



AUSABLE BAYFIELD
CONSERVATION

CREATING AWARENESS | TAKING ACTION

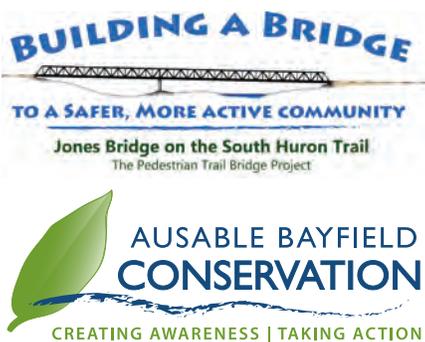
Annual Report 2018



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FRONT COVER PHOTO: The front cover photo of the 2018 *Annual Report* shows nature camp participants using the new Pedestrian Bridge on the South Huron Trail. Fundraising for the Jones Bridge Project continued into 2019, with stairs and other ancillary structures yet to be completed, but the year 2018 saw the placement of Jones Bridge downstream of Morrison Dam. The generous support of people in the watershed helped to make the community safer and more active by providing a safer, more scenic alternative to walking beside vehicle traffic on the roadway to enjoy both sections of the popular trail.



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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

Watershed community continues to show generosity in 2018

By George Irvin, Chair, Ausable Bayfield Conservation Authority (ABCA) Board of Directors

There are many words of praise I could use for people in our watershed communities and one word that fits very well is ‘generous.’

Residents, service organizations, and businesses continue to be generous in their support of the ongoing fundraising campaign to make the community safer and more active with the construction of Jones Bridge, a new pedestrian bridge linking both sections of the South Huron Trail. At the end of 2018, the community had less than \$30,000 left to raise to reach the fundraising goal of more than \$300,000.

Donors; patrons and guests; artists; and volunteers are generous with their financial support and their time in making it possible for the Conservation Dinner to have raised more than \$1.1 million in net proceeds, for projects in local communities, over three decades.

Citizen scientists are generous with their time helping to collect water quality monitoring data and taking part in a volunteer rain gauge network and in other projects to monitor the health of our watershed resources.



George Irvin

Chair’s Message

People have been generous with their time providing comments on proposed shoreline management planning documents and attending public information open houses. Volunteers are generous with their time serving on trail groups, at events, and helping with fundraisers to benefit the community. Landowners and staff planted tens of thousands of trees in 2018 – helping us reach the highest total number of trees planted in a decade!

The people of the Ausable Bayfield watershed community showed their generosity very clearly in 2018, as they have in decades before.

I would like to thank Past Chair Burkhard Metzger, who left the Board in April as he was relocating out of the area to fulfill his business responsibilities. His input steering the Shoreline Management Plan Update process was invaluable. We wish him well.

I am proud to serve as Chair of a local conservation organization with more than 70 years of work protecting life, property, water, soil, and living things. I am also proud to say I am a resident of a watershed community that has continued to be so generous over the years.

Ausable Bayfield Conservation Authority (ABCA) Board of Directors – 2018



George Irvin, Chair
Bluewater



Doug Cook, Vice Chair
Lambton Shores; Warwick



Mike Tam
West Perth



Dave Frayne
South Huron; Perth South



Jim Ginn
Central Huron
(April to December 2018)



Bob Harvey
Adelaide Metcalfe,
Middlesex Centre



Wayne Hall
Lucan Biddulph



Ray Chartrand
Huron East



Brian Ropp
North Middlesex



Burkhard Metzger
Central Huron
(Past Chair until April of 2018)

Corporate Services



Brian Horner
General Manager;
Sec.-Treasurer



Judith Parker
Corporate Services
Coordinator



Bev Brown
Financial Services
Coordinator



Sharon Pavkeje
Corporate Services
Assistant



Tim Cumming
Comm. Specialist



Tracey McPherson
GIS/IT
Coordinator



Aaron Clarke
DWSP GIS
Specialist



Elizabeth Balfour
GIS
Technician

Corporate Services staff at Ausable Bayfield Conservation Authority (ABCA) are front-line staff providing key assistance to all departments, the Board of Directors, committees, member municipalities, and the general public.

The power of partnerships is evident again in 2018

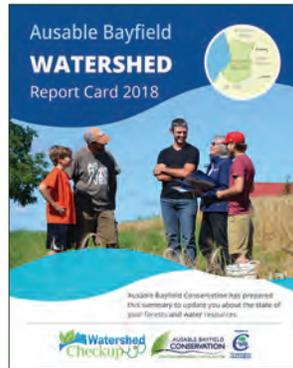
By Brian Horner, General Manager and Secretary-Treasurer

We are reminded often how it takes partnerships to make positive change possible. The power of partnerships was clearer than ever in 2018.

The new *Watershed Report Card* was released in 2018. It provides the public with valuable information on the state of forest conditions, water quality, and other watershed resources. Working with government and community partners provides data for the report cards. Work to implement recommendations is also achieved through partnerships with municipalities, community members, and other partners.

We appreciate the partnership with municipalities and the public as we have developed a new, updated *Draft Proposed Shoreline Management Plan*. The Board of Directors is to review public input on the draft proposed plan in 2019 and a new plan will provide clear guidelines for staff and development proponents to help protect life and property in the years ahead.

The year 2018 was an important one for us as we celebrated 60 years of Morrison Dam and Reservoir



General Manager's Report

(Morrison Lake is one of the area's only inland lakes).

Thousands of people followed us on social media; we had hundreds of people at Morrison Reservoir for the release back into the wild of turtle hatchlings; a new South Huron Trail Mobile was purchased to continue providing a nature experience for people with limited mobility; we planted

the most trees in a single year we have planted in the past 10 years; and more.

The year 2019 promises to be important as our staff work with Huron County Soil and Crop Improvement Association on an innovative drainage study; as we celebrate the 30th Conservation Dinner charitable auction – a partnership with Exeter Lions Club, Ausable Bayfield Conservation Foundation, and the local community – in support of projects in local watershed communities; and more.

We look forward to continued partnership with you in 2019 to help protect life, property, water, soil, and habitat for living things.

Ausable Bayfield Conservation welcomes new staff in 2018

Ausable Bayfield Conservation Authority (ABCA) was pleased to welcome new staff in 2018: Nathan Schoelier, Stewardship Technician; Nina Sampson, Conservation Educator; Megan Leedham, Wetland Technician; and – for a two-month summer experience position as Junior Conservationist – Ellen Glavin. Other

Staff Report

summer positions included Anita Hodgins, Rock Glen Conservation Area Assistant; and Jeff Gordon, Stewardship and Conservation Lands Assistant.

We wish Melissa Prout well – she is moving on from her position as Conservation Educator.

Mapping, information management support decision-making

By Tracey McPherson, GISP, GIS/IT Coordinator

“Knowing where things are, and why, is essential to rational decision making.”

– Jack Dangermond, Environmental Systems Research Institute (ESRI)

“A computer once beat me at chess, but it was no match for me at kickboxing.”

– Emo Philips

Geographic Information Systems, or GIS, has become an integral part of the day-to-day operations at Ausable Bayfield Conservation. All staff members have

GIS/IT actions taken in 2018:

- Completed mapping and data requests for staff, consultants, and partners
- Updated wetland and hazard features
- Presented mapping; answered questions at the Shoreline Management Plan public meetings
- Programmed scripts to help automate tasks and analyze data
- Purchased a server to replace the existing GIS server and Intranet mapping application
- Purchased new router and wireless router

Geographic Information Systems (GIS) and Information Technology (IT)

access to GIS information through an internal mapping application called GeoPortal. Individual GIS staff members work hard to keep data layers up to date, create and link databases, create maps, and complete project-specific analysis.

Information Technology, or IT, provides all computer networking and hardware and software support to staff. IT is responsible for:

- Purchasing of all hardware and software
- Maintenance of all hardware and software
- Troubleshooting issues

GIS/IT results:

- Quality information to support decisions
- Robust, secure, ongoing network support system
- Collaborated with partners to complete projects
- Supported internal projects, data collection needs

Ausable Bayfield Conservation staff directory for year 2018

Corporate Services

Brian Horner

General Manager and Secretary-Treasurer

Judith Parker

Corporate Services Coordinator

Bev Brown

Financial Services Coordinator

Sharon Pavkeje

Corporate Services Assistant

Tim Cumming

Communications Specialist

Tracey McPherson

GIS/IT Coordinator

Aaron Clarke

DWSP GIS Specialist

Elizabeth Balfour

GIS Technician

Stewardship, Land and Education

Kate Monk

Stewardship, Land and Education Manager

Ian Jean

Forestry and Land Stewardship Specialist

Tony Drinkwalter

Field Services – Land

Jeff Van Niekerk

Field Services

Nathan Schoelier

Stewardship Technician

Denise Iszczuk

Conservation Educator

Nina Sampson

Conservation Educator

Dale Cable

Rock Glen Conservation Area Superintendent

Anita Hodgins

Rock Glen Conservation Area Assistant

Water and Planning

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 E.I.T.

Ross Wilson

Water and Soils Resource Coordinator

Drinking Water Source Protection

Donna Clarkson

*Program Co-Supervisor;
and Risk Management Official*

Mary Lynn MacDonald

*Program Co-Supervisor;
and Risk Management Official*

Healthy Watersheds

Mari Veliz

Healthy Watersheds Manager

Kari Jean

Aquatic Biologist

Hope Brock

Healthy Watersheds Technician

Abigail Gutteridge

Healthy Watersheds Technician

Angela Van Niekerk

Wetlands Specialist

Megan Leedham

Wetland Technician

Leslie Coleman

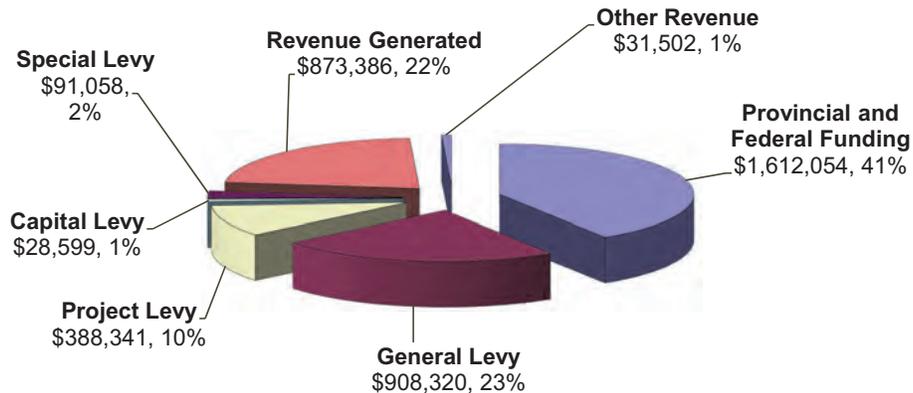
Water Resources Technician

Dan Bittman

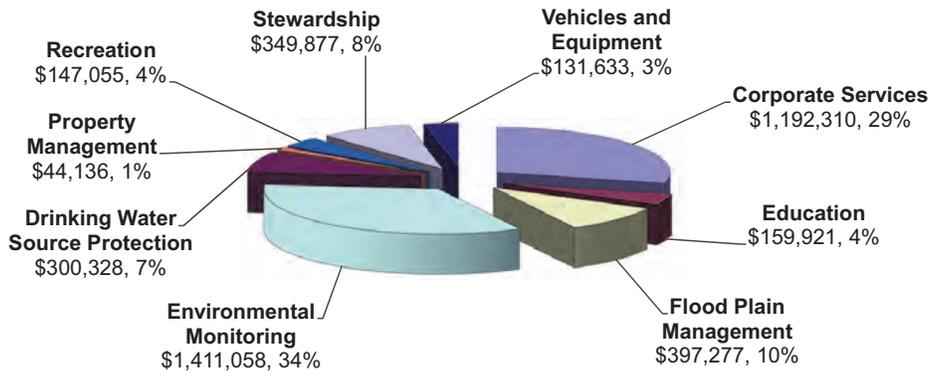
Water Quality Technician

2018 Financial Summary

2018 Sources of Revenue – Total Revenue \$3,933,260
(Unaudited Figures)



2018 Department Expenses – Total Expenses \$4,133,596
(Unaudited Figures)



Communications Report – Public Outreach – Mobile-Friendly Website Upgrade

Staff reach out to public in person, through many other channels

By Tim Cumming, Communications Specialist

Staff from all departments follow the community’s strategy for us – to research, implement, monitor, evaluate ... and educate. We communicate directly with the public in the community, at open houses and presentations, by phone, by digital means including websites and social media, and through other channels.

Ausable Bayfield Conservation completed a project in 2018 to make the website more mobile-friendly so our clients can find information more easily with smart phones and devices. Our website had more than 125,000 unique page views in 2018.

The fact we issued more than 80 news releases in 2018 underlines how active this local organization is. We thank the print, broadcast, and web media who helped inform the public about our programs and services to their readers, listeners, and viewers.

We issued nine electronic newsletters (our

Communications Report

highest number in a single year!) in 2018 and we surpassed 1,000 page likes for the Ausable Bayfield Conservation Facebook page and surpassed 1,000 follows for the Twitter feed.

Videos and social media have allowed us to go far beyond the meeting and the fact sheet ... but it is our conversations with you in person that have the greatest impact.

The Communications Specialist supports the work of co-workers here but communications, education, and outreach are top of mind and part of the work everyone does here ... and we take it seriously.

Thank you for the positive actions you take at home and work to the benefit of our watershed communities. We look forward to continuing to speak with you and to work with you in 2019.

New data logger at Parkhill Dam has satellite, telephone capacity

By Davin Heinbuck, Water Resources Coordinator

Ausable Bayfield Conservation Authority (ABCA), in cooperation with Ontario Ministry of Natural Resources and Forestry (MNR) 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.



Davin Heinbuck

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 east of Exeter. The ABCA network consists of the following:

- Fourteen automated monitoring stations, 12 of which are for water level.
- Most stations monitor precipitation, temperatures and other meteorological characteristics.
- One dedicated climate monitoring station

February flooding most significant flood event of 2018 in watershed

By Davin Heinbuck, Water Resources Coordinator

The winter of 2017-18 was generally cool, with consistent spring-like weather absent until nearly May. On average, the winter was characteristic of the normal weather we would expect, with lots of snowfall. However, there were three significant warm-ups that resulted in a complete loss of the snow pack. These thaws, and the associated runoff, resulted in several periods of high streamflow. Two warm-ups in January resulted in rapid snowmelt and runoff events. The flood event that peaked on January 13, 2018 resulted in the highest streamflow recorded on the Ausable River since February of 2011.

The most significant flooding event of 2018 occurred between February 20-24, 2018. Prior to the event, the average snowpack water equivalent across the watershed was between 50-75 millimetres (mm). Rainfall amounts in the range of 40-60 mm, combined with temperatures that were steady near 10 degrees C for a 24-hour period, resulted in a very quick and significant runoff. Flows at Springbank on the Ausable River were the highest observed since the February

Water Level and Streamflow Monitoring

(in cooperation with Ontario Ministry of the Environment, Conservation and Parks)

- Twenty volunteer rain gauge readers provide information through a web-based data entry system
- In 2018, we made improvements to the data access and transmissions at Parkhill Dam by installing a data logger with both telephone and satellite telemetry capabilities. This will provide a valuable redundancy to ensure access to real-time reservoir water levels, critical to the operations of the dam during flood events.

We archive data in a system called Watershed Information System Kisters (WISKI). 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 will ensure 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.

Flood Forecasting and Warning

2009 flooding, exceeding the January 2018 flood by 150 per cent. It is estimated flows were in the range of a 25-year or 50-year event. This was the third such event in 10 years.



Rising streamflow caused ice to break up and move downstream, threatening ice jam prone areas such as Port Franks and Bayfield. Ice jamming issues were reported in Port Franks and some roads were closed as a result. In total, 12 road closures were reported from five municipalities due to riverine flooding, with several more roads closed due to overland flooding. The February event also required the operation of the Parkhill Dam.

In total, Ausable Bayfield Conservation Authority issued six Flood Outlook/Water Safety messages; four Flood Watches; and one Flood Warning.



For the third time in a decade, flooding equivalent to a 25-50 year return period was experienced. The photo above and photos below show the February 2018 flood event. The photo above is Coldstream Road in North Middlesex.



Outer Drive, Lambton Shores.



Port Franks.



Springbank Road, North Middlesex.

Flood emergency planning helps us to prepare

By Davin Heinbuck, Water Resources Coordinator

The 2018 annual Flood Emergency Planning Meeting was held at the Masonic Hall in Exeter on March 20, 2018. Ausable Bayfield Conservation Authority (ABCA) member municipalities and other stakeholders were invited to attend and participate in the meeting. More than 30 people attended. They included representatives from five watershed municipalities and staff and Community Emergency Management Coordinators (CEMCs) from four counties. The Ontario Provincial Police were represented by officers from three counties and there were attendees from neighbouring conservation authorities.

Keynote speakers were Stephen Jackson, from the Maitland Valley Conservation Authority (MVCA), and Chris Harrow, Town of Minto Fire Chief. They co-presented on the Harriston flooding of June 2017. Steve provided the weather lead-up to the flood event, along

Flood Emergency Planning

with the MVCA’s experience, while Chris provided an insight into the municipal perspective and response. The lessons learned from the Harriston flood were of importance to everyone in attendance.

Two key takeaway messages were the importance of good communication through a designated Public Information Officer (PIO), and the importance of running regular training and emergency exercises.

ABCA staff reported on the conservation authority’s roles and responsibilities in flood emergencies; a summary of the February 20-24, 2018 flood event; and the current watershed conditions and flood outlook.

The meeting continues to provide a forum for discussion and planning to make all agencies better prepared to deal with flooding emergencies.



The three presenters at the Flood Emergency Planning Meeting, from left to right in photo, were Davin Heinbuck, Water Resources Coordinator, Ausable Bayfield Conservation Authority (ABCA); Stephen Jackson, Flood and Erosion Safety Services Coordinator, Maitland Valley Conservation Authority (MVCA); and Chris Harrow, Fire Chief, Town of Minto.

Groundwater levels vary within year but stable over longer period

By Davin Heinbuck, Water Resources Coordinator

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

Ausable Bayfield Conservation Authority (ABCA) has 16 wells throughout Ausable Bayfield watersheds: five bedrock wells and 11 overburden wells. We have logged hourly groundwater level data for nearly 17 years at most well sites. Groundwater data is downloaded on-site by staff, or GOES (Geostationary Operational Environmental Satellite Network) satellite at selected sites where real-time data such as rainfall is required.

Groundwater level data shows annual cycles are consistent and highlights critical annual recharge periods of autumn and spring. Long-term groundwater levels have remained 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 periods of drought or higher than normal precipitation. Based on the program's relatively short period of record it is challenging to make conclusions on long-term trends.

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

Groundwater Resources and the Provincial Groundwater Monitoring Network (PGMN)

data available for each well from 2003 to 2018. To match core requirements province-wide, water quality is analyzed for nutrients, metals, and general chemistry. Exceedance notices are issued to the landowner and the respective municipality and local health unit when water quality parameter exceeds provincial guidelines. To date, numerous exceedance notices have been issued but most have been for sodium and fluoride, which occur naturally in elevated levels in much of Southwestern Ontario. With Ontario's recent alignment with 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 PGMN data collected into 2018 have been reviewed by ABCA staff and verified as necessary. We have uploaded water quality and quantity data to the MECP's public website. Through an interactive map, water level and quality information is available free to the public at: <https://www.ontario.ca/environment-and-energy/map-provincial-groundwater-monitoring-network>

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

Bayfield River water levels were very low during much of year 2018

The Ontario Low Water Response (OLWR) program was created after extreme dry conditions were experienced in parts of the Province of Ontario in 1999.

The local ABCA Low Water Response Team (WRT) includes representatives from municipalities; provincial agencies; Ontario Stone, Sand and Gravel Association; Golf Course Owners Association; Alliance of Ontario Food Processors; Thedford-Grand Bend Vegetable Growers; Ontario Greenhouse Vegetable Growers; Huron County Federation of Agriculture; Ontario Federation of Anglers and Hunters; and ABCA.

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

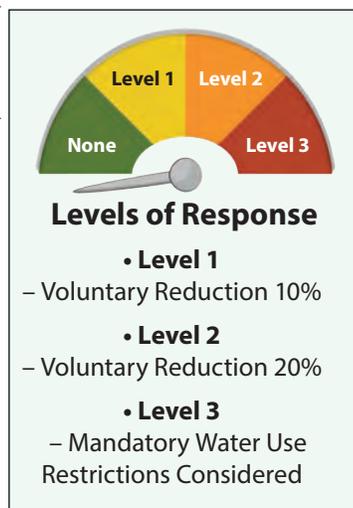
Very dry conditions during the spring and summer of 2018 resulted in Low Water Advisories for the Bayfield River watershed. The team issued a Level 1 Low Water Advisory in July, and it was upgraded in August to a Level 2. Wet weather in August improved conditions slightly, supporting a decision to move back to a Level

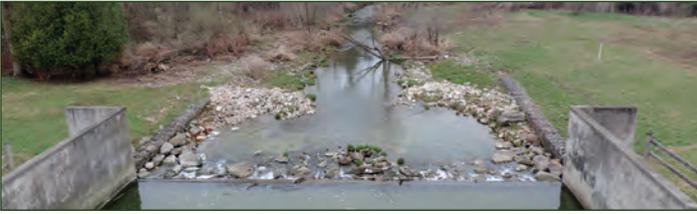
Ontario Low Water Response (OLWR)

1 advisory that stayed in place through October.

Twenty volunteer rain gauge readers provide valuable information on the extent and amount of precipitation received in the watershed.

When there are high stresses on water – including groundwater (in aquifers below us); and surface water such as creeks, rivers, and Lake Huron, the WRT issues level 1, 2, or 3 low water advisories. For water conservation tips, visit the water quantity page at abca.ca. – DH





The photo above shows Morrison Dam riprap reconstruction project – before completion.



The Morrison Dam riprap reconstruction project – after completion – is shown above.

Staff inspect, maintain structures to keep people protected

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

Ausable Bayfield Conservation Authority (ABCA) inspected and performed maintenance on water and erosion control structures owned or constructed by the ABCA, as part of the ABCA mandate and agreements with watershed municipalities.

These projects include Parkhill Dam, Morrison Dam, a number of flood control channels, and erosion control structures in various parts of the watershed. The ongoing inspection and maintenance work on these projects ensures that the structures will continue to protect watershed residents from flooding and erosion hazards into the future.

Detailed inspections of all structures are completed annually with additional inspections completed on an as-needed basis. Needed repairs are identified and plans are made to conduct the improvements. In 2018, new navigation buoys for the Armstrong West Erosion

Structures, Operations, and Maintenance

Control project, near the mouth of Ausable River in Port Franks, were purchased in preparation for installation before the 2019 boating season. A detailed inspection of the Walker Drain project in Grand Bend revealed substantial failure of the protective wire lining the drain channel. Water and Erosion Control Infrastructure (WECI) funding for 2019 is to be applied to help cover costs of this repair. Log booms for Morrison Dam and Parkhill Dam require replacement, so preparations have been started to replace them with more effective, modern log booms.

After the large flooding event in February 2018, more intensive investigations were completed with no additional repairs required at Parkhill Dam and minor riprap re-distribution required at the outlet of the stilling basin at Morrison Dam.

Improvements at Parkhill Dam made to help drain function

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

Since 2003, the Ontario Ministry of Natural Resources and Forestry's Water and Erosion Control Infrastructure (WECI) funding program has funded major maintenance work on conservation authority flood and erosion control projects. Under this program, Ausable Bayfield Conservation Authority can apply for 50 per cent grant funding for major maintenance projects.

In 2018, one WECI repair was undertaken.

Drains at the Parkhill Dam were constructed during the original construction to safely transport water near the earth embankments. The original stone comprising one of the drains was over-sized and allowed water to run under the stone and cut into the embankment. WECI funding was secured to fix this drain. In October 2018, the over-sized stone was removed, a proper channel shape was dug and suitable sized stone was shaped to form the new drain. These improvements ensure that the drain can continue to function as designed without interfering with dam operations or stability.

Water and Erosion Control



In photo at left, Parkhill Dam toe drain is shown prior to 2018 repair project. In photo at right, 2018 Parkhill Dam toe drain repair project is shown.

Public reviews draft Shoreline Management Plan

By Geoffrey Cade, Manager of Water and Planning

New Application Checklist

Ausable Bayfield Conservation Authority (ABCA) Board of Directors approved a Checklist for Applications for Shore Protection and a new fact sheet, in 2018, for landowners and contractors proposing shoreline protection works. The board approved the documents at its regular board meeting on September 20, 2018. The new checklist includes details about what’s needed in terms of drawings and plans and other submission requirements. The fact sheet outlines application submission requirements, fees, and ABCA’s application review process for shoreline protection. The conservation authority requires permits for shoreline works proposed to prevent erosion. Providing more detail about what’s required for a permit application helps to expedite the application process and ensures it is consistent.

Shoreline Management Plan Update

Protection of life and property in this watershed requires identification of shoreline hazards for flooding, erosion, and dynamic beaches and their impact on shoreline development. Updated information and policies help to guide a responsible, practical approach to development along the shoreline and to acknowledge current land use trends and incorporate awareness of shoreline hazards along our cohesive bluff and dynamic shorelines. The Shoreline Management Plan (SMP) is the guiding document that outlines the technical information and policies for permitting of development along the Ausable Bayfield shoreline.

In 2015, we started the journey to complete technical work needed to update our current Shoreline Management Plan (last updated in 2000). Updating the plan has required a long, thorough process but to get things right and not rush the process we have taken the time to involve stakeholders over the past four years. We hope to complete the project in 2019.

I commend the Board of Directors for the time they have taken to meet with shoreline residents, review technical work, and guide the process to ensure a new plan is reasonable, fair, effective and considers input of ratepayers and municipalities and meets our obligations to protect life, property, and the environment.

I thank the more than 200 people who attended the August 2018 public information open houses held in Thedford and Zurich. I also thank the more than 500 people who have taken the time and interest to sign

Municipal Plan Input/Planning Report and Shoreline Management Plan (SMP) Update

By the numbers – Planning 2018

Minor Variances	11
Severances	30
Official Plan/Zoning Bylaw Amendments; Stormwater Management	20
Formal Inquiries	85

up for email updates through the shoreline management electronic newsletter. I also thank everyone who provided written comments during public consultation periods for draft development guidelines and the new *Draft Proposed Shoreline Management Plan* (compiled by W. F. Baird and Associates Coastal Engineers Ltd.



and released in 2018). I also thank the municipal staff who provided input into the new draft development guidelines which better reflect current land use trends, policy, and technical information.

We shared the new draft development guidelines with the public at the August 2018 open houses and posted the draft guidelines on our website. We invited the public to provide their initial written comments on the open house content until September 15, 2018.

Interested people had a subsequent opportunity to comment on the draft development guidelines when they were posted as Appendix F of the draft proposed SMP as part of a public consultation which began in late November. The public was invited to review and provide comments on the new, updated Draft Proposed SMP between November 28, 2018 and January 25, 2019. Staff will provide all written comments to the Board for consideration prior to any decision on the draft plan in the new year. We are pleased to complete the updates so everyone has certainty about policies going forward. A new plan ensures decision-making is made with the best and most current information, with clear and defined policies, and development proponents will have certainty about the guidelines as they make decisions and investments and as they request permits.

Water Management



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
E.I.T.



Ross Wilson
Water and
Soils Resource
Coordinator

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

Considering projects? We encourage you to speak with staff

By Daniel King, Regulations Coordinator

Working in partnership with landowners, contractors, and real-estate professionals kept Planning and Regulations staff busy in 2018. Through the administration of the Ausable Bayfield Conservation Authority's *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* (Ontario Regulation 147/06) staff reviewed proposals for new development in regulated areas to ensure proponents had adequately addressed the natural hazards identified on their property. Regulated hazards exist along the Lake Huron shoreline as well as areas inland in the vicinity of river and stream valleys, flood plains, wetlands, and other flood-susceptible areas.

The Lake Huron shoreline continues to remind us of the dynamic nature of the Great Lakes System. In 2018 the water level in Lake Huron fluctuated within the regular seasonal trend at or near the levels seen in the previous year. While this level is above the long-term mean it is still closer to the expected lake level than to the record-setting highs seen in the Lake Michigan-Huron system in the late 1980s.

In all areas regulated by Ausable Bayfield Conservation Authority (ABCA), staff seeks a balance between the needs of growing and changing watershed communities and the organization's mandate to have concern for impacts of natural hazards on life and property. We achieve this by directing development outside natural hazards and reviewing studies and reports prepared by qualified professionals on the appropriate assessment and mitigation of applicable hazards to support development.

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



Any structure in areas deemed hazardous by Ausable Bayfield Conservation Authority is subject to a diversity of adverse forces which do significant damage such as winter icing from wave action.

2018:

- 113 applications for permission
 - 66 minor work permits
 - 28 drain reports reviewed
- 27 drain maintenance reviews
(Standard compliance requirements)

We continue to encourage anyone considering undertaking development to contact us as early as possible in the planning stages of their project. ABCA staff are more than happy to review regulatory mapping with project proponents in person at our office or over the phone and explain the applicable policy for a proposed development.

First Progress Report demonstrates plan implementation

By Donna Clarkson and Mary Lynn MacDonald, Program Co-Supervisors, ABMV Source Protection Region

Where does your drinking water come from?

Source water is raw water we take from lakes and underground aquifers, for treatment, to supply you with drinking water. The goal of drinking water source protection is to protect these sources of drinking water from contamination and overuse by working with landowners, business owners, and others near municipal wells.

What we do:

As a source protection office, we provide ongoing local support for implementation of the Ausable Bayfield and Maitland Valley Source Protection Plans (SPPs). We also provide Risk Management Services to eight municipalities in our region.

Achievements:

Main achievements in 2018 were:

1. Submitting proposed amendments of the source protection plans (January 2018)

As local municipalities add and remove wells there is a need to reflect these changes in the source protection plans. Plan amendments were proposed to reflect recent changes to wells in six communities: Benmiller, Blyth, Dungannon, Molesworth, Ripley, and Varna. We anticipate approval in early 2019.

2. First Annual Progress Report (May 2018)

The source protection authorities were pleased to submit the region's first annual progress report which highlights policy implementation achieved since the plans' effective date (April 1, 2015). The report found implementation is "progressing well" and "on target." Most SPP policies have been implemented or are in the progress of being implemented. Seventy-seven per cent of policies, to address activities that could pose a significant threat to municipal drinking water sources, have been implemented. Eighty-eight per cent of policies, to address moderate and low threats to drinking water sources, have also been implemented.

Our local risk management officials (RMOs) continue to work with landowners to reduce risk to our drinking water sources. Together, we have established 65 risk management plans (RMPs) in the region since source protection plans took effect in 2015.

3. Developed work plan to update source protection plans (November 2018)

When the Province of Ontario approved locally-developed source protection plans for this region

Drinking Water Source Protection



Ausable Bayfield
Maitland Valley
Source Protection Region

there was a stipulation for a five-year review to see what changes needed to be made based on annual reporting results and implementation challenges. A work plan of the proposed review was submitted



Donna Clarkson



Mary Lynn MacDonald

to the Source Protection Branch after extensive consultation with the local Source Protection Committee (SPC), municipalities, water operators, and stakeholders over the spring, summer, and autumn.



4. Education, Outreach, and Communication

Conservation Ontario produced new communication pieces, with input from our staff, for source water protection. These products included information for new municipal councillors, planning staff, and real estate agents. A highlight of this project was an animated video designed to reach people through social media. We thank local media for their great coverage of this video. We also thank our local municipalities for sharing these education materials on their websites and social media channels.

To watch the video or to find out more, please visit our website at sourcewaterinfo.on.ca



Ausable Bayfield Maitland Valley Drinking Water Source Protection Committee developed local policies to reduce risk to our municipal drinking water sources. Now they work to ensure policies are implemented.

Answering the question: ‘How is our environment?’

By Mari Veliz, Healthy Watersheds Manager

How is our environment?



Mari Veliz

Healthy Watersheds staff attempt to address the question above with community support, involvement, and monitoring (Tables 1 and 2).

It seems like a simple question. We want to give an (expected) simple answer – “It is good,” or “It is bad.” (Insert smiley or sad emoji here). Instead we need to recognize that environmental issues are complicated and have different perspectives. This is important because it means there are different answers to this question.

At the scale that we humans interact with our environment, day to day, with information from our 2018 *Watershed Report Cards*, we can say this: “In our developed landscape, the indicators we look at suggest room for improvement and that there has been, for the most part, no real change over 20 years at the watershed scale.”

When we start to ask more relevant questions such as “How effective are rural best management practices to address beach postings and algae in our rivers and lakes, and declining numbers of indicator species (especially in our Ausable River)?”, we can begin to understand there are temporal and spatial scale considerations and socio and economic perspectives.

Some of our main findings from a ten-year watershed evaluation of agricultural best management practices can be summarized in the following points:

Table 1: 2018 ABCA Water Quality and Bio-monitoring Stations

Type of station	Number
Dry Weather – water quality	35
Wet Weather – water quality	14
Best Management Practices Verification	9
Citizen Science	9
Fish	23
Reptiles (turtles)	5
Freshwater mussels	4
Benthic macroinvertebrates	19

The number of stations reflects the funding commitments from year to year and there may be overlap between types.

Watershed Communities Taking Action

1. At the field scale, structural projects (such as Water and Sediment Control Basins, or WASCoBs, and grass filter strips) reduce pollutant transport, mainly for sediment and phosphorus (P);

2. At the field scale, the effect of land management practices was harder to determine due to difficulties in collecting water samples from ephemeral channels in enough places at the right times. Due to these difficulties we had to rely on modelled results. The modelled results showed pollutant reductions related to cover crop adoption and conservation tillage practices. We also have measured the ability to generate flow under different cropping conditions and observed that, over time, cover crop fields generate less flow. This is important, as it is really these small, ephemeral field channels that contribute to downstream erosion issues. The more the small channels are not contributing the better the downstream outcomes;

3. Watershed monitoring results show negligible reductions in nutrients and sediment possibly due to the small scale of BMP implementation, the effects of mostly conventional management practices, or potentially weather-related variability; and

4. Broad application of a systematic – ‘Avoid, Control, Trap and Treat’ (ACT or ACTT) – approach to BMP implementation has yielded more significant modelled reductions in P at the watershed scale.

So the answer is rural BMPs do make ‘a difference’ but to make ‘the difference’ for improved watersheds, many more people (including all of us) need to be supporting the small, seemingly insignificant improvements (e.g., more diverse vegetative cover and less soil disturbance) in urban and rural places.

Table 2: 2018 Community Outreach by ABCA Healthy Watersheds Team

Community Outreach	Number
Community Groups	10
Community Events	18
Watershed Communities in Action*	5

* Bayfield, North of Bayfield, Ailsa Craig, Grand Bend, Port Franks

Optimizing water quality sampling for Lake Huron tributaries

By Dan Bittman, Water Quality Technician

For ten years, Ausable Bayfield Conservation has been collecting water samples from agricultural tributaries of Lake Huron. The purpose of the monitoring is to see if there have been changes in the quality of the water over time. One way to do this is to measure nutrient and sediment loads (amount of nutrient or sediment, in kilograms, carried by the stream).



Dan Bittman

Loading estimates for these tributaries can be improved by not only monitoring water quality during low flows (our typical practice) but also collecting water during high-flow events. Automatic water samplers are used to collect a large number of samples during high-flow events. For example, to measure loads accurately

Water Quality Sampling

we could collect hourly samples during each event which would involve sending more than 500 samples to the lab for analysis. Given the time and expense of collecting and analyzing water samples, it is often impractical to submit all of the samples in a single year.

Through work with Environment and Climate Change Canada, and our other Healthy Lake Huron partners, the goal of the current research is to figure out the fewest number of samples we can collect to get the same information as if we had sent every sample to the lab. Preliminary results show that the number of samples can be reduced by at least half in some of the streams, opening up more resources to continue to improve water quality in our watersheds.

Collaborative soil health studies implemented in Gully Creek

By Abigail Gutteridge, Healthy Watersheds Technician and Ross Wilson, MSc, PAG, CCA-ON, Water and Soils Resource Coordinator

Ausable Bayfield Conservation Authority (ABCA) continued its emphasis on soil health in the agricultural community into 2018. ABCA collaborated with Agriculture and Agri-Food Canada, University of Guelph, and researchers from Quebec to collect soil data in Gully Creek watershed. The goal is to develop a broader understanding of the relationship between different soil indicators and find useful ways of reporting soil health across broader landscapes, such as watersheds or regions.

In March 2018, ABCA submitted a jurisdictional review to Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) to document efforts in scaling up soil health data in other countries and regions. There are several approaches to soil health evaluation at different landscape scales: primarily, attempting to infer broader field information from site-

Soil Health

scale samples. Another approach uses spatial data from GIS to infer field-scale conditions. A final approach that has merit is to develop a range of values in cropped and benchmark (permanent hay/pasture or field edge) sites within different soil textures.

A key to improving soil health is education. Ausable Bayfield Conservation ran a social media campaign about the ABCs of Soil Health leading up to World Soil Day (December 5, 2018). This successful campaign reached almost 19,000 through Facebook and more than 12,000 through Twitter.



Abigail Gutteridge



Ross Wilson

Long-term data helps to evaluate change in land management

By Abigail Gutteridge, Healthy Watersheds Technician

Ausable Bayfield Conservation has been collecting land management data on farming practices for the past eight years in several subwatersheds. Data collected include crop type, spring and autumn tillage, residue and cover crops. This data set allows for a better understanding of agricultural best management practices across different areas over time.

Land Management Data

Most of the surveyed subwatersheds have shown at least a small increase in the agricultural land where cover crops are employed. In some areas we have noticed cover crops are left over the winter and are not tilled under in the autumn. Community involvement in research and outreach seems to encourage more sustainable agricultural land management decisions.

Bayfield, Hensall take action to slow runoff in rural, urban areas

By Hope Brock, Healthy Watersheds Technician

Bayfield-area residents were able, in 2018, to implement recommendations from the *Main Bayfield Watershed Plan*, thanks to funds from Fred A. and Barbara M. Erb Family Foundation; Environment and Climate Change Canada; and Ontario Ministry of the Environment, Conservation and Parks.



Hope Brock

A watershed walk took place within the rural Wiltse Creek subwatershed where 80 best management practices were identified to help manage stormwater.

Bayfield and Area

In the larger Main Bayfield watershed, landowners installed one berm, decommissioned two wells, and planted 1,075 trees and 274 acres of cover crops. Citizen scientists collected water samples at three stormwater outfalls along Bayfield beach 13 times from June through August.

To help slow down and filter urban stormwater, students from Bluewater Coast Elementary School and employees from Thompsons Limited in Hensall planted 450 plants into a rain garden along Nelson Street in Hensall.

Bayfield partners work together to create beach management plan

By Hope Brock, Healthy Watersheds Technician and Mari Veliz, Healthy Watersheds Manager

Municipality of Bluewater, along with Pioneer Park Association, Huron County Health Unit, and Ausable Bayfield Conservation have been working together to create a management plan for the Main/Pier Beach in Bayfield. The goal is to provide community-based recommendations for ongoing management of this limited and sensitive area.

Main/Pier Beach Management Plan

Pier Beach once again received the internationally-recognized Blue Flag in 2018 for meeting criteria including water quality, safety, education and accessibility. Thanks to Municipality of Bluewater for applying for the designation each year and to community partners that help ensure criteria are met.

Port Franks and Municipality of Lambton Shores protect turtles

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 the turtles, and the habitats the turtles use.

In 2018, there were 99 reptile sightings in the Grand Bend-Port Franks area. Funding is gratefully acknowledged from Ausable Bayfield Conservation Foundation. ABCA provided nest protection cages to four homeowners who observed turtles laying eggs

Community-Based Turtle Monitoring

on their property and collected three nests that were at risk of being destroyed. All hatchlings were safely returned to the nearest watercourse after emerging. Four volunteers invested 40 hours of monitoring the turtle exclusion fencing along Outer Drive. Only two turtles were found on the road and, in these cases, the turtles were found where the fencing is only on one side of the road (due to laneways and guiderail).

Dissolved oxygen concentrations found to be low at times in OAC

By Leslie Coleman, Water Resources Technician and Kari Jean, Aquatic Biologist

The Old Ausable Channel (OAC) is one of the few locations in Ontario where the Pugnose Shiner, Lake Chubsucker, and Grass Pickerel – three fish Species at Risk (SAR) – can still be found.

Monitoring habitat conditions and status of these SAR fishes is necessary to make informed management decisions for the OAC. Intensive habitat monitoring was conducted at 72 locations with data loggers and hand-held equipment to better understand dissolved oxygen (DO) concentrations and water quality

Old Ausable Channel (OAC)

throughout the OAC in different seasons. In all parts of the OAC, DO concentrations were found to be low for extended periods in winter when ice cover was present, and also in summer when water temperatures are higher.



Leslie Coleman

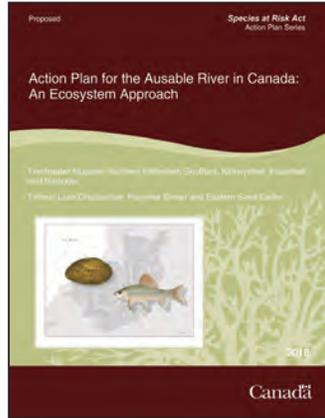


Kari Jean

Proposed action plan to help protect Ausable River

By Kari Jean, Aquatic Biologist

The Ausable River watershed continues to be of national significance and a priority for Fisheries and Oceans Canada, which in partnership with Ausable Bayfield Conservation Authority, updated a multi-species recovery plan: *Action Plan for the Ausable River in*



Canada: An Ecosystem Approach (Proposed) in 2018.

The Ausable River watershed is home to 26 freshwater mussel species, including six Species at Risk (SAR). Mussels are important contributors to good river health and are sensitive to sediment and nutrients. In 2006, seven long-term mussel monitoring stations were established and surveyed for mussels. This was done again in 2011 at the same locations, and in 2018 at four of the original locations, to track changes in mussel populations over time. Looking at the data from each of the three sampling years, the preliminary results show declines in the numbers of common and SAR mussels at most of the seven stations except for one upper Ausable River location. Ausable Bayfield Conservation is evaluating how resources can be better targeted towards locations in the watershed and types of actions that will provide the greatest success in recovering SAR.

In partnership with Fisheries and Oceans Canada, fish surveys were conducted at nine sites in the upper Ausable River watershed to investigate the presence of SAR fishes. Although no SAR fish were found, this monitoring provided important

Ausable River Recovery – Fisheries Monitoring and Community Outreach



As part of its 25th anniversary, the Latonnell Conservation Symposium celebrated women working in conservation with the #IAmConservation information campaign.

Kari Jean, ABCA Aquatic Biologist, was one of the conservation professionals featured.

fish community data in the upper river where very little sampling has previously been done.

Education and outreach events were hosted in Grand Bend, Ailsa Craig, and Port Franks to provide information to community members about: Ausable River fish, freshwater mussels and reptile species; their habitat threats; and opportunities to protect aquatic species at risk through good stewardship practices.

Perch, Sunfish, Bass among fish species in municipal drains

Many rural watercourses in Ontario have been designated as municipal drains. Drains are classified into categories developed by Fisheries and Oceans Canada (Department of Fisheries and Oceans or DFO).

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.

Fish Living in Municipal Drains

Fisheries and Oceans Canada provided funding in 2018 that allowed Ausable Bayfield Conservation Authority to complete fisheries assessments in 13 drains. Types of fish found in the drains included different species of minnows, Perch, Sunfish, and Bass.



About 50 students from Bluewater Coast Elementary in Hensall planted approximately 450 plants at a rain garden at Thompsons Limited in Hensall on Friday, June 15, 2018. This garden will protect and improve water quality by capturing runoff from surrounding buildings, parking lots, and roads.



Acres of wetlands restored to trap, treat runoff

By Angela Van Niekerk, Wetlands Specialist and Megan Leedham, Wetland Technician

Less than two per cent of wetland cover remains in the Ausable Bayfield area from pre-settlement times.

Wetlands:

- Absorb flood waters from storms
- Buffer your property, watershed, or coastal shorelines from extreme weather
- Store carbon – when wetlands are drained, this releases carbon back into the atmosphere and contributes to extreme weather
- Filter water removing excess sediment, nutrients and pollutants
- Cycle nutrients back into the food chain
- Provide habitat for birds, fish, reptiles, amphibians and other wildlife, recreational activities and sustainable tree harvesting, local food, and drinking water for humans

Wetlands have such an important environmental role but unfortunately we don't always see the benefits until they are gone.

Although wetlands in southern Ontario have some protection from a number of policies, we continue to lose wetlands. Efforts to protect existing wetlands through land use policies are more effective if the community acknowledges and values these seemingly insignificant features.

Ausable Bayfield Conservation engages interested landowners to create stormwater ponds and wetlands to reduce downstream flooding and improve water quality.

In 2018, efforts by local landowners enhanced five small wetlands, four tree planting sites, and a pollinator planting site that buffered wetlands (restoring a total of 28.5 acres) to trap and treat water runoff from upland fields.

Wetlands



Megan Leedham, Wetland Technician and Angela Van Niekerk, Wetlands Specialist conduct a winter inspection, after a stormwater pond was excavated in the Exeter, Ontario area.



Students from St. Joseph's School plant native wetland plants at their local wetland in Clinton.

A rain garden was created at Thompsons Limited in Hensall and five education and planting events were held for 407 students.

Thank you to all of the landowners who have protected or enhanced wetlands on their properties!

Thanks to the funders who supported these 2018 projects: EcoAction Community Funding Program; Great Lakes Guardian Community Fund; Habitat Stewardship Program; Lake Huron Georgian Bay Framework for Community Action; Ducks Unlimited Canada; and Thompsons Limited.

Two major capital projects completed in 2018

By Kate Monk, Stewardship, Land and Education Manager

Washroom renovation at Rock Glen Conservation Area

Visitors to Rock Glen Conservation Area are in for a pleasant surprise when they return to the park next season and see the extensive washroom renovations completed in autumn of 2018. After years of repairs, and many coats of paint, the 45-year-old washrooms were completely gutted and renovated.

The washroom renovation project is great for visitors with a bright interior, slip-resistant floors, automatic door openers and ramps, and baby change tables. It's also good for the environment with increased efficiency for water use, lighting, and ventilation. A water bottle filling station and drinking fountain help Ausable Bayfield Conservation meet its efforts to eliminate single-use plastics. Automatic door openers and ramps at the entrance to Arkona Lions Museum and Information Centre were also installed. The Ausable Bayfield Conservation Authority project levy, Rock Glen Conservation Area surpluses (2017 and 2018), and property management reserves funded the project.

New Pedestrian Bridge on the South Huron Trail

The Jones Pedestrian Bridge just downstream of Morrison Dam is the second major capital project completed in 2018. With a budget of more than \$300,000, the steel bridge provides visitors on the

Conservation Land Management



Television, radio, and newspaper reporters were at the site, downstream of Morrison Dam, to record the historic placement of Jones Bridge, a new pedestrian bridge on the South Huron Trail. Fundraising was to be completed in 2019 as well as completion of the project, such as stairs and connections to the trail.

South Huron Trail with a safe alternative to walking beside vehicle traffic on Morrison Line. Iron Bridge of Brunner was the successful bidder for the construction of the 52-metre bridge. VanDriel Excavating Inc. of Clinton was selected to construct the piers, install the bridge spans, and build the approach trails. The bridge was installed on November 15, 2018.

The bridge is a community effort. The Pedestrian Bridge Community Working Group provided input to the project and fundraised. Major funders included the Municipality of South Huron, Donna Jones (in loving memory of her late husband Ted), Ausable Bayfield Conservation Foundation, Exeter Lions Club, and many others. Ausable Bayfield Conservation thanks the donors, contractors, volunteers, and staff who made this a successful project that will last many decades.



Kate Monk
Stewardship,
Land and
Education
Manager



Ian Jean
Forestry
and Land
Stewardship
Specialist



Tony Drinkwalter
Field
Services –
Land



Jeff Van Niekerk
Field
Services



Nathan Schoelier
Stewardship
Technician



Denise Isczuk
Conservation
Educator



Nina Sampson
Conservation
Educator



Dale Cable
Rock Glen
Conservation
Area
Superintendent.

Stewardship, Land and Education staff help to implement boots-on-the-ground land stewardship improvements in the watershed, conduct monitoring, educate people of all ages, provide nature education and recreation, and more. In addition to photos above, Anita Hodgins, Rock Glen Conservation Area Assistant, was a great help working in the gatehouse in July-August of 2018. Jeff Gordon was also a great help as Stewardship and Conservation Lands Assistant (Summer Position).

Staff double previous year by planting 57,000 trees

By Ian Jean, Forestry and Land Stewardship Specialist

There remains a strong interest in planting trees which for many watershed residents is an annual spring or autumn ritual.

Conservation authority staff planted more than 57,000 trees, mainly during the spring planting season. This was more than double the previous year's total due to a few larger projects.

In addition, landowners purchased and planted more than 10,000 trees through the spring and fall tree program. All totalled, more than 170 individuals, farms, or other businesses ordered trees from Ausable Bayfield Conservation.

During this past year, Ausable Bayfield Conservation Authority (ABCA) staff planted 14 farm windbreaks and 11 watershed buffers. This work will reduce wind and water erosion and benefit water quality. Staff planted 14 projects to create, connect, or enlarge forests, totalling more than 50,000 seedlings on approximately 75 acres of land. This work contributes to improving forest cover, biodiversity, and overall watershed health.

An important role of ABCA staff is to pursue cost-share funding to support these projects. Funding for tree planting was secured from Huron County Clean

Tree Planting Program



Jeff Gordon plants trees at Port Blake.

Water Project, Forests Ontario, Habitat Stewardship Program, Great Lakes Guardian Community Fund, and the Species at Risk Stewardship Fund.

Tree Planting and Outreach with Schools, Community Groups and Municipalities

Ausable Bayfield Conservation staff work in partnership with schools, community groups, and municipalities to facilitate tree planting projects and events throughout the watershed. Here are some:

- **Bluewater:** 120 trees plus ABCA planting services for planting along roadsides targeted mainly to rural sideroads with no trees.
- **South Huron:** 50 trees plus planting bare root tallstock at Port Blake near Grand Bend.
- 190 trees for South Huron Communities in Bloom Tree Sale.
- **Lambton Shores:** 150 trees and shrubs for the Grand Bend 5000 Trees Project Tree Sale supported by Lakeshore Eco Network.
- 75 trees for planting in parks and along roadsides in the municipality.
- **Central Huron:** Cedar trees planted by students at St. Joseph's School's wetland area (spring and autumn) in Clinton.
- **Lucan Biddulph:** 60 trees were bought in autumn for the Parks and Roadsides Tree Replacement Initiative.

Staff document local forest plant species at risk

Ausable Bayfield Conservation Authority is the largest forest owner in the watershed with more than 8,000 acres of forested land, representing approximately 10 per cent of the forested area.

Management is primarily focused around the protection and conservation of the watershed forest. In order to protect sensitive features and habitat a hands-off management approach is used for much of the ABCA-owned forests. This includes more than 2,000 acres of provincially significant Conservation Lands, which are eligible and enrolled in the Conservation Land Tax Incentive Program. No property tax is paid on these provincially significant forests.

Research and monitoring is carried out as resources permit and by partnering with universities and colleges or provincial ministries. In 2018, with funding from the provincial Species at Risk Stewardship Program, conservation authority staff completed surveys to

Forest Management on ABCA Lands

locate and assess populations of several species at risk forest plants. The primary species of interest were False Rue Anemone, Goldenseal, and Flowering Dogwood on conservation authority properties in the Ausable River Gorge and at Parkhill.

Active management, which includes selective timber harvest, is pursued on between 100 and 200 acres annually. In 2018 timber was selectively harvested at ABCA Ratz Tract in South Huron. A total of 514 trees was part of the timber sale including 338 dead Ash trees. Other marked timber included 107 Hard Maple; 35 Soft Maple; and 34 trees of other species. Ausable Bayfield Conservation staff mark and measure the timber prior to sale. Provincial tree marking guidelines are followed. Revenue from the sale of timber helps offset the cost of owning the land. – IJ



Rick Quinn and Diane Hawthorne, on behalf of their entire family, received the Conservationist of the Year Award on World Water Day March 22, 2018 from George Irvin, Vice Chair of Ausable Bayfield Conservation Authority (ABCA) Board of Directors, and Angela Van Niekerk, ABCA Wetland Specialist.



Flood-related damages are rising but preserving wetlands can help to reduce risk from floods, according to the report *When the Big Storms Hit: The Role of Wetlands to Limit Urban and Rural Flood Damage*. Sixty people attended ABCA's awards and partner appreciation evening on March 22, 2018. They heard Natalia Moudrak, Director of the Infrastructure Adaptation Program, Intact Centre on Climate Adaptation, speak on how wetlands reduce flood risk.

Phragmites control is an emerging stewardship service

By Kate Monk, Stewardship, Land and Education Manager

Stewardship services have always adapted to the needs of the watershed, landowners, and society. Tree planting has always been a constant, keystone service provided by Ausable Bayfield Conservation Authority (ABCA) but other projects, such as farm ponds, have gone by the wayside.



Kate Monk

Phragmites australis management is a good example of an emerging watershed health issue. The aggressive non-native wetland plant wasn't a local issue until less than 10 years ago when it invaded beaches and wetlands in Port Franks. The plant is spreading from the south to the north with roadways being the main spread vector. Our involvement includes: collaboration with community groups including the Lambton Shores Phragmites Community Group and Huron Stewardship Council; representation on the Ontario Phragmites Working Group; advice to landowners on best practices for controlling *Phragmites*; and herbicide spraying services. Community and Ausable Bayfield Conservation Authority efforts have resulted in reducing the amount of *Phragmites* in controlled areas but there is still work to be done in areas where *Phragmites* is not managed.

Demand for other stewardship services remains strong with 100 projects completed across the watersheds to improve and protect surface water and groundwater, conserve soil, and improve natural habitat. This total does not include the many

Private Land Stewardship Program

Stewardship Projects and Grants by Municipality

Municipality	Number of Projects	Grants
*Ashfield-Colborne-Wawanosh	2	13,779
Adelaide Metcalfe	1	\$1,429
Bluewater	18	\$22,563
Central Huron	22	\$37,697
Huron East	19	\$14,674
Lambton Shores	1	\$2,700
Lucan Biddulph	5	\$7,688
Middlesex Centre	6	\$9,195
North Middlesex	12	\$30,370
South Huron	13	\$11,361
West Perth	1	\$3,260
TOTALS	100	\$154,716

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.

*Municipality in Maitland Valley watershed.

landowners who independently do projects.

To learn more about best management practices, refer to Healthy Watersheds articles starting on p. 13.

Conservation Education



Students learn about water, soil, and habitat for living things through conservation education. These nature education programs are outdoors, in the community, and in the classroom ... and only possible thanks to funding partners.

Funding support makes conservation education possible

By Denise Iszczuk and Nina Sampson, Conservation Educators

Education staff provide meaningful opportunities for youth to learn about water, soil, and living things. Conservation education programs are funded through program or service fees (19 per cent); partnership contributions (34 per cent); and through the municipal levy (47 per cent).

Partnership contributions fund specific educational programs and activities. NextEra Energy Canada, LP has been a significant funder of partnership contributions over the last three years making it possible to provide free programming options for local watershed schools. In 2018 Ausable Bayfield Conservation delivered 87 free in-school programs and, through a bus subsidy for field trips, 16 schools participated in programs at Clinton, Morrison Dam, or Rock Glen conservation areas. NextEra currently funds Uncovering Soil Secrets and Our Water World for primary students, the multi-phase Grade 8 Water Systems program, and Ecosystem Exploration, which is available to all grades.

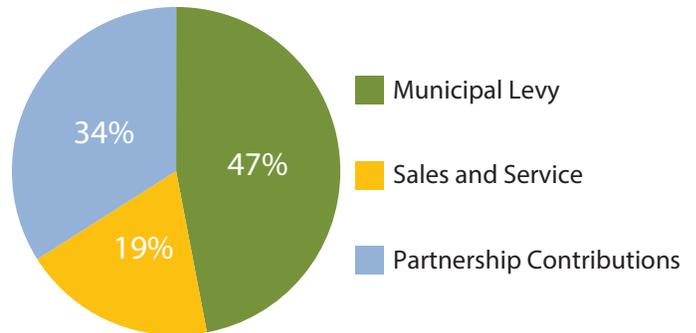
New for 2018, the Watershed Champions Grant, supported by funding from NextEra, supports the community's *Conservation Strategy* for Ausable Bayfield watersheds. In 2018 three schools (Stephen Central, Cridton; Wilberforce, Lucan; St. Joseph's, Clinton) received \$500 each to complete projects taking action to protect water, soil, and living things or to create environmental awareness.

In addition, Ausable Bayfield Conservation Foundation has been a consistent supporter of educational programs and events.

For 2018, Ausable Bayfield Conservation received funding from both the Huron-Perth Catholic District Board and Avon Maitland District School Board for the delivery of Natural Curiosity and Microplastics in

Conservation Education

Conservation Education Funding



the Great Lakes programs respectively. Also Power Off and Play programs for Lambton schools and day cares were funded by the Lambton Health Unit.

We would like to thank all of our partnership contributors for their generous support and their commitment to Ausable Bayfield watersheds.



There were 925 people at the third turtle release event, at Morrison Dam Conservation Area, in 2018. Huron Stewardship Council (HSC) supervised the release of native Snapping Turtle hatchlings.

Conservation Foundation fosters partnerships, supports action

By Bob Radtke, Chairman, Ausable Bayfield Conservation Foundation (ABCF)

The year 2018 was an active one for Ausable Bayfield Conservation Foundation (ABCF), working with the community to foster partnerships and support positive actions to the benefit of water, soil, and living things in the Ausable Bayfield watershed:



Bob Radtke

Junior Conservationist

Ellen Glavin, of the Crediton area, was chosen as Junior Conservationist for a two-month summer position working at Ausable Bayfield Conservation Authority (ABCA) in all departments. She reported the experience showed her conservation is a vast field. Being surrounded by people who are experts in their fields helped clarify her future career direction in the conservation field.



Ellen Glavin

Student Environmental Award

Ethan Quenneville, of Grand Bend, received the Student Environmental Award. He will use the \$1,000 bursary when attending Fleming College in Peterborough to study Environmental Technology.



Bob Radtke presents award to Ethan Quenneville.

Commemorative Woods

The Commemorative Woods program was created in 1988 and has sites in conservation areas at Clinton, Klopp, Morrison Dam, Rock Glen, and Parkhill. The Foundation Board heard a proposal from the Lakeshore Eco Network to establish a commemorative woods site in the municipally-owned Klondyke Fields

Conservation Foundation

south of Grand Bend. Since the ABCF doesn't offer a commemorative woods in the Grand Bend area, the ABCF will pursue discussions on a partnership agreement that includes the municipality.

Morrison Dam Tree Dedication Service

Approximately 400 family and friends attending the memorial tree dedication service hosted with Haskett Funeral Homes at Morrison Dam Commemorative Woods on September 16, 2018.

Conservation Dinner

The Conservation Dinner was held on April 12, 2018 and raised more than \$49,000 to be split with Exeter Lions Club. In 29 years, this event has surpassed \$1.1 million in net proceeds to the benefit of watershed communities.

Continued on next page



In Conservation Dinner photo, left to right: Brian Horner, ABCA General Manager; George Irvin, Vice Chair, ABCA Board; Jim Beckett, Co-Chair, Dinner Committee; David Loerchner, D. L. Creations, feature artist; Bob Radtke, ABCF Chairman; Larry Taylor, Dinner Co-Chair; Dan Turkheim, President, Exeter Lions Club.

Ausable Bayfield Conservation Foundation Board of Directors

Bob Radtke
(Chairman)
Ailsa Craig



Anne Melady
Dublin



Robert Norris
Staffa



David McClure
Grand Bend



Charlie Miner
Exeter



Peter Darbshire
Exeter



Roger Lewington
Bayfield



Dave Frayne
Exeter



Tom Prout
Exeter



Donors, volunteers help to make conservation work possible

Continued from previous page

Morrison Dam Fishing Derby

The 34th Fishing Derby was held May 5, 2018 with 235 anglers registered. The rainbow trout were supplied by Primrose Trout in Mono. This event is possible because Ausable Bayfield Conservation Foundation and Exeter Lions Club each contributed \$1,250 for stocking Morrison Reservoir (Morrison Lake).



Pedestrian Bridge

Tom Prout and Peter Darbishire were named to the Pedestrian Bridge Community Working Group which met monthly from February to November to fundraise for the approximately \$300,000 project and provide input on the pedestrian bridge construction tendering and location of connecting paths to and from the new bridge. Installation took place on November 15, 2018.

Resignations and Replacements

Gerry Cook retired from the Board in August of 2018 after six years on the Conservation Foundation's Board of Directors. Dave Crockett retired from the Board in September of 2018 after three years on the Board. We welcome new Board members Charlie Miner and Dave Frayne.

Fostering Partnerships, Supporting Action

Our mandate is: raising funds, fostering partnerships, providing funds, and acquiring conservation lands. Eligible projects that received funding support were:

Conservation Education

- \$2,840 subsidy for students participating in an outdoor education program and \$1,958 for youth organizations to book a nature program
- \$500 towards a live owl presentation at the annual Owl Prowl. There were 250 people who attended this event
- A grant of \$500 to cover busing students to a nature program on species at risk at Morrison Dam or Rock Glen conservation areas

Accessible Trails and Facilities

- Thirteenth Annual South Huron Trail Golf Tournament was held August 27, 2018 at



Ironwood Golf Course and raised \$6,000 towards the Jones Bridge Project, to build a new pedestrian bridge on the South Huron Trail, making the community safer and more active

- Partnered with the Bayfield River Valley Trail Association to receive donations for the trail

Wetlands and Natural Areas

- \$1,000 towards species-at-risk turtle monitoring program in the Port Franks area
- \$500 for Ausable River outreach events in Ailsa Craig – Ontario Fishing Weekend and Gala Days
- \$1,000 towards monitoring species-at-risk mussels in Ausable River at four of seven sites
- \$1,500 to Old Ausable Channel habitat monitoring from Grand Bend to Pinery Provincial Park
- In May, ABCF directors accompanied Huron Tract Land Trust Conservancy on a property tour to visit their recent land acquisitions – Mayhew Tract; Bayfield River Flats; and Woodburne Farm
- EcoAction Community Funding Program provided \$100,000 for three-year project to help urban and rural landowners to make stormwater improvements that benefit Lake Huron.



South Huron Mayor Maureen Cole; Friends of South Huron Trail Chair Dave Frayne; ABCF Chair Bob Radtke; ABCA GM Brian Horner; and volunteer drivers Norm Eckel and Jerry Mathers are shown at launch ceremony for new South Huron Trail Mobile. The Conservation Foundation received grant from Municipality of South Huron for \$6,000 and ABCF contributed \$2,500 to make the purchase possible, giving nature experience to those with limited mobility.

Local landowners leaving exciting land legacy for future

By Roger Lewington, Chairman, Huron Tract Land Trust Conservancy (HTLTC)

It is exciting times for Huron Tract Land Trust Conservancy (HTLTC) as we continue to be approached by landowners wanting to leave a land legacy.

Building on the donation of a 10-acre forest from the Mayhew family in 2015, and the Bayfield River Flats Natural Area in 2016, the HTLTC received the 67-acre Woodburne Farm property from Ilse Elliott and her late husband William Elliott in 2018. This property is in the Naftel's Creek watershed and has key environmental benefits, particularly to the health of Lake Huron. Naftel's Creek is one of hundreds of streams that flow directly into the lake. The parcel includes a rental house and 7.42 acres of mature forest; cedar groves along the creek; a wetland thicket; and 40 acres of agricultural land that are being restored to forest by planting trees in 2018 and 2019.

In December, the HTLTC received a 5.5-acre property located north of Ailsa Craig from Janet Heaman. It is an irregular-shaped rolling plot of land bisected by the Ausable River. The site has some conifers and hardwoods and the river at this location is protected for aquatic Species at Risk. The local community and visitors use the property to access the Ausable River for fishing and canoeing.

Many people are passionate about their land, and what it means to them. We are humbled and honoured they consider the Huron Tract Land Trust Conservancy as an organization to entrust their lands to for generations to come.

Our volunteer board members are the backbone of the HTLTC and I would like to thank them for their valuable input and work. There is a vacancy on



Roger Lewington

Huron Tract Land Trust Conservancy

Mission:

Ensuring a land legacy.

Vision:

An inspired community that values and protects natural lands and habitat.



Ilse Elliott is shown with Brian Horner, staff advisor to the HTLTC and Roger Lewington, HTLTC Chair. Ilse, and her late husband William Elliott, donated Woodburne Farm to the Land Trust and included a stewardship endowment fund to help conserve the property. The 67-acre farm between Bayfield and Goderich on Lake Huron's shores will be protected for future generations.

the Board as Burkhard Metzger resigned due to relocating with his business. On behalf of the board, I would like to thank him for his contributions.

In October, I was pleased to attend the Ontario Land Trust Alliance Conference and Annual Meeting.

We look forward to the possibilities ahead as landowners continue to tell us about their special lands and wanting to leave a lasting legacy.

Huron Tract Land Trust Conservancy



Ensuring a land legacy

Board of Directors – Huron Tract Land Trust Conservancy (HTLTC)



Roger Lewington
(Chair)
Bayfield



Don Farwell
Stratford



Max Morden
St. Marys



Paul Spittal
Bayfield



Peter Twynstra
Ailsa Craig



Philip Walden
Thedford



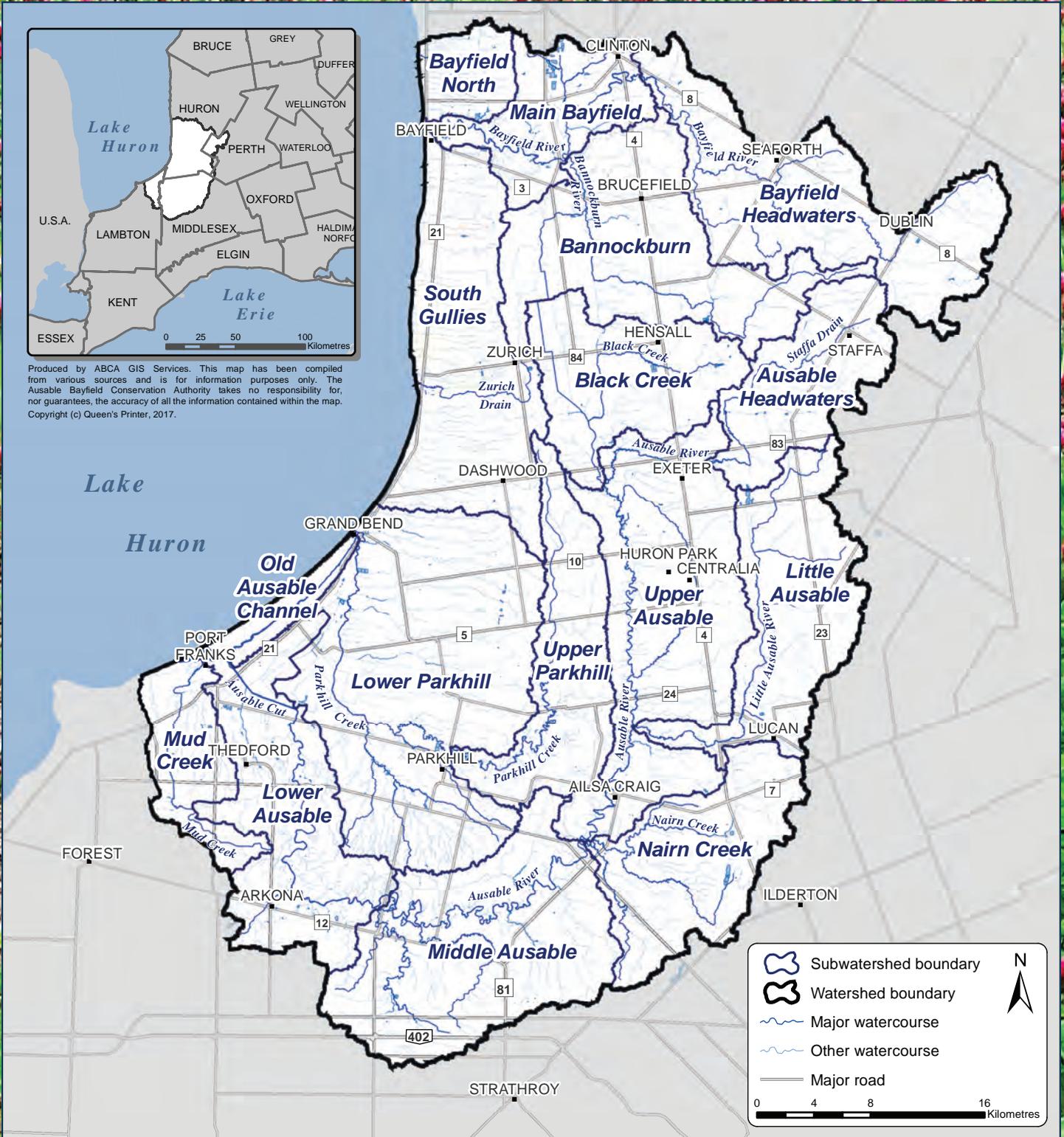
Steve Boles
Exeter



Steve Bowers
Brussels



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**AUSABLE BAYFIELD
CONSERVATION**
CREATING AWARENESS | TAKING ACTION

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