



AUSABLE BAYFIELD CONSERVATION

CREATING AWARENESS | TAKING ACTION



Annual Report 2011

Table of Contents



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 shows RBC's Regional President for Ontario South West, Laura Gainey, who donned waders over her business attire to join children in a pond study during RBC Blue Water Day on Friday, June 10, 2011. At left, Sarah Knoblauch tells the RBC Canada executive what she found, and learned, at the pond study. Gainey visited Ausable Bayfield watersheds to announce an RBC Blue Water Project \$100,000 Leadership Grant to Ausable Bayfield Conservation Foundation for Healthy Headwaters Wetlands Initiative, a project restoring and enhancing wetlands for the benefit of water quality and quantity in Huron and Middlesex counties.

Pages 2 - 6 Corporate Services

- Page 2 Chairman's Message
- Page 3 Board of Directors; General Manager's Report
- Page 4 Staff Report
- Page 5 Conservation Education
- Page 6 Watershed Community's Conservation Strategy

Pages 7 - 14 Water Management

- Page 7 Provincial Groundwater Monitoring Network; Water Level and Stream Flow Monitoring
- Page 8 Low Water Response
- Page 9 Flood Forecasting and Warning; Flooding Summary; Flood Emergency Planning
- Page 10 Structures, Operations and Maintenance; Water and Erosion Control
- Page 11 Other Water Management Studies
- Page 12 Natural Heritage Study; Geographic Information Systems (GIS) Mapping
- Page 13 Land Use Planning Input and Review
- Page 14 Regulations

Page 15 Drinking Water Source Protection

Pages 16 - 19 Healthy Watersheds

- Page 16 Water Quality Monitoring; Communities in Watershed Action
- Page 17 Turnbull Drain; Crops and Creeks Huron (WBBE Watershed-Based Best Management Practices Evaluation)
- Page 18 Watershed Planning: Trick's Creek and Main Bayfield Watershed; Community-Based Turtle Monitoring
- Page 19 Ausable River Recovery Strategy – Mussels; Healthy Headwaters Wetlands Initiative

Pages 20 - 21 Conservation Land Management

- Page 20 Conservation Land Management; Conservation Areas
- Page 21 Forest Management on ABCA Lands

Pages 22-24 Watershed Stewardship

- Page 22 Private Land Stewardship Program
- Page 23 Tree Planting Program
- Page 24 Conservationist of the Year Award Recipient

Page 25 Financial Summary

Page 26 Huron Tract Land Trust Conservancy

Pages 27 - 28 Ausable Bayfield Conservation Foundation

Partnerships are key to creating awareness, taking positive action

By Jim Ginn, Chairman, 2011 ABCA Board of Directors

The year 2011 was a successful one for Ausable Bayfield Conservation Authority (ABCA), and its work, by implementing stewardship projects in the present and also listening to the watershed community about how to create healthier watersheds in the future.

I would like to thank the Municipality of Central Huron for the opportunity to sit as their representative on the ABCA Board of Directors.

I would also like to thank:

- The ABCA board for their support in my second year as Chairman
- The staff members for their dedication and hard work
- The community members who volunteered on the *Conservation Strategy* Development Team to create a new and long-term *Conservation Strategy* for Ausable Bayfield watersheds
- All of the community groups, watershed planning groups, and volunteers for their time and interest in making healthier watershed communities.

Finally, I would like to thank the private landowners and residents throughout this great watershed for stepping up and implementing stewardship practices that protect



Jim Ginn

Chairman's Report

and enhance water quality, preserve water quantity, add natural areas, and improve forest conditions.

By working together we will make a positive difference to the health of our community watersheds. No one person or agency has all of the answers and they definitely don't have enough money to solve all our environmental concerns. The more we develop partnerships that share a mutual goal and mutual respect the more the partnerships will succeed and our community's goals attained.

We live at a time, and in a society, where more transparency and more opportunity for input is a must. We can, and do, achieve this through the growth of partnerships. Partnerships bring individuals and groups together to build common solutions to our collective issues and concerns. In doing so, partnerships also help reduce conflict and improve both the environmental health of a community and its confidence in its present and future.

I look forward to the official launch of the new *Conservation Strategy* and, with that community document as our guide, we can, in partnership, follow *The Path Forward*. This will help implement the community's call to action in order to 'create awareness and take action' for healthier watershed communities in the future.

2011

Board of Directors



Bill Siemon
Huron East



Ute Stumpf
Adelaide
Metcalf and
Middlesex
Centre



Janisse Zimmerman
Bluewater



Jim Ginn
Central Huron



Dave Frayne
South Huron
and
Perth South



Don Shipway
North
Middlesex



Mike Tam
West Perth



Paul Hodgins
Lucan
Biddulph



Lorie Scott
Lambton
Shores
and Warwick

Leadership begins at top with Board of Directors

The Board of Directors is the top level of leadership at Ausable Bayfield Conservation Authority (ABCA).

Being a director is not an easy job. Directors set the environment and tone for the organization, through their actions. Society holds directors to a higher level of duty and care. Directors must act in a way that meets the requirements of the Standard of Care, Fiduciary Responsibility, Duty of

Board of Directors

Good Faith, Honesty, Loyalty, Confidentiality, and avoiding Conflict of Interest.

On behalf of the staff I want to thank the Board of Directors for their strong leadership throughout 2011. – Tom Prout, GM and Secretary Treasurer

An innovative organizational culture = A sustainable, competitive, and highly successful organization

By Tom Prout, ABCA General Manager and Secretary Treasurer

For years, I have been interested in what motivates individuals: their attitudes versus their behaviours, and what makes their jobs satisfying to them. I have read various articles and attended several courses and workshops. In previous *Annual Reports*, I have talked about the importance of human resources, including the Board of Directors, to the success of an organization. In 2008, ABCA adopted a *Human Resources Planning Framework* as a proactive approach to excellence and success.

Recently I read an article about a Canadian, a graduate of The University of Guelph, an author, and successful businessman: Marty Parker. The article talked about Marty and his most recent book *Culture Connection*. I was quite intrigued by the article and I couldn't wait to get the book. Marty Parker is one of Canada's leading experts on human capital. Some of you may have read his articles in *The National Post* or *Canadian Business and Profit*.

Culture Connection was an exciting read for me. It put into common language how the culture of an organization can make or break that organization. The author talks about the key points that make a dynamic culture. Emphasis is given to the importance of everyone's role including the Board of Directors and all of the staff members. According to Parker, it is the behaviour of the collective that defines the culture of an organization, not their attitudes.

When it comes to hiring new staff at Ausable



Tom Prout

General Manager's Report

Bayfield Conservation Authority we already know the importance of the individual's skill set but more importantly the importance of their fit within the culture of our organization. Parker quotes Edgar Schein, in his book, that "the only thing of real importance that leaders do is to create and manage culture. If you do not manage culture, it manages you, and you may not even be aware of the extent to which this is happening."

I think we should pay more attention to something we already believe and practise here at the ABCA.

Parker talks about the use of credos, or statements of belief. In the case of an organization they would represent transparency and a way to communicate to the Board of Directors and the staff more than just vision and mission statements.

In ABCA's *Human Resources Planning Framework* it sets out six values – respect, accountability, integrity, communication, loyalty, and leadership. These values define the type of culture for which the organization is striving. We can do a better job of communicating these values and developing them into credos.

ABCA has a great team and a great culture but we can still do a better job of managing our organization's culture and sharing our successes.

And we will!

Behaviour trumps attitude at Ausable Bayfield Conservation

“To know what people really think, pay regard to what they do, rather than what they say.”

– René Descartes

Our attitude is what we say – our behaviour is what we do.

How staff members act from day to day, day-in and day-out, is their behaviour and this determines the culture of our

Staff Report

organization.

I want to thank staff members for doing what they do in a very positive and helpful manner. In doing so it shows you care and you are contributors to the success of our organization.

– Tom Prout



Rob Carnegie



Jessica Schnaithmann



Katie Stammler



Greg Urquhart



Quinn Rush



Alissa Fraser



Alyssa Gowing

ABCA welcomes new personnel, thanks summer students

The Ausable Bayfield Conservation Authority (ABCA) welcomed new staff members who brought new expertise and strengths to watershed conservation work in 2011. These new employees were:

- Rob Carnegie
- Jessica Schnaithmann
- Katie Stammler

ABCA also benefitted from the hard work of the following contributors in student positions:

- Alyssa Gowing
- Alissa Fraser
- Greg Urquhart, Co-op and summer student
- Quinn Rush, Junior Conservationist

ABCA would also like to send its best wishes to two employees who left to continue their professional development outside of the organization in 2011. They were:

- Darrell Innes
- Katie Stammler

ABCA staff members share their expertise throughout province

ABCA's *Human Resources Planning Framework* encourages personnel to develop their skills and share their expertise at local, provincial, national, and international levels. Here are some 2011 examples:

Brynn Upsdell, Water Quality Technician

Using Freshwater Mussels to Monitor Ecosystem Recovery in the Ausable River Watershed

A. D. Latornell Conservation Symposium, Alliston

Mari Veliz, Healthy Watersheds Coordinator

Evaluation of environmental best practices in small Lake Huron watersheds (with Jacqui Laporte, OMAFRA)

A. D. Latornell Conservation Symposium, Alliston

Alec Scott, Water and Planning Manager

Provincial Flood Forecasting and Warning Workshop, Toronto

Cathie Brown, Source Protection Project Manager

Health Canada First Nations Water Workshop, Niagara Falls

Davin Heinbuck, Lands and Water Technologist

Conservation Authorities Act Instructor at Drainage Superintendents' Course (OMAFRA), Guelph

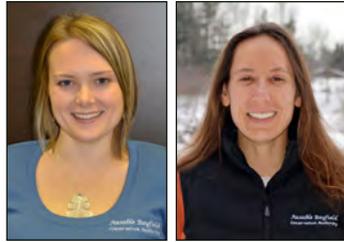
Kate Monk, Supervisor of Stewardship and Conservation Lands and Ross Wilson, Water and Stewardship Technologist

Conservation Ontario Climate Change Workshop, London

Encouraging outdoor learning at forefront in 2011

By Julie Stellingwerff, Conservation Education Specialist and Denise Iszczuk, Conservation Education Technician

Ausable Bayfield Conservation Authority (ABCA) is one of the only providers of outdoor education in the watershed, offering high-quality school programs, presentations, and events. The year 2011 brought new projects, opportunities, and partnerships:



Julie Stellingwerff Denise Iszczuk

Conservation Education

Local schools, partners cooperate to rehabilitate wetland ecosystem

ABCA was one of many partners who helped enhance the wetland ecosystem on the northwest corner of the Huron Perth Catholic District School Board property in Clinton. There were 255 students from five schools in Clinton who participated in the tree planting project. Students planted 300 trees and 2,800 trees were planted in total during spring and autumn. These trees will help to provide a buffer and protect the wetland from sediment and pollutants. ABCA looks forward to the continued partnership with local schools and Ontario Ministry of Natural Resources to enhance this wetland and use it for educational programs.



Steve Bowers, Huron Stewardship Council staff member, shows Clinton-area students how to install a tree guard during wetland rehabilitation.

'Our Water World' summer program made a 'Splash' in local libraries

An interactive, hour-long program called *Our Water World*, was delivered to libraries throughout Huron and Middlesex counties. The 2011 summer reading program's theme, *Splash!*, also worked well for conservation authority messages. Participants experienced a demonstration about the quantity of clean, drinkable water on our planet and its importance for all living organisms. After diving into a hands-on lesson about aquatic species that call our watershed home, the children created a

Special Event Attendance	
Spring Water Awareness Program	1,717
Spring School Group Nature Programs	1,566
Presentations, Workshops and Projects	1,001
Fall School Group Nature Programs	948
Huron-Perth Agriculture and Water Festival	586
Non-profit Programs	558
Camp Sylvan	302
Owl Prowl	254
Species-at-Risk Programs	235
Aquafest	206
Winter School Group Programs	182
Earth Day Tree Plantings	162
Bannockburn Fall Hike	120
Summer Day Camps	39
Envirothon	35
Family Day WinterFest and Snowshoeing	20
March Break Day Camps	16

bookmark using their new-found aquatic knowledge. This successful summer program saw 170 children and 59 adults take part.

Huron partnership creates 'green' schoolyards, outdoor classrooms

County of Huron partners, and our staff, worked with schools, including Our Lady of Mt. Carmel and Seaforth Public in our watershed, to create an attractive and functional outdoor classroom and add green space in each schoolyard. A landscape architect conducted workshops with students, teachers, parents, and school staff as the project engaged them in design and planning. Fifty-four Grade 7 students took part at autumn planting days held at each school. These naturalized areas and outdoor classrooms will increase experiential learning.

Thank you, volunteers and partners

Education programs and special events were, in 2011, at the forefront of creating awareness and fostering positive environmental action by student and adult participants. Thank you to those who volunteered and supported the education department in ABCA's 65th year. Our education programs and special events would not be possible without you.

Community creates new Conservation Strategy

A group of 34 people, from different walks of life, worked for twelve months between 2010 and 2011 to create a new **Conservation Strategy** for Ausable Bayfield watersheds.

An invitation to watershed residents to create a long-term guiding document like this one had not taken place since 1993.

The Path Forward, the six-page strategy, illustrates these watershed community members' ideas of what a healthy watershed looks like. It sets the vision, mission, logo, organizational motto,

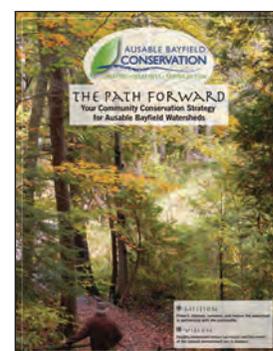
actions for conservation efforts in Ausable Bayfield watersheds and how we all, as a watershed community of organizations and individuals, will achieve the community's vision.

The community team approved the plan on September 14, 2011 and Ausable Bayfield Conservation Authority (ABCA) Board of Directors approved it on December 15, 2011. Release of the document was scheduled for March 15, 2012 at the annual Conservation Awards. For copies of the document visit the ABCA website at abca.on.ca

The following are people in the watershed community who attended one or more meetings between 2010 and 2011 to develop a new Conservation Strategy to guide conservation efforts, in Ausable Bayfield watersheds, for years to come:

Conservation Strategy Development Team:

- Muriel Allingham, Arkona
- Jim Bearss, Exeter
- Stephen Boles, Exeter, Community Member
- Ted Briggs, Great Lakes Advisor, Ontario Ministry of the Environment
- Paul Buttery, Environmental Health Specialist, County of Lambton
- Sharon Callan, Grand Bend, Grand Bend Community Foundation Environment Committee
- Ashley Cartwright, Huron County Junior Farmers, Interested Citizen
- David Crockett, RR 2 Zurich, Interested Citizen, Lakeshore
- Jacquelyn Denham, President, Huron County Junior Farmers
- Claire Dodds, County of Huron Planning and Development Department
- Stephanie Donaldson, Grand Bend
- Wayne Forgrave, Director, Ontario Federation of Anglers and Hunters
- Dave Frayne, RR 3 Exeter, Councillor, Municipality of South Huron
- Jim Handyside, Mooresville, Landowner
- Lucy Hendriks, Parkhill, Former Councillor, Municipality of North Middlesex
- David Kemp, RR 2 Staffa, National Farmers Union and Huron-Perth Woodlot Association
- Jack Kroes, RR 2 Clinton, Provincial Director (Huron), Christian Farmers Federation of Ontario
- Jacqui Laporte, Ontario Ministry of Agriculture, Food and Rural Affairs
- Carol Leeming, Huron County Federation of Agriculture
- Mike Leitch, Huron Fish and Game Association
- George McEwan, Administrator, Avon Maitland District School Board
- Doreen McLinchey, Parkhill, Councillor, Municipality of North Middlesex
- Sally McMullen, County of Huron Planning and Development Department
- Paul Mennill, RR 1 Dashwood, Individual
- Jan Purvis, Bluewater Shoreline Residents' Association
- Jim Reith, Middlesex Federation of Agriculture
- Michelle Smibert, Chief Administrative Officer, Municipality of Middlesex Centre
- Clair Soper, Bayfield, Huron Tourism Association
- Donna Taylor, Huron Stewardship Council
- Mike Tam, Mitchell, Councillor, Municipality of West Perth
- Katherine Thiel, Zurich, Student
- Joe Vermont, RR 2 Zurich, Huron County Farmer, Individual
- Jennette Walker, Zurich, Individual
- Bailey Williams, Community Health Services, County of Lambton



Groundwater data helps flood forecasting, low water programs

By Davin Heinbuck, ABCA Lands and Water Technologist

Conservation authorities and the Ontario Ministry of the Environment (MOE) maintain, in partnership, a network of 474 groundwater monitoring wells across the province. Provincial Groundwater Monitoring Network (PGMN) data provides detailed information which helps programs such as Flood Forecasting and Warning Program and Ontario Low Water Response.



Davin Heinbuck

Provincial Groundwater Monitoring Network

Water quality is analyzed for nutrients, metals, general chemistry, and 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. Numerous exceedence notices have been issued but, with few exceptions, most were for Sodium (aesthetic drinking water objective) and Fluoride, which occurs naturally in elevated levels in much of Southwestern Ontario.

Prior to 2011, additional samples were taken from the PGMN Sinkhole Well and local private wells. These samples were not part of the PGMN program but they complemented the real-time water quality data being collected at the sinkhole well. The additional sampling program was cancelled when not enough funding was available from watershed municipalities. Recognizing the significance of groundwater quality in the sinkhole area, and the need for real-time water quality data, MOE agreed in 2011 to fund analysis of two additional samples at the sinkhole well. This site was chosen as one of two such monitoring locations in the province.

Ausable Bayfield Conservation Authority (ABCA) has 14 active wells throughout the watershed: five bedrock wells and nine overburden wells. Hourly groundwater level data has been logged for more than nine years in most of these wells. Where practical, telemetry has been installed at the wellheads, enabling access to current water level information through a web-based component of the network. The groundwater level data shows 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, the trend is that groundwater levels have generally continued to rise since 2002.

Water Quality Sampling

Water quality sampling is another critical component of the PGMN and ABCA has groundwater quality data available for each well from 2003 to 2011.

Streamflow stations aid monitoring of watershed conditions

Ausable Bayfield Conservation Authority, in cooperation with Ontario Ministry of Natural Resources (MNR) and Environment Canada, operates a data collection network in its watershed area to provide watershed municipalities and residents with advance warning of 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

Water Level and Stream Flow Monitoring

the field transmit information by telephone directly to the office east of Exeter. With funding from MNR, maintenance of the streamflow monitoring stations is shared by ABCA and Environment Canada staff. In addition, a Volunteer Rain Gauge Network (VRGN) was established in 2005. Twenty volunteers provide valuable precipitation data through a web-based data entry system.

Through an agreement with Ontario Ministry of the Environment, ABCA is responsible for maintenance of groundwater monitoring stations located in some of the significant aquifers in the watershed.

Holders of permits to take water participated in meeting to discuss water sharing strategies in case of continued low water

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

The Ausable Bayfield Conservation Authority (ABCA) continued to be involved in the Ontario Low Water Response (OLWR) Program in 2011. The program was created after extreme dry conditions were experienced in parts of the province of Ontario in 1999.



Alec Scott

The OLWR Plan 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:

- **Level I**, where a 10% voluntary reduction in water use is requested;
- **Level II**, where a 20% voluntary reduction in water use is requested, and;
- **Level III**, where mandatory water use restrictions may be put in place.

The local ABCA Low Water Response Team (WRT) consists of municipal, provincial agency, and ABCA representation and representatives of 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.

The WRT held one meeting and six online conferences during the year. A Level One Low Water condition was declared on August 5, 2011 and removed on November 7.

Following the August 2011 Level One Low Water Advisory, and in anticipation of entering a Level Two Low Water Advisory before the end of the month, a letter was sent to each surface-water Permit To Take Water (PTTW) permit holder in the watershed. The letter invited them to participate in a meeting to discuss water use strategies in which limited water supplies could be shared.

This proactive approach would hopefully find a local solution and avoid a Level Three situation where

Low Water Response

Levels of Response

- **Level I**
– Voluntary Reduction 10%
- **Level II**
– Voluntary Reduction 20%
- **Level III**
– Mandatory Water Use Restrictions



Ausable Bayfield's watershed area reached a Level One Low Water Advisory position (as shown on icon above, from website) in 2011 and was near a Level Two.

water use restrictions might be mandated or restricted by the Province of Ontario.

The meeting took place on August 16, 2011. There are 72 surface water, or combination ground and surface water, permits to take water issued to 10 property owners within ABCA watersheds and 57 of these permits are held by four owners.

Three PTTW property owners attended the meeting, representing 47 of the 72 surface water permits in the watershed.

Further action was not required as wetter conditions returned and water supplies improved.

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.



A photo from August of 2011 showing lower water at Rock Glen CA.

New year begins with flood, rapid snowmelt

By Davin Heinbuck, ABCA Lands and Water Technologist

The new year brought in the most significant flood event of 2011.

The flood was a result of warm and wet weather conditions over three days from December 30, 2010 to January 1, 2011. Before the flood event, Ausable Bayfield Conservation Authority (ABCA) staff members had recorded snow-survey data showing that 50-75 millimetres of water equivalent was already in the watershed's snowpack.

Temperatures over the three days stayed above freezing, with daytime highs on both December 31 and January 1 approaching 10 degrees. Accompanying the unseasonably high temperatures, rainfall amounts of 25-50 mm were recorded across the watershed over the period. This combination of factors led to a rapid snowmelt that released most of the water equivalent available in the snowpack. A rapid runoff caused water levels across the watershed to increase quickly, exceeding the flows of a typical spring freshet.

With the exception of Port Franks, flooding throughout the watershed was limited to non-developed floodplains.

Ice formed on the Ausable River earlier in the winter season than normal. Prior to this flood event, ice thickness was already near 20 centimetres in some areas. High flows and deteriorating ice conditions resulted in ice break-up and subsequent threats of ice jamming in the Port Franks area. By 9:00 p.m. on January 1, ice began jamming in the Ausable Cut near the confluence with the Old Ausable Channel.

Flood waters peaked at 4:00 a.m. on Jan. 2. Patrick



Flooding at The Cut, Port Franks, as seen from Patrick Street park on January 2, 2011.

Flooding Summary

Street was flooded and was closed until Jan. 3. There was flooding on the grounds of more than 20 properties but, fortunately, water levels did not generally reach the height of dwellings.

Due to standing water, some homes had access blocked for nearly two days. To further complicate matters, a rapid freeze occurred, causing sheet ice to blanket the flooded areas, further restricting access. Residual ice jams remained in the river for weeks, but did not cause subsequent flooding problems.

Flood potential remained high throughout late winter as a roller coaster of weather patterns produced four spring freshet type events. Fortunately, forecasted rainfall during these events did not transpire and all of the snowmelt events remained relatively minor in nature. Ice conditions and break-up were monitored throughout the freshets and did not present ice-jamming in Port Franks or Grand Bend areas.

The summer of 2011 was inactive. Stream flows remained low but one final event in November of 2011 had the potential to bring significant rainfall and flooding. A forecast of more than 75 mm of precipitation on already-saturated ground prompted ABCA to issue a Flood Advisory. Rainfall forecasts did not materialize and the watershed avoided any major flooding issues.

Ten High Water Safety Bulletins and two Flood Advisories were issued during the year.

ABCA updates municipalities at flood emergency planning meeting

The annual Flood Emergency Planning meeting was held at the Masonic Hall in Exeter on March 10, 2011.

ABCA member municipalities and stakeholders were invited to attend and participate. There were 23 attendees, including representatives from six municipalities as well as staff members and/or Emergency Management Coordinators from all four counties (Perth, Middlesex, Lambton, Huron). Media and local OPP were also represented.

The 2011 meeting was highlighted by feature

Flood Emergency Planning

presentations from two emergency assistance agencies. Very informative presentations were given by Perron Goodyear, Divisional Emergency Disaster Services Director for The Salvation Army and Doug Elliott, City of London Emergency Coordinator for Amateur Radio Emergency Services (ARES).

ABCA staff members discussed roles and responsibilities in flooding emergencies, watershed conditions, and flood communication updates.

ABCA personnel maintain water, erosion control structures

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

The Ausable Bayfield Conservation Authority (ABCA) inspected and performed maintenance, in 2011, on water and erosion control structures it owned or constructed, as part of the ABCA mandate and agreements with watershed municipalities.

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 work are carried out by conservation authority staff



Repair following bank failure at Walker Drain was among 2011 Water and Erosion Control projects.

Structures, Operations, and Maintenance

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.



Port Franks erosion control repairs (below water's surface) reinforced the integrity of the shore wall.

WECI program supports flood, erosion control maintenance

The Ontario Ministry of Natural Resources Water and Erosion Control Infrastructure Funding program has been available, since 2003, to fund major maintenance work on conservation authority flood and erosion control projects.

Under this program the ABCA can apply for 50 per cent grant funding for major maintenance projects.

Water and Erosion Control Infrastructure Funding (WECI) Program

The following WECI projects were completed in 2011:

Parkhill Dam Flood Operations Manual

The original *Manual of Operating Procedures for Routing Floods through Parkhill Dam* was completed in 1973 and updated in 1983. The 2011 project involved a review of the manual

Water and Erosion Control

and conversion of all tables from Imperial to Metric units among other updates. Total cost was \$15,000.

Port Franks River Management Erosion Control Repair

Repairs took place to erosion protection constructed in 1986. Two areas along the north side of the Ausable River Cut, just downstream of the Highway 21 bridge, were repaired. Total cost was \$40,000.

Walker Drain Area I Erosion Control Repairs

A section of bank failure on Walker Drain, behind the Grand Bend ball field, was repaired. Total cost was \$85,000.

– Alec Scott

Data from new Parkhill Creek monitoring station will assist climate change modelling, other water programs

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

The subwatersheds of Parkhill Creek and Upper Ausable River were found, through a 2010 assessment study, to have high sensitivity to climate change impacts.

Climate Change Monitoring Station for Upper Parkhill Creek

The Parkhill Creek watershed was selected in 2011 for the installation of an integrated climate change monitoring station at the present location of the Parkhill Creek above Parkhill Reservoir flow monitoring station.

Additional monitoring equipment includes meteorological sensors, groundwater sensors, soil moisture sensors, and real-time water quality monitoring sensors.

The data collected will be used by a number of partners for calibration of hydrologic and climate change models. The data will also benefit the Flood Forecasting and Warning, Low Water Response, and Water Quality Monitoring programs of the Ausable

Other Water Management Studies



Site preparation for an integrated climate change monitoring station in Parkhill began in 2011. (Photo above was taken in January 2012).

Bayfield Conservation Authority (ABCA).

Site preparation and equipment purchase took place in 2011. Collection of data was scheduled to begin by June 2012.

Partners in this project include the Ontario Ministry of the Environment (MOE), Ontario Ministry of Natural Resources (MNR), and the Ontario Regional Adaptation Collaborative partners.

ABCA, municipality, health unit cooperate to reduce mosquito habitat

The Municipality of North Middlesex received numerous concerns from residents of Parkhill about high mosquito numbers in that community during the summer of 2011.

The mosquito abatement and larviciding program for 'nuisance' mosquitoes that had been used in previous years did not appear to have been as effective in 2011, following a wet spring.

Representatives of the municipality, Ausable Bayfield Conservation Authority, and the Middlesex-London Health Unit met several times and a public meeting was held in July with 400 people attending.

The organizations all agreed mosquito populations were extremely heavy and immediate and long-term actions were required to reduce the number of those insects. The organizations also agreed that a priority area of focus to reduce mosquito numbers would be a management area downstream of the Parkhill Dam. That management area is about 25 hectares or 62 acres in size. The area is a mix of conservation authority, municipal, and

privately owned land.

ABCA acted to remove some suspected mosquito habitat. Follow-up action was taken cooperatively between the municipality and conservation authority to remove logjams and blockages in the Cameron-Gillies Drain, to increase flow where water was stagnant, and reduce standing water and low-lying areas where mosquitoes can breed. Activities to reduce potential mosquito habitat also took place at locations upstream of the dam, adjacent to sewage ponds, at catch basins on private property, at the landfill site, and along the old railway tracks.

Ausable Bayfield Conservation personnel worked on a report, for scheduled release in 2012, to identify mosquito breeding habitat and to provide short-term and long-term strategies to better manage the mosquitoes and their breeding habitats. Together the Municipality of North Middlesex, the health unit, ABCA, a special committee of council, and the Parkhill community, will continue to develop and implement strategies to best manage and minimize mosquito abundance.
– Angela Van Niekerk

ABCA provides natural heritage information for study

By Geoffrey Cade, ABCA Supervisor of Water and Planning

The County of Huron identified the need, in the 2010 update of its Official Plan, for a comprehensive Natural Heritage Study.

The county approached local conservation authorities in 2011 to undertake a portion of the study. The first step is to identify existing significant terrestrial (land) and aquatic (water) features. A geographic model is being developed to help identify areas of importance which will ultimately support local decision making.

What is unique about the geographic model is that instead of evaluating individual areas in isolation from each other, the areas are considered together with their contributions as a part of a natural heritage system. This technical phase of the study is

scheduled to be completed in the first half of 2012 with the County of Huron initiating consultation examining its implementation. The natural heritage study is a cooperative effort of the Ausable Bayfield, Maitland Valley, Saugeen Valley, and Upper Thames River conservation authorities in partnership with the County of Huron.

Natural heritage refers to significant wetlands, habitat, woodlands, areas of natural and scientific interest, and other features and areas with important environmental and social value. A natural heritage system includes connected natural areas and features that provide long-term ecological functions and areas for species to move and may include areas which are restored, or can be restored, to a natural state.

More detailed natural heritage feature mapping benefits county study, new Watershed Report Cards for 2012

By Tracey McPherson, ABCA GIS/CAD Specialist

Geographic Information Systems, or GIS, supports programs and projects at Ausable Bayfield Conservation Authority (ABCA). GIS, as the name implies, has information linked to a spatial or geographic location.

It is for the storage, display and analysis of geographic data. GIS staff members, at the ABCA, create databases, link databases to a spatial layer, work with data (aggregation, changing file formats, etc.), create maps, undertake more complex analysis involving queries, map algebra, or modeling. Staff members are also involved in acquiring data such as aerial photography or vector (line, polygon, and point) sets.

Updates were completed in 2011 over the entire watershed area for the Natural Areas data layer. A standardized method for collecting and describing the features was created in collaboration with surrounding conservation authorities. Traditionally only woodlands or wooded areas were mapped and features like wetlands, water bodies, and valley lands were mapped on separate layers. Now more detailed mapping of a Natural Heritage System has been completed. The single layer maps communities such as deciduous forest, shrub/thicket, riparian meadow to name a few. A single community is then identified



Tracey
McPherson

GIS Mapping Report

as a piece of the system. For example, one would be able to click on a feature and know it was a deciduous wetland forest in a significant valley land. The updated layer is being used in the Huron County Natural Heritage Study and will be used for *Watershed Report Card* updates in 2012.

GIS staff members also worked in 2011 to:

- Provide data management and mapping to Crops and Creeks Huron (WBBE Watershed-Based Best Management Practices) project and the Main Bayfield and Turnbull Drain watershed plans
- Assist Flood Forecasting and Warning with set-up and documentation of WAMS system
- Get digital planning records up to date and standardized
- Geo-reference shoreline oblique photos for use in GeoPortal
- Integrate total station surveys into existing elevation model for wetland design projects



2011 aerial photos above show snapshots of area landscape including river system and Lake Huron. ABCA has participated in a partnership studying important natural areas that are part of our natural heritage.

ABCA provides comment on 95 planning applications

By Geoffrey Cade, ABCA Supervisor of Water and Planning

Conservation authorities not only provide input on broad land use policies such as municipal Official Plans and zoning by-laws, as part of the municipal land use planning process, but also on a number of individual planning applications which include severances, minor variances, and subdivisions.

The conservation authority is the provincially designated lead agency providing natural hazard comments to landowners and municipalities. Ausable Bayfield Conservation Authority (ABCA) assesses how a development proposal conforms with Provincial Policy, with the *Conservation Authorities Act*, and with ABCA policies. As development takes place it is important that it be located safely away from such hazardous areas as floodplains or unstable slopes.

ABCA provided formal comment, in 2011, to its 12 member municipalities, on 95 different planning applications. The conservation authority also responded to numerous requests for information from members of the public, from lawyers, and from real estate agents. ABCA provided 86 formal written responses to inquiries during the year 2011. These inquiries are very important in providing prospective



Geoffrey Cade

Land Use Planning Input and Review

purchasers of property, or people wishing to do work in high-risk areas, a prior understanding of the natural hazard risks involved.

An important initiative of 2011 was the County of Huron's Natural Heritage Study. A partnership comprised of the four conservation authorities in the county is helping to identify important natural areas in Huron County. When complete, the study will help to preserve these valuable areas for the future.

Staff participated in a number of initiatives in 2011 including:

- Sitting on the Coastal Zone Technical Working Group as part of the International Upper Great Lakes Study of the International Joint Commission
- Steering Committee member for provincial shoreline training conference
- Conservation authority representative of group providing technical comments to Province of Ontario on potential of offshore wind power projects. (Ultimately not pursued by the province).
- Technical and Steering Committee member for the Huron County Natural Heritage Study

Thoughtful development can be cooperative effort

By Andrew Bicknell, P. Eng., ABCA Regulations Coordinator

The Ausable Bayfield Conservation Authority (ABCA) has the job of regulating new development within hazardous lands such as in areas in close vicinity of steep slopes, river and stream valleys, flood-susceptible areas, wetlands, and the Lake Huron shoreline.

This is done under the *Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* (Ontario Regulation 147/06).

One primary objective of the conservation authority's regulation is to safeguard life and property by directing new development away from hazardous areas.

Conservation authority personnel make use of board-approved policy documentation, being ABCA's *Policies and Procedures Manual for the Administration of Ontario Regulation 147/06*, in the implementation of the conservation authority's regulations.

Regularly and consistently implementing the policy ensures that the conservation authority's regulatory activities are in keeping with the principles of the conservation authority's mandate and Provincial Policy. It is important to note that, although the general policy direction is guided by the Province of Ontario, conservation authority policy is developed at the local level, respecting the unique nature of our watershed and our local landscape.

Development proposals are always unique, where the nature of the hazards and site characteristics are as varied as the development proposal itself. Staff will always strive to understand the specifics of a development application fully. In the review of an application, staff members will strive to have regard for the uniqueness of the proposal and to assist an applicant to the extent possible through the permitting process.

On occasion, the conservation authority must



Andrew Bicknell



A photo from 2002 shows how floodwaters can pose risk to a house.

Regulations Report

Statistics for 2011

- 57 Applications for Permission
- 77 Minor work permits
- 14 drain reports reviewed
- 88 letters of advice (and/or drain authorizations) issued (under agreement with Department of Fisheries and Oceans)



IMAGE SOURCE:
Joseph R. Tomelleri

exercise its enforcement role and responsibilities under the *Conservation Authorities Act*. In cases where a significant violation has occurred, the conservation authority is required to exercise its powers under the *Conservation Authorities Act* and seek resolution of the matter through the provincial court system.

Under the conservation authority's continuing Level II Agreement with the Federal Department of Fisheries and Oceans Canada (DFO), the conservation authority screens proposals where work is proposed in or near water.

In addition, staff will conduct a screening to see if there are species-at-risk considerations under the federal Species at Risk Act (SARA). In cases where there is a species-at-risk concern, staff members will typically refer the file directly to the DFO for review.

From time to time, and when new information becomes available, the conservation authority will update the Regulation mapping layer. When updates are deemed necessary, the changes are typically site-specific and would be made based on the availability of new information which defines the extent of the hazard land and the conservation authority's Regulation Limit. Mapping updates, as described, were not undertaken in 2011.

Committee prepares policies to protect drinking water

By Cathie Brown, Project Manager, Ausable Bayfield Maitland Valley Source Protection Region

Years of study and analysis have culminated in draft source protection planning policies.

The Ausable Bayfield Maitland Valley Drinking Water Source Protection Committee (SPC) announced the commencement of source protection plan policy preparation in February of 2011.

The committee considered, over the year, the possible threats to our drinking water systems and chose what they believe to be the most promising way to protect municipal sources of drinking water from contamination.

Based on the science of the Assessment Reports, the circumstances for various threats were examined. The various policy tools provided in the *Clean Water Act, 2006* were evaluated for their cost-effectiveness in grappling with these circumstances. Ultimately, the draft planning policies are largely preventive in nature and reinforce existing administrative processes.

Chair Larry Brown and the committee members are looking forward to hearing from municipalities about their capacity to implement these policies and other suggestions to improve the draft plans.

A debt of gratitude is owed to municipal staff members who have been so cooperative during the development of planning policies.



Cathie Brown



Ausable Bayfield
Maitland Valley
Source Protection
Region

Drinking Water Source Protection

Once these ideas have been fully appraised by the SPC, a public consultation phase will begin on the draft proposed source protection plans in the spring of 2012. By mid-August, the final proposed version of the plans will be sent to the Ontario Minister of Environment for approval.

Hand-in-hand with this work are the ongoing efforts with landowners through the Ontario Drinking Water Stewardship Program. Grant funding to manage threats continues to be available to those people who own property near wellheads.

Information on the planning project is available at sourcewaterinfo.on.ca and information on financial incentives and assistance for property owners in key vulnerable areas is available at sourceprotectionstewardship.on.ca

We are also pleased to answer your questions by phone at 519-235-2160 or 1-888-286-2610 or by e-mail at info@sourcewaterinfo.on.ca or feel free to arrange a meeting with our staff.



Landowner Bill Scott is shown with sign *We are helping to protect drinking water at his Seaforth-area property.* He is one of the landowners undertaking voluntary projects near municipal wells to protect drinking water sources, with the support of the Ontario Drinking Water Stewardship Program (ODWSP), a funding incentives companion program to the planning initiative. At left is Donna Clarkson, Source Protection Technician.



David Blaney was appointed as the newest municipal member of the source protection committee in 2011.

Water quality, benthic data to be used in Report Cards

By Brynn Upsdell, ABCA Water Quality Technician

Water quality monitoring continued at 18 long-term stations from March to November 2011.

Nine of these stations are part of the Ontario Ministry of the Environment (MOE) Provincial Water Quality Monitoring Network and the sample analyses are supported by the MOE. The other stations are funded by the Ausable Bayfield Conservation Authority's 12 member municipalities as part of the enhanced monitoring program.

The ABCA continues to partner with local organizations (Bayfield Ratepayers Association, Bluewater Shoreline Residents' Association, Rotary Club of Grand Bend, Municipality of Bluewater, Pinery Provincial Park, Wee Lake Residents' Association) to collect water from 39 other locations around the ABCA area (Bayfield River, Gully Creek, Old Ausable Channel, Ridgeway Drain, Wee Lake,



Brynn Upsdell

Water Quality Monitoring

Zurich Drain, outlets of several drains flowing into Lake Huron).

Benthic macro-invertebrates were collected from 30 stations in October 2011 to complement the water chemistry monitoring. Benthic macro-invertebrates are animals that live on the bottom of watercourses (e.g., aquatic insects, worms) and are another indicator of water quality.

Water and benthic monitoring data from long-term stations will help us produce the next *Watershed Report Cards* in 2012.

Representatives from different conservation authorities, including Mari Veliz, from the ABCA, reviewed the grading categories for the *Watershed Report Card* to better reflect the range of conditions in southern Ontario.



The RBC Canada Blue Water Project Leadership Grant of \$100,000 in 2011 helped restore much-needed wetlands in Huron and Middlesex counties.



The 40th anniversary of the addition of the Bayfield River watershed, to the ABCA area, was celebrated in 2011. Huron-Bruce MP Ben Lobb helped with ceremonial cake cutting.

Local watersheds undertake community planning to identify, implement property-level actions that improve water quality

By Mari Veliz, ABCA Healthy Watersheds Coordinator

Non-point pollution of water sources in rural areas comes from many seemingly insignificant sources around individual homes, farms, businesses, construction sites, or other properties.

Improvements to water quality may therefore be best identified and acted upon by individual property owners.

Linking individual actions to improve downstream water quality conditions can be achieved



Mari Veliz

Communities in Watershed Action

through community-based watershed planning. Communities involved with implementing watershed actions in 2011 included: the Municipality of Bluewater (Bayfield and Dashwood); the Municipality of Central Huron (Clinton); and the Municipality of Lambton Shores (Grand Bend and Port Franks).

Water quality report prepared for Turnbull Drain

By Abigail Gutteridge, ABCA Healthy Watersheds Technician

The Rotary Club of Grand Bend provided funding in 2011 to complete some early watershed management planning for the Turnbull Drain.

Turnbull Drain (Grand Bend) Water Quality Improvement Project

The small Turnbull Drain watershed empties into Lake Huron directly north of

Grand Bend.

The years 2010 and 2011 saw some initial water quality monitoring in the ravine mouth and lake, as well as a completed background report on the watershed characteristics and water quality.

It is expected that this initiative in watershed planning will continue in 2012 with further water quality monitoring and stewardship efforts implemented by local landowners to protect water quality.



Abigail Gutteridge

Crops and Creeks Huron project examines environmental, economic impacts of best management practices in area

By Mari Veliz and Abigail Gutteridge

Crops and Creeks Huron is a Watershed Based Best Management Practices Evaluation (WBBE, Huron) project. The initiative is evaluating economic decision-making and the environmental effects of multiple best management practices (BMPs) in pilot watersheds.

Ausable Bayfield Conservation Authority (ABCA) is working with the Huron County Federation of Agriculture (HCFA) and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) to undertake this project. It is expanded from previous community watershed stewardship efforts.

This study has expanded on previous water quality improvement efforts in three watershed areas:

- 1) The Bayfield North watersheds
- 2) The Zurich Drain watershed
- 3) The Ridgeway Drain watershed

Residents of a 40-square-kilometre area just north of Bayfield have been active, since 2007, in developing a management plan for their watersheds. Tree planting, erosion control, and small wetland projects took place in 2010. Water quality monitoring has been ongoing in the Zurich Drain since 2006. Additionally, a number of BMPs were initiated in this watershed through the Adopt-a-Watershed program in 2007, and the Eco-Action funding from Environment Canada in 2008-2009. The Ridgeway (Kading) Drain watershed is a small ravine emptying into Lake Huron just north of Grand Bend. The

Crops and Creeks Huron (WBBE Watershed-Based Best Management Practices Evaluation)

Ridgeway Drain is one of four ravines that the Bluewater Shoreline Residents' Association (BSRA) monitors in cooperation with the ABCA.

To meet the project objectives, farmers in pilot watersheds in the Ausable Bayfield jurisdiction have been encouraged to adopt additional BMPs and to provide data on inputs/outputs of crop and livestock production system and BMP-related changes (*e.g.*, revenue and costs). Information collected from the landowners regarding the costs and benefits of the BMPs will provide some insights to the economic decisions that are made at the farm-scale that influence interest in BMPs.

Some test plots have also been established to determine the environmental efficacy of erosion control structures, cover crops, conservation tillage, and reduced nitrogen application to improve predictability of existing watershed hydrological models. The land management information, combined with water quantity and quality monitoring in the pilot watersheds, will help to determine the environmental efficacy of the BMPs at the site and watershed scales. The combined monitoring and modeling will provide land and watershed managers with enhanced environmental and economic information about effective BMP implementation.

Main Bayfield residents set actions to protect watershed

By Jessica Schnaithmann, ABCA Healthy Watersheds Technician

Residents of the Main Bayfield River Watershed began a community watershed planning project, in 2011, to protect and enhance the watershed.

This project was made possible through funding support from the U.S.-based Fred A. and Barbara M. Erb Family Foundation; Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA); Environment Canada; the Bayfield Ratepayers Association; and the Municipality of Bluewater.

The Main Bayfield Watershed, which includes Trick's Creek, encompasses an area of 89 square kilometres and was found to have high grades in forest conditions compared to most of Ausable Bayfield Conservation Authority's jurisdiction (*ABCA 2007 Watershed Report Card*).

A plan for the Main Bayfield River will identify local actions to enhance and protect the existing watershed. An advisory committee made up of community members, stakeholders and ministry staff, has been established and held two meetings during 2011 to guide the watershed planning process.

The Watershed Plan will be comprised of two main components. The first component is to document



Jessica Schnaithmann

Watershed Planning for Trick's Creek and Main Bayfield Watershed, near Clinton



The Fred A. and Barbara M. Erb Family Foundation grant of \$100,000 in 2011 helped the Main Bayfield River Watershed community protect its water. The support was announced at 40th Anniversary marking addition of Bayfield River to ABCA area.

the current conditions within the Main Bayfield River sub-watershed.

The second component is to listen to the community about local issues and different approaches to environmental protection and enhancement.

This process will identify priority areas for future action and implementation of environmental improvement projects.

Port Franks community increases participation in turtle program

By Brynn Upsdell, ABCA Water Quality Technician

The Port Franks area is located at the northern edge of the Carolinian Zone. As a result, it supports a wide variety of plants and animals.

Port Franks residents recognize that they live in a unique place and have participated in a turtle monitoring program.

Ausable Bayfield Conservation Authority (ABCA) staff members received nearly 80 phone calls and e-mails in 2011 (compared with 50 in 2010) about turtle sightings, nesting, and roadside mortalities in the Port Franks area.

Community-based turtle monitoring in the Port Franks area is contributing to information about turtle presence and habitat in the Grand Bend - Port

Community-Based Turtle Monitoring in Port Franks

Franks area.

This monitoring also helps Pinery Provincial Park protect nests from immediate predation (the preying of an animal on other animals). Funding for the 2011 program was provided in part by the Government of Canada's Habitat Stewardship Program for Species at Risk, provided through the Department of the Environment. The residents in Port Franks have also worked with the Municipality of Lambton Shores to remove an invasive plant, Phragmites, from important river habitat.

Species-at-risk mussels declining in numbers

The Ausable River watershed is home to several Species at Risk (SAR), including six freshwater mussels (*e.g.*, Kidneyshell, Snuffbox).

In 2006, seven long-term mussel monitoring stations were established and surveyed for mussels.

Five years later, in 2011, Ausable Bayfield Conservation Authority (ABCA) re-surveyed these stations for mussels. Preliminary results show declines in the number of mussels and mussel SAR at most of the seven stations.

The ABCA is evaluating how resources can be

Ausable River Recovery Strategy

better targeted towards locations in the watershed and types of actions that will provide the greatest success in recovering SAR.

Funding for this work was provided in part by the Government of Canada's Habitat Stewardship Program for Species at Risk, delivered through the Department of the Environment; Fisheries and Oceans Canada; and the Ontario Ministry of Natural Resources' Species at Risk Stewardship Fund. – BU

Twelve new wetlands created or restored in 2011

By Angela Van Niekerk, ABCA Wetlands Specialist

Only two per cent of the Ausable River landscape is covered in wetlands (areas that are seasonally or permanently wet with poor draining soils and hydric plants).

A key wetland function is water storage. Stored water helps to provide moisture during times of drought to enhance crop production and helps to reduce downstream flooding. As well, wetlands improve water quality by filtering pollutants.

Wetland Development in Middlesex and Huron Counties in 2011

The Middlesex Stewardship Council, Huron Stewardship Council, Ducks Unlimited Canada, and Ausable Bayfield Conservation Authority are partners who have provided technical advice and financial assistance to complete wetland projects.

Financial support for wetland restoration



Angela Van Niekerk

Healthy Headwaters Wetlands Initiative

continued, in 2011, from the Royal Bank of Canada's RBC Blue Water Project Leadership Grant. Healthy Headwaters Wetlands Initiative also received financial support of the Government of Canada's Habitat Stewardship Program for Species at Risk, delivered through the Department of the Environment; and Lake Huron Community Action Framework. The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA) and County of Huron Clean Water Project also provided financial support.

The Healthy Headwaters partnership has created 42 wetlands since its inception in 2008. There were 12 new wetlands created or restored in 2011. Call **519-235-2610** or toll-free **1-888-286-2610** if you're interested in enhancing wet areas on your property.

Ecosystem Benefits from Healthy Headwaters Wetlands Initiative

Total for Middlesex and Huron	2008	2009	2010	2011
Trees planted	5,890	48,060	54,311	56,228
Number of wetlands created	4	10 (* 8 new)	16	12
Wetlands restored (acres)	41	37	81	47
Area of land retired (acres)	24	34	144	112
Total habitat restored (acres)	50	110	172	131

*Trees planted include some of ABCA Tree Planting Program numbers, as well as trees planted through the Huron Stewardship Council and Middlesex Stewardship Council initiatives.

Residents enjoy conservation lands for many reasons

By Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands

The community values Ausable Bayfield Conservation Authority (ABCA) lands for many reasons. The reasons vary as much as the people who visit the properties or benefit from their presence. Some people visit their favourite properties weekly, others benefit from the fish and game harvested from our tracts, and some just enjoy driving down the tree-lined roads through Hay Swamp.

The nearly 10,000 acres of conservation land provide significant environmental benefits for flood control, surface water quality, groundwater recharge, forest cover, habitat, and carbon sequestration.

Restoration of the Triebner Tract continued in



Triebner Tract dedication ceremony.

on the site in 2010. Funding for the trees and plants was provided by County of Huron Clean Water Project, Trees Ontario, MNR COA, and Community Fisheries and Wildlife Improvement Program.

Usborne Central School and Precious Blood School students helped plant the trees to commemorate Earth Day. Students planted trees in Hay Swamp more than 50 years ago and the tradition has continued. A property dedication ceremony was held on site with project partners on August 23.

Conservation Land Management

2011 with planting native trees, shrubs and wetland plants in an area retired from agriculture. The tract is part of the Hay Swamp Wetland Complex. Pits and mounds creation was done

Bannockburn boardwalk, MDCA fishing dock replaced

The Ausable Bayfield Conservation Foundation and ABCA partnered on three conservation area development projects in 2011.

The second fishing dock at Morrison Dam Conservation Area was replaced in the spring. This is a popular structure for fishers at the reservoir. The second phase of the Bannockburn Conservation Area boardwalk replacement project was completed. The first section of the boardwalk was replaced in 2010. This provides a safe, dry course through the wet meadow at the start of the trails. A significant benefit is the wheelchair access to 300 metres of boardwalks and bridges to the Bannockburn River and fishing dock.

Funding from the family of the late Frank Wight was combined with Foundation and ABCA project levy funding to resurface the granular trails at Rock Glen Conservation Area.

These trails were the first of their kind when they were developed in the late 1980s. The trail dedication was part of the 25th anniversary celebration of the Arkona Lions Museum and Information Centre at



The 25th anniversary of Arkona Lions Museum and Information Centre at Rock Glen Conservation Area was celebrated.

arborist carefully pruned a heritage oak on the north side of the Rock Glen gorge. The tree had been identified as a safety hazard and the successful pruning means the tree can live on for many more people to admire. The safety fences at the top of the gorge were also repaired during the summer.

The Lambton Shores Nature Trail group pruned the trails at L-Lake Wildlife Area at Port Franks and added blazes to the trail to help hikers find their way. The partnership will see the dedicated volunteers help the ABCA maintain its trails throughout Lambton Shores.

– Kate Monk

Conservation Areas

Rock Glen on September 17. The anniversary celebrations included the Arkona Lions Car Show, artifact and fossil experts, species-at-risk display, Trails Open Ontario event, and the dedication of the Ted Baxter Room at the museum. Many members of Mr. Baxter's family attended the ceremony, keeping his memory alive.

Also at Rock Glen, a skilled



The Huron Perth Cross Country Championships brought many students and educators to Morrison Dam Conservation Area, east of Exeter, on Thursday, October 20, 2011.

Selective harvest removes some Ash, diseased trees

By Ian Jean, ABCA Forestry and Land Stewardship Specialist

Ausable Bayfield Conservation Authority (ABCA) forest management was focused in the Parkhill area in 2011.

This is due, in part, to a high component of Ash trees in that area and the impending threat of Emerald Ash Borer as it migrates north and west from Lambton County.

Mature stands in this area were targeted for selective cutting operations with the objectives to salvage merchantable Ash timber and remove diseased trees of other species to improve the stand's future value.

Trees at Loomis Tract on West Corner Drive were marked for a selective timber harvest in March. There were 360 trees marked. Seventy-nine per cent, or 283 trees, were Ash. Total board feet was estimated at 57,000 for the 360 trees. Morley Logging, of Parkhill, was the successful buyer with their guaranteed minimum bid of \$12,000 or shares (whichever is greater). The share price received for Ash was \$220 per thousand board feet. Morley Logging began the timber harvest in September but wet weather in October forced the operation to be suspended for the year. About one third of the harvest remains to be completed and is planned for the summer of 2012.

ABCA staff members conducted stand inventories for a section of Parkhill Conservation Area and marked trees in a 75-acre section off of the Springbank Road access. A total of 630 trees were marked. Ninety per cent, or 564 trees, were Ash.

The affected section of Parkhill Conservation Area has a well-developed network of all-terrain vehicle and hiking trails.

Arbor North Logging was selected for the harvest operation for their ability to minimize damage



Ian Jean

Forest Management on ABCA Lands

through the use of horses for skidding logs. The harvest operation began in December 2011 and is to be completed in winter of 2012, in order not to conflict with recreational uses during summer months.

Pine plantations at Wright Tract, Thompson Tract, and MacGregor Tract were marked for selective thinning. This is their second thinning for these stands, with fourth row thinning having been completed in the mid 1990s. Wet weather delayed the contractor, Ontario Thinning Specialists, from starting the operation in 2011. A deposit has been received and work is expected to be completed in winter, 2012 with the agreed price for pine sawlogs at \$17 per cord.



Co-op student Greg Urquhart acquires carpentry skills in 2011 while helping build Morrison Dam Conservation Area fishing dock.

Local people protect water through well, septic projects

By Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands

Each year, watershed stewardship staff members help landowners complete projects to improve and protect surface water and groundwater.



Kate Monk

These are precious resources that need to be conserved for today and future generations. These projects have many other benefits – increased forest cover, improved agricultural operations, ecosystem health, soil conservation, wildlife habitat, biodiversity, preserving species at risk, carbon sequestration, watershed resiliency to climate change, air quality, tourism, economy, and the community.

Ausable Bayfield Conservation Authority (ABCA) staff members provide technical assistance and link landowners to various grant programs. With a long history of stewardship services, the ABCA is an important local delivery agent for ministries and agencies. In 2011, staff assisted with 120 stewardship projects for farm, non-farm rural, residential, and businesses and institutions.

Our areas of expertise include erosion control, watercourse livestock fencing, barn eaves troughs and yard runoff control, manure storage decommissioning, tree planting, wetland creation, wellhead protection, well decommissioning, and septic systems.

In many cases, landowners need financial incentives. Staff members play an important role in linking people with the best funding opportunities and completing the paperwork. The ABCA thanks the following funding partners:

- Huron and Perth counties' Clean Water Projects
- Canada-Ontario Agreement (COA) – Ontario Ministry of Natural Resources (MNR) Clinton District, and Middlesex Stewardship Committee
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Huron Stewardship Council
- Government of Canada Habitat Stewardship Program for Species at Risk, delivered through the Department of the Environment
- MNR Species At Risk Fund
- Ontario Drinking Water Stewardship

Private Land Stewardship Program

Stewardship Projects Receiving Funding through Programs Delivered by ABCA

Municipality	Number of Projects	Grants
Huron County	1	\$2,000.00
Adelaide Metcalfe	1	\$3,100.00
Bluewater	29	\$51,556.51
Central Huron	9	\$68,508.53
Huron East	16	\$31,984.89
Lambton Shores	14	\$78,805.55
Lucan Biddulph	5	\$22,529.19
Middlesex Centre	4	\$24,180.17
North Middlesex	13	\$75,191.03
Perth South	1	\$4,944.88
South Huron	23	\$32,032.74
West Perth	4	\$7,802.53
TOTALS	120	\$402,636.02

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

Program (ODWSP), of the Ontario Ministry of the Environment (MOE)

- Trees Ontario Foundation
- Canada-Ontario Farm Stewardship Program

An important area of focus was decommissioning of private wells, in Bayfield, that are no longer used with the introduction of municipal water. While nearly 20 people have voluntarily come forth, there are many more wells that should be decommissioned. Unused wells that are not maintained provide a transport pathway to the aquifer which has the potential to degrade groundwater for other current and future users.

In the Chippewas of Kettle and Stony Point First Nation intake protection zone, 11 septic systems were upgraded through the Ontario Drinking Water Stewardship Program in 2011 and more projects were planned for 2012. This substantial cost-share program is available to landowners near municipal wells or surface water intakes for a variety of projects to protect drinking water.



Ausable Bayfield Conservation Authority (ABCA) staff members Wayne Ford, Ian Jean, and Tony Drinkwalter, unload stock for tree planting pick-up by landowners through the spring and fall tree orders.

Landowners, staff plant tens of thousands of trees

By Ian Jean, ABCA Forestry and Land Stewardship Specialist

Tree planting levels remained steady in 2011.

A total of 61,000 trees were planted through the spring tree planting program. Ausable Bayfield Conservation Authority (ABCA) staff members planted 48,000 of these at 38 project sites.

These trees were used for projects including farm windbreaks (17), watercourse buffers (11), and block-type reforestation (10). The projects ranged from 0.25 to 11 acres in size. Landowners themselves planted 13,000 trees purchased through the 'pick up' tree program. A cool, wet spring delayed planting at many sites. The last trees were finally planted on June 2.

The autumn saw an increase in planting to more than 3,900 two-foot balled and burlap conifers and potted hardwoods. ABCA staff members installed just more than 2,600 of these at six project sites.

The largest project was to plant 1,550 trees for the Ontario Ministry of Transportation (MTO) as a 'living snow fence' along the west side of Highway 4, between Clandeboye and Adare Drive.

Landowners picked up and planted the balance of

Tree Planting Program

1,300 trees.

The Municipality of Lucan Biddulph continued their initiative to replace hazard trees removed from roadsides. Lucan Biddulph purchased 75 whips (maple and oak) to distribute to any affected landowners requesting replacement trees. Two trees are provided for every tree removed under their roadside tree replacement program.

Cost-share funding from a variety of programs, including County of Huron Clean Water Project; Trees Ontario; Government of Canada's Habitat Stewardship Program for Species at Risk, provided through the Department of the Environment; and Ontario Ministry of Natural Resources (MNR); helped reduce the cost for eligible projects.

For autumn projects, provincial funding provided through the Species at Risk Farm Incentive Program (SARFIP), and renewed funding through the Canada-Ontario Farm Stewardship Program (COFSP), likely helped boost tree planting numbers.

Exeter Lions Club named Conservationist of the Year

Ausable Bayfield Conservation Authority (ABCA) announced in 2011 that the Conservationist of the Year was Exeter Lions Club.

The award was presented to the club for their decades of service, through active volunteering and fundraising, to develop and support accessible trails, and outdoor and conservation education opportunities for youths and families.

The Conservationist of the Year Award honours those who have undertaken conservation efforts over the years with long-term benefits to the natural environment and the watershed community. Examples of conservation include tree planting and best management practices in a home, farm, or business operation and volunteer efforts by groups and individuals in support of conservation. ABCA has been proud to present this award since 1984.

The Exeter Lions Club, chartered in 1937, is part of the world's largest and most active service organization. It is a group of service-minded men and women banded together to do things which cannot be done by individuals working alone.

The Exeter Lions Club has been partnering since 1991 with Ausable Bayfield Conservation Foundation (ABCF) on the Conservation Dinner, a charitable auction that has raised more than \$600,000 for accessible trails, conservation education, the annual family fishing derby and stocking of the Morrison Reservoir, Commemorative Woods, MacNaughton Park Scenic Gardens in Exeter, and more.

The Exeter Lions Club was a leader in creating the MacNaughton-Morrison Section of the South Huron Trail as steering committee members, fundraisers, and trail building volunteers. The club's involvement in fundraising for the continuing development of the South Huron Trail, and MacNaughton Park, are examples of service in action.

Working with additional partners the Lions have seen the dream of a recreational and educational trail come to fruition with the MacNaughton-Morrison Section of the South Huron Trail.

Club members have been tireless workers on conservation projects. The Exeter Lions Club's long record of support for accessible trails and conservation education continued in 2011 as they joined in partnership with other community organizations (such as South Huron Optimist Club) and church, organizational, and business partners in a successful



Ausable Bayfield Conservation Authority Chairman Jim Ginn presented the Conservationist of the Year Award in 2011 to Exeter Lions Club. The club also received recognition from Ben Lobb, Huron-Bruce Member of Parliament. Shown accepting recognition, on behalf of Lions President Paul Scott, are Ted Jones, long-time member; Ross Alexander, Second Vice President; and Bruce Hodge, First Vice President. The club actively supports many conservation projects.

Family Day WinterFest that included promotion of the South Huron Trail. The WinterFest celebration grew out of the Lion's inaugural Family Day event the year before.

The Lions Club, in partnership with Ausable Bayfield Conservation Foundation, holds an annual fishing derby for children and families that gives young people the first-hand experience of active outdoor recreation at Morrison Dam Conservation Area (MDCA).

The Exeter Lions Club's volunteers are dedicated and committed to this successful endeavour which creates lasting memories and helps new generations connect with nature.

The Lions Club owns and manages the Lions Youth Centre in Exeter which is used by local scouting and guiding organizations. This facility is vital to helping the organizations teach youth outdoor skills and nature appreciation.

The Conservationist of the Year Award includes a conservation-edition print entitled 'Green Winged Teal,' by Pierre Girard. The ABCA has also made a donation towards a tree and plaque at a Commemorative Woods site maintained by the Ausable Bayfield Conservation Foundation.

ABCA among tops in province in non-levy funding %

By Brian Horner, ABCA Financial Services Supervisor

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 attract third-party funding to support watershed programs and services.



Brian Horner

Compared to other conservation authorities, ABCA ranked sixth out of 36 in the province with levy dollars representing approximately 28 per cent of total revenue. On average, conservation authorities in Ontario are funded with approximately 47 per cent of their dollars coming from the municipal levy.

In 2011, funding was borrowed from reserves to purchase needed office space next to the administration building. The space was identified

Financial Summary

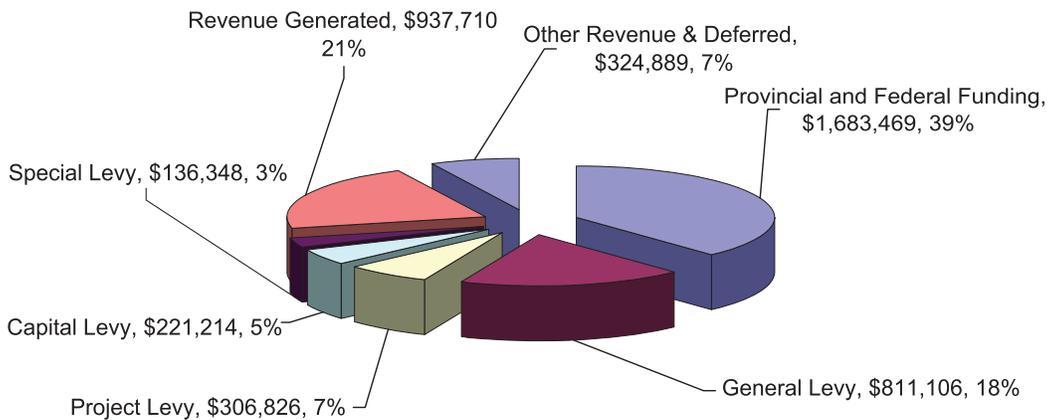
in a needs assessment study that was done in 2009. While the needs assessment study identified the need for expansion to the existing building, the Board of Directors concluded that, due to current economic conditions, an expansion was not feasible.

The board determined that the purchase of this asset was an acceptable alternative and the borrowing from the reserves will be paid back with a one-time capital levy to the member municipalities over the next 10 years.

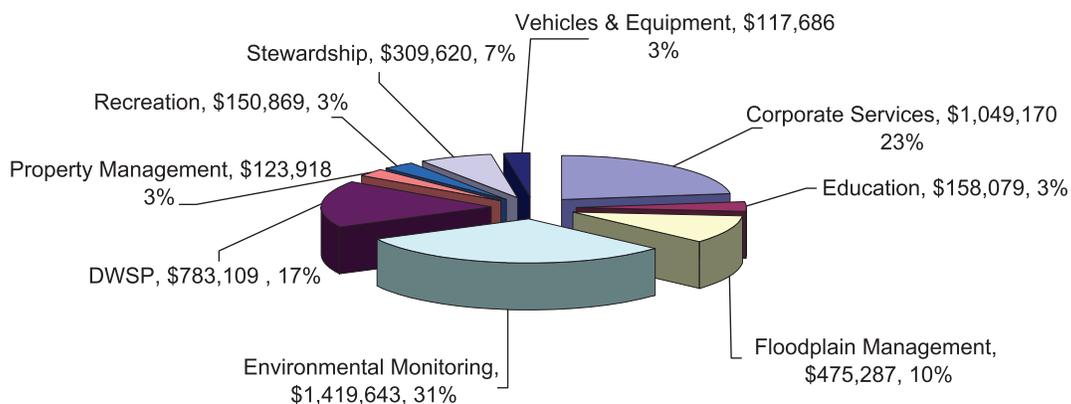
The unaudited deficit of \$166,000, which includes amortization of \$217,000, is approximately \$35,000 better than anticipated.

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

2011 Sources of Revenue - Total Revenue \$4,421,561 (Unaudited Figures)



2011 Department Expenses - Total Expenses \$4,587,380 (Unaudited Figures)



Huron Tract Land Trust Conservancy formed to acquire, protect lands for nature preservation in historic Ontario area

A new charitable organization was created in 2011 to acquire and permanently protect lands for nature preservation throughout the area of the historic Huron Tract.

The first Board of Directors for the Huron Tract Land Trust Conservancy (HTLTC) was formed. (Directors are shown at right).

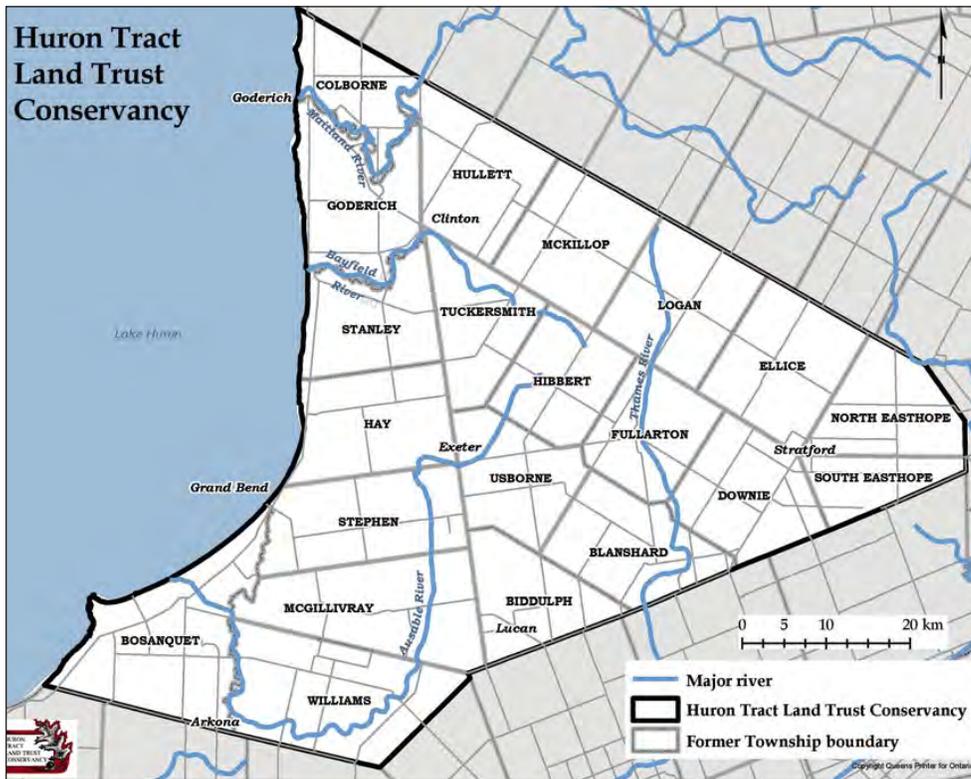
Lands trusts are charities which accept donations or bequests of land to help conserve land through ownership or through conservation agreements with property owners. Land trusts are committed to protecting those lands and properties permanently.

The Ausable Bayfield Conservation Foundation

facilitated creation of the HTLTC to provide local landowners the opportunity to donate land throughout this important area of southwestern Ontario.

The name Huron Tract refers to a stretch of southwestern Ontario land between Lake Huron and Lake Erie encompassing the modern-day counties of Huron, Perth, Middlesex, and Lambton. The Huron Tract was a one-million-acre area purchased and administered by the Canada Company, a British land development company acting with approval of the British government, in the 1830s. The Huron Tract is roughly 4,000 square kilometres in size.

For more information visit: htltc.ca



The new land trust will protect land in the area of the historic Huron Tract.

Huron Tract Land Trust Conservancy Board of Directors



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



Roger Lewington
(Chair)
Bayfield



Work on the foundation for a Woodland Reflection Shelter began in 2011. The pavilion along the South Huron Trail, at a Morrison Dam Conservation Area Commemorative Woods site, will be a place to enjoy nature and remember loved ones.

Fundraising began in 2011 for new Woodland Reflection Shelter

By Ernie Miatello, Chairman, Ausable Bayfield Conservation Foundation

The nine volunteer directors on the Ausable Bayfield Conservation Foundation Board of Directors met five times during 2011 to pursue their commitments to conservation, and preservation and protection of the unique natural landscapes of the Ausable River, Bayfield River and Parkhill Creek watersheds.

Following are highlights of the project areas:

Woodland Reflection Shelter

The Ad Hoc Committee made up of community volunteers and Foundation members kicked off the fundraising campaign and construction of a pavilion-like structure with a student-created metal tree affixed to the inner wall where plaques will recognize memorial donations in the commemorative woods. A successful and unique *Collector2Collector* art auction was held in November at Ironwood Golf Club raising \$5,200 towards the structure.

The footings for the 20' x 30'

Chairman's Report



This rendering shows what the Woodland Reflection Shelter pavilion will look like. Fundraising began in 2011 and was scheduled to continue in earnest in 2012.

shelter were poured in the fall ready to continue with construction in the spring.

Conservation Education

- A \$1 subsidy for each student attending an education program offered by the ABCA
- Ongoing sponsorship of the Aquatic Species at Risk Bussing Program
- Financial contribution to the education activities at Aquafest Grand Bend 2011

continued next page

Foundation Board of Directors



Bob Radtke
Ailsa Craig



Ernie Miatello
(Chair)
London



John Walsh
London



Roger Lewington
Bayfield



Peter Darbishire
Exeter



Ted Jones
Exeter



Bob Norris
Staffa



Teresa Ondrejicka
Exeter



Dave McClure
Grand Bend

Donors, patrons, volunteers set record for auction

continued from previous page

The Ausable Bayfield Conservation Foundation's major fundraising event is the annual Conservation Dinner in cooperation with the Exeter Lions Club.

The year 2011 was the 22nd dinner auction and it reached a pinnacle of \$53,400 in support of accessible nature trails, fishing derby, and conservation area enhancements. Thanks go to community donors, patrons, and volunteers.

Accessible Trails and Facilities

- Partnered with the Bayfield River Valley Trail Association to receive donations towards a phased development of a trail system along the Bayfield River
- Coordinated the Sixth Annual Gord Strang Memorial Golf Tournament along with the original organizing committee in support of enhancements to the MacNaughton Morrison Trail
- Provided funding for the Bannockburn Conservation Area boardwalk improvements and Rock Glen Conservation Area (CA) trail upgrades
- Received donations for upkeep of the South Huron Trail Mobile and the Arkona Lions Museum and Information Centre at Rock Glen CA

Protection of Wetlands and Natural Heritage

- Funding partner for the Port Franks Biodiversity Strategy and undertaking unique turtle monitoring near L Lake Management Area in Port Franks
- Received donations towards water quality testing of the Turnbull Drain
- Funding partner for the Ausable River mussel monitoring program

Commemorative Woods Program

- Co-hosted the Tenth Annual Klopp



Left to right are: Jim Ginn, Chair, Ausable Bayfield Conservation Authority; Terry O'Rourke, Special Guest, and father of a modern-day Afghanistan veteran, who received a standing ovation for his moving message; Bob Gehan, Exeter Lions Club, Chair of Conservation Dinner Committee; Catherine Weber, Feature Artist; Bill Carson, Lions Club Past District Governor; and Ernie Miatello, Chair of Ausable Bayfield Conservation Foundation.

Commemorative Woods tree dedication service with J.M. McBeath Funeral Home on June 5 with 100 guests

- Co-hosted annual Commemorative Woods dedication service with Haskett Funeral Home on September 18 with 350 guests

- Maintained tree groves and grounds in five commemorative woods

Morrison Dam Fishing Derby

In cooperation with the Exeter Lions Club, the Annual

Morrison Dam Fishing Derby was held the first Saturday of May. Thanks to donations of \$2,000 from the Lions Club and the ABCF, more than 1,000 rainbow trout are stocked in the Morrison Dam reservoir prior to the derby for enjoyment of young, or young-at-heart, anglers.



Junior Conservationist

Quinn Rush was the 2011 Junior Conservationist – a summer position with Ausable Bayfield Conservation Authority – offered to a student interested in pursuing a career in the environmental field. This position is funded by ABCF.

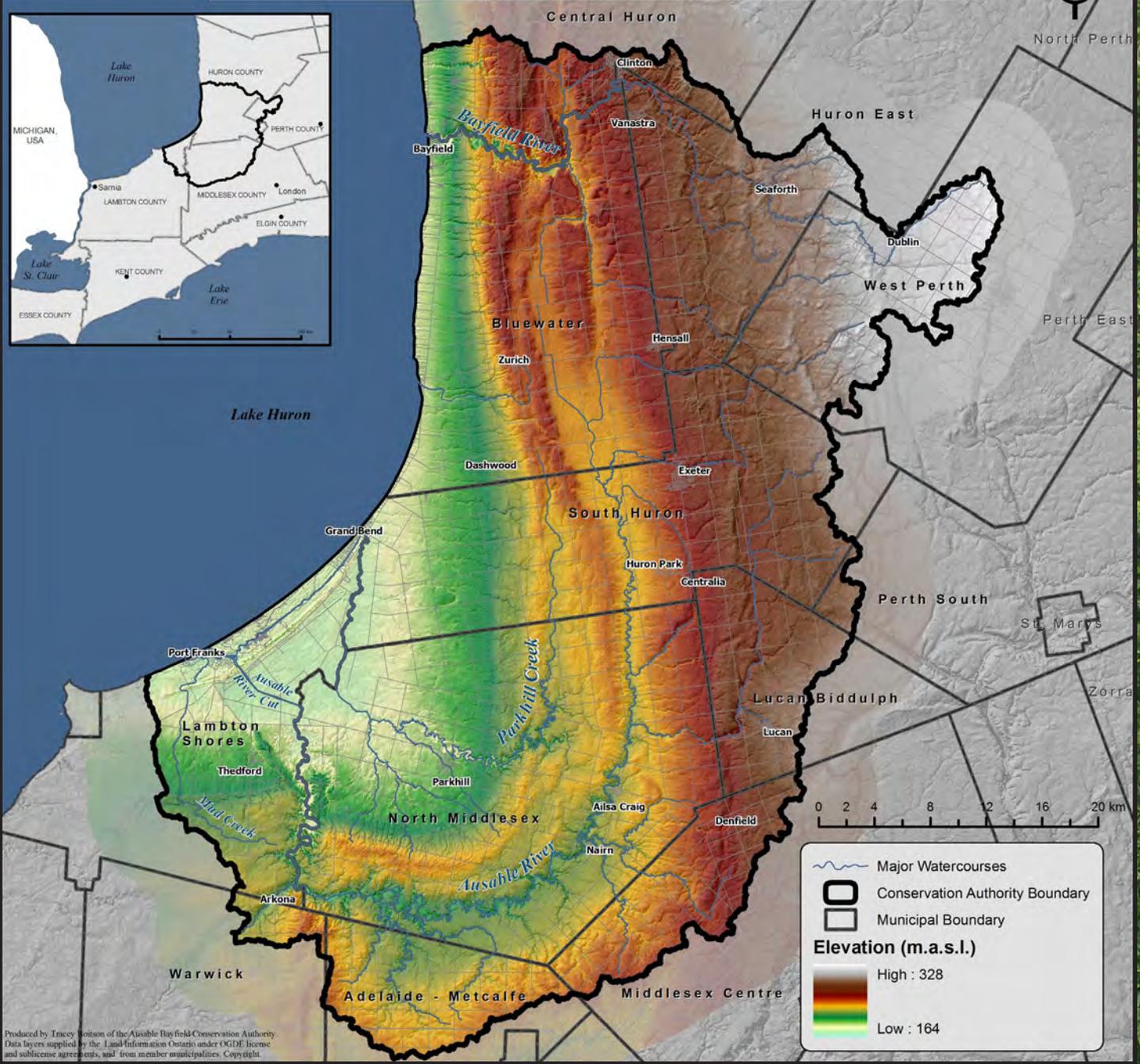


Student Environmental Award

The ABCF created a \$1,000 scholarship award for a graduating high school student residing in the watershed. Two applications were received for the award and Raina Vingerhoeds was chosen as the recipient.



Ausable Bayfield Conservation Authority Watershed



Produced by Tracey Bolton of the Ausable Bayfield Conservation Authority. Data layers supplied by the Land Information Ontario under OGDE license and sublicense agreements, and from member municipalities. Copyright.



A proud member of
Conservation Ontario



Ausable Bayfield Conservation Authority (ABCA)
 71108 Morrison Line, RR 3 Exeter, ON • N0M 1S5
 519-235-2610 • 1-888-286-2610 • abca.on.ca • info@abca.on.ca