

Annual Report 2014

AUSABLE BAYFIELD
CONSERVATION

CREATING AWARENESS | TAKING ACTION



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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



FRONT COVER PHOTO: This cover photo shows runoff from a July 2014 storm event. Ausable Bayfield Conservation and partners of the Healthy Lake Huron: Clean Water, Clean Beaches initiative worked together with technical and consulting teams between 2012 and 2014 to develop a new computer model designed to help stewardship practitioners better manage stormwater runoff in rural areas.

Photo by Daniel Holm
Courtesy Rural Stormwater Management Model
RSWMM Project (ruralstormwater.com)

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Board, municipalities, community, staff work as team

By Mike Tam, Chairman, 2014 Board of Directors, Ausable Bayfield Conservation Authority (ABCA)

The year 2014 was a year of progress.

The year saw the launch of Carbon Footprints to Forests; further implementation of the Main Bayfield Watershed community's watershed plan; completion of the Rural Stormwater Management Model (RSWMM) Project; and the Tenth Anniversary of the MacNaughton-Morrison Section of the South Huron Trail. It was also a year when we looked forward to pending approval of plans to protect municipal drinking water sources and establishment of risk management official services.

It has been an honour to serve as Chair over the past year. The Board of Directors has taken a stand on issues of the day such as supporting the proposed *Invasive Species Act*. The Board took this stand in favour of this law with the knowledge that *Emerald Ash Borer* has destroyed our Ash trees and *Phragmites australis*, or common reed, is invading our shorelines and wetlands to the detriment of our native plants.

The Board has begun its budgeting work to determine which projects are the priorities for the coming year. Our board has had to set priorities to continue our work to build watershed resiliency. At the same time, the Board must continue to manage spending to prevent unsustainable levy increases. I believe we have done a good job meeting these needs.

When evaluating the success of this organization it's clear there is value for money as each levy dollar works like three and a half. When each dollar invested brings in another two and a half dollars, the combined investment makes positive change possible.



Mike Tam

Chair's Message



Educating tomorrow's stewards: Yellow Fish Road; rain barrels; outdoor learning at Camp Sylvan; tree planting.

The investment by funding partners in 2014 has resulted in tens of thousands of trees planted in the watershed, dozens of water-quality projects completed worth hundreds of thousands of dollars, thousands of adults and children educated through conservation education programs, and more.

I look forward to the coming year as we prepare to complete our new *Watershed Management Strategy* to guide conservation efforts for years to come.

I congratulate local municipalities for their commitment to flood plain management, conservation education, environmental monitoring, stewardship, and other programs of this watershed-based organization. I would also like to thank the municipal representatives on the Board of Directors for their hard work that helps make this watershed community a healthier place to live and work.

Ausable Bayfield Conservation Authority (ABCA) Board of Directors – 2014



Mike Tam
(Chair)
West Perth



Burkhard Metzger
Central Huron



Dave Frayne
South Huron and Perth South



Don Shipway
North Middlesex



Janisse Zimmerman
Bluewater



Les Falconer
Huron East



Lorie Scott
Lambton Shores and Warwick



Paul Hodgins
Lucan Biddulph



Ute Stumpf
Adelaide Metcalfe and Middlesex Centre

Building on the past, creating a healthier watershed future

By Brian Horner, General Manager and Secretary-Treasurer

It has been an honour to complete my first year as General Manager and Secretary-Treasurer of Ausable Bayfield Conservation Authority (ABCA). When I took over from Tom Prout, I knew I had big shoes to fill. It is a testament to Tom's legacy that he helped build a strong, effective, resilient organization that continues to move forward with confidence even after his retirement.



Brian Horner

GM's Report

The strength of the people here has made my job easier. I am proud to be part of a team of staff members well-trained and skilled at their jobs. I am even more proud these dedicated employees bring those intangibles as team players committed to working in partnership with the watershed community. I am also privileged to work with a Board of Directors dedicated to sound fiscal management, protecting life and property, and that understands the value for money provided by this local conservation authority.

Ausable Bayfield Conservation has been working since 2013 on a new *Watershed Management Strategy*. It is fitting Tom was part of that process. I am also glad to have had the chance to work with staff over the past months to complete this document in 2015. The new document will help to implement the community's Conservation Strategy. I am confident the new *Watershed Management Strategy* will help provide an effective road map for protecting, improving, conserving, and restoring the watershed in partnership with the community.

I have given well-deserved praise to the Board of Directors and staff. However, directors and staff members realize we can only achieve healthier watersheds with the work of individual landowners, organizations, and the watershed community. I thank you for your support through the municipal levy and for your individual efforts to plant trees, create wetlands, and to keep pathogens and chemicals out of local creeks, rivers, and the lake. I congratulate you all on your successes of the past year and I look forward to working with you to build on those successes in the year and years to come.

Staff members share their work internationally, provincially

Ausable Bayfield Conservation's *Human Resources Planning Framework* encourages personnel to share expertise. Staff members presented at international and provincial conferences in 2014:

Mari Veliz

- 69th Soil and Water Conservation Society International Annual Conference, Illinois
- A. D. Latornell Conservation Symposium

Ross Wilson

- 69th SWCS International Annual Conference

Brynn Upsdell Wright

- International Association for Great Lakes Research Conference at McMaster University

Alec Scott

- A. D. Latornell Conservation Symposium
- Pre-Congress Workshop of the CWRA 2014
- Canada Water Resources Congress.

Ausable Bayfield Conservation Authority (ABCA) New Staff Members - 2014



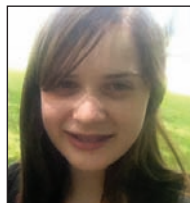
Abby Lagerwerf,
Jr. Conservationist
- Summer
experience funded
by Conservation
Foundation



Austin Spencer,
Assistant Water
Resources
Technician
(Summer Position)



Brock Spencer,
Water Resources
Engineer



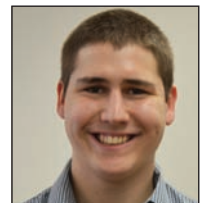
Daylene Wright,
Secondary School
Co-op Student



Greg Urquhart,
Conservation
Lands Assistant
(Summer Position)



Joanna Gilarski,
Conservation
Educator



Joe Vandenberg
- Assistant
Water Resources
Technician
(Summer Position)

Fifty years of conservation education at Camp Sylvan

By Julie Stellingwerff, Denise Iszczuk and Melissa Prout, Conservation Educators

Conservation education builds relationships between those who take part and the natural world and helps develop tomorrow's stewards of soil and water. Here are highlights of Ausable Bayfield Conservation Authority (ABCA) conservation education programs and projects delivered in 2014:

Sylvan Conservation Program

Thousands of people fondly remember sleeping overnight in chuckwagons, looking for aquatic critters in the pond, and playing active educational games in the woods through one of Ontario's longest-running outdoor education programs with an overnight stay. The year 2014 marked 50 years of the program. We celebrated by generating an oral history from some of the earliest participants (1964 and 1965), producing stories for media and public, and hosting a public open house and campfire program.

Programming through the Sylvan Conservation Program has evolved as demographics of the students attending have changed. The Weston Environmental Leaders of Tomorrow Program is in its third year. It focuses on re-connecting urban youth with the natural world, while challenging students to build group teamwork and leadership skills.

Ausable Bayfield Conservation School Group Day Programs	Students	Hours Outdoors
Sylvan Conservation Program	1,044	14,500
Field Trips to Conservation Areas	3,787	7,500
Spring Water Awareness Program	2,787	0

Community Programs by ABCA Conservation Education Staff	Participants	Hours Outdoors
Non-Profit Groups	578	5,000
Summer Nature Day Camp	40	2,400
Bannockburn Fall Hike	105	210
Morrison Dam Owl Prowl	141	141

Special Projects

Ausable Bayfield Conservation delivered special projects with watershed residents, thanks to funding grants. The Ontario Community Environment Fund and Great Lakes Guardian Community Fund projects helped create awareness of maintaining good water quality through tree planting projects,

Conservation Education



Sylvan Conservation Education Program at Camp Sylvan celebrated 50 years in 2014.



Ausable Bayfield Conservation's education team: Kate Monk; Julie Stellingwerff; Denise Iszczuk; Melissa Prout; Joanna Gilarski.

bat presentations, and the Yellow Fish Road Program (YFR). There was also support to deliver presentations for the YFR and World Water Monitoring Day Event from the Main Bayfield Watershed Project.

- 210 trees planted by 90 students and teachers at ABCA's Kime Tract
- 100 trees planted by 168 Clinton-area students and teachers at a Wetland Education Day
- Four presentations delivered by ABCA about the YFR to 159 participants
- Five presentations delivered by ABCA about bats to 122 participants
- One World Water Monitoring Day Event delivered to 20 students from St. Anne's Catholic Secondary School, Clinton
- 126 storm drains painted with a yellow fish and 162 pamphlets put on doors by 85 youth and adults as part of the YFR in North Middlesex
- 122 Bat Boxes built by Summer Nature Day Camp children and students from North Middlesex District High School, McGillivray Central and Grand Bend Public Schools

Partnership with Province makes it possible to monitor groundwater levels, water quality

By Davin Heinbuck, Lands and Water Technologist

A continued partnership between conservation authorities and the Ontario Ministry of the Environment and Climate Change (MOECC) maintains a network of groundwater monitoring wells across the Province of Ontario.



Davin Heinbuck

The Provincial Groundwater Monitoring Network (PGMN) initiative has led to the development of more than 400 monitoring wells since 2001.

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 more than ten years in most of these wells.

Where practical, telemetry has been upgraded to GOES satellite, enabling access to current water level information through web-based software. Digital telemetry of the network is no longer supported and we are in the process of expanding GOES coverage at key sites.

The groundwater level data shows that annual cycles in groundwater levels are consistent and highlight the critical annual recharge periods of autumn and spring. Based on the program's short period of record, no significant trends in water level are apparent across the watershed; however, some individual wells have shown an increase in levels over the period of record, while others have shown a decrease. Most of the ABCA groundwater levels have shown an increase over the past several years.

Water quality sampling is another critical component of the PGMN and Ausable Bayfield

Provincial Groundwater Monitoring Network

Conservation has groundwater quality data available for each well from 2003 to 2014. To match the core requirements province-wide, water quality is analyzed for nutrients, metals, general chemistry, and in addition, bacteria.

Where groundwater quality does not meet the provincial guidelines, landowners and municipalities on whose property the well is located, are notified of these results through Exceedence Reports.

To date, numerous exceedence notices have been issued; however, with few exceptions, most were for Sodium (aesthetic drinking water objective) and Fluoride, which occurs naturally in elevated levels throughout much of Southwestern Ontario.

All of the PGMN data collected into 2014 has been reviewed by ABCA staff and corrected as necessary. Water quality and quantity data has been uploaded to the MOECC's public website. Through an interactive map, water level and quality information is available free to the public at:

www.ontario.ca/ministry-environment

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



New data logging units that support satellite telemetry will be installed at eight sites across the watershed. ABCA and MOECC staff selected the sites in autumn of 2014.

New data management system for water, weather

In 2014, the Ausable Bayfield Conservation Authority joined with a number of other conservation authorities (mainly from Eastern Ontario) in the purchase of data management software called Water Information Management System Kisters (WISKI).

This system allows much greater capacity and

functionality in the collection, storage and analysis of data that supports Flood Forecasting, Low Water Response, Water Quality and a number of other programs.

In future years, the WISKI system will also allow watershed residents and other agencies access to ABCA data sets.

Water Response Team issues no Low Water Advisories in 2014

By Alec Scott, P. Eng., Water and Planning Manager

During 2014, Ausable Bayfield Conservation Authority (ABCA) continued to be involved in the Ontario Low Water Response (OLWR) Program. The program was created after extreme dry conditions were experienced in parts of the Province in 1999.



Alec Scott

The OLWR document is used as a guiding document for how municipal and provincial agencies should react during periods of water shortages and defines levels of response to low water conditions. (Please see accompanying list.)

The Low Water Response Team (WRT) in Ausable Bayfield watersheds is made up of municipal and provincial agency representatives as well as representatives from Ausable Bayfield Conservation; 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; and the Ontario Federation of Anglers and Hunters.

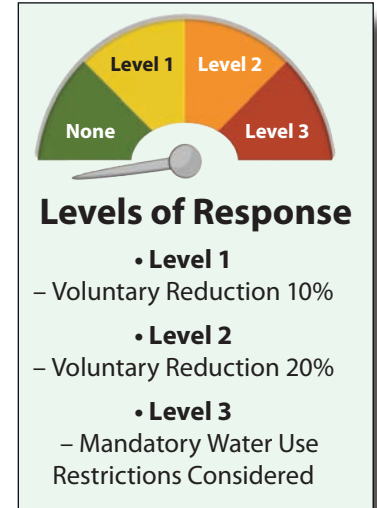
During the year, the WRT held one meeting and

Low Water Response

was provided monthly watershed condition reports. There were no Low Water Advisories issued in 2014.

Approximately 20 volunteer rain gauge readers continue to provide valuable information on the extent and amount of precipitation received in the watershed. This supplements the existing automated rain gauge network operated by the ABCA to support its water quantity programs.

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



Data network helps staff to collect information on water levels

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

This monitoring network also provides information on low-water conditions, groundwater and surface water interactions and the relationship of stream flow to aquatic health.

The data collection network allows staff to monitor watershed conditions including water levels and precipitation on the major channels of the Ausable River, Bayfield River and Parkhill Creek watersheds. Computerized monitoring systems in the field transmit information by telephone directly to the ABCA office east of Exeter.

The ABCA network consists of the following:

Water Level and Stream Flow Monitoring

- Fourteen automated monitoring stations, 12 of which are for water levels.
- Most water level monitoring stations include a combination of precipitation, temperatures and other meteorological sensors.
- One dedicated climate monitoring station (in cooperation with the Ontario Ministry of the Environment and Climate Change or MOECC).
- Approximately 20 volunteer rain gauge readers providing information through a web-based data entry system.
- Sixteen groundwater monitoring stations.

The ongoing monitoring programs continue to provide information for the Ontario Low Water Response and Flood Forecasting and Warning programs and other conservation authority programs.

Flood potential was high after cold, snowy winter

By Davin Heinbuck, Lands and Water Technologist

The winter of 2013-14 came early. With the exception of a snowmelt at the start of January, cold and snowy conditions persisted until late March.

There were no minor snowmelt events during that period and the snowpack water equivalent was three times the normal amount by mid-March. This was the highest level in nearly 30 years.

The potential of significant runoff and associated flooding kept Ausable Bayfield Conservation Authority flood forecasting staff busy. Fortunately, warm temperatures and very little rainfall during the freshet saw much of the snowpack disappear without incident with the exception of ice-jam related issues.

On March 21, 2014, very thick river ice in the Lower Bayfield River began to break up, leading to ice jams upstream of Bayfield. These jams caused significant damage to low-lying areas in Wildwood by the River trailer park. The risk of the ice jam moving downstream, towards properties in Bayfield, caused ABCA to issue a Flood Warning for the Bayfield area.

The ice jam weakened over the following few days and caused no further problems. The following week a Flood Watch was issued for potential ice jam related flooding in Port Franks and, to a lesser extent, Grand Bend. Shortly after the Flood Watch was issued, the river ice began to move and flowed freely into Lake Huron without causing any problems.

No widespread flooding issues were reported in 2014 but some areas, particularly in the northern portions of the watershed, experienced several significant rainfall events throughout the summer.

The most intense rainfall event of 2014 was the result of a series of thunderstorms on July 8, 2014 that intersected over a small rural area to the east of Seaforth. Localized rainfall amounts of up to 150 millimetres (mm) were reported where only a day earlier, 25 mm of rain had already saturated

Flood Forecasting and Warning

the ground. Flooding damaged crops and forced the closure of several roads including a section of Provincial Highway 8.

As a whole, the watershed experienced a wetter and cooler-than-normal year and stream flows were above normal from March right through December.

ABCA issued 11 Flood Outlook/Water Safety messages, three Flood Watches and one Flood Warning.

Continued monitoring of precipitation and water quantity in the watershed will ensure we have early indications of potential flooding or low-water conditions so flood messages can be provided to our watershed municipalities.



Photo above shows 2014 flooding at Seaforth Lions Park by Silver Creek (photo courtesy Municipality of Huron East). Photo below shows some of the flooding damage in low-lying areas of Wildwood by the River trailer park as a result of an ice jam.



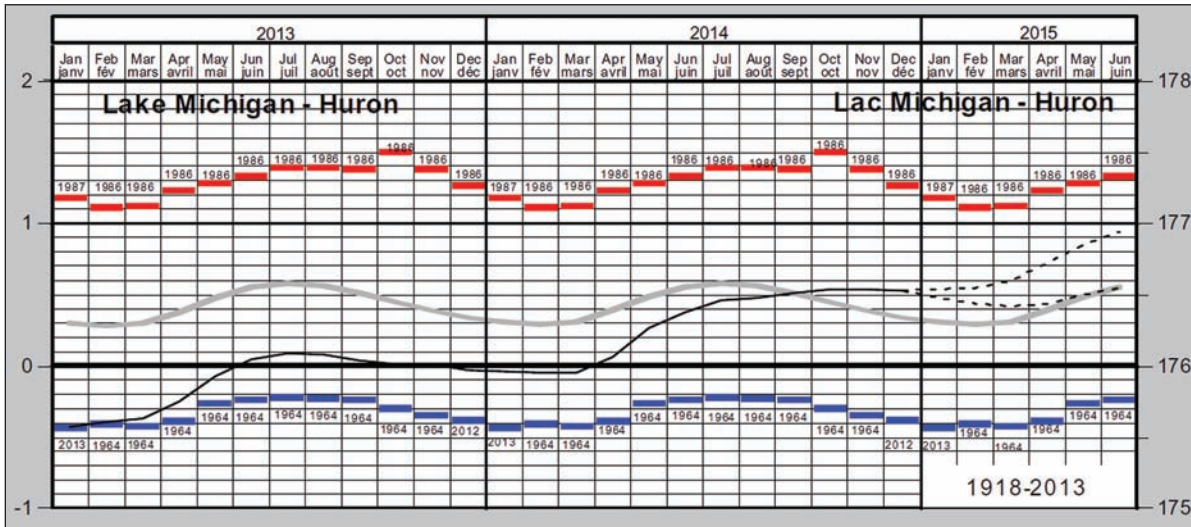
Directing new development away from hazard areas

Through the flood plain management programs, Ausable Bayfield Conservation Authority ABCA continues to direct new development away from hazardous areas.

The ongoing maintenance of existing flood and erosion control structures will ensure continued

protection of existing development within hazard areas.

Continued monitoring of precipitation and water quantity within the watershed will ensure that we have early indications of any potential flooding or low water conditions.



After a steady decline in the water level of Lake Huron, water levels have rebounded. The threat of damage from flooding and erosion increases as lake levels rise and sand dunes are destroyed.

Rebound of lake water levels may lead to erosion

By Alec Scott, P. Eng., Water and Planning Manager

After more than 10 years of below-average water levels, the water levels of Lake Huron have increased dramatically.

In January of 2013, the average monthly level for the lake set a new record monthly low for the period going back to 1918. Less than two years later, the December 2014 monthly average level was almost 1.0 metre higher and was actually 0.2 metres higher than the long-term average level for the month.

With increased water levels, changes are occurring along the shoreline. Sand dunes that had built up at the toe of bluff areas during low lake level periods

Great Lakes Water Levels

are being eroded, increasing the risk that the toe of bluff areas will be eroded by waves during storm events.

With rising lake levels, the threat of damage from flooding and erosion along the Lake Huron shoreline has increased and Ausable Bayfield Conservation Authority (ABCA) staff will be monitoring conditions to be able to provide information to watershed residents about the potential for hazardous conditions along the shoreline.

Presenter's work could impact how flood messages are delivered

The annual Flood Emergency Planning meeting was held at the Masonic Hall in Exeter on March 4, 2014.

The 24 attendees included representatives from six municipalities as well as staff and/or Emergency Management Coordinators from all four counties and the local media.

Jennifer Spinney, a second-year doctoral student at Western University, gave a presentation titled *External Messaging and Public, Municipal and Media Perception – Social Science Perspectives*. She highlighted her research and the impacts of messaging through media. She found that depending on how specific messages are worded, they may be interpreted differently based on geography, demographics, and other social factors. Her experience with the aftermath of the EF5 tornado in Joplin, Missouri has led to pilot projects designed to strengthen the

Flood Emergency Planning

language used in tornado warnings. Her work may help strengthen communication of flood messaging in Ontario.

Ian Siertsema provided an update on the Huron County Community Notification Program (formerly PRISM). Branded as Huron Ready, the new system is owned by Huron County and improves on the former PRISM system. Call notification capacity is near 5,000 calls per hour compared to under 1,000 under PRISM. ABCA is testing the messaging capabilities for Flood Watches and Warnings. The service could be available for ABCA use outside Huron County.

This annual meeting format continues to provide a forum for discussion and planning to better prepare all agencies to deal with flooding emergencies.

Staff make minor repairs on ABCA structures

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

These structures include Parkhill Dam, Morrison Dam, a number of flood control channels, and erosion control structures in various parts of the watershed.

Most of the inspections and actual maintenance

Structures, Operations, and Maintenance

work are carried out by conservation authority staff unless it is determined that it would be more efficient to contract the work out to local companies.

As a result of the inspections, minor repairs were completed on a number of structures by conservation authority staff. Work included vegetation control around structures and general minor repairs to prevent larger maintenance problems in the future.

WECI funding helps to repair service access road, improve walkway lighting and signs at Parkhill Dam

By Alec Scott, P. Eng., Water and Planning Manager

The Ontario Ministry of Natural Resources and Forestry (MNR) has, since 2003, helped to fund some major maintenance work on conservation authority flood and erosion control projects through the Water and Erosion Control Infrastructure (WECI) funding program. Under this program, Ausable Bayfield Conservation Authority (ABCA) can apply for 50 per cent grant funding for major maintenance projects.

Water and Erosion Control

control structure of the dam.

In addition, general signage was improved at specific locations around the reservoir advising that the area is unsupervised.

Parkhill Dam Service Access Road Repair

This project related to a roadway which provides maintenance access to the outlet structure of the dam. The work involved the cleanout of shallow roadside ditches, erosion protection where the ditches outlet to the Parkhill Creek channel and placing and grading additional gravel on the roadway.



A project to repair a roadway providing maintenance access, to the outlet structure at Parkhill Dam, was completed in 2014.

The ongoing inspection and maintenance work on flood and erosion control projects ensures that the structures will continue to protect watershed residents from flooding and erosion hazards into the future.



In 2014, Ausable Bayfield Conservation Authority added new lighting at the Parkhill Dam control structure as well as new signs for the public.

In 2014, two WECI projects involving the Parkhill Dam were completed:

Parkhill Dam Walkway Lighting and Signage

This project involved adding a lamp post to provide lighting on the concrete walkway to the

New model to help better manage rural stormwater

By Alec Scott, P. Eng., Water and Planning Manager

Ausable Bayfield Conservation Authority (ABCA) led the Rural Stormwater Management Model (RSWMM) water-quality project between 2012 and 2014 in partnership with Maitland Valley, St. Clair Region, and Saugeen Valley conservation authorities and other partners of Healthy Lake Huron: Clean Water, Clean Beaches. Partners include federal and provincial ministries, Grey Sauble Conservation Authority, county departments, environmental and public health agencies, and participating landowners.

The model completed in 2014 provides a tool to better manage the impact of runoff from storm events along Lake Huron's southeast shores, stretching from Sarnia to Tobermory. The model provides a way to complete detailed modelling of stormwater impacts in a rural context. The RSWMM is built on PCSWMM, a spatial decision support system for US EPA SWMM5 stormwater, wastewater and watershed modelling software. PCSWMM is developed and maintained by Computational Hydraulics International.

The model can help stewardship practitioners, in partnership with landowners, to know the type, size, and location for projects to best protect water quality. This can help reduce and manage runoff by investing limited stewardship dollars effectively.

Other Water Management Studies

The Rural Stormwater Management Model project received funding from the Ontario Ministry of the Environment and Climate Change's Showcasing Water Innovation Program and contributions from other partners in the Healthy Lake Huron initiative.

Monitoring in the five sentinel watersheds is continuing and the RSWMM is being tested by conservation authority staff and municipal drainage engineers with new funding support.

Outputs

- Three videos produced with landowner interviews.
- Two technical workshops hosted (2013 and 2014).
- In each of the five Healthy Lake Huron sentinel watersheds, there was creation of at least one permanent monitoring station, a hydrologic/hydraulic model, and data sets beginning in the autumn of 2012 which include flow, precipitation, other meteorological data and water quality data.
- Presentations or posters at more than six provincial or international conferences or workshops.
- Creation of a final technical report summarizing work on the model development and results as well as recommendations for future work.

Staff provide comments on 100 Planning Act applications

By Geoffrey Cade, Supervisor of Water and Planning

Lake Huron's water levels rebounded substantially in 2014, fueling concerns about increased shoreline erosion. Although hazardous for development and a significant concern to shoreline landowners, it is important to remember that shoreline erosion is a natural process and is important to coastal processes. It is critical to sustaining beach and dune systems.

Landowners are reminded that new development and site alteration should be directed away from bluff and shoreline areas.

In 2014, staff of ABCA provided formal comments on approximately 100 Planning Act applications and responded to many more inquiries. The ABCA does this as provincial lead on natural hazard matters. Through this program the conservation authority helps direct new development away from naturally hazardous areas and works with proponents to amend

Land Use Planning Input and Review

their proposal to address hazard concerns thereby limiting future risk to life and property.

In addition, the conservation authority provides an advisory service to help inform residents of concerns where a property or development is located in close proximity to a natural hazard feature. This helps these residents to better understand hazard concerns, often prompting further inquiries enabling them to make informed property decisions. In 2014 we responded to more than 75 formal inquiries.

Important projects for 2015 will be the initiation of updates to the ABCA's *Shoreline Management Plan* and the *Policies and Procedures Manual* for the implementation of the planning and regulations programs.

Online tools, more direct contact with DFO for file review

By Andrew Bicknell, P. Eng., Regulations Coordinator

Changes to the *Fisheries Act*, late in 2013, reduced the conservation authority's role in file review on behalf of the Federal Department of Fisheries and Oceans, Canada (DFO). The need to safeguard fish habitat remains, however. With process changes, proponents of work in or around watercourses will need to work and communicate more directly with DFO, using new online tools for initial file review and screening.

Permissions for work along shoreline

Lake Huron water levels rose quickly, in 2014, from a relative low period from 2000 to 2013. The lake level is now above the long-term average. During periods of elevated lake level, the coastal environment reacts and changes, most notably during storms. As property owners note these changing conditions, they are reminded some development activities along the lakeshore are subject to conservation authority regulations and permitting. The installation of shore protection to combat erosion at the toe of the lake bank is one of the activities requiring prior written permission from the conservation authority.

Prevention is the best way to safeguard life and property. This is best achieved through proactive planning and regulations. Development guidelines seek to protect life and property by directing new development away from shoreline hazardous areas.

Ausable Bayfield Conservation Authority's *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation*



Andrew Bicknell

2014:

- 149 applications for permission
- 172 minor work permits
- 61 drain reports reviewed
- 23 drain maintenance reviews (Standard compliance requirements)

Regulations Report

(Ontario Regulation 147/06) regulates new development within hazardous lands, along the shoreline and also areas inland, such as river and stream valleys, flood-susceptible areas, and wetlands.

Application submission process changes

In 2014, conservation authority staff continued to work closely with commercial wind power developers on many project areas in the ABCA watersheds. For wind power projects, staff focus in 2014 transitioned from mainly permit review activities to administration permitting process related activities associated with construction. In dealing with wind power development, the ABCA role is guided by Bill 150. ABCA permits are only required when wind power development activities occur on lands identified by O. Reg. 147/06. Construction activities in 2014 included installation of turbines, access roads and electrical collection and distribution lines. In order to respond to construction change requests, CA staff have tailored the application submission process for improved efficiency. Permitting numbers for 2014 are up considerably in comparison to previous years due to increases in wind generation projects.

Access to quality information key to good decision-making

By Tracey McPherson, GISP, GIS/IT Coordinator

Geographic Information Systems (GIS) and information technology (IT) services at Ausable Bayfield Conservation continued to improve the detail, accuracy and safety of information staff members need to complete their watershed work. Actions taken in 2014:

- Completed 3-D watercourse GIS layer
- Completed mapping and data requests for staff, consultants, and partners
- Created remote access policy and agreements for staff and other partners
- Provided input to Watershed Management Strategy
- Assembled shoreline erosion information

GIS/IT Services Report

- Helped implement the Watershed Information System Kisters (WISKi) system
- Implemented new backup system for digital files
- Completed Targeted Agricultural BMPs GIS Analysis and mapping.



Tracey McPherson

Results:

- Created quality information to support decisions
- Protected privacy of personal information and ABCA information assets
- Collaborated with partners to complete projects

Assessment reports updated; plan approval pending

By Geoffrey Cade, Program Supervisor, Ausable Bayfield Maitland Valley Source Protection Region

It has been a privilege to serve as Program Supervisor for drinking water source protection over the past ten months until the return of Jenna Allain to this position in early 2015.

We are in the midst of an exciting and important phase of the program which will add more protection to municipal drinking water sources in this region.

Staff members in the Ausable Bayfield and Maitland Valley source protection authority offices have been working closely with municipalities to complete Updated Assessment Reports (approved in December of 2014) and prepare for implementation of source protection plans (pending – early 2015).

There are nine municipalities in the region that have groundwater as their source of municipal drinking water. It is those municipalities that have land use activities which could pose an assessed significant threat to drinking water near municipal wells. Staff members look forward to working with municipalities on the implementation of the plans.

Implementation will begin with an education and outreach program implementing the education policies of the plans.

Eight of the nine affected municipalities have



Geoffrey Cade



Ausable Bayfield Maitland Valley Source Protection Region

Drinking Water Source Protection

chosen to enter into an agreement with Ausable Bayfield Conservation Authority for risk management official services. Risk

management officials (RMO) will work closely with property owners or tenants in the negotiation of risk management plans (RMPs) to manage activities and reduce risk to drinking water.

Septic inspections for those properties located in the most vulnerable wellhead protection areas (WHPAs) where septic systems can pose a significant threat to drinking water, will remain the responsibility of local health units or municipalities.

The Province of Ontario provided more than \$1 million to landowners in the region between 2008 and 2014 as incentives towards their projects to protect drinking water sources. The implementation of source protection plans in the Ausable Bayfield and Maitland Valley source protection areas will add to the great strides that have already been made.

Activities

The Ontario Ministry of the Environment and Climate Change (MOECC) approved Updated Assessment Reports for the Ausable Bayfield and Maitland Valley source protection areas in December of 2014.

The Ausable Bayfield Maitland Valley Drinking Water Source Protection Committee (SPC) also completed revisions to the Proposed Source Protection Plans. Provincial approval of plans is expected in 2015.

Ausable Bayfield Conservation Authority (ABCA) and eight municipalities in the region entered into a delegation agreement which will create a risk management office at the ABCA.

The Source Protection Committee and staff will work closely with municipalities to facilitate implementation of source protection plan policies.

Results

The expected outcome of drinking water source protection planning is reduced risk to human health through increased protection for municipal drinking water sources. This has been achieved through efforts including voluntary steps taken by people in the community. For instance, some people have decommissioned abandoned wells that might have created a transport pathway to aquifers that serve as our underground drinking water sources. Some property owners have undertaken other stewardship projects such as septic system upgrades or replacements; well upgrades; improved storage of fuel, home heating oil, and chemicals; and more. Other people have made the decision to stop spreading manure within 100 metres of a municipal well. All of these positive actions protect local drinking water.

Important to collect water quality data after rain events

By Mari Veliz, Healthy Watersheds Supervisor

An important goal of the Ausable Bayfield Conservation Authority (ABCA) is to improve watersheds for healthier communities. Linking individual actions to downstream water quality conditions is accomplished by:



Mari Veliz

- 1) Monitoring water quality, fish and other aquatic animals; and
- 2) Working with community groups to improve local waterways.

The aquatic monitoring program helps to evaluate our collective efforts to improve and protect the environment (*See Table 1*). Some of the monitoring data are summarized every five years for the *Watershed Report Card*. Other research and monitoring programs at the ABCA address important questions about species at risk and the effectiveness of rural best management practices. Watch for water quality and biological results at abca.on.ca.

Past research that we have undertaken has demonstrated the importance of collecting water quality data after rain events. In 2014, we trained some community members on water sampling small creeks after it rains. We are always looking for volunteers, so if you have a passion for monitoring the weather, creeks or local wildlife, contact us.

Table 1: 2014 ABCA Water Quality and Bio-monitoring Stations

Type of station	Number
Dry weather water quality	55
Wet weather water quality	15
Best Management Practices verification	10
Citizen Science	5
Freshwater mussels	1
Fish	8
Reptiles (turtles)	4
Benthic macroinvertebrates	32

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

Watershed Communities Taking Action



Sandy Scotchmer, Kate Lloyd-Rees, and Erica Clark help to collect water quality monitoring samples in the Bayfield area as volunteer citizen scientists.

Community outreach is also important, as we typically see more conservation actions taken when there is financial and technical support for individuals.

Healthy Watershed staff help community conservation groups and stakeholders with their activities (e.g., events and monitoring) (*See Table 2*). In 2014, we also supported the Healthy Lake Huron Initiative with shared monitoring, data analysis, and outreach approaches in five priority watersheds along the southeast shore of Lake Huron. In October 2014, we helped the Lake Huron Georgian Bay Community Action Framework host a Summit for groups working to increase awareness and take action around the basin (lakehuroncommunityaction.ca).

Please keep reading these Healthy Watersheds pages for 2014 highlights of community and monitoring projects.

Table 2: 2014 Community Outreach by ABCA Healthy Watersheds Team

Community Outreach	Number
Community groups	5
Community events	17
Watershed Communities in Action*	6

* Bayfield, North of Bayfield, Ausable, Grand Bend, Port Franks, Little Ausable

More than 1,500 water quality samples analyzed

By Brynn Upsdell Wright, Water Quality Specialist

The Ausable Bayfield Conservation Authority (ABCA) monitored 72 stations for water quality in 2014. More than 1,500 water samples were analyzed. This monitoring was made possible by partnerships fostered with four community groups, one municipality, one health unit, three provincial ministries, and two federal departments.



Brynn Upsdell Wright

Three watersheds – Gully Creek, Main Bayfield, and Little Ausable – were intensively monitored this year under wet weather conditions, contributing to baseline data that will help in detecting future changes in water quality. ABCA also began working on a study for the Ontario Ministry of the Environment and Climate Change (MOECC) to identify ways to optimize wet weather sampling.

Water Quality Monitoring

Benthic macroinvertebrates were collected from 26 stations in October 2014 to complement the water chemistry monitoring. Benthic macroinvertebrates are animals (e.g., aquatic insects, worms) that live on the bottom of watercourses and indicate water quality conditions. These indicators have been monitored since 1998. In 2014, GIS staff created a more searchable database for this information.

The ABCA collected benthic macroinvertebrate samples from an additional six stations in May 2014, contributing to a biocriteria project led by the MOECC. Several conservation authorities are participating in this multi-year project, which will use the data to develop criteria for judging southern Ontario stream health based on benthic macroinvertebrates.

Taking positive ACTion in Bayfield North Watersheds

By Abigail Gutteridge, Healthy Watersheds Technician

Since 2008, the ABCA has been working with the community in the Bayfield North Watersheds to improve water quality and monitor best management practices (BMPs). In 2014, monitoring continued at three berm sites, two tile drain sites, and a cover crop site. Additionally, landowners continued to implement new BMPs within these watersheds including planting cover crops on six fields, one wetland project, and tree planting to stabilize a lake bank.



Abigail Gutteridge

Research conducted in this area has helped document how BMPs can be effective at both the site scale and the watershed scale. These results show that a system of ACTion BMPs, which Avoid, Control, and Trap/Treat erosion and runoff, can have a greater impact on improving water quality.

Agricultural BMPs that help avoid runoff and improve soil structure and infiltration include reducing tillage, managing nutrient inputs, and using cover crops. BMPs that control runoff include berms, grassed waterways, and wetlands. BMPs that

Bayfield North Watersheds

trap and treat runoff are found at the field edge, such as riparian buffers. One of the best ways to reduce runoff is to keep a field in permanent cover (e.g., hay or pasture). As this is not always possible, a combination of BMPs will improve soil health and reduce runoff.



ABCA staff members Tom Skinner and Ross Wilson take field coordinates for soil health analysis.

The project partners (Ontario Ministry of Agriculture, Food and Rural Affairs; Ontario Ministry of the Environment and Climate Change; Environment Canada; the University of Guelph; and Ausable Bayfield Conservation) would like to thank residents of the Bayfield North Watersheds who continue to help with these efforts.

Bayfield communities implement watershed plan

By Hope Brock, Healthy Watersheds Technician

The Main Bayfield watershed community continued to implement recommendations from the Main Bayfield Watershed Plan in 2014 thanks to the Fred A. and Barbara M. Erb Family Foundation, Environment Canada, and the Ontario Ministry of the Environment and Climate Change.



Hope Brock

Plan recommendations help address the challenges of urban and agricultural runoff. To help build awareness, a spring rain barrel blitz saw community groups in Bayfield, Brucefield, and Vanastra, and three schools, sell 320 rain barrels to watershed residents. This equates to more than 70,000 litres of stormwater captured per storm event. An additional 35 watershed residents learned how to capture stormwater by creating rain gardens on their property.

A watershed walk took place within the Wise Drain subwatershed near Clinton during the spring melt.

Main Bayfield Watershed Plan



Improving water quality through rain barrels was an idea of the Main Bayfield Watershed Plan Community Advisory Committee. Brucefield-area citizens (at left) were among those taking part.

Nineteen properties were walked, which allowed us to learn more about how water moves across the landscape and identify possible best management practices.

To help monitor watershed conditions, four citizen scientists were trained to collect water samples at five stormwater outfalls along the Bayfield Main Beach. Ten storm events were monitored from June to August.

Community provides almost 130 turtle sightings

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

Close to 130 turtle sightings were reported in 2014, which included records of six species that occur in the Grand Bend - Port Franks area.

The turtle monitoring program, and the great work of all the volunteers, helps us to better understand the turtles, and the habitats they use. Funding is gratefully acknowledged from the Ontario Ministry of Natural Resources and Forestry, Grand Bend Community Foundation, and Ausable Bayfield Conservation Foundation.

With the help of local landowners, the Ausable Bayfield Conservation Authority (ABCA) launched a nest protection program to deter predators from eating turtle eggs. Under the guidance of ABCA, landowners protected nests on their properties and performed daily checks of the nests during the hatching period. A total of 60 hatchlings from Snapping Turtles, Stinkpot Turtles, and Painted Turtles hatched and were successfully released. The community was also active in installing a turtle crossing sign in Grand Bend and releasing Porter,

Community-Based Turtle Monitoring



Turtle Trauma Centre volunteer Kate Siena drove Porter the Snapping Turtle from Peterborough in 2014 to release him back home in his native Port Franks.

the injured Snapping Turtle flown to Peterborough for treatment in 2013, back in Port Franks. Ausable Bayfield Conservation was very fortunate to have partnered with Scales Nature Park to provide two workshops for watershed residents which allowed them to learn about Ontario reptiles and interact with live animals.

Ausable River Action Plan guides protection of species

By Kari Jean, Aquatic Biologist

The Ausable River supports one of the most diverse groups of aquatic animals for a watershed of its size in Canada. At least 26 species of freshwater mussels and 85 species of fish have been documented. Some of these species are rare and assessed federally and provincially as Endangered, Threatened, or Special Concern. The Ausable River also supports other rare semi-aquatic species such as turtles and snakes.



Kari Jean

In 2014, Ausable Bayfield Conservation Authority (ABCA) partnered with Fisheries and Oceans Canada to draft an *Ausable River Action Plan*. This document recommends actions to target threats (sediment, nutrients) to improve habitat conditions for endangered and threatened aquatic species (fish and mussels) in the Ausable River.

Monitoring population numbers of freshwater mussels or fishes helps to evaluate the success of recovery efforts and quality of habitat over the long term.

With support of Fisheries and Oceans Canada and the Ontario Ministry of Natural Resources and Forestry, ABCA conducted a freshwater mussel inventory at one location in Nairn Creek in 2014. Common species and rare Species at Risk (SAR) were found.

Ausable River Recovery Strategy

Community events were hosted in Grand Bend, Port Franks, and Ailsa Craig to offer information and encourage landowners to implement stewardship actions to improve SAR aquatic habitat.

In 2014, staff conducted SAR habitat monitoring at eight locations in the Old Ausable Channel (OAC). Nutrient concentrations, dissolved oxygen concentrations, water levels, and aquatic vegetation data were collected to evaluate SAR habitat. This program is to continue in 2015. This long-term monitoring will help guide management actions for this important ecosystem.

ABCA implemented a trial study to improve OAC habitat conditions with two floating wetlands to take up excess nutrients. Native wetland plants are planted onto these floating rafts. The plants take up nutrients that would otherwise be available for undesirable species.

Avoiding or reducing nutrients from entering water bodies in the first place is a preferred measure to lower nutrient concentrations. However, this is not always possible. Investigating innovative approaches, such as floating wetlands, to trap and treat nutrients, is important. This pilot project has begun to look at what is necessary to make habitat improvements and will continue in 2015.

Five wetlands restored; three floating wetlands created

By Angela Van Niekerk, Wetlands Specialist

In pre-settlement times, close to 20 per cent of the Ausable Bayfield landscape was wetland area. Now, about two per cent of the Ausable Bayfield landscape is covered in wetlands (areas seasonally or permanently wet with poorly draining soils and hydric plants).



Angela Van Niekerk

A key wetland function is water storage. Stored water helps to provide moisture during times of drought, to enhance crop production, and to reduce downstream flooding. Wetlands also improve water quality by filtering pollutants. It is important to increase wetland cover in strategic areas in the Ausable and Bayfield watersheds.

Five wetlands were restored in 2014 – three in

Wetlands

Middlesex County, one in Huron County, and one in Lambton County (nine acres).

Four community wetland planting events were held and three floating wetlands were created for pond-like settings, restoring a total of 17 acres of marginal wet land. Eleven funding grants provided assistance to these projects.

Technical advice and financial assistance are available to complete sediment basins or wetland projects on your property. We thank all landowners who have protected or restored wetlands on their property. We continue to look for interested landowners who have flooding and soil erosion issues.

Conservation land ownership protects significant areas

By Kate Monk, Stewardship, Land and Education Manager

Ausable Bayfield Conservation Authority (ABCA) owns more than 9,000 acres of land throughout the watershed. Most of these properties are Environmentally Significant Areas (ESAs).



Kate Monk

The outcome of keeping these lands is long-term protection from development and the conservation of flood plains, forests, soils, water and wildlife for current and future generations.

Stewardship of these lands is a constant balance that reflects Ausable Bayfield Conservation's vision of "Healthy watersheds where our needs and the needs of the natural environment are in balance."

The greatest change to our conservation land management in 2014 was the sale of excess agricultural lands that were acquired during the Parkhill Dam and Reservoir project in the 1960s.

During the ABCA's ownership of the land, sloping and erosion-prone lands were reforested. Windbreaks were planted around the fields and buffers were established along the creeks. Proceeds from the sale will be used to protect other significant lands.

Michael Herrington and Gary Brenner are employed on contracts to enforce regulations. We thank Carol Noonan who was a dedicated patrol officer for several years before leaving the area. Most of the patrol officers' time is consumed with off-road vehicles, dogs-off-leash, and ensuring that people hunting on ABCA land have purchased Conservation Passes.

In 2014, there were 304 active passes, a system that allows people to enjoy the sport of hunting, manages wildlife populations, and ensures anyone hunting on

Conservation Land Management

ABCA lands is abiding by provincial regulations. Ausable Bayfield Conservation has a good working relationship with Conservation Officers who help protect ABCA lands as well.

Several small development and maintenance projects were completed:

- A small parking lot was constructed at Linfield Wildlife Area with funding from the Ausable Bayfield Conservation Foundation and ABCA.
- The parking lot at Ausable River Cut Conservation Area was improved with funding from the conservation lands budget.
- An emergency repair was completed at the Clinton Conservation Area low-flow Bayfield River crossing.
- A new steel roof was installed at the Rock Glen Conservation Area with funding from ABCA.
- The granular trails at Morrison Dam Conservation Area and the MacNaughton-Morrison Section of the South Huron Trail were resurfaced and drainage problems repaired with funding from the ABCA, ABCF, and community donations.
- At the end of 2013, the ABCA ended an agreement with the Ausable River Riders Club. As a result, off-road motorcycles and quads are no longer allowed on any ABCA lands. Staff blocked off access points and trails at Parkhill Conservation Area and Ausable Gorge properties. These areas will be allowed to restore naturally. Single-track hiking trails may be created if there is community interest.

Well-managed forests protect nature; provide revenue

By Ian Jean, Forestry and Land Stewardship Specialist

The conservation authority plays an important role in promoting sustainable practices that enable economic returns while at the same time protecting and conserving natural heritage values. This is especially important due to the relatively low amount of forest cover (14%, Ausable Bayfield Watershed Report Card 2013) in the watershed. That forest cover is mainly privately owned and managed.

Emerald Ash Borer continues to be the primary factor influencing forest management in the

Forest Management on ABCA Lands

watershed. The Borer continues to migrate from southwest to northeast across the watershed and is now considered to be present across the entire ABCA watershed area. Salvaging Ash timber infested with the Borer is the main activity this year as well as inventory and assessment of stands containing a high proportion of Ash.

Continued on next page

Preserving habitat, food sources key when harvesting trees

Continued from previous page

Ausable Bayfield Conservation Authority staff prepare silvicultural prescriptions following stand assessment. Where appropriate, selective thinning and/or Ash salvage are recommended. Staff then complete tree marking, volume estimates, and tender the marked timber for sale to selected timber buyers.

Trees are marked for harvest according to the silvicultural prescription. Retention of trees to provide habitat and food sources (nut trees such as Oak and Beech) for wildlife as well as identification and avoidance of significant natural heritage features (stick nests, rare species) are important when marking trees on conservation authority property.

Hay Swamp Conifer Thinning

Selective thinning of ABCA-owned conifer plantations was done at four locations in Hay Swamp along Parr Line and McDonald Road. These plantations were row-thinned in the late 1990s. At that time every fourth row was removed so this recent operation was a selective thinning on the remaining rows. Thinning promotes regeneration of native deciduous trees and improves the health and vigour of the planted conifers.

Staff completed most of the tree marking in February and March. Selective thinning was done by a mechanized, fixed-head harvester during July and

August. Ontario Thinning Specialists, of Princeton, was the contractor. A total of 253 cords of 10-foot Pine and Spruce logs, 17 cords of 16-foot Spruce, 62 cords of 22-foot Red Pine, and 27 cords of Ash firewood were removed during the operation.

ABCA Sharrow Tract

In 2013, 485 trees were marked for selective harvest in an area of about 60 acres on the 75-acre property. Ash comprised all but five of the trees.

Miller Wood Products, of Exeter, purchased the timber in 2013 for \$16,000. The selective harvest was about two-thirds complete in the summer of 2013 but halted due to wet ground conditions that autumn. The ground remained too wet throughout all of 2014 so the planned completion of the operation has been moved to summer of 2015.

ABCA Harpley Tract

A total of 629 trees was marked for selective harvest in an area of about 80 acres on the 200-acre Harpley Tract. Of the marked trees 521 or 82 per cent were Ash. Miller Wood Products, of Exeter, purchased the timber in 2014 for \$28,500. The harvest operation was started in July and was about 80 per cent completed when conditions became too wet to continue at the end of September. Completion of the operation is planned for summer of 2015.

Twenty-five acres retired, planted with trees in Kime Tract

Parkhill Creek winds around the west, north, and eastern boundaries of part of the Kime Tract, south of West Corner Drive, that was site of a large tree planting and naturalization effort in 2014. Most Kime Tract properties had been planted with trees and/or allowed to naturalize in the 1980s but more than 40 acres remained under agricultural lease until 2012. At that time a plan was initiated to retire the leased area from cropping and restore it to forest and meadow.

The surrounding land within the valley of the Parkhill Creek was forested. Part of the rationale for retiring the agricultural land already surrounded by forest was that, once mature, this will create a large area of interior forest habitat (forest habitat more than 100 metres from an edge) which is rare in our region and critical habitat for plants and animals.

In 2012, about 15 acres were retired and planted to trees to complete Phase One of the restoration. The spring of 2014 saw the remaining 25+ acres retired

Forest Restoration at ABCA Kime Tract

with much of that area planted to trees. ABCA staff planted 18,750 seedlings during April and May.

Local schools also took part in the tree planting efforts. Parkhill West Williams and North Middlesex District High School teamed up to plant trees in May and McGillivray Central School in October.

The restoration initiative was fully funded with the support of a number of partners. Trees Ontario was the major funding partner through the 50 Million Tree Program. Other partners contributing to the project were the Middlesex Stewardship Council, Great Lakes Guardian Community Fund, and the Ontario Community Environmental Fund.

Some open, non-treed areas remain that will be allowed to naturalize to meadow habitat and will provide future tree planting opportunities for local schools and community groups.

Emerald Ash Borer kills Ash; trees harvested at MDCA

By Ian Jean, Forestry and Land Stewardship Specialist

Following construction of the Morrison Dam in the late 1950s an open area on the south side of the reservoir was row-planted to a mix of White Pine, Red Pine and White Ash. Ash thrived and became the dominant tree in the plantation making up more than 80 per cent of the stems in the two-acre plantation. The Ash trees were inspected by Ausable Bayfield Conservation Authority (ABCA) staff and unfortunately found to be infested with Emerald Ash Borer.

In order to reduce potential hazards posed by dead and dying Ash along trails in the plantation behind the picnic pavilion, ABCA staff supervised the mechanical removal of Ash by Ontario Thinning Specialists. This type of operation was deemed the most efficient, safest and resulting in the least amount of damage to the area.

Using a mechanical, fixed-head harvester, the operator was able to 'hand-pick' only the Ash trees in order to reduce damage to non-Ash trees that were retained. Log-length material to be removed from the site was salvaged as firewood. In exchange for the firewood the operation was completed at no cost to the conservation authority.

Ash Removal at Morrison Dam CA



The death of Ash trees from the invasive Emerald Ash Borer beetle, made it necessary to harvest Ash trees at Morrison Dam Conservation Area (MDCA) east of Exeter.

In one day of work, the mechanical harvester cut and removed more than 400 Ash trees from the two-acre plantation. Due to the precision of the operation very little damage was done to the thick undergrowth of Black Cherry, Elm, and some Hard Maple that had seeded in naturally. Despite removal of more than 80 per cent of the canopy, only minor tree planting is planned, mainly to improve tree diversity at the site.

Community celebrates success of MacNaughton-Morrison Trail

Ausable Bayfield Conservation Authority (ABCA) manages the MacNaughton-Morrison and Morrison Dam Conservation Area Sections of the South Huron Trail. The MacNaughton-Morrison Trail is a community success story, thanks to landowners who allow the trail to cross their property and thanks to the community volunteers, donors, service clubs, the Municipality of South Huron, and other partners who made the trail possible.

A community committee held a year's worth of events in 2014 to celebrate the tenth anniversary of this trail, which took more than half a million dollars in community support to build. The year's events included a new trail brochure; a landowner and community recognition ceremony and breakfast; a photography project and photo book; tree and wildflower videos and anniversary DVD; a daffodil trail; news columns; a Get-Active Challenge: Turn Over a New Leaf; Paint the Town artaroundtown; and Shunpiker Tour volunteering.



The MacNaughton-Morrison Trail Tenth Anniversary committee was: (front row, l. to r.) Laurie Dykstra, Exeter Lioness; Kate Monk, Chair; Bonnie Sitter; Susanne Strang, Friends of South Huron Trail; Dorothy Brown Henderson, South Huron Communities in Bloom; and (back row) Dave Frayne, Councillor, South Huron; Jim O'Toole, Past Chair, Friends of South Huron Trail; Craig Hebert, Exeter Lions; Wayne Deluca, Councillor, South Huron; and Bob Radtke, Chairperson, Ausable Bayfield Conservation Foundation. Also on committee were Lorne Rideout, Co-Chair of the Friends of South Huron Trail, and Tim Cumming, ABCA.

More than 60,000 trees planted in spring, fall

By Ian Jean, Forestry and Land Stewardship Specialist

Many watershed residents continue to improve and restore the watershed by planting trees. More than 175 landowners took part in the spring and fall planting program which resulted in more than 60,000 trees planted.



Ian Jean

There were 58,000 trees distributed through the Spring Tree Program and more than 2,200 through the Fall Program. The high level of participation in the tree planting program demonstrates that a large portion of the community is engaged directly in activities to improve the watershed.

Ausable Bayfield Conservation Authority (ABCA) facilitates tree planting in collaboration with the watershed community in order to implement projects that protect, conserve and restore the watershed. Trees are planted to establish windbreaks, watercourse buffers, reduce erosion on steep slopes and banks, and to create or enlarge forests.

During this past year ABCA staff planted 22 windbreaks which will reduce wind erosion and water erosion of the soil which can have a negative effect on water quality.

Tree Planting Program

Treed buffers were installed along 12 stream reaches or wetlands that will filter runoff and provide a physical barrier protecting surface water. Staff planted eight projects to create or enlarge forests that will contribute to improving forest cover, biodiversity, and forest health. Included in these totals was a project to retire and plant more than 25 acres at ABCA Kime Tract.

The trees planted by watershed residents are not captured above but are to be used for similar projects across the watershed.

One of the important roles of conservation authority staff is to pursue cost-share funding in order to provide incentives for landowners to undertake beneficial projects. Funding for tree planting was secured from a variety of federal, provincial, and municipal programs including Habitat Stewardship Program for Species at Risk; Huron County Clean Water Project; Middlesex Stewardship Council; Ontario Community Environmental Fund; Great Lakes Guardian Community Fund; Ontario Ministry of Transportation; and Trees Ontario, the forest restoration arm of Forests Ontario.

Students plant trees, shrubs and improve habitat

An important part of the Tree Program is to engage local schools and communities in making positive improvements to the watershed. ABCA stewardship and education staff worked together to deliver a number of tree-planting events with related education.

All five Clinton schools participated again in October of 2014 in planting more than 100 trees as part of their ongoing wetland naturalization project.

In April and October students from three Parkhill-area schools planted trees at ABCA Kime Tract.

In 2014, Ausable Bayfield Conservation was fortunate to be able to host Danika Bax's Trees for Bees tree planting day at Ausable River Cut Conservation Area.

Danika, a nine-year-old from Ailsa Craig with a keen interest in the environment, researched the endangered Rusty Patch Bumble Bee. She decided she wanted to do something to help. Her project, Trees

for Bees, was an effort to educate the community and raise funds to plant flowering trees and shrubs to improve habitat for the bee.

The last known population of Rusty Patch Bumble Bee is known from Pinery Provincial Park.

Danika contacted Ausable Bayfield Conservation and together they decided that the Ausable River Cut Conservation Area, near Pinery Provincial Park, would be the site of her tree and shrub planting event. Danika raised more than \$1,000 that was used to plant more than 100 trees and shrubs in the oak woodland and sand dune habitat along the Ausable Cut.

The planting day, organized by Danika and her family, saw more than 75 people of all ages come to the conservation area where they learned about the Rusty Patch Bee and enjoyed a nice spring day planting trees.

Thank you, Danika.

People see many benefits to their land stewardship

By Kate Monk, Stewardship, Land and Education Manager

Stewardship activities are the culmination of the efforts of many staff, student programs, community outreach, and technical experts.



Watershed landowners help protect, improve, conserve, and restore the watershed through stewardship.

People tell us they do projects for a variety of reasons such as the safety of their families (well management and manure storage decommissioning), future income potential (tree planting), herd health (watercourse fencing and barnyard runoff control), soil conservation (erosion control, wetland creation, cover crops), and habitat creation (wetlands, trees).



Private Land Stewardship Program

Funding to help with project costs also overcomes a barrier. Meeting the needs of the landowner, and the vision and mission for Ausable Bayfield Conservation, is the common ground where work is accomplished.

The majority of 2014 projects were tree planting, erosion control, and well decommissioning undertaken by private landowners. Other important projects included wellhead protection, wetlands, and manure storage decommissioning.



Bob Norris, (left), of RR 2 Staffa, was named Conservationist of the Year. Presenting the award was the Chairman of the ABCA Board of Directors, Mike Tam.

Stewardship Projects Receiving Funding through Programs Delivered by ABCA

Municipality	Number of Projects	Grants
Adelaide Metcalfe	2	\$10,848
Bluewater	11	\$10,612
Central Huron	16	\$61,508
Huron East	16	\$28,374
Lambton Shores	3	\$6,939
Lucan Biddulph	4	\$13,728
Middlesex Centre	11	\$32,998
North Middlesex	17	\$65,897
South Huron	20	\$28,579
West Perth	1	\$500
TOTALS	101	\$259,983

NOTE: 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.

Grants to help with project costs also help to overcome a barrier. Funding was secured from local, provincial, and federal governments as well as foundations. The Huron County Clean Water Project and Forests Ontario (formerly Trees Ontario) were the major grant providers.

One million dollars between 2008 - 2014 for drinking water stewardship

The Ausable Bayfield Maitland Valley Drinking Water Source Protection Region agreement with the Ontario Ministry of the Environment and Climate Change was extended through 2014 to provide grants to landowners for stewardship projects to protect municipal drinking water sources.

Drinking water stewardship has been one of the most successful programs in the Province of Ontario since it began in 2008. More than \$1 million has

Ontario Drinking Water Stewardship Program

been spent at homes, businesses, farms and other properties in the region. The Early Actions program funded 162 projects in the region and the Early Response program funded 25 projects.

Special mention goes to Donna Clarkson, Source Protection Technician, who worked with clients, presented projects to the review committee, managed files, and prepared milestone reports.

ABCA shows leadership in maximizing value

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

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

Thanks to the approval of grant and funding applications submitted by staff during the year, the local levy dollars represented approximately 30 per cent of total revenue compared to other conservation authorities across the province that had similar levies representing approximately 48 per cent of their total revenue.

For every local dollar generated, approximately \$2.50 in additional funding is leveraged, compared

Financial Summary

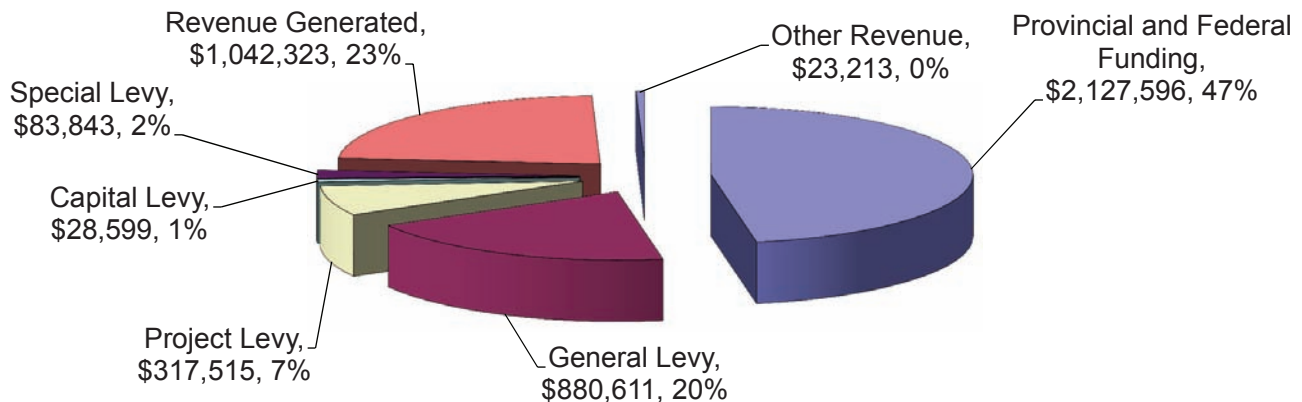
to the provincial average that is roughly dollar for dollar.

The unaudited deficit of \$122,000, which includes amortization of \$210,000, is approximately \$88,000 better than anticipated and these savings will be used towards future conservation projects. Staff have done a terrific job in bringing projects in at, or better than, budgeted costs.

Member municipalities should again be commended for their continued involvement and commitment to their local watershed.

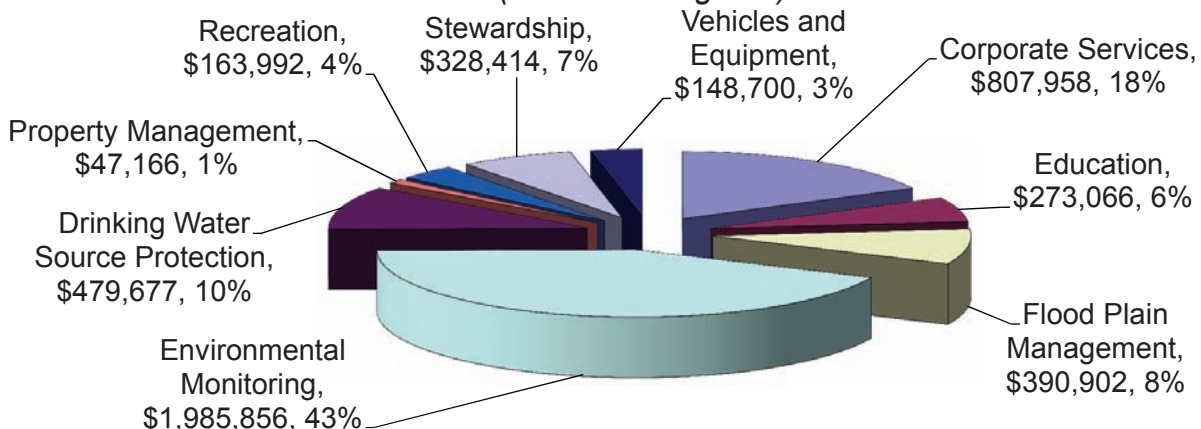
2014 Sources of Revenue – Total Revenue: \$4,503,700

(Unaudited Figures)



2014 Department Expenses – Total Expenses: \$4,625,731

(Unaudited Figures)



Foundation supports trails, conservation education, recreation

By Bob Radtke, Chairman, Ausable Bayfield Conservation Foundation

Raising funds to preserve, conserve, and protect the unique natural landscapes of the Ausable Bayfield and Parkhill Creek watersheds is the mandate of the Ausable Bayfield Conservation Foundation (ABCF).

Junior Conservationist

Ausable Bayfield Conservation Foundation funds a two-month summer position for a senior secondary school student interested in pursuing a career in the environmental field. Abby Lagerwerf, from Parkhill, was chosen as the 2014 Junior Conservationist.

Student Environmental Award

Four applications were received for the ABCF's Student Environmental Award for a student pursuing a conservation-related career. Connor Devereaux, of Seaforth, was chosen to receive the \$1,000 scholarship. He attends Carleton University in Ottawa.



Peter Darbishire presents 2014 Student Environmental Award to Connor Devereaux.

Conservation Education

- A grant of \$1,908 went to the Ausable Bayfield Conservation Authority conservation education program as the Foundation's \$1 per student commitment to subsidize children attending a school nature program.
- A \$460 contribution was made towards bussing students to a Species at Risk program.

Morrison Dam Fishing Derby

Thanks to a donation of \$2,000 from the Exeter Lions Club and ABCF, more than 1,000 rainbow trout were stocked in the Morrison Dam Reservoir prior to the family derby on the first Saturday of May. This was the 30th annual derby.

Woodland Reflection Shelter

Donors continue to support Woodland Reflection Shelter pavilion at Morrison Dam Commemorative Woods. It is adjacent to the South Huron Trail and is appreciated by walkers, visitors, and school groups.

Accessible Trails and Conservation Areas

- Organized the Ninth Annual Friends of South Huron Trail Golf Tournament in support of enhancements to the MacNaughton-Morrison Section of the South Huron Trail.
- Partnered with Bayfield River Valley Trail Association to receive donations towards phased development of trail system along Bayfield River.
- Contributed \$5,000 to resurfacing of the MacNaughton-Morrison Trail.
- Contributed \$2,500 towards construction of a parking lot at the Linfield Wildlife Area.
- Received donations for upkeep of the South Huron Trail Mobile.

Wetlands and Natural Heritage

- Funding of \$1,500 for Port Franks turtle monitoring and \$500 towards the Ausable River Recovery outreach project in Ailsa Craig.
- \$500 towards Climate Change Forum organized by the Rotary Club of Grand Bend.

Continued on next page

Exeter Lions and Ausable Bayfield Conservation Foundation support annual family fishing derby. At right, Jeremy Straw and Craig Hebert of the Exeter Lions Club stock rainbow trout into the reservoir.



Bob Radtke
(Chairman)
Ailsa Craig



Anne Melady
Dublin



Bob Norris
Staffa



Dave McClure
Grand Bend



Gerry Cook
Exeter



Peter Darbishire
Exeter



Roger Lewington
Bayfield



Ted Jones
Exeter



Teresa Ondrejicka
Exeter

Conservation Dinner raises \$53,000 for watershed projects

Continued from previous page

Conservation Dinner

The Ausable Bayfield Conservation Foundation's major fundraising event is the annual Conservation Dinner in cooperation with the Exeter Lions Club and other community volunteers, patrons, and donors. The year 2014 was the 25th dinner and auction event, which raised \$53,000. Over the 25-year history, this event has successfully raised \$923,000 in support of the South Huron Trail, fishing derby, and conservation area trail enhancements in the communities of Arkona, Port Franks, Parkhill, Clinton, Exeter, Zurich-Hensall, Bayfield, and Varna.

Commemorative Woods Program

- Co-hosted the 13th Annual Klopp Commemorative Woods tree dedication service with J.M. McBeath Funeral Home on June 1, 2014 with 110 friends and families in attendance.



Exeter Lions Club President Tom Hartai; Honourary Conservation Dinner Co-Chair John Norris (Exeter Lions Club); Conservation Dinner Chairperson Janet Clarke; Feature Artist Tammy Laye; Honourary Co-Chair Charles Corbett (Ausable Bayfield Conservation Foundation); and Dave McClure, Director with the ABCF.

- Co-hosted annual Commemorative Woods dedication service with Haskett Funeral Home on September 21, 2014 with 300 guests in attendance.
- Ongoing maintenance of tree groves and grounds within five Commemorative Woods.

Huron Tract Land Trust Conservancy offers trusted way to leave legacy

By Roger Lewington, Chairman, Huron Tract Land Trust Conservancy

The Huron Tract Land Trust Conservancy (HTLTC) was formed in 2011. The goal of the Land Trust Conservancy is to inspire the community to value and protect natural lands and habitat within the geographic boundaries of the original Huron Tract.

In 2014, the Board of Directors of HTLTC participated in a bus tour of the southern portion of the Ausable Bayfield watershed, learning about environmentally significant areas in the Hay Swamp, Corbett, Port Franks, Ausable Gorge, Parkhill, Arkona, and Ailsa Craig areas.

Angela Van Niekerk, Wetland Specialist with the Ausable Bayfield Conservation Authority (ABCA), attended the Ontario Land Trust Alliance (OLTA) Conference and Annual Meeting. She is the Secretary

Huron Tract Land Trust Conservancy

for the OLTA Board of Directors. She reported that there was discussion at the annual meeting about forming a national organization of land trusts across Canada.

Further investigation will be done by the provincial Board to determine interest by current land trust organizations and what the benefits would be.

The Huron Tract Land Trust Conservancy now feels poised to provide individuals with a safe, reliable, long-term way to leave bequests of property or financial contributions for the protection of the land, water, and species in perpetuity.

It is a trusted way to achieve a legacy and make a difference in protecting the environment.

Huron Tract LTC
Board of Directors



Roger Lewington
(Chair)
Bayfield



Burkhard Metzger
Clinton



David Kemp
Staffa



Don Farwell
Stratford



Peter Twynstra
Ailsa Craig



Steve Boles
Exeter



Steve Bowers
Brussels



Philip Walden
Thedford

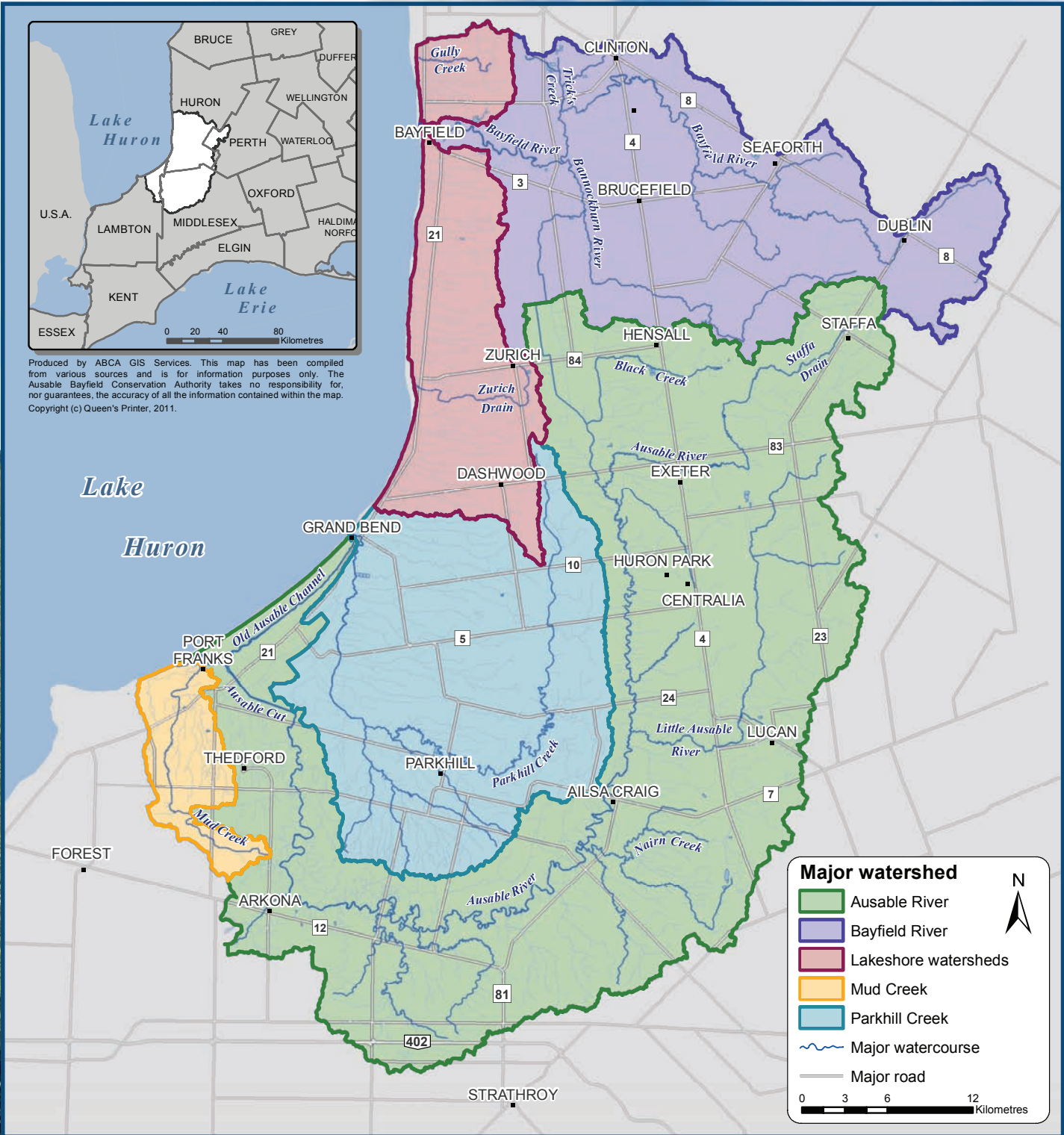


Tom McLaughlin
Lucan



AUSABLE BAYFIELD CONSERVATION

CREATING AWARENESS | TAKING ACTION



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