

# Annual Report 2020





### Getting Outdoors

Sarah Sadler and family, of Exeter, were the draw winners of Get Outdoors Bingo. The prize winners received a prize pack of: one Outdoor Family Experience delivered by Ausable Bayfield Conservation (\$70 value – the choice of Owl Prowl, Pond Study, Fantastic Fossils, Nature Awareness Hike, or Christmas Season in the Forest); a 17-ounce Chilly Moose Kearney Traveller; and a Dragonfly Field Guide or equivalent. Thanks to Sarah and family for use of this photo. We thank all the people who enjoyed nature outdoors and explored new places as part of this activity. We loved seeing your photos and seeing you active, in your watershed community, in your family circle, while practising safe social physical distancing. Well done, everyone!

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Huron Tract Land Trust Conservancy

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### Front Cover Photo

The front cover photo shows Ruth and Greg Strapp from a 2020 video on their wetlands project. They built their wetland and then the wildlife came! Visit [abca.ca](http://abca.ca) for the story and video.

## 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

# Looking forward to 75th anniversary in 2021

By Doug Cook, Chair, Ausable Bayfield Conservation Authority (ABCA) Board of Directors

We look forward to 2021, an important year in our history. The new year is your conservation authority's 75th anniversary. This is a chance to celebrate the work of our organization but, more than that, it is a chance to celebrate what we have accomplished together to improve this watershed. It is also a chance to continue a local legacy through continued good work in decades to come.



**Doug Cook**

This conservation authority was founded on July 30, 1946. It responded to a need. That was thanks to the vision of local municipal leaders and the Province of Ontario.

The former Ausable River Conservation Authority was Ontario's first conservation authority. The Bayfield River watershed and smaller streams were added in 1971-'72. We then became Ausable Bayfield Conservation Authority (ABCA).

We have accomplished a great deal together. Thanks to our partnership with

## Chair's Message



the Ontario government and our member municipalities we have protected life and property with flood forecasting and warning, flood plain management, planning, and regulations. Thanks to landowners, community groups, and other partners, we have planted hundreds of thousands of trees. We have educated the next generation of stewards and constructed needed wetlands. We have monitored local water quality and forest conditions.

We have protected water, soil health, and habitat for all living things. We could not have done it without you. I thank the community for all the work completed, to improve this watershed, in 2020 and in the years leading up to our upcoming anniversary. We look forward to working with you over the next 25 years and we look forward to celebrating, at that time, 100 years of local conservation.

## Ausable Bayfield Conservation Authority (ABCA) Board of Directors – 2020



**Doug Cook, Chair**  
Lambton Shores; Warwick



**George Irvin, Past Chair**  
Bluewater



**Mike Tam**  
West Perth



**Bob Harvey**  
Adelaide Metcalfe; Middlesex Centre



**Alex Westman**  
Lucan Biddulph



**Marissa Vaughan**  
South Huron; Perth South



**Ray Chartrand**  
Huron East



**Adrian Cornelissen**  
North Middlesex



**Dave Jewitt**  
Central Huron



## Blue Bayfield receives conservation award

On July 22, 2020, at Clan Gregor Square in Bayfield, Ausable Bayfield Conservation was honoured to present the Conservationist of the Year Award to deserving recipients Blue Bayfield. The handcrafted award made by Bob Hutson, of Windbreak Farm, was presented with use of face masks and social physical distancing, as recommended by public health authorities, in order to help keep everyone safe during presentation of the award.

The photo above shows Blue Bayfield Co-Chairs Shelagh Sully and Ray Letheren and George Irvin, Past Chair of the Ausable Bayfield Conservation Authority (ABCA) Board of Directors. In addition to the award, the winners received scrolls of recognition from Huron-Bruce MP Ben Lobb and MPP Lisa Thompson. Visit [abca.ca](http://abca.ca) to find out more.

## Finding new ways to protect life, property, watershed

By Brian Horner, General Manager and Secretary-Treasurer

**T**he year 2020 was full of challenges but I am proud how our residents, board of directors, and staff responded. I thank our watershed residents and Ausable Bayfield Conservation staff for their resilience in these difficult times.

Years from now, someone will read this *Annual Report* and learn how 2020 was a year of a world-wide (coronavirus or COVID-19) public health pandemic. I hope they will also learn how we responded, to help keep people safe, and how we adapted to deliver needed programs and services during a pandemic.

At one point, we had to close our conservation areas during the pandemic but our staff worked hard to reopen them safely. The importance of these areas for nature preservation and education, and recreational enjoyment, was never clearer than the past year.

### General Manager's Report

The year 2020 also brought changes to laws related to the work we do here. The coming year will be important as we work with the Province of Ontario in development of pending new regulations and as we forge the future of municipal partnerships needed for continued watershed management success.

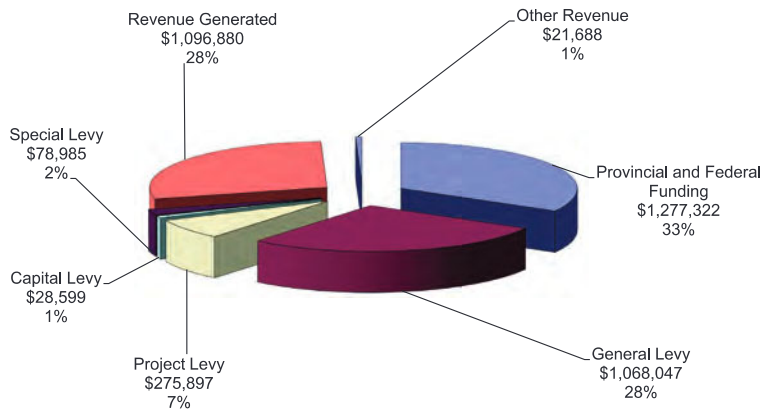
The current pandemic prompts us to be more creative in raising funds for conservation projects that are needed in this community. We invite you to support these innovative fundraising ventures.

We don't know what the new reality will look like in 2021 or years to come. We hope in the coming months and years we will once again be able to safely join in person to say 'Thank you' for all you do to keep this watershed healthy. In the meantime, please accept our thanks through the means of this *Annual Report*.

## 2020 Financial Summary

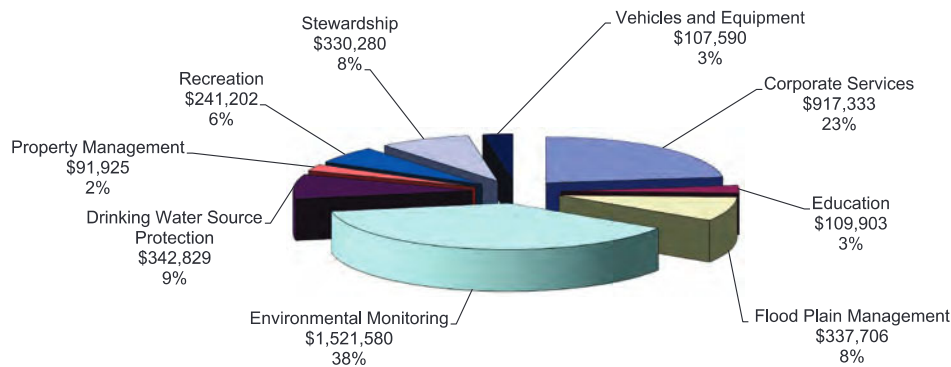
### 2020 Sources of Revenue – Total Revenue – \$3,847,417

(Unaudited Figures)



### 2020 Department Expenses – Total Expenses – \$4,000,348

(Unaudited Figures)



## ABCA generates revenue to support local programs

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

**A**usable Bayfield Conservation Authority (ABCA) continues to be one of the leading conservation authorities in Ontario when it comes to leveraging local levy dollars with added third-party funding to the benefit of people in this watershed and water and soil resources.

Thanks to the approval of grant and funding applications submitted by staff during the year the local levy dollars represented approximately 35 per cent of total revenue compared to other conservation authorities across the province that had similar levies representing approximately 50 per cent of their total revenue. Similar to the past few years, our conservation authority

### Financial Summary

has continued to leverage every local dollar generated with approximately \$2 in additional funding. This compares to the provincial average that is dollar for dollar amongst other conservation authorities.

The unaudited financial results show ABCA again coming in as budgeted as the \$153,000 loss includes \$178,000 of amortization. Staff have continued to do a terrific job bringing projects in at, or better than, budgeted costs.

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

# Importance of GIS, IT was clear during 2020 pandemic

By Tracey McPherson, GISP, GIS/IT Coordinator

In 2020 many people, throughout the world, were introduced to the power of Geographic Information Systems (GIS) because of the coronavirus (COVID-19) pandemic.

In January of 2020, John Hopkins University developed a web mapping and reporting dashboard that became the

## IT actions taken in 2020:

- Created staff time-tracking application integrated with payroll.
- Completed training of staff on use of Office 365 cloud-based applications.
- Provided hardware and other tools to allow staff to work from home.
- Implemented the use of ZOOM as a meeting platform.
- Developed a web-based COVID-19 screening app for staff input.

## IT results:

- Less staff time needed for entering time and completing payroll.
- Business continuity maintained with staff working from home.
- Compliance with provincial COVID-19 screening workplace requirements.

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

standard model for tracking the spread of the virus throughout the world.

Visit the link here:

<https://coronavirus.jhu.edu/map.html>

Information technology (IT) and network/Internet systems were put to the test in 2020. IT staff everywhere had to set up and maintain systems to allow people to work from home and meet safely.

## GIS actions taken in 2020:

- Utilized ArcGIS Online applications for quick field data collection.
- Installed and began setup of internal mapping portal.
- Completed mapping and data requests for staff, consultants, and partners.

## GIS results:

- Increased staff capacity to quickly collect data in the field.
- Modern/compatible internal web mapping platform.
- Support for internal projects and programs.

## Corporate Services

Corporate Services front-line staff assist the Board of Directors, committees, departments, member municipalities and the public. They help fulfill the community's mission and vision from the *Conservation Strategy*.



**Brian Horner**  
General Manager



**Abigail Gutteridge**  
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



The powerful forces of flooding are evident in this photo of water running over Coldstream Road, in January 2020, dangerously sending this car into the ditch.

# Year 2020 challenging but our work more important than ever

By Geoffrey Cade, Manager of Water and Planning

I have been with conservation authorities for about 25 years. All of it along Lake Huron. I don't think it is an exaggeration to say 2020 has been the most challenging year yet.

We have all had to adjust to the effects of the global pandemic and Ausable Bayfield Conservation Authority (ABCA) staff has not been an exception. I would like to thank the Water and Planning and Drinking Water Source Protection staff for their dedication and work during these challenging times. Through the pandemic they were able to continue their important work guarding people from flooding and other natural hazards and helping municipalities to protect their valuable sources of municipal drinking water. In the following reports the reader will see how ABCA staff have continued to protect watershed municipalities and residents through this difficult period.

The other major challenge we faced this year was the return of high Lake Huron water levels. The levels in 2020 approached record highs which have not been seen since the mid 1980s.

With the return of this high water came the return of erosion that many have not seen in decades – or ever, if they are newer to the Lake Huron shoreline. Erosion rates along the bluff surged in 2020 reminding us that historic erosion rates are an average and, sooner or later, even areas with low erosion rates will experience significant slope loss.

## Municipal Plan Input/Planning Report

### *By the numbers – Planning 2020*

|                          |    |
|--------------------------|----|
| Minor Variances          | 14 |
| Severances               | 20 |
| Official Plan Amendments | 8  |
| Zoning Bylaw Amendments  | 12 |
| Lawyer Inquiries         | 55 |

South of the Port Blake water intake, in the dynamic beach areas, movement of sand meant decks, stairs, old fences, and protection structures which had long buried by accumulating sand, and long forgotten, began to emerge. This is a vivid reminder that sand in these areas is transient and can be taken away very quickly. Areas that appear to have been stable for a very long time have simply built up since the last high lake levels.

All of these impacts are signs that ABCA must be vigilant in its education efforts about the hazards of Lake Huron and its coastal processes.

As conservation authority roles and responsibilities are being considered at provincial levels it is also a reminder of the importance of proactively directing development away from hazardous areas and of our important role in forewarning our member municipalities of damaging floods and storms.

# ABCA staff continue work during high lake levels, pandemic

By Daniel King, Regulations Coordinator

The global pandemic and near record-setting levels on Lake Huron meant 2020 presented twin challenges that Ausable Bayfield Conservation Authority (ABCA) staff rose to meet this past year.

High lake levels on Lake Huron over the summer were anticipated early in the year thanks to forecasts from Environment and Climate Change Canada and ABCA's historical mapping. While nobody anticipated the impact of the coronavirus (COVID-19) pandemic, ABCA's regulations program pivoted quickly to continue to provide services to landowners, contractors and the public in our delegated responsibility to administer *Ontario Regulation 147/06* of the *Conservation Authorities Act*. Regulations staff are happy we were able to do so while still meeting all public health guidelines.

It appears there has come, along with the pandemic, an increased interest in domestic travel, real estate and cottages on Lake Huron, frequently within areas regulated by ABCA.

Regulations and Planning staff continued to support real estate transactions through the property inquiry service we provide to realtors, legal professionals, sellers and purchasers.

With the increased demand and tight timelines for construction projects, it is as important as ever that proponents considering new construction consult the regulatory mapping on our website.

If you are considering a project that may encroach into a regulated area, consult ABCA staff who can help outline permitting requirements.

Wave and storm damage, with high lake levels, continues to be a concern on the Lake Huron shoreline. This year, in addition to an increased interest in shore protection, ABCA has also seen numerous

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



The return of high lake levels has contributed to erosion. The photo at left shows erosion north of Port Franks in 1972. The photo at right shows erosion in 2020.

### **2020:**

- 162 permits
- 123 minor work permits
- 11 drain construction clearance letters plus several enclosures
- 23 standard compliance requirements for drain maintenance

permits to repair damaged structures. In some cases, these are legacy walls installed in the 1980s, the last time Lake Huron waters reached a similar elevation and, in others, these structures were more recently installed. These cases highlight that shore protection alone is not always adequate in managing natural hazards. Seasonal inspection and maintenance of shoreline infrastructure, drainage features, and lake-bank condition should be undertaken by all landowners with natural hazards on their property.

ABCA's planning and regulations department is proud of the service we provide to the community and we are happy to consult with landowners concerned about natural hazards on their property and those considering new development and construction.



### ABCA installs new safety booms at Parkhill, Morrison dams

Field staff, from Ausable Bayfield Conservation Authority (ABCA), installed two new safety booms at Parkhill Dam in 2020. The booms were installed as measures to improve public safety at the dam. The new booms have been installed to prevent people using the reservoir from getting close to the dam structures. ABCA field staff also installed a new safety boom at Morrison Dam east of Exeter.

## January flooding event required Parkhill Dam operation

By Davin Heinbuck, Water Resources Coordinator

The winter of 2019-2020 was a relatively calm winter with below-seasonal snowfall and warmer than normal temperatures.



The only appreciable snowpack came in February, most of which could be attributed to a winter storm at the end of that month. Fortunately, this snowpack disappeared without incident thanks to a steady warm-up in early March, and no rainfall. As rivers remained free of solid ice, there was no risk of ice jams in any of the major watercourses.

The highest streamflow event of 2020 occurred in early January and was primarily a rainfall event. Up to 70 millimetres (mm) of rain was observed. Runoff from rain combined with a snow water equivalent of 10-15 mm to produce the highest observed streamflow since February of 2018 and February 2009 previous to that.

Several road closures were reported along the Ausable River and Parkhill Creek due to riverine flooding.

### Flood Forecasting and Warning

The event also required the operation of the Parkhill Dam.

With near-record high water levels in Lake Huron, strong and sustained onshore winds resulted in shoreline flooding several times through 2020. The areas most impacted by lake-effect flooding were Grand Bend and Port Franks. In addition to flooding, high water and wave action has been responsible for considerable amounts of shoreline erosion along both dynamic beaches and bluffs. The erosion has resulted in significant losses to property and structures. One of the challenges with bluff failures is there is often a delay between the events leading up to a failure, and the time of the failure.

For riverine flooding, Ausable Bayfield Conservation Authority (ABCA) issued six Flood Outlook/Water Safety messages; one Flood Watch; and one Flood Warning. In relation to the Lake Huron shoreline, ABCA issued seven Shoreline Condition Statements; one Watch; and one Warning.



### **Municipalities present at meeting**

Presenting on local flood response, at the Flood Emergency Planning Meeting, were, left to right: Jonathon Graham, Chief Administrative Officer and Director of Operations with the Municipality of North Middlesex; Davin Heinbuck, ABCA Water Resources Coordinator; Tommy Kokas, ABCA Water Resources Engineer; Steve McAuley, Director of Community Services, Municipality of Lambton Shores; and Chris Martin, Lambton Shores CEMC.

## **Municipalities, ABCA work together during flood events**

By Davin Heinbuck, Water Resources Coordinator

**T**he 2020 annual Flood Emergency Planning Meeting was held at the Masonic Hall in Exeter on February 11, 2020.

The 32 attendees included representatives from eight watershed municipalities; and staff and/or Community Emergency Management Coordinators (CEMCs) from all four watershed counties and one adjacent conservation authority. The two keynote presentations highlighted two of the more substantial flooding events of 2019.

Jonathon Graham, Chief Administrative Officer at North Middlesex, joined Tommy Kokas, Ausable Bayfield Conservation Authority (ABCA) Water Resources Engineer, to discuss the May 25, 2019 extreme rainfall event in the Parkhill area. Tommy discussed the weather, resulting floods, and the important role the Cameron-Gillies Diversion Channel played in flood reduction through the town of Parkhill. Jonathan presented on the impacts in the municipality and highlighted the partnership success and communications with ABCA during this event, and also having a plan in place.

In the second presentation, Lambton Shores staff Chris Martin (CEMC), and Steve McAuley, Director of Community Services, partnered with Davin Heinbuck,

### **Flood Emergency Planning**

ABCA Water Resources Coordinator, to discuss two 2019 lake-effect flood events.

Davin introduced the weather forecasts, and preceding lake levels that led to the events of the October 17 and November 1 flooding in Mud Creek at Port Franks. Rivermouth areas of Parkhill Creek in Grand Bend and the Ausable River at Port Franks were also impacted in these events. Lambton Shores staff discussed challenges the municipality has faced with high lake levels, including management of the mouth of Mud Creek. As that area is privately owned, the property owners have been issued a standing permit from ABCA and Ontario Ministry of Natural Resources and Forestry (MNRF) to dig out the outlet on an emergency basis. Other challenges have been managing crowds as beaches have become smaller under high lake levels.

ABCA reported on conservation authority roles and responsibilities in flood emergencies, high lake levels, watershed conditions and flood outlook.

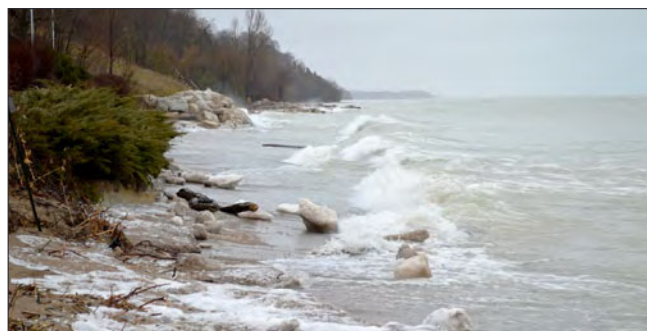
The meeting continues to provide a forum for discussion and planning to make all agencies better prepared to deal with flooding emergencies.

# SMART table helps define shoreline risk

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

**H**igh lake levels in 2020 contributed to shoreline erosion by allowing waves to access and erode the toe of the slope/dune. Part of the Ausable Bayfield Conservation Authority (ABCA) mandate is to provide messages to municipalities regarding the nature of hazardous situations. With high lake levels, these hazards include shoreline instability in addition to traditional flooding hazards..

To precisely define the extent of the shoreline hazard, and hence the message, ABCA staff developed the SMART table (Shoreline Matrix to Assess Risk Table). This table uses lake levels and forecasted wave heights to assess the forecasted risk which determines the appropriate message communicated to lakeshore municipalities.



**Waves hit shore**

This photo shows waves moving towards shore in Bayfield on January 11, 2020.

This message may reflect either lake level inundation flooding risk and/or shoreline erosion risk.

This SMART table was shared with other conservation authorities in the South West Ontario Flood Forecasting Association (SWOFFA) area, to assist with the delivery of their messages also.

## Fourteen stations monitor precipitation, temperature

By Davin Heinbuck, Water Resources Coordinator

**A**usable Bayfield Conservation Authority, in cooperation with Ontario Ministry of Natural Resources and Forestry and Environment and Climate Change Canada, maintains and operates a data collection network in the ABCA 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.

### Water Level and Streamflow Monitoring

- Most stations monitor a combination of precipitation, temperatures and other meteorological sensors.
- One dedicated climate monitoring station (in cooperation with MECP)

Approximately 20 volunteer rain gauge readers provide information through a web-based data entry system.

The monitoring programs provide information for Ontario Low Water Response (OLWR); Flood Forecasting and Warning; and other conservation authority programs.

Monitoring of precipitation and water quantity in the watershed 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.

# Network provides data on groundwater levels, water quality

By Davin Heinbuck, Water Resources Coordinator

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

Ausable Bayfield Conservation Authority (ABCA) currently has 16 wells throughout the watershed: five bedrock wells, and 11 overburden wells. Hourly groundwater level data has been logged for nearly 19 years at most well sites. Groundwater data is downloaded on site by staff or Geostationary Operational Environmental Satellite (GOES) 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. Based on the program's relatively short period of record it is challenging to get an accurate handle on long-term trends.

Water quality sampling is another critical component of the PGMN and ABCA has groundwater quality data available for each well from 2003 to 2020. To match the 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 public health when

## Groundwater Resources and the Provincial Groundwater Monitoring Network (PGMN)



Monitoring at Trick's Creek Shallow Well.

a 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 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 of the PGMN data collected have been reviewed by ABCA staff and corrected as necessary. Water quality and quantity data have been uploaded to the Ontario Ministry of the Environment, Conservation and Parks public website. Through an interactive map, water level and quality information is available free to the public at:

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

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

# Water levels low though most of summer in 2020

By Davin Heinbuck, Water Resources Coordinator

In 2020, Ausable Bayfield Conservation Authority (ABCA) continued to be involved in the Ontario Low Water Response (OLWR) Program which was created after extreme dry conditions were experienced in parts of Ontario in 1999.

The local ABCA Low Water Response Team (WRT) 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 Ontario Federation of Anglers and Hunters.

ABCA staff communicated monthly with the WRT and provided watershed condition reports and recommendations.

Dry conditions, in the summer of 2020, resulted in Low Water Advisories across our watershed. A Level 1 Low Water Advisory was issued for the Ausable River in July, and a Level 1 advisory was issued for Ausable River and Parkhill Creek watersheds in early August. A return of wet weather in August allowed for all advisories to be lifted in September.

## Ontario Low Water Response (OLWR)

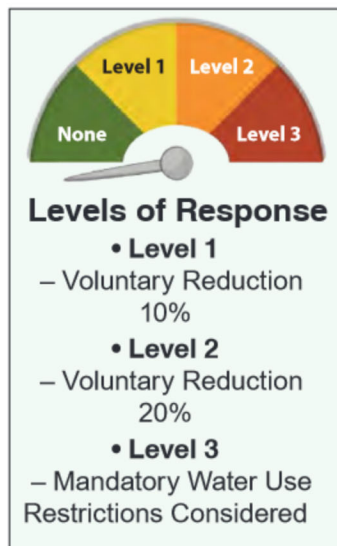
Approximately 20 volunteer rain gauge readers continue to provide valuable information on the extent and amount of precipitation received in the watershed.

The OLWR 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 we invited you to visit the water quantity page at [abca.ca](http://abca.ca).



## 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

# Value of annual testing and maintenance

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

**A**usable Bayfield Conservation Authority's flood control structures were not tested in 2020 the way they were in 2019.

Two large floods required the gate operation of Parkhill Dam in 2019 compared to none in 2020.

Actual runoff events test and confirm that the structures are operating as designed and required.

It is important to test the operation of these structures during periods of 'slow/non-event' times to ensure they are mechanically able to operate when they are needed during actual events. New testing procedures for the operation of the ABCA's two dams have been developed and implemented during 2020.

## Structures, Operations, and Maintenance

This will lead to greater confidence the dams will operate successfully, when needed.

Dams are complex structures relying on the performance of non-moving components (earthen embankments) and moving parts (electrically operated gates). All these structures need to be functioning as designed for the dam to work successfully. Ongoing efforts in 2020 include the installation of equipment to monitor the stability of the earthen embankments as well as upgrades to the electrical hardware operating the gates.

# Safety booms were put in place at perfect time

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

**S**afety booms were installed in spring 2020 at the Parkhill Dam and Morrison Dam. They replaced deteriorated log booms.

The purpose of these booms is to act as a barrier to keep boat traffic away from the dangerous parts of the dam.

They do this with a high-visibility, yellow cautionary colour. They sit high out of the water and are equipped

with a central buoy that sits even higher out of the water. The booms are constructed sufficiently heavy enough to allow disabled boats the opportunity to self-rescue. Pandemic (coronavirus/COVID-19) conditions in 2020 resulted in a higher-than-normal use of the reservoirs by the boating public. The new safety booms provided a higher level of safety for these boaters.

# High lake levels cause more than just shoreline erosion

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

**H**igh Lake Huron water levels increased the risk of erosion directly on the lake shoreline in 2020.

Many kilometres of riverine shoreline in the lower sections of the Ausable River are also subject to the effects of high lake levels. Although not affected directly by the action of waves, high lake levels cause higher groundwater tables and saturated soil conditions, which

## Water and Erosion Control

are a leading contributor to unstable and vulnerable riverine shorelines. Current erosion control structures can be affected by saturated soil conditions and need to be monitored closely. Recently failed sections of shoreline need to be identified and monitored to determine if remedial measures are required.



### New source protection videos

Source protection committee industry representative Rowland Howe, above, discusses water protection in Goderich. Alyssa Keller, public rep, at right, hosted a Seaforth well and water tower tour. For the videos, visit [sourcewater.on.ca](http://sourcewater.on.ca) or [youtube.com/user/TheAusable](https://youtube.com/user/TheAusable)



## Remembering – 20 years since tragedy in Walkerton

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

It has been 20 years since the 2000 water contamination tragedy in Walkerton which resulted in the death of seven people and which left thousands ill. In response, an independent Commission looked to the safety of Walkerton's water and all municipal water supplies in Ontario. We have learned and accomplished much since then.

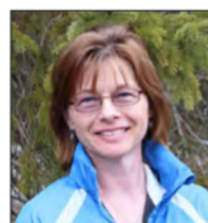
Source water protection was a major recommendation of the Justice O'Connor inquiry. Source protection plans include policies to ensure raw water stays clean and abundant.

An article in the June-July 2020 issue of *Environmental Science & Engineering Magazine* showed how Ontario has protected drinking water sources over 20 years since the Walkerton tragedy.

### Third Progress Report

The annual report documented source protection plan implementation:

|                                                                   |     |
|-------------------------------------------------------------------|-----|
| Policy Implementation                                             | 94% |
| Official Plan and Zoning Bylaw Amendments incl. Source Protection | 62% |
| Vulnerable Area Septic Inspections                                | 99% |
| Risk Management Plans                                             | 99  |
| Drinking Water Protection Signs                                   | 88  |



Donna Clarkson



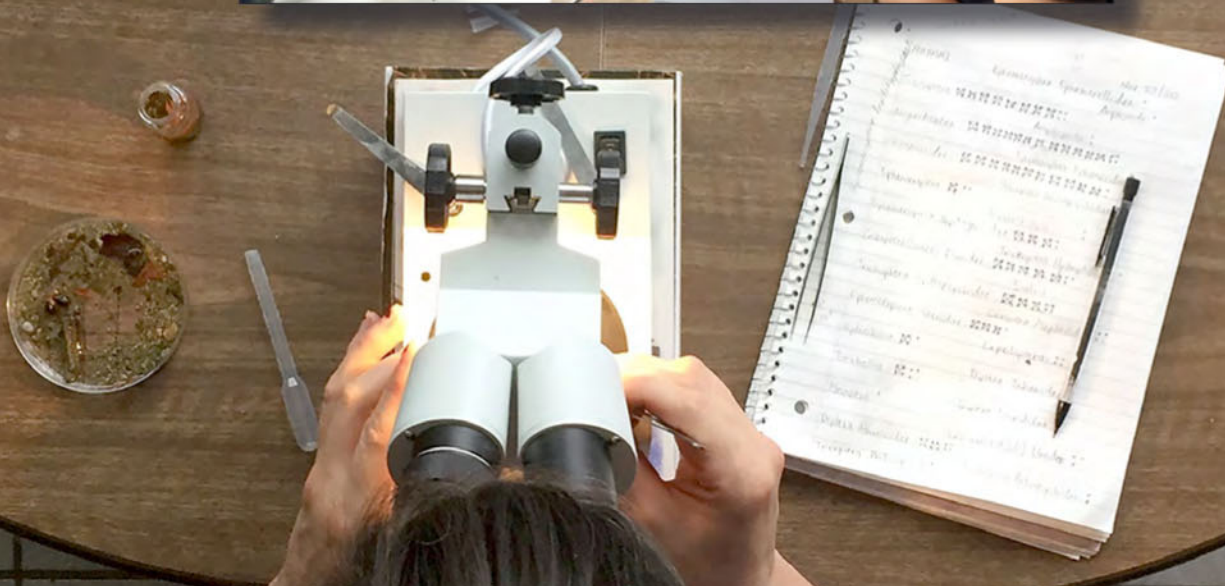
Mary Lynn MacDonald

Ausable Bayfield Conservation staff were among the article's co-authors.

Locally, our source protection committee has identified risks to local water quality and supply and has created plans to reduce or manage these risks.

### New Committee Members (2020):

- Alyssa Keller, water operator, Jacobs Engineering, Seaforth well – public-at-large representative, replacing Gerry Rupke.
- Rowland Howe, President, Goderich Port Management Corporation – industry rep, replacing Bruce Godkin.
- Paul Heffer, North Huron councillor – Central Group municipal rep, replacing David Blaney.



## Studying Benthics

New Healthy Watersheds Technician Talulla Ash samples benthic invertebrates for program evaluation in 2020. Study of these small animals is one way to find out about the quality of water in the watershed.

# Stewardship clusters new way to engage more partners

By Mari Veliz, Healthy Watersheds Manager

Addressing issues such as flooding, lake levels, water quality concerns, species at risk, etc. requires monitoring and community watershed awareness and action.

Healthy Watersheds staff at Ausable Bayfield Conservation worked with even more partners in 2020. Through funding from the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Healthy Watersheds team has used 'stewardship clusters' to engage agricultural industry and rural communities in conservation practices.

**Table 1: 2020 ABCA Water Quality and Bio-monitoring Stations**

| Type of station                        | Number |
|----------------------------------------|--------|
| Dry weather – water quality            | 36     |
| Wet weather – water quality            | 14     |
| Best Management Practices Verification | 10     |
| Citizen Science                        | 6      |
| Fish                                   | 23     |
| Reptiles (turtles)                     | 5      |
| Benthic macroinvertebrates             | 20     |

*The number of stations reflects funding commitments from year to year.*

## Stewardship Clusters for Healthy Lake Huron

The idea of a stewardship cluster is that people may adopt practices to improve water quality and soil health if they get support from peers and multiple trusted sources. The project



has improved communication, marketing and raised interest in best management practices through the #HealthyLakeHuron #LandtoLake #PieceofthePuzzle social media and public information campaign. The project also increased the capacity for others, such as the drainage industry, certified crop advisors, municipal officials and local vineyards and breweries to support watershed actions.

**Table 2: 2020 Community Outreach by ABCA Healthy Watersheds Team**

| Community Outreach | Number |
|--------------------|--------|
| Community Groups   | 14     |
| Community Events   | 19     |

## Learning at Huronview Demo Farm

Huron County Soil and Crop Improvement Association (HSCIA) is working with the County of Huron and industry and community partners, including Ausable Bayfield Conservation, on a study project at Huronview Demonstration Farm. Read more at [huronview.net](http://huronview.net) and on the next page.





## Water Monitoring

Elizabeth Balfour, GIS Technician, and Shevaun Verhoog, Aquatic Resource Technician, process water samples in photos above.

## Real-time weather station part of work at demo farm

By Shevaun Verhoog, Aquatic Resource Technician and Mari Veliz, Healthy Watersheds Manager

In 2020, Ausable Bayfield Conservation Authority (ABCA) continued to work with the Huron County Soil and Crop Improvement Association (HSCIA) at the Huronview Demonstration Farm.

Sampling of 12 rain events and baseflow has continued throughout 2020. Two interpretative signs were installed at the demo farm along with a real-time weather station. This station allows the public to access weather information including soil moisture, precipitation, humidity, and temperature at Huronview on the new website ([huronview.net](http://huronview.net)). Along with this information, the website also includes several videos explaining

### Huronview Demonstration Farm

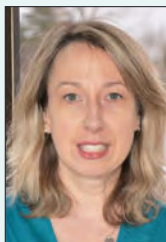
various best management practices and water quality monitoring approaches. A virtual self-guided tour of the Huronview Demonstration Farm is being finalized by the HSCIA Board of Directors and will be made available on the website. Throughout the year ABCA staff and local farmers presented updates and water quality monitoring demonstrations to 45 local and more regional organizations. The Huronview Demonstration Farm was also featured in a CTV News segment for their 'Fields to Forks' program, which highlights agriculture and farming industries in southwestern Ontario.

### Healthy Watersheds

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 Verhoog**  
Aquatic Resource Technician



**Rosalind Chang**  
Healthy Watersheds Technician



**Tallula Ash**  
Healthy Watersheds Technician

# Increase in cover crops planted in Bayfield watershed

By Hope Brock, Healthy Watersheds Technician

**M**ain Bayfield watershed farmers planted 747 acres of cover crops in 2020 thanks to funds from the Fred A. and Barbara M. Erb Family Foundation.

Since not all landowners apply for grants, this number is likely lower than the actual number of acres planted. This number (747 acres) is up from 206 acres in 2019, and 115 acres in 2018. Cover crops benefit both soil health and water

## Main Bayfield Watershed

quality by reducing the loss of nutrients and topsoil, reducing erosion, and helping to build organic matter in soil. To further knowledge about cover crops, Ausable Bayfield Conservation Authority (ABCA) collaborated with a participating local farmer to investigate the effect of different cover cropping strategies within a 60-inch twin-row corn scenario.

## Best management practices improve water quality north of Bayfield

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

**G**ully Creek is a small tributary north of Bayfield that flows west to Lake Huron. The creek provides habitat for Redside Dace, a species-at-risk fish. Erosion and resulting sediment and deposition reduce Redside Dace habitat.

We thank landowners in the Gully Creek watershed who have implemented more than 100 best management practices (BMPs) since 2008.

Monitoring and modelling has shown water quality in Gully Creek is improving, which indicates BMPs are working. There does not, however, seem to be improvement in habitat conditions. This is a complex issue. We do not yet understand all the factors involved.

Some theories say weather is changing and we are seeing more frequent and

## Bayfield North Watersheds

intense weather leading to more runoff events. Also, the landscape is changing. When we develop the land (either for urban or agricultural use), we decrease its natural abilities to soak up stormwater. Ongoing research funded by ONFARM, an Ontario Soil and Crop Improvement Association initiative, will help to explain inconsistencies in stream flashiness and Redside Dace habitat and population density. ABCA also collaborated with a participating farmer to investigate water quality differences between a lush, unharvested cover crop and a cover crop that was harvested and removed. Automatic water quality sampling equipment was installed to monitor differences in runoff water quality.

## Port Franks and Municipality of Lambton Shores help to protect turtles

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

**T**he turtle monitoring program, and the great work of all the volunteers, helps Ausable Bayfield Conservation Authority biologists to better understand the turtles and the habitats they use.

In 2020, there were 95 reptile sightings in the Grand Bend-Port Franks area. Some volunteers noted fewer turtle mortalities, which may have been

## Community-Based Turtle Monitoring

a function of less traffic as a result of coronavirus (COVID-19) restrictions.

Funding is gratefully acknowledged from Ausable Bayfield Conservation Foundation.

ABCA provided nest protection cages to three homeowners who observed turtles laying eggs on their property.



### Streambank Restoration

Ontario Streams, Southcott Pines Park Association, and ABCA staff work on phase-one streambank restoration work on the Old Ausable Channel in the Grand Bend area.

## Community partners make channel improvements in Southcott Pines

By Rosalind Chang, Healthy Watersheds Technician and Kari Jean, Aquatic Biologist

In 2020, community members along the Old Ausable Channel (OAC) worked together to remove invasive species (notably *Phragmites* and *Eurasian Watermilfoil*), educate their neighbours on the importance of natural buffer zones and implement different methods of increasing oxygen supply in the water.

The Southcott Pines neighbourhood's environmental group; Ontario Streams; and Ausable Bayfield Conservation Authority (ABCA) restored 30 metres (100 feet) of the channel which provides critical habitat to numerous species-at-risk fishes and turtles. Following the principles of natural channel design, the steep eroded bank was reinforced at the bottom with Ash logs, anchored in place and the bank was cut to a gentle slope, reinforced with burlap and seeded. The logs were covered in cedar boughs to provide habitat and shade for aquatic life, as well as friction to slow any runoff from the adjacent lands.

All materials were sourced locally and all trees were donated to ABCA for the work. The bank will be planted with native shrubs to further reduce erosion and act as a buffer to reduce the effects of runoff.

A long-term monitoring program looking at dissolved oxygen concentrations in the OAC continued in 2020. Monitoring the habitat conditions for species-at-risk fishes is necessary to make informed management decisions for the OAC. Dissolved oxygen concentrations can be an important factor for the health of the fish community. Habitat monitoring was conducted at five locations with use of data loggers to better understand dissolved oxygen concentrations throughout the OAC in different seasons. In all locations, dissolved oxygen concentrations were found to be low for extended time periods during winter when ice cover was present, and also during summer when water temperatures are higher.

# Monitoring, stewardship, education help to protect Ausable River

By Kari Jean, Aquatic Biologist

**T**he Ausable River watershed continues to be of national significance and a priority for Fisheries and Oceans Canada. The Ausable River watershed is home to 26 freshwater mussel species and 85 fish species including some that are considered to be rare Species at Risk (SAR).

Fish and mussels are important contributors to good river health and are sensitive to sediment and nutrients. Their presence can be an indicator of habitat conditions.

In 2020, with support from the federal government's Canada Nature Fund (CNF), five long-term fish index monitoring stations were established and surveyed as part of a larger biomonitoring program. In total, 33 species of fish species were found including two varieties of SAR. Sampling at the same

## Ausable River Recovery – Monitoring and Community Outreach

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 river. Ausable Bayfield Conservation Authority (ABCA) 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 2020, education and outreach events were conducted virtually via short videos and social media 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.

## More than 3,000 plants planted by ABCA at 11 local wetland sites

By Angela Van Niekerk, Wetlands Specialist

**I**n 2020, Ausable Bayfield Conservation staff restored 11 wetlands (or 4.5 acres of wetlands), by excavation, and planted 3,070 plants at 11 other sites. As a result, they restored or enhanced 22 sites in total.

Landowners enjoy the aesthetics of the water features and watching the new wildlife that moves into their new habitat (e.g., minnows; dragonflies; frogs; turtles; birds, including birds of prey; waterfowl; muskrats and more).

"I think you will be quite impressed with the amount of plant life that has come up from the March seeding," said Denise Johnson, a landowner who restored a wetland in 2019 and Tallgrass Prairie in 2020. "I spotted a Sandpiper at the pond – that is the first wader that we have noticed."

### Wetlands



We can't wait to see what this wetland looks like once plants start growing in.

Right behind it is a Heron Rookery.

We thank all the landowners who appreciate and protect natural areas of their properties.

The wetland restoration program would not be successful without the landowner participation and funders support.

We thank all our 2020 funders.



ABCA Field Services Staff Tony Drinkwalter replaces boards at Bannockburn Conservation Area.

## ABCA conservation areas closed for pandemic for first time, reopened with safety measures, increased use

By Kate Monk, Stewardship, Land and Education Manager

**C**onservation areas in Ausable Bayfield watersheds saw a dramatic increase in use during the coronavirus (COVID-19) pandemic. With businesses, schools, museums, and indoor recreation facilities closed, people visited conservation areas for physical and mental well-being.

The most significant increase in visitorship was at Rock Glen Conservation Area with record attendance and revenue. In July, two full-time assistants were hired (Jonathan Levitt and Vanessa Rapagna) compared to a single 12-hour-per-week contract for an assistant in past years.

We welcomed Tallula Ash to our department through the Canada Summer Jobs program to help with conservation area and stewardship projects.

For the first time in the history of Ausable Bayfield Conservation Authority (ABCA), properties were closed to the public as part of the provincial response to the pandemic. From March 31 to May 22, entrances to conservation areas were gated or fenced. This action was consistent with municipal and provincial measures at parks and outdoor recreation facilities. Once reopened, properties operated with extra procedures for sanitation and staff safety.

Arkona Lions Museum and Information Centre remained closed throughout the year. The Lions took the opportunity to acquire new display cases, add more items to the collection and make the displays more accessible.

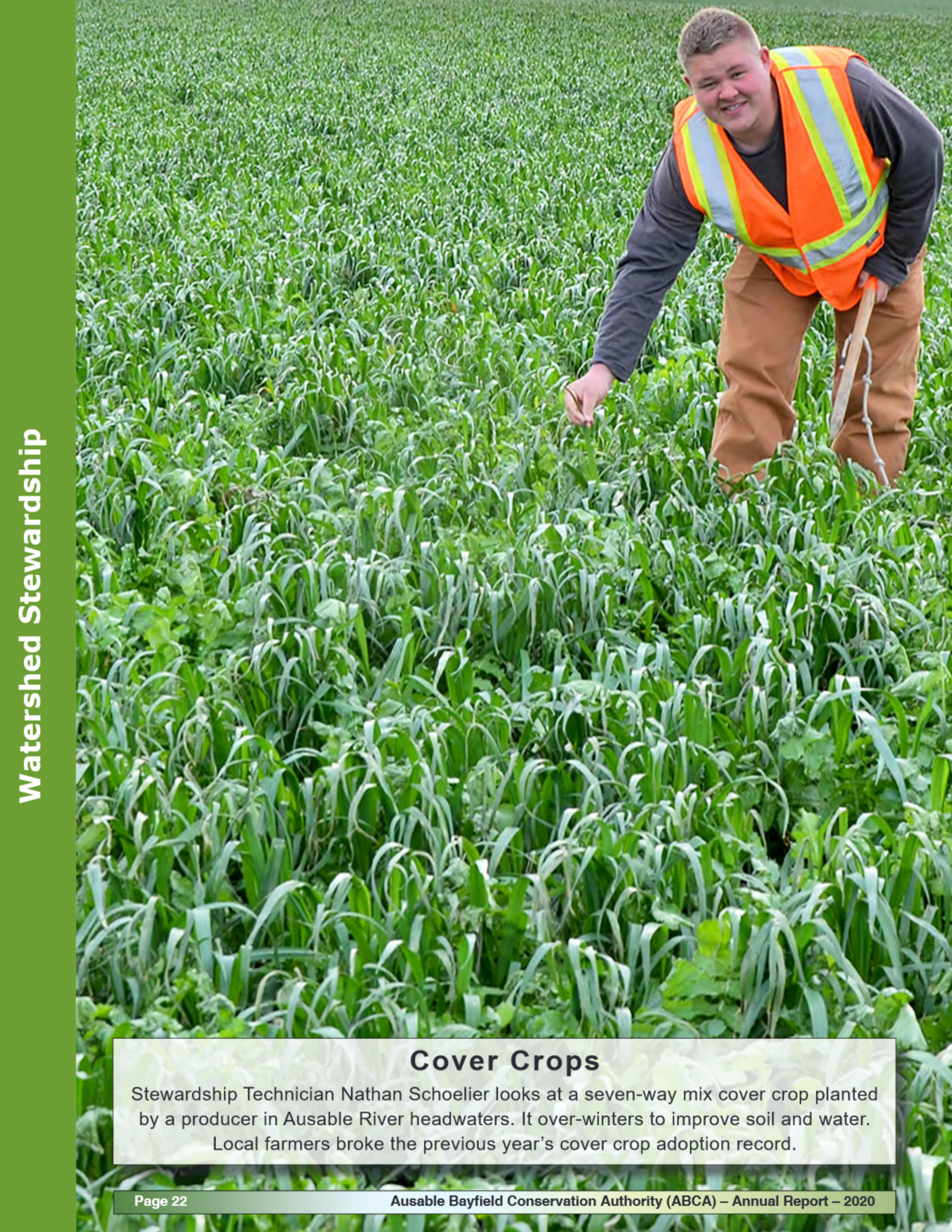
### Conservation Land Management

Several conservation area development projects happened with funding from the project levy, conservation area revenue, partners and donations:

- Rock Glen Conservation Area: Gatehouse renovation with new siding, windows, door, interior paint.
- MacNaughton-Morrison Section of South Huron Trail: Stirling Bridge deck.
- Bannockburn Conservation Area: Bridge deck and north boardwalk deck.
- Ausable River Cut Conservation Area: Granular surface trail to complete an accessible loop.

On December 15, ABCA acquired the Regier Tract from Frank Regier Farms Ltd. The 100-acre forest is adjacent to Adams-Klopp Tract at Concession 8, West Part Lots 23 and 23, Hay East Ward of Municipality of Bluewater. The area is near the north end of the provincially-significant Hay Swamp Wetland Complex and is part of the wellhead protection area for the Zurich municipal wells. The property is an important environmental asset and will be open for public use for nature appreciation.

We thank the community and municipalities for their ongoing support of conservation areas. From donations to trail building and maintenance, everyone helps ensure ABCA properties maintain environmental functions and are available for all to enjoy.

A man wearing an orange safety vest and brown pants is standing in a field of dense, green cover crops. He is leaning forward, looking at the plants. The field is filled with a mix of different green plants, some with long, narrow leaves and others with broader leaves. The background is a vast expanse of the same cover crops, stretching to the horizon.

## Cover Crops

Stewardship Technician Nathan Schoelier looks at a seven-way mix cover crop planted by a producer in Ausable River headwaters. It over-winters to improve soil and water. Local farmers broke the previous year's cover crop adoption record.



## Planting Trees

Landowners in Ausable Bayfield watersheds plant tens of thousands of trees each year with the help of Ausable Bayfield Conservation tree planting crews. Above, Steve Holmes was one of the tree planting crew helping to improve forest conditions.

## Landowners plant 39,000 trees with grant, staff support

By Ian Jean, Forestry and Land Stewardship Specialist

**L**ocal residents, in Ausable Bayfield watersheds, continue to protect watershed health by planting trees.

Through spring and fall planting, more than 39,000 trees were planted to establish windbreaks, watercourse buffers or reforestation projects. This involved the participation of more than 210 individuals and farms or other businesses who used the Ausable Bayfield Conservation Authority (ABCA) tree planting program.

These efforts help to protect and improve forest cover, biodiversity, and overall watershed health.

Tree program staff also helped facilitate several municipal, community and schoolyard tree planting initiatives. These included the Municipality of Bluewater Roadside Tree Planting Program; Lambton Shores tree planting; Lucan Biddulph Roadside Tree Replacement Program; and the South Huron Tree Replacement Program.

School tree planting projects at Sacred Heart Catholic School in Parkhill and Bluewater Coast Elementary in Hensall were completed in the autumn, with Ausable Bayfield Conservation conservation education staff delivering related environmental education programming to participating students.

### Tree Planting Program

Phase One of the new Commemorative Woods was completed at Klondyke Sports Park south of Grand Bend. This project is a partnership between the Lakeshore Eco-Network; Rotary Club of Grand Bend; Municipality of Lambton Shores; and Ausable Bayfield Conservation Foundation (ABCF). An entrance kiosk was constructed and more than 100 trees were planted in groves with sponsorship funding raised during the Rotary Autumn Indulgence fundraiser event. This new Commemorative Woods, administered by ABCF, will provide the Grand Bend and Area community with an area for tree sponsorship and reflection.

Pursuing cost-share funding to support landowners who wish to undertake beneficial tree planting projects is an important role for staff.

Habitat Stewardship Program (HSP) for Species at Risk; Canada Nature Fund; Forests Ontario; Huron County Clean Water Project; the Fred A. and Barbara M. Erb Family Foundation; and Ontario Soil and Crop Improvement Association (OSCIA) programs provided financial support for tree planting.

# Conservation lands provide local ecological benefits

By Ian Jean, Forestry and Land Stewardship Specialist

With more than 8,000 acres of forested land, Ausable Bayfield Conservation Authority (ABCA) is the largest forest owner in the watershed. With a watershed average of 14 per cent forest cover, this represents more than nine per cent of the watershed forest resource that is managed, in conservation, by ABCA.

Slightly more than 3,000 acres are eligible and enrolled in the provincial Conservation Land Tax Incentive Program (CLTIP). The conservation authority manages provincial designated Conservation Lands to protect significant features, which are exempt from property tax. Management activities include invasive species removal, species monitoring, and research. Monitoring and management of *Phragmites* and Dog Strangling Vine, two species identified in the provincial *Invasive Species Act*, is ongoing. In 2019 herbicide treatment of *Phragmites* was completed on ABCA properties in Hay Swamp; at Parkhill Conservation Area; and Kime Tract. Dog Strangling Vine was treated at Devil's Elbow and Cameron Tract in Hay Swamp. A large patch of Giant Hogweed, found at Parkhill Conservation Area, received treatment and will require follow up in subsequent years.

The remaining 5,000 acres is enrolled in the Managed Forest Tax Incentive Program. The ABCA Forest Management Plan provides the framework for management. The principal objective is to maintain and enhance productive and renewal capacities of the forests as well as the genetic, species, ecological diversity and function of the forest ecosystems.

Active management, including selective timber harvest, occurs on 100-

## Forest Management on ABCA Lands

200 acres annually. Thinning of conifer plantations was a main activity in 2020. Conifer thinning accelerates conversion of planted conifer stands to native deciduous forests. In order to enhance species diversity, wildlife habitat and accelerate the succession to natural forest, planting of native Oak, Maple, and other hardwoods was undertaken on a small scale to augment natural regeneration.

Marked timber is sold through the tender process with revenue from the sale of timber helping to offset the cost of owning forested land. OTS Contracting, of Woodstock, submitted the high bid, in revenue for ABCA, of \$70/cord for Pine and Spruce sawlogs marked at three properties in Hay Swamp. A total of 730 Pine and Spruce cords were harvested, using a mechanical tree harvester, in August and September. Logs were processed at three mills north of Waterloo in to a range of materials from timber-frame, dimensional lumber, boards and planks to supply the Ontario market.

Miller Wood Products, of Exeter, completed an Ash salvage operation at Johnson Management Area in August. A total of 336 trees were marked for cutting, mainly Ash with some Soft Maple and Black Cherry. This is probably the last Ash timber salvage operation for some time, as these Ash trees killed by the first wave of Emerald Ash Borer are now in stages of decay and unsuitable for timber.

Miller Wood Products processes mainly hardwood timber in to boards, for local use and to supply processing facilities that produce a range of products from flooring to furniture stock to trim.

# Stewardship services continue during pandemic

By Kate Monk, Stewardship, Land and Education Manager

The stewardship team at Ausable Bayfield Conservation Authority (ABCA) works with participating landowners and community groups to complete projects that improve and protect water and soil and create habitat for fish and wildlife. We appreciate financial support of funding partners at all levels of government as well as private and community foundations. Together, landowner stewards help them achieve their environmental goals.

Nothing happens without willing landowners. We were especially thankful they welcomed us on their land during the pandemic. Landowners were informed of protocols before site visits. They maintained physical distancing of at least two metres at all times. All tasks were completed outdoors. Staff did not enter residences, outbuildings, vehicles, etc. Travelling to site visits was adjusted to maintain distancing.

Another adjustment included holding the Huron County Clean Water Project Review Committee meetings via Zoom video conferencing.



**Kate Monk**

## Private Land Stewardship Program

More fillable forms were developed and landowners were encouraged to provide digital photos as a way to eliminate some site visits. All this is possible because of GIS capabilities, remote work, and the courageous, dedicated and safety-conscious staff who wanted to move the yardsticks forward despite the pandemic.

## Stewardship Projects and Grants by Municipality

| Municipality      | Projects   | Grants           |
|-------------------|------------|------------------|
| Adelaide-Metcalfe | 2          | \$6,105          |
| Bluewater         | 26         | \$32,157         |
| Central Huron     | 13         | \$10,158         |
| Huron East        | 24         | \$54,878         |
| Lambton Shores    | 1          | \$3,737          |
| Lucan Biddulph    | 3          | \$3,706          |
| Middlesex Centre  | 3          | \$9,993          |
| North Middlesex   | 10         | \$48,552         |
| South Huron       | 17         | \$13,684         |
| South Perth       | 1          | \$4,859          |
| <b>TOTALS</b>     | <b>105</b> | <b>\$187,829</b> |

**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.

## Stewardship, Land and Education

Stewardship, Land and Education staff implement boots-on-the-ground land stewardship in the watershed, conduct monitoring, educate people of all ages, provide nature education and recreation, and more.



**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  
Superintend.



Plant cover helped many properties during a January 11-12, 2020 rainstorm.



## Erosion damage was costly from January 11-12, 2020 rainstorm but plant cover, erosion control measures helped to limit damage

**T**he rainstorm of January 11-12, 2020 hit hard in the local area, causing soil erosion and other costly flood impacts. There were examples of soil lost and soil saved.

Stewardship, Land and Education Manager with Ausable Bayfield Conservation Authority (ABCA), Kate Monk, drove through the municipalities of Bluewater, Central Huron, and Huron East on January 11 to survey some of the soil erosion damage. “Fields without plant cover lost significant amounts of soil on the hillsides and low draws as there was nothing to hold the soil,” she said. The amount of erosion damage to soil was limited where there was more plant cover. “Cover crops, permanent pasture and even crop residue and stubble held onto the soil and this would have saved local farmers thousands of dollars.”

Structural erosion control measures such as berms, inlets and grassed waterways also saved a lot of soil. The berms hold back water and slowly release it into a tile. This reduces the energy and erosive power of the water. Some berms were overtopped but ones with rock chute spillways survived the excess water.

The grassed waterways may not hold

back this amount of water but they do hold onto the soil particles.

“Everyone wants soil to stay in fields to grow crops,” Kate said. If you see erosion in your fields, call ABCA to arrange a site visit to assess damage and develop a solution that works best for your farming operation. Huron County Clean Water Project; Canada’s Habitat Stewardship Program for Species at Risk; and Canada Nature Fund provide cost-share funding for berms, grassed waterways, cover crops, and trees.

We have helped landowners create wetlands that also store and hold back water. Often constructed on non-profitable farmland, they collect water before it leaves the farm, and slowly release it. This benefits downstream landowners. Locally, forests and wetlands also help to naturally control flooding and limit damages. The Hay Swamp, for example, can hold millions of gallons of water.

It is important to manage water running off of land during storm events. “Water can transport the topsoil with nutrients and fertilizers to municipal drains, rivers and eventually the lake,” Kate said. “Besides polluting watercourses, the sediment has a negative impact on aquatic life.”



Students completed schoolyard improvement projects with Watershed Champions Grants.

## Programs educate stewards of tomorrow

By Denise Iszczuk and Nina Sampson, Conservation Educators

**C**onservation education staff from Ausable Bayfield Conservation provide meaningful educational opportunities for youth. This makes it possible for young people to learn

### Conservation Education

about water, soil and living things in many ways at multiple locations in Ausable, Bayfield, and Parkhill watersheds.

#### Ausable Watershed

(Ailsa Craig; Arkona; Centralia; Exeter; Hensall; Huron Park; Lucan; Thedford)

##### Exeter Elementary School

- *Classroom:* Wonderful Wetlands.
- *Schoolyard:* Snowshoeing.

##### Precious Blood Catholic School

- *Classroom:* Wonderful Wetlands.
- *Schoolyard:* Snowshoeing; Natural Curiosity; Growth & Changes in Animals; and School Yards Alive.

##### Bosanquet Central Public School

- Watershed Champions Grant to create awareness of importance of birds of prey in the watershed.

#### Bluewater Coast Public School

- Watershed Champions Grant to reforest a schoolyard area for outdoor, inquiry-based learning.

##### Wilberforce Public School

- *Classroom:* Wonderful Wetlands; and River Safety Quest.
- *Schoolyard:* Water in the Environment; School Yards Alive.

##### Rock Glen Conservation Area

- Three Fantastic Fossils field trips.

##### Morrison Dam Conservation Area

- *New for students:* Pop-Up Outdoor School and ABCA Outdoor School.
- *New for families:* Family Outdoor Experiences; and Oaks & Acorns.

#### Bayfield Watershed

(Bayfield, Brucefield, Clinton, Dublin, Seaforth, Vanastra, Varna)

##### Central Huron Secondary School

- *Schoolyard:* What's in the Water?

##### St. Anne's Catholic Secondary School

- *Classroom:* Careers in Conservation; Get to Know your H2O.
- *Schoolyard:* Backyard Biodiversity; and Climate Change.

#### Huron Centennial Public School

- *Schoolyard:* River Ramble.

##### St James Catholic School

- *Schoolyard:* Water in the Environment; What's in the Water?; Soils in the Environment; School Yards Alive; Ecosystem Exploration.

##### Clinton Conservation Area

- Two What's in the Water? field trips.

##### Bannockburn Conservation Area

- *New:* One Family Outdoor Experience.

## Parkhill Watershed

(Grand Bend; Corbett; and Parkhill)

### Our Lady of Mount Carmel Catholic School

- *Classroom:* Wonderful Wetlands.
- *Schoolyard:* Snowshoeing; and Natural Curiosity.
- Watershed Champions Grant to take action by creating a pollinator garden and installing a rain barrel.

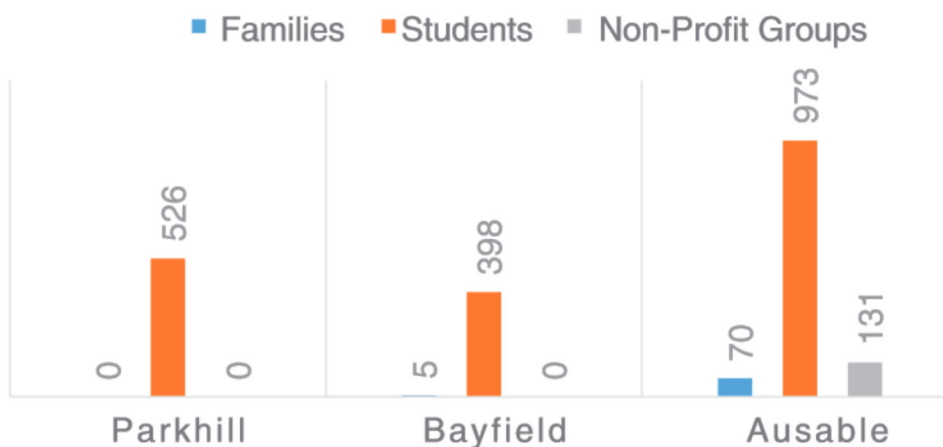
### Sacred Heart Catholic School

- Watershed Champions Grant to take action by planting trees and flowers to create habitat and bring wildlife to their schoolyard.

### Stephen Central Public School

- *Classroom:* Wonderful Wetlands; and River Safety Quest.
- *Schoolyard:* Habitats & Biodiversity; and Species at Risk.

## Participation in Conservation Education Programs by Watershed



Myles Keller holds a red-backed salamander found during a wildlife survey at ABCA Outdoor School.

# Conservation foundation now eligible for ecological gifts by Canadians, Americans

By Dave Frayne, Chairman, Ausable Bayfield Conservation Foundation (ABCF)

**A**usable Bayfield Conservation Foundation (ABCF) was honoured, in 2020, to be approved as a qualified recipient eligible to receive donations of land through Canada's Ecological Gifts Program.

Preserving land permanently is one of the most effective ways to protect water and habitat for all living things.



**American Friends of  
Canadian Conservation**

In addition, a new partnership was created with American Friends of Canadian Conservation, which provides the opportunity for neighbours in the U.S to make tax-deductible gifts that leave a lasting local nature legacy in this distinctive part of Canada.

## Fundraising

The year 2020 was a time to find new ways of fundraising locally during a global challenge. We were disappointed to cancel the Conservation Dinner and golf tournament in 2020 but it was the right thing to do as we helped to protect public health by not hosting large group events during the coronavirus pandemic.



Plans are underway for both a virtual online auction and potential golf tournament in 2021, among other fundraising efforts.

## Morrison Dam Fishing Derby

The annual family Trout Fishing Derby, sponsored by Exeter Lions Club and Ausable Bayfield Conservation Foundation, was cancelled for 2020. There was no stocking of Rainbow Trout in Morrison Reservoir (Morrison Lake). Cancelling the event was the right thing to do during the COVID-19 pandemic as a way to help protect public health by avoiding large public events.

ABCF provided funds to the following eligible projects:

## Conservation Education

2020 had many challenges to conservation education but the Foundation was able to help these programs:

- \$766 towards community programs for non-profit groups
- \$283 towards online Owl Prowl
- \$855 subsidy for students participating in an outdoor education program

*Continued on next page*

## Ausable Bayfield Conservation Foundation Board of Directors



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(Chair)  
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### **Virtual Commemorative Woods Tree Dedication Service**

The Commemorative Woods Tree Dedication Service, on September 20, 2020, in partnership with Haskett Funeral Homes of Exeter, Lucan, Zurich, and Seaforth, was virtual this past year.



### **Stirling Bridge Deck Replacement**

Tallula Ash, of Ausable Bayfield Conservation, works on Stirling Bridge deck replacement project in 2020.

## **Your donations to Foundation make positive difference**

*Continued from previous page*

### **Wetlands and Natural Areas**

- \$1,500 towards species-at-risk turtle monitoring in the Port Franks area.
- \$800 for Ausable River outreach in Ailsa Craig – Ontario Fishing Weekend and Gala Days
- \$1,000 towards monitoring species-at-risk mussels in the Ausable River
- \$1,000 towards Old Ausable Channel habitat monitoring from Grand Bend to Pinery Provincial Park

### **Forestry and Land Stewardship**

- \$2,900 towards the Bannockburn Conservation Area bridges decking replacement project
- \$3,145 for planting trees to enhance biodiversity in ABCA conifer plantations

### **Commemorative Woods**

In the spring of 2020, 10 of 20 planned groves of trees were planted at the newly established Klondyke Commemorative Woods in Grand Bend, Ontario.

These groves were made possible from donations received at the 2019 Grand Bend Rotary Autumn Gala. The remaining groves will be planted in 2021.

Walt Michielsens constructed an arbor, which will be used for donor recognition.

The official opening in June 2020 was postponed but plans are to go ahead in 2021.

### **Morrison Dam Tree Dedication Service**

Due to the pandemic, the Morrison Dam Tree Dedication Service was held virtually on September 20, 2020 in partnership with Haskett Funeral Homes of Exeter, Lucan, Zurich, and Seaforth. Family and friends were invited to watch a recorded video presentation that ended with a photo of each memorial.

### **Stirling Bridge**

Funds raised through the 2019 South Huron Trail Golf Tournament were used to replace the decking on the Stirling Bridge. This section of the South Huron Trail was temporarily closed in the summer of 2020 while staff replaced the decking.

The year 2020 had challenges but I thank all the donors and volunteers who adapted to the reality of life in a pandemic, helping to keep each other safe while using new technology and new ideas to continue support for needed conservation projects in our community.

I wish you all a healthy 2021.



## Planting Trees and Shrubs at Bayfield River Flats

Peter Jeffers, Trails Manager with Bayfield River Valley Trails Association, coordinated tree and shrub planting at Bayfield River Flats Natural Area in May. (Photo by Jack Pal).

## Land trust welcomes new HTLTC board members

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

**H**uron Tract Land Trust Conservancy (HTLTC) welcomes its two newest board members, Alison Lobb (2020) and Kim McCabe (2019). We are pleased to welcome two new board members who bring a wealth of experience.

Our land trust was pleased to be featured in the Spring 2020 edition of *Huron-Perth Boomers* magazine with an article by Ben Forrest called *Preserving the Huron Tract*.

We are pleased, through Ausable Bayfield Conservation Foundation, to be eligible to receive ecological gifts through Canadian Ecological Gifts Program and that U.S. taxpayers can now make tax-deductible gifts to leave a lasting local nature legacy here through American Friends of Canadian Conservation.

A crew from Ausable Bayfield Conservation planted 40 trees and 90

shrubs at the Bayfield River Flats in the spring of 2020, through a grant from the Huron County Clean Water Project.

In 2020, Hydro One collaborated with HTLTC by donating and installing the new nesting platform and box to support local Osprey populations in the area.

Planning is also underway to create an under-bridge access to the River Flats in cooperation with the Ontario Ministry of Transportation (MTO). We appreciate the support of Hydro One, MTO, Bayfield and area volunteers, and donors who are helping to realize the vision for improving the Bayfield River Flats Natural Area.

Trees planted in 2018 and 2019 are beginning to establish at the Woodburne Farm, north of Bayfield, Ontario.

**Huron Tract  
Land Trust  
Conservancy**



### 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  
Bowers**  
Brussels



**Kim  
McCabe**  
London,  
Bayfield



**Alison  
Lobb**  
Clinton



## Leaving lasting local land legacy through land trust

Thanks to generous local landowners and community donors, Huron Tract Land Trust Conservancy (HTLTC) permanently protects important properties such as Mayhew Tract; Bayfield River Flats; Woodburne Farm; and Heaman Tract. In photo above, staff advisor Kate Monk and land trust board member Kim McCabe look at Mayhew Tract, the first property donated to HTLTC. In middle photo, board member Alison Lobb is shown with Kate and Kim at Bayfield River Flats, a Monarch reserve. In bottom photo, blue skies sparkle and trees grow at Woodburne Farm.





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# AUSABLE BAYFIELD CONSERVATION

CREATING AWARENESS | TAKING ACTION

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