maintenance reviews
- (Standard compliance requirements)



A photo along the Lake Huron shoreline.

reputation. This is especially true for those working in or adjacent to the high-risk areas such as along the shoreline or in other areas with Natural Hazards; both of which are regulated by ABCA.

ABCA staff remained committed to serving the community and providing advice to landowners concerned about natural hazards on their property. Those considering new development and construction should contact staff early in the planning stages to avoid unexpected project delays. Mapping of the ABCA regulation limit on the shoreline and throughout the watershed is publicly available on our website at abca.ca



Monitoring of high water during flooding events, or low water during drought, is important for the protection of watershed resources. This photo shows the Parkhill inlet and site of the integrated weather and climate monitoring station in February of 2022.

Weather and climate stations provide monitoring that informs flood forecasting and warning; low water response programs

By Davin Heinbuck, Water Resources Coordinator

Ausable Bayfield Conservation Authority (ABCA), in cooperation with the Ontario Ministry of Natural Resources and Forestry (MNRF) and Environment and Climate Change Canada, maintains and operates a data collection network within its watershed area to provide watershed municipalities and residents with advance warning of life-threatening flood events in the watershed.

The data collection network allows staff to monitor conditions throughout the watershed, including water levels and precipitation. Computerized monitoring systems, in the field, transmit information by telephone or satellite directly to the office in Exeter. The ABCA network consists of the following:

- Fourteen automated monitoring stations, 12 of which are for water level.
- Most stations monitor a combination of precipitation, temperatures and other meteorological sensors.

Water Level and Streamflow Monitoring

- One dedicated climate monitoring station (in cooperation with Ontario Ministry of the Environment, Conservation and Parks)
- Approximately 20 volunteer rain gauge readers provide information through a web-based data entry system

The ongoing monitoring programs continue to provide information for the Ontario Low Water Response, Flood Forecasting and Warning and other conservation authority programs. Monitoring of precipitation and water quantity within the watershed ensures we have early indications of any potential flooding (or low water conditions) so that flood messages or Low Water Advisories can be provided to our watershed municipalities in a timely manner.

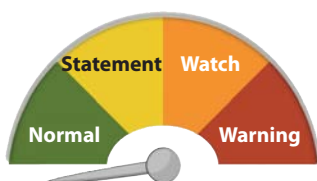


Storm events did contribute to runoff in 2022 but flooding impacts were isolated.
This photo from October 2022 shows high water near Varna.

February snow melt produced runoff but 2022 flooding events in watershed were minor relative to other years

By Davin Heinbuck, Water Resources Coordinator

There were no major flooding events, in Ausable Bayfield watersheds, in 2022.



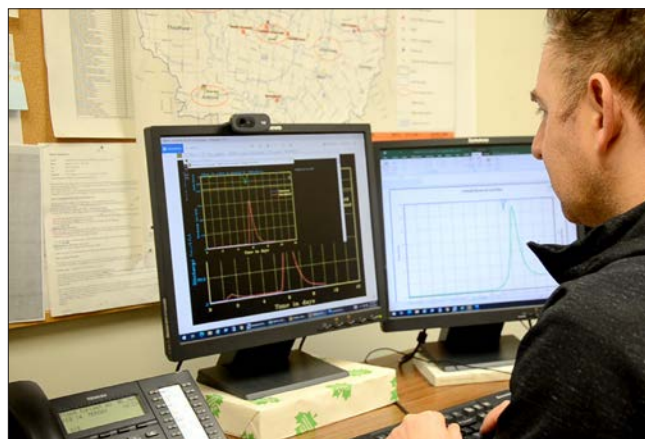
The main winter melt occurred in February and, compared to most winter melts, was relatively minor in nature. Snow water equivalent of 40-70 millimetres (mm), with 20 mm of rain, was not enough to melt all the snow, but did produce some runoff. It was this event that recorded the highest stream flows of 2022.

With seasonal weather returning for most of February and March, several small snowmelt events occurred. Ice thickness on rivers was less than normal with only a slight risk of ice-jams.

After a wet start to spring, weather patterns shifted drastically, and the watershed experienced dry conditions right through until late autumn.

Active weather returned in late December

Flood Forecasting and Warning



Davin Heinbuck, Water Resources Coordinator, reviews flood forecasting and warning data and modeling.

when high winds accompanied a blizzard. This storm brought heavy snow to the watershed, most of which melted before the New Year, resulting in high water levels to end 2022.

More than 30 attendees learn about role of Parkhill Dam, in flood management, at annual Flood Emergency Planning Meeting

By Davin Heinbuck, Water Resources Coordinator

Ausable Bayfield Conservation Authority (ABCA) hosted the 2022 annual Flood Emergency Planning Meeting virtually, once again, on February 22, 2022.

We welcomed ABCA member municipalities and other stakeholders who attended and took part in the meeting. The 31 attendees included representatives from eight watershed municipalities as well as staff and/or Community Emergency Management Coordinators (CEMCs) from all four counties in the watershed; Huron OPP; and two neighbouring conservation authorities.

ABCA staff members presented on the roles and responsibilities in flood emergencies and provided a watershed conditions update with a flood outlook.

Key-note presentations by ABCA staff included the Parkhill Dam and the role it plays in flood management. Staff also provided a summary of 2021 flood events, highlighting the heavy rains and widespread flooding in September of 2021.

Flood Emergency Planning



This photo shows Bayfield River at Parr Line in February 2022.

This valuable meeting continues to provide a forum for discussion and planning to ensure that all agencies are better prepared to deal with flooding emergencies.

Water and Planning

Water and Planning staff play an important role in protection of life, property, and watershed resources. Working with the public, member municipalities, and other partners they are involved in community projects, flood forecasting and warning, and planning and regulations.



Geoffrey Cade

Water and Planning Manager



Daniel King

Regulations Coordinator;
Prov. Offences Officer



Meghan Tydd-Hrynyk

Planning and Regulations Officer



Davin Heinbuck

Water Resources Coordinator



Tommy Kokas

Water Resources Engineer



Ross Wilson

Water and Soils Resource Coordinator



This June 2022 photo shows fairly low water at Bannockburn Conservation Area.

Water Response Team issues Level 1 Low Water Advisory July through October in response to dry spring, summer

By Davin Heinbuck, Water Resources Coordinator

Ausable Bayfield Conservation Authority (ABCA) continued its involvement, in 2022, in the Ontario Low Water Response (OLWR) program which the Province of Ontario created after extreme dry conditions were experienced in parts of the Province in 1999.

The local ABCA Low Water Response Team (WRT) was formed in 2001 and is made up of municipal and provincial agency representatives as well as representatives from ABCA; Ontario Stone and Sand and Gravel Association; Golf Course Owners Association; Thedford-Grand Bend Vegetable Growers; Huron County Federation of Agriculture; and the Ontario Federation of Anglers and Hunters.

During the year, the WRT held one meeting and was provided monthly watershed condition reports and recommendations by ABCA staff.

Dry conditions were reported during the spring and summer months of 2022, resulting in a Level 1 Low Water Advisory being issued in July, for the entire ABCA watershed, and remained in place through October.

In many parts of the watershed, there was virtually no runoff for nearly five months. High water tables and strong baseflows from the early spring provided some resiliency to stream flows into the summer and prevented

further advisories from being issued.

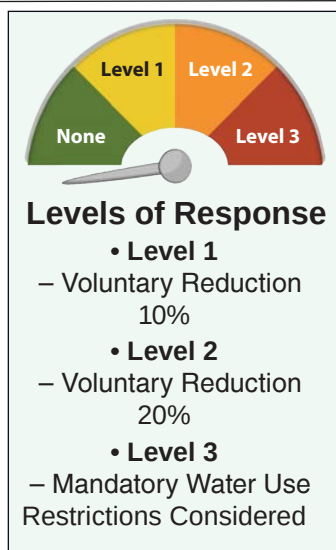
In addition to ABCA's monitoring stations, approximately 20 volunteer rain gauge readers continue to provide valuable information on the extent and amount of precipitation received in the watershed.

This program continues to provide the public and member municipalities with information on the condition of our watersheds in relation to possible drought problems.

When there are higher stresses on water resources – including surface water such as creeks, rivers, and Lake Huron and groundwater in aquifers (below our feet), the Water Response Team issues low water advisories of level 1, 2, or 3.

For practical water conservation tips, visit the water quantity page at abca.ca.

Ontario Low Water Response (OLWR)





The groundwater resource is found underneath our feet in aquifers.

Most exceedance notices are for sodium, fluoride

By Davin Heinbuck, Water Resources Coordinator

The 2001 Provincial Groundwater Monitoring Network (PGMN) initiative is a continued partnership between conservation authorities and the Ontario Ministry of the Environment, Conservation, and Parks (MECP). This initiative maintains a network of more than 400 groundwater monitoring wells across the Province of Ontario.

Ausable Bayfield Conservation Authority (ABCA) maintains 16 wells throughout the watershed. There are five bedrock wells and 11 overburden wells. Hourly groundwater level data has been logged for nearly 20 years at most well sites. Groundwater data is downloaded on-site by staff, or Geostationary Operational Environmental Satellites (GOES) satellite at selected sites where real-time data such as rainfall is required. Groundwater level data shows annual cycles are fairly consistent and highlights the critical annual recharge periods of autumn and spring. Long-term groundwater levels have remained relatively stable over the monitoring period; but the degree of groundwater level changes within a single year has shown more variability. These changes are driven by weather patterns such as drought periods or periods of higher than normal precipitation. In 2022, dry summer and autumn conditions resulted in an accelerated drop in the water levels of the shallow aquifers. Based on the program's relatively short period of record, it is a challenge to get an accurate handle on historic and long-term trends.

Water quality sampling is another critical component of the PGMN. The ABCA has

Groundwater Resources and the Provincial Groundwater Monitoring Network (PGMN)

groundwater quality data available for each well from 2003 to 2022. To match the core requirements province-wide, we analyze water quality for nutrients, metals, and general chemistry. Exceedance notices are issued to the landowner and the respective municipality and local public health when water quality parameter exceeds the Provincial guidelines. To date, numerous exceedance notices have been issued but the majority have been for Sodium and Fluoride, which occur naturally in elevated levels throughout much of Southwestern Ontario. With Ontario's 2018 alignment to Health Canada and the World Health Organization's standard for maximum allowable concentration of arsenic in drinking water set at 0.010mg/L, PGMN wells located in areas of naturally elevated arsenic have become subject to exceedances. The previous Ontario Drinking Water Standard was 0.025mg/L for arsenic.

All of the PGMN data collected has been reviewed by ABCA staff and corrected as necessary. Water quality and quantity data has been uploaded to the MECP's public website. Through an interactive map, water level and quality information is available free to the public on this web page:

<https://data.ontario.ca/dataset/provincial-groundwater-monitoring-network>

PGMN data also supports both the Flood Forecasting and Warning and Ontario Low Water Response programs.

ABCA to complete Parkhill Dam electrical upgrades

By Ross Wilson, MSc, PAg, CCA-ON_4R NMS, Water and Soils Resource Coordinator

The construction of Parkhill Dam was completed and it began operation in 1969. At that time, the electrical equipment and the mechanical gate operation equipment were housed on an open platform exposed to the elements. Although the electrical equipment was somewhat protected in a weather-resistant housing, corrosion/rusting of the electrical equipment occurred until a weather-tight structure was constructed in the 1980s over the entire platform.

After four decades of use, some of the mechanical equipment was upgraded in 2010. However, rusting of the original electrical equipment advanced to a state where minor intermittent glitches were being experienced. New equipment was purchased, with provincial Water and Erosion Control Infrastructure (WECI) financial support, to eliminate the operational glitches and ensure the dam would operate when it was needed.

Water and Erosion Control



Ausable Bayfield Conservation Authority is upgrading electrical equipment at Parkhill Dam. The old electrical equipment, prior to pending upgrade, is shown in photo.

It is expected the equipment will be installed and operational in early 2023.

Employing new methods to inspect dam without drawdown

By Ross Wilson, MSc, PAg, CCA-ON_4R NMS, Water and Soils Resource Coordinator

The Parkhill Dam is a complex collection of multiple structures required to provide flood attenuation and other associated services. As floods can be unpredictable, every component of the collection must be functional at all times. As a result, each component must be regularly maintained as well as monitored and operationally tested.

This year (2022), a new method was developed to inspect the internal components of the dam. This new method eliminated the need to draw down the reservoir, so it could be accomplished on a much more frequent basis than in the past.

Ausable Bayfield Conservation Authority (ABCA) staff completed several gate operation tests to ensure the gates would operate when required.

Lastly, we completed a seepage

Structures, Operations, and Maintenance



Parkhill Dam control structure.

investigation to ensure the earthen embankment was successful at holding back all the water. Seepage can be an early indicator of embankment failure, but this was not observed at the Parkhill Dam. As a result, these activities ensure that the dam will operate, as designed, when the flooding event occurs.



Allan Rothwell, source protection committee municipal rep., presents in a video about proposed changes, to source protection plans, including new policies for storage of fuel, snow and salt.

Proposed updates to source protection plans

By Donna Clarkson and Mary Lynn MacDonald, Program Co-Supervisors

The Ausable Bayfield Maitland Valley Source Protection Committee (SPC) develops and updates local source protection plans to protect municipal drinking water sources from contamination and overuse. For the past three years, the committee has been evaluating and revising the plans, for Ausable Bayfield and Maitland Valley source protection areas, to ensure the plans remain current to protect water sources.



**Donna
Clarkson**



**Mary Lynn
MacDonald**



We completed pre-consultation, on the proposed updates to the plans, in 2022. Public consultation begins in January 2023.

SPC municipal rep Allan Rothwell is featured in a consultation video on the updates. This video is found at <https://www.sourcewaterinfo.on.ca/news/videos/>

Source protection staff at Ausable Bayfield Conservation Authority (ABCA) provide Risk Management Office services to eight municipalities. In 2022, we negotiated seven risk management plans and we issued 39 Restricted Land Use notices.



TWO COMMITTEE MEMBERS RETIRE –

Matt Pearson, Source Protection Committee Chair (centre), thanks retiring SPC members Ian Brebner (left) and Myles Murdock (right).

From 2007, Ian worked with other SPC members monthly to negotiate policies that formed the first source protection plans. Myles joined the SPC in 2015 as a North municipal representative having earlier participated in regional source protection working groups.



Source protection committee members are, front row, l. to r.: Bert Dykstra; Ian Brebner; Chair Matt Pearson; Mary Ellen Foran; Jennette Walker; and (back row) Philip Keightley; Alyssa Keller; Rowland Howe; Paul Heffer; and Dave Frayne. Not in photo are: Allan Rothwell; Myles Murdock; and John Graham.

Watch for new Watershed Report Cards in 2023

By Mari Veliz, Healthy Watersheds Manager

Upstream land use activities affect downstream communities. In the 1940s, local municipalities understood this challenge. They worked together to form a conservation authority to use the natural-world boundaries of a watershed as a way to manage local environmental issues such as flooding, erosion, deforestation and loss of fish and wildlife habitat. Healthy Watersheds, through monitoring and project funding, supports local communities understand their role in the natural world and to take positive actions.

With funds from: Fisheries and Oceans Canada; Environment and Climate Change Canada; the Ontario Ministry of the Environment, Conservation and Parks; the Ontario Ministry of Agriculture, Food and Rural Affairs; the Ontario Soil and Crop Improvement Association; and the Fred A. and Barbara M. Erb Family Foundation, Ausable Bayfield Conservation Authority (ABCA) has supported community and individual actions on farms, in towns, and on the lakeshore.

We continue to monitor what's important to you! – water, soil, fish, bugs, turtles!

Table 1: 2022 ABCA Water Quality and Biomonitoring Stations

Type of station	# of stations
Dry weather – water quality	37
Wet weather – water quality	10
Best Management Practices Verification	8
Citizen Science	6
Biomonitoring:	
Fish	32
Reptiles (turtles)	5
Freshwater mussels	1
Aquatic habitat (DO)	4
Benthic macroinvertebrates	18

The number of stations reflects the funding commitments from year to year and there may be overlap between types. This does not include dissolved oxygen, temperature sites or vegetation plots.

Healthy Watersheds, Healthy Communities



Jenn and Madeline from University of Toronto co-host Ask a Biologist with Hope Brock, July 2022. Topics included fish and turtle monitoring and conservation in Port Franks.

Give us a call if you have a community-based project to enhance local waterways.

In 2022, the GIS team undertook a data management project that would enable 21 years of water quality monitoring data to be stored in one centralized management system. Utilizing the Water Information System by Kisters (WISKI) system already in use by Flood Forecasting operations, Healthy Watersheds staff were able to import 185,000 water quality records. The system allows water quality records to link with hydrological information where monitoring sites overlap with stream gauging stations. This will help all of us understand long-term trends and support better land management decisions.

This year we summarized watershed data for the Watershed Report Card to be released in 2023. Your backyard creek is your connection to the natural world. Take a look at how your area is faring in the Watershed Report Card to be released in 2023:

abca.ca/watershedreportcard

Table 2: 2022 Community Outreach by ABCA Healthy Watersheds Team

Community Outreach	Number
Community Members	1,800
Community Events	21

Healthy Watersheds staff monitor water quality and quantity and aquatic communities, including fish, freshwater mussel and benthic communities; enhance wetlands; and conduct watershed studies, including *Watershed Report Cards*, and community outreach.



Mari Veliz
Healthy Watersheds Manager



Kari Jean
Aquatic Biologist



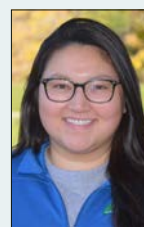
Hope Brock
Healthy Watersheds Technician



Angela Van Niekerk
Wetlands Specialist



Shevaun Skinner
Aquatic Resource Technician



Rosalind Chang
Healthy Watersheds Technician



Cristen Watt
Water Quality Technician



Christie Brown
Assistant Water Resources Technician



2022 – A 0.83-acre wetland restoration in Upper Parkhill watershed.

Healthy Headwaters has restored more than 100 wetlands

By Angela Van Niekerk, Wetlands Specialist

Wetlands are beautiful. Wetlands provide recreation to skate, canoe, swim, watch birds, turtles, frogs, fish and dragonflies and allow us to recharge.

In 2022, the Healthy Headwaters wetland program reached a 100-wetland milestone! We have restored 117 wetlands (more than 270 acres), since 2008.

This is thanks to you who:

- 1) Value wetlands;
- 2) Conserve natural areas, woodlots, wet areas, grasslands, on your property; and
- 3) Restore lost or degraded wet areas

Upstream actions to restore wetlands and plant native vegetation improves downstream communities by reducing costs due to flooding or erosion, improving water

Wetlands

quality and improving habitat for fish and other wildlife. In 2022, landowners in our watershed restored more wetlands than in other years. Landowners restored 19 wetlands, one tallgrass prairie and planted 3,784 native plants. We restored 14 acres of wetlands.

This project was undertaken with the financial support of the Government of Canada, Government of Ontario, Huron Clean Water Project, Ducks Unlimited Canada, Alternative Land Use Services Middlesex, Ausable Bayfield Conservation Foundation, Fred A. and Barbara M. Erb Family Foundation and landowners.

Main Bayfield producers take part in peer-to-peer learning

By Hope Brock, Healthy Watersheds Technician

Thanks to the Fred A. and Barbara M. Erb Family Foundation and the Ontario Ministry of the Environment, Conservation and Parks, Main Bayfield watershed producers were able to take part in several peer-to-peer learning opportunities.

The annual Cover Crop Workshop returned in January with local producers sharing both their success and challenges. A pop-up tour in April at the Huronview Demonstration Farm near Clinton allowed producers to have a look at overwintered cover crops, hear about rye termination strategies, and discuss considerations for planting green. With this in mind, soybeans were successfully planted directly into a lush cover crop at Huronview in early June using a roller crimper and strip-tilling. In the

Main Bayfield Watershed



Producers attend pop-up tour at Huronview Demonstration Farm near Clinton.

autumn, members of the Huron County Soil and Crop Improvement Association began to investigate the feasibility of planting a late-season rye cover crop after grain corn, which will carry through to 2023.

Monitoring best management practices in Gully Creek

By Shevaun Skinner, Aquatic Resource Technician

Landowners in Gully Creek watershed, a watershed north of Bayfield, have worked with Ausable Bayfield Conservation Authority (ABCA) to implement agricultural best management practices (BMPs) since 2008.

The study of these best management practices allows us to better understand how rural BMPs have both field-scale and watershed-scale benefits. In 2022, we monitored:

- Vegetative barriers of Miscanthus to reduce erosion and improve water quality
- Fertility of liquid manure throughout agitation prior to field application
- A side-by-side tillage comparison of no-till vs disc tillage on corn residue before planting soybeans
- The application of Envita®, a nitrogen-fixing solution, on corn

With the use of trail cameras to monitor sites, submitting water samples for lab analysis, and yield comparisons, we can, in



Miscanthus barrier slows water at the edge of field ONFARM study site in Gully Creek.

Bayfield North Watersheds

partnership with local agricultural producers, use in-field trials and test the effectiveness of BMPs.

The Ontario Soil and Crop Improvement Association supports ONFARM research. Thanks to all participants of ONFARM.



A nest protector for turtle eggs helps to protect turtle species.



Local signs educate motorists to slow down to protect our freshwater turtles.

Citizen ambassadors help protect turtles in Lambton Shores

By Hope Brock, Healthy Watersheds Technician and Kari Jean, Aquatic Biologist

The turtle monitoring program, and the great work of all the volunteers, helps Ausable Bayfield Conservation Authority (ABCA) biologists to better understand turtles and the habitats they use.

Concerned citizens organized a turtle crossing sign campaign in which 25 temporary signs were distributed throughout Port Franks to help protect turtles from

Community-Based Turtle Monitoring

being hit on the roads. Five turtle nests were protected with nest cages, and two nests were collected due to their proximity to the road. Sixty reptile sightings were reported from the Grand Bend - Port Franks area.

Funding is gratefully acknowledged from Ausable Bayfield Conservation Foundation.



Healthy Watersheds Technician Rosalind Chang installs a level logger in the Old Ausable Channel.



Ross Wilson, Water and Soils Resources Coordinator, installs staff gauge in the Old Ausable Channel.

Managing water levels in the Old Ausable Channel (OAC)

By Rosalind Chang, Healthy Watersheds Technician

Water levels in the Old Ausable Channel (OAC) fluctuate due to many factors (rain, snow, groundwater, and level control structures such as culverts and beavers).

To support monitoring and management activities, Ausable Bayfield Conservation Authority reviewed water level information from 2011 and installed gauges or benchmarks at all road crossings. Consistent

Water Level Management in the Old Ausable Channel

information will help to identify 'ideal' levels for the protected habitat.

Ausable Bayfield Conservation would like to thank the community; Fisheries and Oceans Canada; and Ontario Parks for their support in undertaking this project.



Gully Creek electrofishing and water sampling demo, August 2022.

More than 900 people attend outreach events

In 2022, a total of 14 education and outreach events were held to provide information to community members. More than 900 watershed participants attended these events.

Topics included stormwater management and water monitoring, fishes, freshwater

Ask a Biologist

mussel and reptile species, habitat threats, climate change adaptation, and opportunities to protect aquatic species at risk through good stewardship practices.



Lucan Biddulph Parks and Recreation Manager, Paul Smith, and his son plant at Ausable Fields, September 2022.



1st Lucan Scouts participate in planting more than 600 native plants at Ausable Fields site in September, 2022. Joining them is fellow Scout Leader and Councillor Alex Westman.

Lucan Biddulph continues to add new green infrastructure

By Rosalind Chang, Healthy Watersheds Technician

In 2022, Ausable Bayfield Conservation Authority (ABCA) and the Township of Lucan Biddulph continued to enhance the Campanale Way site.

The Ausable Fields (behind the Lucan Community Memorial Centre) is now home to a dry pond for stormwater management. This basin will catch rain water and snowmelt runoff from neighbouring developments and allow water to be filtered and treated naturally

before entering local waterways.

In September 2022, with help from Ausable Bayfield Conservation, volunteers from 1st Lucan Scouts; Big Brothers Big Sisters; local elementary and secondary schools; and local community members planted more than 600 native plants that will provide habitat for pollinators, increase water filtration, and create a beautiful gathering space for the community.

Presence, absence of species tells us about water quality

By Cristen Watt, Water Quality Technician

Healthy Watersheds staff have surveyed benthic macroinvertebrate communities across the watershed for more than twenty years.

Benthic macroinvertebrates are invertebrates that live at the bottom of streams. These invertebrates include insect larvae, snails, worms, and beetles. Some species are more tolerant of pollution than others, so the variety of species found in stream surveys can indicate water quality conditions. To ensure benthic invertebrates are performing well as an indicator of environmental conditions in our watershed, we undertook an analysis of the benthic biomonitoring program in 2022.

Benthic sampling sites for this analysis were known or suspected to have environmental impacts from nearby human activity. These sites were predicted to have poorer water quality downstream of the impacted area, so they were good candidates for testing our monitoring program and analyses. This work was summarized in a report and infographic

Benthic Invertebrates



A stonefly is an example of a benthic macroinvertebrate indicating good water quality.

that confirmed our predictions about water quality. This analysis gives us confidence that benthic biomonitoring is a valuable indicator of ecosystem health in our watershed, and an important part of Heathy Watersheds' annual water quality monitoring program.

Mussel species in Ausable River exists in only one other river in Canada

By Christie Brown, Assistant Water Resources Technician

Freshwater Mussels

In 2022, we surveyed a section of the lower Ausable River near Sylvan to monitor the health of our freshwater mussel populations.

Mussels are important contributors to good river health and are sensitive to sediment and nutrients. The Ausable River is home to 26 different mussel species, including seven species at risk. In total, we inventoried 1,253 mussels and we found 268 endangered Snuffbox mussels. This is great news for the Ausable River watershed, as Snuffbox mussels only live in one other river in all of Canada. This work was completed with support from the federal government's Canada Nature Fund (CNF).



MUSSELS SAMPLED IN THE AUSABLE RIVER IN 2022

1,253 TOTAL

291
SPECIES AT
RISK

962
OTHER
MUSSELS



Young salmon from 2022 drain sampling

Presence or absence of fish species tells story

By Kari Jean, Aquatic Biologist

The fish community can tell us about the health of our watercourses. Some species are sensitive to sediment and nutrients.

In 2022, with support from the federal government's Canada Nature Fund (CNF) we sampled 22 fish index monitoring stations in the Ausable River watershed and Lake Huron shoreline tributaries as part of a long-term biomonitoring program. In total, 25 different species of fish were found including two varieties of Species at Risk (SAR) and some coldwater-sensitive species. Sampling at the same sites in future will help to track changes in the fish community, including SAR, over time. This can help to tell us more about the health of the rivers, streams and creeks.

Many rural watercourses in Ontario have been designated as municipal drains. Drains are classified into categories developed by Fisheries and Oceans Canada as they often provide fish habitat. Classification is based on a drain's flow characteristics and types of fish living within it and helps to determine the best time of year for drain maintenance activities. Fisheries and Oceans Canada provided funding in 2022 that allowed Ausable Bayfield Conservation Authority (ABCA) to continue with a monitoring program where fisheries assessments are conducted within drains. We assessed a total of 13 drains. The types of fish we found included: different species of minnows, perch, sunfishes, suckers, bass, catfishes and young salmon.

Video footage is helpful tool for use in data collection

By Shevaun Skinner, Aquatic Resource Technician

In 2022, Ausable Bayfield Conservation Authority staff used two remote (GoPro HERO8) cameras to record footage while conducting field work. These cameras allowed staff the opportunity to monitor sites while away from the field and observe areas that are otherwise inaccessible.

In April staff and a landowner used the GoPros to observe the agriculture tiles that are being monitored at Huronview Demonstration Farm. These tiles are underground, with control gates as access points. Cameras were mounted, and lowered into the control gate, where they were able to capture footage of water traveling through the tiles, something that we otherwise have not been able to see.



Fish photo captured by GoPro video camera.

We also used GoPro cameras to monitor for Brook Trout. Fish monitoring can be difficult as fish tend to flee, or hide, when surveys are being conducted. We mounted cameras in the stream and set them to record underwater footage for up to two hours. This allowed for fish to be observed on camera without staff needing to walk in the stream and disturb the habitat.



Sean Slater, of Ausable Bayfield Conservation's tree planting crew, plants trees at ABCA's Triebner Tract property in 2022.

2022: A Milestone for ABCA's Triebner Tract property

By Nathan Schoelier, Stewardship and Lands Manager

The year 2022 marked an important, and exciting year, for Triebner Tract, a property owned by Ausable Bayfield Conservation Authority (ABCA). The year 2022 was the first of two phases of an ecological restoration project to retire marginal agricultural land at ABCA's Triebner Tract.

Triebner Tract is located within the Hay Swamp Wetland complex, and was acquired by ABCA in 2009, through the partnership of dedicated groups, and the generosity of the former landowner, the late Stuart Alexander Triebner and family.

Since ABCA acquired the property in 2009, approximately 11 acres of marginal agricultural lands were successfully retired through reforestation and wetland restoration efforts. The 11 acres that were restored in 2010 and 2011 experienced prolonged seasonal flooding and were not suitable for crop production. In 2021, the ABCA Board of Directors approved the decision to retire the remaining thirty acres of agricultural land on the property. The decision to retire the remaining agricultural land was made as these areas continued to experience prolonged seasonal flooding, making them unsuitable for crop production.

Conservation Land Management

Reforestation and wetland restoration was deemed most appropriate use of the land, and given its proximity to the Hay Swamp Provincially Significant Wetland (PSW) complex, that the restoration would complement the PSW.

Thanks go to the financial support of:

- Nature Smart Climate Solutions Fund, a Government of Canada's Department of Environment and Climate Change Program in partnership with Conservation Ontario
- Government of Ontario
- Tree Canada
- A memorial donation, in memory of Terry Blok, to the Ausable Bayfield Conservation Foundation
- Huron Clean Water Project
- Eco Exeter
- Ausable Bayfield Conservation Foundation
- Ducks Unlimited Canada

The first of two phases of the Triebner Tract restoration was made possible.

Continued on next page

Thousands of trees planted at Triebner Tract restoration

Continued from previous page

This restoration work included retiring and restoring 15 acres of marginal agricultural land by:

- Planting 8,000 trees to restore 11 acres of forest cover
- Creating four wetlands to restore four acres of wetland cover
- One community planting of 500 native plant and shrub species

The restoration work at Triebner Tract contributes to forest and wetland cover within the Ausable River watershed. Forest and wetland cover provides water retention, attenuation and filtration benefits which helps protect against downstream flooding and erosion and protects and improves water quality. Forest and wetland cover also provides important wildlife habitat for birds, mammals, and amphibians. In

addition to the environmental benefits from the Triebner Tract restoration work, it increases the opportunity for the community to enjoy passive, outdoor recreation, and nature appreciation, since ABCA conservation land properties are open to the public for permitted uses.

In December 2022, Forest Gene Conservation Association (FGCA), in partnership with ABCA, retained Brussels Agri Services Ltd., to install a fence which encloses a five-acre area of the former agricultural lands at Triebner Tract. This area will protect butternut seedlings, a species-at-risk tree in Ontario, from pressures such as deer browse. The goal of this area is providing a source of butternut seed, that is tolerant of butternut canker, a fungal disease that has impacted natural butternut populations. Fencing off this area launches the second of two phases of the Triebner Tract restoration, to be completed in 2023.

2022 underlines importance of outdoor recreation, nature appreciation

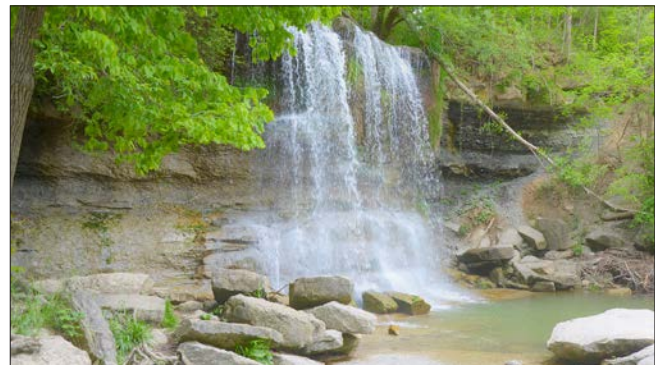
By Nathan Schoelier, Stewardship and Lands Manager

In 2020 and 2021, the community pivoted in response to many of their favourite pastimes and recreation facilities being closed. This resulted in record-high attendance levels at conservation areas across Ontario. As these pastimes and opportunities returned in 2022, staff at Ausable Bayfield Conservation Authority (ABCA) were not certain what to expect for conservation area attendance for the year.

In 2022, these important environmental and recreational areas did not experience the record-high levels of attendance experienced in 2020 and 2021 but the year 2022 continued to demonstrate the value of publicly accessible natural spaces to community well-being.

Conservation areas staff received positive feedback on a regular basis. These remarks were often from trail users who reported they had only recently begun using conservation areas and now enjoy them on a regular basis. Conservation area attendance is only tracked by ABCA at Rock Glen Conservation Area (RGCA) but similar visitor trends are expected across all our conservation areas.

Conservation Areas



Rock Glen Conservation Area (RGCA) attracted thousands of people in 2022.

Attendance at RGCA was below record-high levels in 2020 and 2021 but exceeded 2019 and prior years.

SUMMARY OF RGCA ATTENDANCE:

- 34,500 people attended RGCA
- 49 annual passes purchased for RGCA
- 166 school groups and events hosted

Continued on next page

Partnerships help to maintain, enhance trails, nature areas

Continued from previous page

Conservation area maintenance is crucial to the safety and positive experience of visitors. Ausable Bayfield Conservation Authority (ABCA) staff complete regular risk management inspections to identify and address concerns. ABCA staff also complete major maintenance work on an annual basis. In 2022, ABCA staff completed the following major maintenance work at conservation areas:

- RGCA: Replaced the abutments of a pedestrian bridge, utilizing a recycled plastic material
- RGCA: Staff installed angular stone to mitigate erosion at the entranceways low-flow crossing

2022 was an exciting year for the valuable partnerships Ausable Bayfield Conservation has across the watershed, working to improve conservation areas, and to maintain community-based outdoor recreation and appreciation opportunities.

In partnership with the Friends of South Huron Trail, the following was completed:

- Met twice to discuss maintenance, as well as funding opportunities and ideas
- Held a Spring Clean-Up Day, which included trail pruning, garbage clean-up, and installing granular material on the trail surface

In partnership with Lambton Shores Nature Trails (LSNT), the following was completed at ABCA's conservation areas:

- Ausable River Cut Conservation Area (ARCA): Installed a canoe and kayak launch; installed a 60-metre boardwalk to protect sensitive dune habitat; planted native dune grass species; and decommissioned an unused monitoring building
- Mystery Falls Management Area: Installed a new, safer route for people to enjoy Mystery Falls; and installed new signage at the Mystery Falls parking lot
- LSNT, in partnership with the Lambton Shores Phragmites Working Group (LSPWG) received funding from the Green Shovels Collaborative to install educational signage and boot brushes, to prevent the spread of invasive species, at ARCA and L-Lake Management Area.

In 2022, ABCA resumed the management of Clinton Conservation Area. The ABCA acknowledges the contributions and dedication of the former Clinton Lions Club during the period that the club adopted the Clinton Conservation Area.

Ausable Bayfield Conservation relies on valuable partnerships to maintain conservation areas and trails, to the benefit of the community. ABCA acknowledges and thanks these partners for their continued support and dedication.

Stewardship, Restoration and Conservation Lands

Stewardship and Conservation Lands staff implement boots-on-the-ground watershed stewardship, conduct monitoring, and provide nature preservation and recreation, and more.



Nathan Schoelier
Stewardship and Land Manager



Ian Jean
Forestry and Land Stewardship Specialist



Brooklyn Rau
Stewardship Technician



Jeff Van Niekerk
Field Services



Reese Thompson
Field Services



Michael Bax
Rock Glen Cons. Area Superintend.



Conservationists of the Year 2022

The winner of the Conservationist of the Year Award for 2022 is Denys Farms Inc. – Jim, Dan and Mike Denys, of the Parkhill area. Presenting the award on June 9, from left to right, on behalf of Ausable Bayfield Conservation Authority (ABCA), are Adrian Cornelissen, Municipality of North Middlesex representative on the ABCA Board of Directors; and Nathan Schoelier, ABCA Stewardship Manager. Accepting the award, at the farm north of Parkhill, are: Dan, Mike, and Jim Denys.

Working with community to manage ‘Canada’s worst invasive plant’

For more than a decade, the community of Port Franks has been actively participating in Phragmites management, protecting significant wetland habitat in the area. During this time, Phragmites management was restricted to herbicide applications in terrestrial areas. A tool was not available to effectively manage Phragmites within aquatic areas. In 2021, Health Canada’s Pest Management Regulatory Agency (PMRA), under the authority of the Pest Control Products Act, granted the registration of Habitat Aqua, a herbicide to control certain invasive plants, including Phragmites, in and around aquatic sites.

Under a Pesticide Permit – Perform a Water Extermination, the Municipality of Lambton Shores; Nature Conservancy of Canada (NCC); Lambton Shores Phragmites Community Group (LSPCG); and Ausable Bayfield Conservation Authority (ABCA) collaborated to further manage Phragmites in the area, in 2022. Utilizing backpack

Phragmites Management

sprayers, a jon boat, and amphibious vehicles, crews from the Invasive Phragmites Control Centre (IPCC), and NCC completed the Phragmites management in early October, managing a total of 12.45 hectares (30.75 acres) of Phragmites. This project included Phragmites management on lands owned by the Municipality of Lambton Shores, NCC, ABCA, and privately owned parcels, with permission. During the winter months, when conditions permit, the dead, standing stalks of Phragmites are rolled and mulched, benefitting native plant recovery, and providing improved conditions for follow-up Phragmites management in subsequent years.

The ongoing success of this project relies on valuable partnerships. ABCA acknowledges and thanks these partners for their continued support, and dedication, to improve watershed conditions.



Forests provide benefits to people and to habitat for all living things.

ABCA-owned forests provide ecological benefits

By Ian Jean, Forestry and Land Stewardship Specialist

Ausable Bayfield Conservation Authority (ABCA) owns more than 8,000 acres of forest located primarily within river valleys and flood plains or poorly drained swamps. Ownership and conservation of these lands contributes to floodwater mitigation, water quality, groundwater infiltration, ecological health and resilience and recreational and social benefits.

Conservation authority forests include more than 3,000 acres of provincially identified Conservation Lands that are managed primarily for protection of the significant natural heritage features. The remaining 5,000 acres are managed for conservation of natural heritage, recreation and forestry objectives under the framework of the ABCA Forest Management Plan.

Active management, including forestry thinning for stand improvement and pest and disease response, occurs on 100-200 acres annually. ABCA staff assess forests on an ongoing basis. When forestry operations are deemed to be beneficial, staff develop a silvicultural prescription to achieve the desired objectives. Staff then mark individual trees within the stand for selective thinning according to the forestry prescription.

Management in 2022 included thinning of

Forest Management on ABCA Lands

conifer plantations at ABCA Kime Tract north of Parkhill. For row-planted conifers, thinning is prescribed to accelerate the transition from a planted stand of low diversity to a natural forest with greater diversity and wildlife value. The thinning at Kime Tract was a first thinning operation for row-planted conifers established in the 1980s. Approximately 30 acres of Pine and Spruce were thinned.

We also completed an improvement thinning for 30 acres at ABCA's Loomis Tract. There are five Oak species found at Loomis Tract and strategic thinning is done to maintain light conditions required for regeneration and growth of Oak and other shade-intolerant species in the stand.

Revenue from forestry thinning helps to offset property taxes and other costs associated with property ownership. The thinning operation at Kime Tract yielded a total of 343.5 cords of Pine and Spruce sawlogs for a revenue of \$22,327.50. Selective thinning of 171 trees at Loomis Tract yielded a revenue of \$18,728. Logs were processed at mills in southern Ontario into a range of materials from timber-frame, dimensional softwood lumber, hardwood boards, flooring and pallet material.

Hundreds of landowners plant trees, complete stewardship projects to enhance watershed

By Nathan Schoelier, Stewardship and Lands Manager

Working across the watershed to implement stewardship projects is an important component of watershed management. Stewardship projects, such as tree planting, over-wintered cover crops, and wetlands, help to reduce sediment and nutrient loss, increase water retention and infiltration; helping to protect and improve water quality and mitigate natural hazards, both locally and downstream.



Nathan Schoelier

The stewardship team works closely with the community to implement projects to protect, improve, conserve, and restore the watershed, considering the needs of the community and the needs of the environment. Stewardship project highlights from 2022 include:

- 223 landowners participated in ABCA's tree planting program to plant 56,670 trees to establish treed windbreaks, watercourse buffers and reforest marginal land
- Worked with landowners across the watershed to support more than 4,000 acres of over-wintered cover crops
- Worked with landowners to install 10 Water and Sediment Control Basins (WASCoBs) to mitigate erosion in agricultural fields
- Worked with 12 landowners and land managers to control invasive Phragmites in road allowances, meadows and adjacent to wetlands across the watershed

Watershed management is a cooperative effort, that takes a community. It is also important to recognize how it is a cooperative effort across different departments of the conservation authority working together to best support the needs of the community and the environment. Environmental monitoring, completed by the Healthy Watersheds team, is an important component to further

Private Land Stewardship Program

Stewardship Projects and Grants by Municipality

Municipality	Projects	Grants
Adelaide Metcalfe	1	\$1,480
Bluewater	32	\$126,286
Central Huron	10	\$22,575
Huron East	24	\$74,408
Lambton Shores	6	\$41,168
Lucan Biddulph	8	\$35,206
Middlesex Centre	3	\$10,425
North Middlesex	22	\$110,357
South Huron	26	\$63,951
West Perth	5	\$1,883
TOTALS	137	\$487,739

Total Reported Value of Projects:
\$836,660

NOTES: Totals do not include funding from programs delivered by Ontario Soil and Crop Improvement Association (OSCIA) that did not receive assistance from Ausable Bayfield Conservation staff members.

understanding watershed management and supporting the resources available to watershed landowners for stewardship projects. Environmental monitoring assists with identifying the threats, and needs of the watershed, helping to determine effective stewardship approaches and target areas. Other environmental monitoring, such as species-at-risk fish and mussel surveys, can qualify areas of the watershed for additional stewardship funding, further supporting the needs of the community, and the needs of the environment.

The ongoing financial support from funding partners, at all levels of government and private organizations, provides the support for the stewardship team to offer cost-share programs to watershed landowners.

Local generosity benefits youth, watershed

By Dave Frayne, Chair, Ausable Bayfield Conservation Foundation

Ausable Bayfield Conservation Foundation (ABCF) would like to thank all the generous donors and fundraising supporters and volunteers who help us to make a difference for local youth, conservation, recreation, and watershed health. Through funds raised, we are working with you to enhance trails, support conservation education, provide opportunities for youth, and more.

Junior Conservationist

Our Conservation Foundation was honoured to support the Junior Conservationist position once again. In 2022, Lucan's Jada Burt was selected for this summer conservation job experience. Jada learned a great deal about conservation that will be applicable to her BSc in Marine and Freshwater Biology studies at the University of Guelph. We thank her for her work and wish her well on her studies and career.



Jada Burt

Morrison Dam Fishing Derby

The year 2022 saw the return of the 36th Annual Trout Fishing Derby, which took place on Saturday, May 7 at Morrison Dam Conservation Area. The family-friendly fishing derby is sponsored by Exeter Lions Club and Ausable Bayfield Conservation Foundation.



There were 235 anglers registered for the fishing derby event and 37 fish were registered over the course of the morning. The Conservation Foundation has been a proud partner in the fishing derby for many years and each organization donated \$1,500 to make it possible.

Commemorative Woods Tree Dedication Service

The Commemorative Woods Tree Dedication Service, in partnership with Haskett Funeral Homes, was held in person on September 18, 2022 at Morrison Dam Commemorative Woods. Approximately 350 guests attended the service, which was the first in-person service held in several years.

Conservation Dinner

The Conservation Dinner charity auction, of ABCF and Exeter Lions Club and other community partners, was virtual in 2022 for the second year. The online auction raised more than \$30,000 in 2022 for projects in local communities. We would like to thank all the volunteers, donors, and bidders. Over more than 30 years, the Dinner has raised more than \$1.285 million for local projects. Plans are underway to return to an in-person Dinner and Auction on April 20, 2023.

Continued on next page

Ausable Bayfield Conservation Foundation Board of Directors



Dave Frayne
(Chair)
Exeter



Charles Miner
(Vice Chair)
Exeter



Bob Radtke
(Past Chair)
Ailsa Craig



Anne Melady
Dublin



David McClure
Grand Bend



Roger Lewington
Bayfield



Robert Norris
Staffa



Janet Clarke
Exeter

Conservation Foundation pleased to support community

Continued from previous page

Ausable Bayfield Conservation Foundation (ABCF) is pleased to provide funding to help projects and programs that directly benefit our community:

Conservation Education

- \$2,000 to help subsidize students participating in conservation education in the watershed
- \$600 toward live owls at the annual Owl Prowl events
- \$2,069 towards community programs for non-profit groups

Healthy Watersheds

- \$1,000 towards the Old Ausable Channel for community engagement and biomonitoring
- \$1,000 towards the Port Franks Species-At-Risk Turtle Monitoring program
- \$1,000 towards species-at-risk monitoring within the Ausable Bayfield watersheds

Conservation Lands and Stewardship

- \$5,000 towards developing wetlands, hiking trails and bird-watching opportunities at the Triebner Tract, a 100-acre property west of Airport Line and south of McDonald Road



KIRSTEN McINTOSH WINS \$1,000 STUDENT ENVIRONMENTAL AWARD FOR 2022:

Dave Frayne, Chair of Ausable Bayfield Conservation Foundation, presents the \$1,000 Student Environmental Award to Kirsten McIntosh, of the RR 4 Seaforth area. Kirsten is the eleventh local student, since 2010, to benefit from this award given to the winning candidate pursuing post-secondary studies in a conservation-related field. This award is possible thanks to the community people who donate to the Foundation and who support its charitable fundraising activities.

Foundation thanks Peter Darbishire for 30 years of service

By Dave Frayne, Chair, Ausable Bayfield Conservation Foundation

After more than 30 years of serving the community as a Director of the Ausable Bayfield Conservation Foundation, Peter Darbishire, of the Exeter area, announced, in 2022, he is retiring from the ABCF Board of Directors.

Peter was involved in many projects of the Foundation and often volunteered his time for special efforts such as the Conservation Dinner and the Woodland Reflection Shelter at the Morrison Dam Commemorative Woods.

Along with time, Peter donated many handcrafted items for the Conservation

Dinner auction to help raise funds for community projects.

On behalf of the Board, and the entire watershed community, I would like to thank Peter for his many years of excellent service to the community and wish him all the best in his future endeavours.

Thank you, Peter.



Peter Darbishire

Retiring from Board after more than 30 years of service.

Land trust has entered second decade of work to preserve natural areas with donor support

By Max Morden, Chair, Huron Tract Land Trust Conservancy (HTLTC)

This is an exciting time for the Huron Tract Land Trust Conservancy, as we move into our second decade. As I take over as Chair, I'm very grateful to Past Chair Roger Lewington for his superb leadership in the Land Trust's early years.

I thought of Roger recently as I listened to a podcast about being a 'good ancestor.' This idea is based on the understanding that what we do today has a profound influence on those who follow. A good ancestor is a person who thinks about future communities and how to make them better. Those who follow us have no say in the kind of world into which they're born. A good ancestor gives them a voice.

Our Indigenous friends, who are leading the fight for forests, lakes, and oceans all over the world, practise a similar philosophy with their seventh-generation principle. They believe the decisions they make today should result in a sustainable world seven generations into the future.

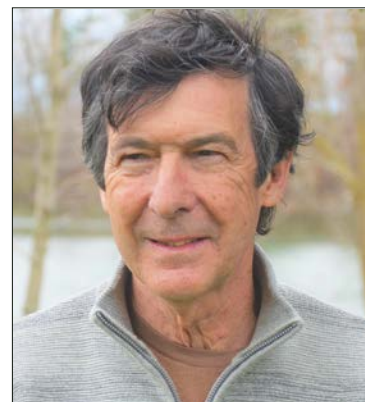
When I think of good ancestors, I think of people like Peter and the late Esther Warner. We've been working with Peter for the past year, helping him to realize his and Esther's dream of donating their 60-acre property in the heart of Grand Bend, to be donated for purposes of conservation and education.

**Huron Tract
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Ensuring a land legacy



I think of Ilse Elliott and the late Bill Elliott, who donated 200 acres on the shores of Lake Huron. I also think of the Mayhew family, who granted land in Holmesville in memory of Jack and Iris Mayhew; and Janet Heaman, who



**Max Morden,
HTLTC Chair**

made a gift of land in Ailsa Craig in memory of Jack Heaman. The Bayfield River Valley Trail Association raised money from 250 people to purchase the Bayfield River Flats.

These are all good ancestors, who envision a world where people and nature live together in oneness. The Huron Tract Land Trust Conservancy will continue to create opportunities for people to create lasting land legacies, and help fulfil our mission of caring for the land.

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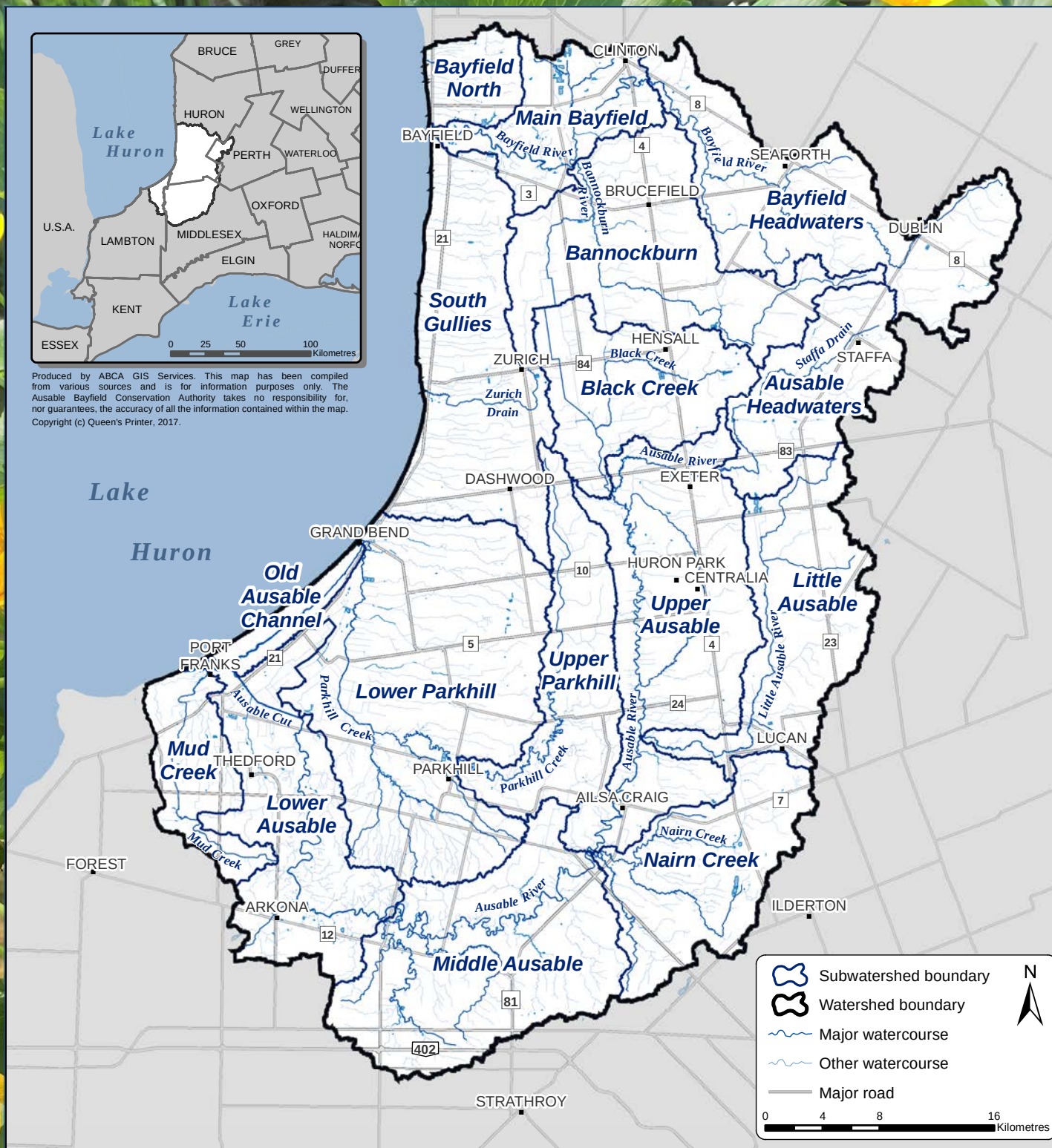
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