Ausable Bayfield Conservation Authority

2010 Annual Report

ABCA Annual Report 2010
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FRONT COVER PHOTO: Tony Drinkwalter, Field Services staff member with the Ausable Bayfield Conservation Authority (ABCA), unloads trees for the spring tree program. Fifty-nine thousand trees were planted in Ausable Bayfield watersheds with the help of the ABCA tree planting programs.

INSET PHOTOS FOR TABLE OF CONTENTS: From top, photos show mechanical tree planting; Public launch of new ABCA Business Plan; drinking water source protection display at Aquafest in Grand Bend; announcement with Huron-Bruce MPP Carol Mitchell, at Seaforth well, of new Province of Ontario funding for landowners' stewardship projects near municipal wells through Ontario Drinking Water Stewardship Program; ABCA Supervisor of Stewardship and Conservation Lands Kate Monk speaking with Huron-Bruce MP Ben Lobb about species at risk at announcement of Government of Canada Habitat Stewardship Program funding; and community Conservation Strategy team at work.

Creating positive environmental and economic impact

By Jim Ginn, Chair, 2010 ABCA Board of Directors

Jim Ginn

CHAIRMAN'S MESSAGE

We all share an interest and concern about conserving our land and water.

We all have a role to play to improve the health of our watershed and Lake Huron, whether it is by taking positive action in our home, our backyard, on our farm, or in our business. As individuals, we can lead by example. We can practise stewardship at home and in the community. If we all do a little, the results will be great.

As leaders in the community, municipalities showed their vision 64 years ago. Participating municipalities formed a partnership in 1946. That partnership is now known as the Ausable Bayfield Conservation Authority (ABCA). Their purpose was to help landowners and townships with conservation projects. This partnership has stood the test of time because it is a local organization which is flexible enough to respect its history but also to adapt for the future. Adapting for the future is what is now taking place with a team of public participants who are currently developing the next Conservation Strategy. This document will give community direction for conservation efforts for years to come.

For many years, the conservation authority had thirty-five members representing the watershed community. Today there are nine board members. Nine members can effectively conduct the policy, program, and budget requirements of the conservation authority but there is an increased need for more local input to help board decision-making. Public consultation and participation is now an ongoing activity of the conservation authority.

Watershed community working groups enable watershed residents to provide valuable input and help this organization realize its mission statement to provide "leadership and management, in cooperation with the community, to maintain and enhance the watershed resources now and in the future."

Community involvement has been a great way for citizens to give us their wealth of knowledge and ideas. Educational workshops and other opportunities to take part have also enabled landowners to become aware of programs that help them build a healthier watershed and to achieve positive conservation outcomes.

Millions of trees have been planted, because of this partnership, and millions of stewardship dollars have been given to landowners to assist in the cost of implementing conservation practices. This has helped watershed health and it has helped the local economy. The partnership continues to work strongly as local dollars leverage funds from other sources – bringing in three new dollars for every levy dollar invested.

Drinking water source protection planning and implementation is a good example of a future opportunity to collaborate for conservation. The source protection committee will develop plans by 2012. Municipalities and conservation authorities can provide their distinctive delivery expertise and, in partnership, achieve a greater level of protection for health and environment.

I want to thank the staff members for their continued dedication and passion for increased watershed environmental conscience and the Board of Directors for their commitment to conservation.

Our Vision

Our vision is one of clean and useable watersheds where human needs and the needs of the natural environment are balanced to ensure quality of life and biological diversity today and in the future.

Our Mission

Our mission is to provide leadership and management, in cooperation with the community, to maintain and enhance the watershed resources now and in the future.

Board of Directors plays important role in conservation success

Member municipalities appoint the Board of Directors of the Ausable Bayfield Conservation Authority (ABCA).

The board plays an important role in the success of the conservation authority. The Board of Directors is responsible for policies, programs and budgets. It is not just what they are responsible for, but also how they go about doing their job, that results in success. Board functions include:

- Management of the board's own governance
- Approval of goals and strategic directions
- Oversight of operational performance
- Oversight of the assets and financial position
- Ensuring responsible, effective management
- Maintenance of positive stakeholder relationships.

BOARD OF DIRECTORS

Their individual duties and obligations and the way they conduct themselves include: a Standard of Care; Fiduciary Responsibility; the Duty of Good Faith; Honesty; Loyalty; Confidentiality; and Avoiding Conflict of Interest.

Being a director is not an easy job. Boards of directors set the environment and leadership level of an organization. They have a high standard of duty and care which will set the tone for the whole organization. We thank the 2010 Board of Directors of the ABCA for the important role they have played in the conservation successes of 2010. (– *T. P.*).

Ausable Bayfield Conservation Authority Board of Directors for 2010

Bob Norris
West Perth

Mark Simpson
Lambton Shores and Warwick

David Bolton
Adelaide Metcalfe and Middlesex Centre

George Irvin
Bluewater

Jim Ginn
Central Huron

Bill Siemon
Huron East

Paul Hodgins
Lucan Biddulph

Lawrence McLachlan
North Middlesex

Dave Frayne
South Huron and Perth South

ABCA staff achieves watershed successes through teamwork, partnerships

Successful Staff = Successful Organizations – Measured by Their Overall Team Effort

Successful teams equal successful organizations. Successful teams are made up of individuals who have, or have learned, the skills needed to work as a team member. They have also realized the benefits that can be derived from good teamwork.

One definition of teamwork:

"Combine your talents for a common goal and share the rewards of a job well done."

Ausable Bayfield Conservation Authority's staff members exhibit excellent teamwork. I want to thank each and every one for combining your talents with those of other staff. You deserve to enjoy the satisfaction of several jobs well done.

STAFF REPORT

We welcomed new staff member Donna Clarkson, source protection technician with Ausable Bayfield Maitland Valley Drinking Water Source Protection Region, in 2010. We also appreciated the work of co-op students Jordan Hodgins, Josh Smyth, and Laura Klein.

Donna Clarkson

Junior Conservationist in 2010 was Kate Docking and we thank Kate for her work. This summer position for youth is made possible thanks to the Ausable Bayfield Conservation Foundation.

Two ABCA staff members, Derek Matheson and Glenn Hendry, moved on to other career challenges in 2010. We thank them for their service and wish them well. (– *T. P.*).

Creating conserving society requires willingness to change

By Tom Prout, ABCA General Manager and Secretary Treasurer

'Building Better Environmental Conscience.'
– ABCA motto

'Developing a Conserving Society.'
– Gord Miller, Environmental Commissioner of Ontario, 2009-2010 Annual Report, Page 10


Tom Prout

Building Better Environmental Conscience is a key step in Developing a Conserving Society. Neither comes without controversy. We need to move forward with the best information available to us today.

There is a saying that everyone likes change, as long as it is their idea. Changes in land use practices are essential if society is going to do a better job of protecting the environment. New information is needed to change people's behaviours so that they can become a more conserving society. Our knowledge is only limited by our unwillingness to change, try new ways, and to make mistakes. We can make a difference, we can become a more conserving society, if we are open to change.

"What gets measured gets managed," said Peter Drucker. This quotation seems to fit society's concerns and questions about climate change. Climate change impacts agriculture, biodiversity, tourism, and the economy to name a few, but what are we going to do about it? When it comes to making our watersheds more resilient we can do more of what we already know but we also need new ways to make our watersheds and communities more resilient to climate change. We need new and better ways to protect our soil, forests, water quality and wildlife. This will require us to develop new ways of managing the things we measure.

GENERAL MANAGER'S REPORT

Knowledge is powerful and we need to inform and educate society so that they can understand how their activities and their use of natural resources impacts the local and global environments. Society needs to understand the impact each of them has on the community they live in so that they can stop degrading the health of their watersheds. Society already pays the same price for water as they do for gasoline. Gasoline is a finite resource which will run out, maybe in the lifetime of our children. How much will water cost the next generation?

I want to thank the Board of Directors and the staff for doing their part to help develop a more conserving society.

ABCA staff member invited to speak in St. Louis about wetlands

The Ausable Bayfield Conservation Authority (ABCA) *Human Resources Planning Framework* encourages staff members to develop their skills and share their expertise at local, provincial, national and international levels.

• Ross Wilson, ABCA Water and Stewardship Technologist, delivered a presentation in July 2010 to an international audience at the Soil and Water Conservation Society in St. Louis, Missouri. Entitled '*Maximizing Ecosystem Services Through Design Features of Constructed Wetlands,*' it was of particular interest to a research scientist from Saudia Arabia where water conservation is critical.

• Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands, presented information on 'Establishing Ribbons of Green Along Ontario's Waterways' at the Carolinian Canada/Ontario Nature Annual Conference in Sarnia.

• Kate Monk and Ian Jean, Forestry and Land Stewardship Specialist, were bus captains for tours of Middlesex and Huron counties that were part of the annual meetings of three maple syrup producer organizations: Ontario Maple Syrup Producers Association, North American Maple Syrup Council, and International Maple Syrup Institute.

• Tracey Boitson, ABCA GIS-CAD Information Systems Specialist, received her GISP (GIS Professional) designation from the GIS Certification Institute. Tracey sits on the events planning committee for URISA (Urban and Regional Information Systems Association).

Conservation educators focus on climate change in 2010

Ausable Bayfield Conservation Authority (ABCA) is one of the only providers of outdoor education in the watershed and, throughout the year, the local agency offers a variety of high-quality school programs, presentations, and special events.

The year 2010 brought many new opportunities, partnerships, and projects. Here are a few examples of the projects, programs, and events with which conservation education staff members were involved:

Conservation Education

- Go Green – Green Classroom Project (Climate Change and Conservation – Actions for Change in the Ausable Bayfield Watershed)
- World Wetlands Day celebrations
- Freshwater Coastal Dune Ecosystem Stabilization project

Students reduce their environmental impacts through Go Green Classroom

By Jenni Boles, ABCA Conservation Education Assistant

Ausable Bayfield Conservation Authority received funding in 2010 from the Community Go Green Fund, of the Ontario Ministry of the Environment, to give watershed residents (adults and children) tools and steps to create a more sustainable future by reducing emissions of harmful greenhouse gases such as carbon dioxide.

Jenni Boles

Ausable Bayfield conservation education staff members created and conducted five climate change workshops in ABCA watersheds. The August workshops gave elementary teachers up-to-date information and classroom-ready, curriculum-based materials about the local environment and adaptation to, and mitigation of, climate change. The funding made it possible for conservation educators to present climate change school assemblies to 23 elementary schools in ABCA watersheds. The assemblies challenged students to make simple changes to their daily routines. Educators explained terms such as 'climate change' and 'carbon footprint' in simple terms to the students. Students explored ways to reduce their environmental impact, or carbon footprints, by starting positive behaviours such as turning off lights when not needed, packing litterless lunches, walking to school, car-pooling, or turning off the water tap when possible. Global and local effects of climate change were discussed. Students were encouraged to plant more trees as a way to offset their greenhouse gas emissions. Each school also received a tree and decorative tree guard for their schoolyard.

Special Event Attendance

March Break Day Camps	20
Summer Day Camps	49
Non-profit Programs	281
Presentations and Workshops	763
Go Green – Green Classroom climate change project	4,621
Winter School Group Programs	472
Spring Water Awareness Program (SWAP)	2,295
Camp Sylvan	85
Spring School Group Nature Programs	950
Fall School Group Nature Programs	510
Species-at-Risk Programs	288
Winter Wonderland Snowshoeing Hike	26
Envirothon	75
Huron-Perth Agriculture and Water Festival	537
Earth Day Tree Planting	117
Aquafest	238
Bannockburn Fall Hike	200
Owl Prowl	130

Volunteers, funders support ABCA conservation education

Conservation education programs and special events have been at the forefront of instilling environmental conscience in students and adults throughout 2010.

Thank you to those who volunteered and supported conservation education staff members during Ausable Bayfield Conservation Authority's 64th year.

Many of our education programs and special events would not be possible without you.

Students visit sites on snowshoes, learn of wetlands' benefits

By Denise Iszczuk, ABCA Conservation Education Technician

Citizens around the world commemorate World Wetlands Day each February 2.

Denise Iszczuk

Ausable Bayfield Conservation Authority (ABCA) staff members Denise Iszczuk, Conservation Education Technician, and Angela Van Niekerk, Wetlands Specialist and Coordinator of the Healthy Headwaters Wetlands Initiative, joined in a partnership effort to raise more awareness about the environmental importance of wetlands.

ABCA staff members, in partnership with staff from the Huron Stewardship Council, conducted six *Wetlands on Snowshoes* programs for both elementary and secondary school students in Clinton. The hike took students out to the existing wetland on school property, with topics of discussion including the importance and function of wetlands, biodiversity of flora and faunal wetland species, human impacts, and restoration.


ABCA Conservation Education Technician Denise Iszczuk leads Clinton-area participants during a *Wetlands on Snowshoes* hike to celebrate World Wetlands Day, February, 2010.

Students learned how wetlands can store water, recharge groundwater, reduce extremes of flooding and drought, and help us adapt to and mitigate climate change. They also learned that wetlands can slow down surface water flow (which limits soil erosion) and filter pollutants before water reaches rivers, lakes, and groundwater.

Students aid in freshwater coastal dune stabilization project

By Julie Stellingwerff, ABCA Conservation Education Specialist

Ausable Bayfield Conservation Authority Conservation Education Specialist Julie Stellingwerff, along with partners from the Lake Huron Centre for Coastal Conservation, led students from the Port Franks and Grand Bend areas in planting of a unique local plant species, American Beachgrass, on November 19 in Port Franks


Julie Stellingwerff

Students planted American Beachgrass (*Ammophila breviligulata*), aka Marram Grass, in an effort to stabilize dunes and help protect this rare freshwater coastal dune ecosystem. Restoration planting using American Beachgrass is best done in the autumn, once the plants become dormant.

Students learned, before the planting, about the rarity and importance of the unique ecosystem, creation, formation and protection of dunes, species at risk, as well as demonstration of safe harvesting and planting techniques of American Beachgrass.

This was a wonderful opportunity for students to participate in positive, on-the-ground efforts to improve overall health and restoration of a rare and unique ecosystem within Ausable Bayfield watersheds.


Geoff Peach, from the Lake Huron Centre for Coastal Conservation, demonstrates how to transplant American beachgrass during the freshwater coastal dune stabilization day in Port Franks.

Monitoring networks provide municipalities, public with valuable information prior to flooding events

By Davin Heinbuck, ABCA Lands and Water Technologist

Ausable Bayfield Conservation Authority (ABCA), in cooperation with Ontario Ministry of Natural Resources (MNR) and Environment Canada, maintains and operates a data collection network in 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.

Davin Heinbuck

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 office near Exeter. Maintenance of the streamflow monitoring stations is shared by ABCA and Environment Canada staff, with funding support from MNR.

Water Level and Stream Flow Monitoring

A Volunteer Rain Gauge Network was established in 2005. Approximately 25 volunteers provide valuable precipitation data to the various conservation authority programs through a web-based data entry system. The ABCA is responsible for maintenance of groundwater monitoring stations located in some of the significant groundwater aquifers in the watershed, through an agreement with the Ontario Ministry of the Environment (MOE).

Data correction improves groundwater monitoring project

A partnership between conservation authorities and the Ontario Ministry of the Environment (MOE) maintains a network of groundwater monitoring wells across the province.

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

One of 14 monitoring wells in watershed.

Ausable Bayfield Conservation Authority has 14 active wells throughout the watershed: five bedrock wells, and nine overburden wells. Hourly groundwater level data has been logged for more than eight years at most of these wells. Telemetry at each well enables 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 fall and spring. Based on the program's short period of record, the general trend is groundwater levels have risen slightly from where they were in 2002.

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

Provincial Groundwater Monitoring Network

groundwater quality data available for each well from 2003 to 2010. To match the core requirements province-wide, water quality is analyzed for nutrients, metals, general chemistry, and bacteria. Where groundwater quality does not meet 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; 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.

A Data Correction Project was completed for the entire PGMN program in 2010. This project reviewed the data collected to date to ensure consistency and accuracy. The forthcoming recommendations from the report will ensure the network continues to develop to a standard of the highest quality. PGMN data also supports both the Flood Forecasting and Warning and Ontario Low Water Response Program.

Water Response Team declares Level 1 Low Water condition

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

Ausable Bayfield Conservation Authority (ABCA) continued to be involved in the Ontario Low Water Response (OLWR) program during 2010. This program was created after extreme dry conditions were experienced in parts 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 per cent voluntary reduction in water use is requested;
- Level II, where a 20 per cent voluntary reduction in water use is requested, and;
- Level III, where mandatory water use restrictions may be put in place.

The ABCA Low Water Response Team (WRT) is made up of municipal and provincial agency representatives as well as representatives from the 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, the Ontario Federation of Anglers and Hunters; and ABCA.

Levels of Response

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

Low Water Response

The WRT held one meeting and six e-conferences during the year. A Level I Low Water condition was declared on September 7, 2010 and removed on November 1, 2010.

Approximately 25 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.

Dry conditions can affect many locations within Ausable Bayfield watersheds from year to year, as shown by photo of Bayfield River at Airport Line in 2009 (photo at left) and photo at Decker Creek , an Ausable River tributary near Thedford, in October of 2010 (photo at right).

Modest rainfall limited flooding effect of spring snow melt

By Davin Heinbuck, ABCA Lands and Water Technologist

The year 2010 was relatively quiet in flooding terms, with the exception of the spring freshet and ice break up in mid-March.

Temperatures in early March reached nearly 15 degrees Celsius, and with anywhere between 50 and 125 millimetres of water equivalent in the snow pack, risks for flooding were elevated. Additionally, with river-ice measurements of nearly 30 centimetres, ice-jamming was a possibility. Ausable Bayfield Conservation Authority (ABCA) staff monitored forecasts and models closely to determine the rainfall patterns and the potential flooding impacts.

Fortunately, the forecasted rainfall missed our watershed, and the snowmelt event was driven mostly by the warm temperatures. This resulted in a fairly rapid, but controlled, snow melt, creating only minor nuisance flooding, limited to floodplain and natural storage areas such as wetlands.

Ice conditions and break-up were monitored throughout the freshet and did not present any ice-jamming problems in either the Port Franks or Grand Bend area.

ABCA issued three High Water Safety Bulletins during the year 2010.

Flooding Summary

A quick thaw at the end of December raised water levels in area watercourses. Peak flows from this event actually occurred early in 2011.

The photo above shows the Parkhill Dam control building and Parkhill Reservoir on March 13, 2010, during a period of high water.

ABCA hosts municipal flood emergency planning meeting

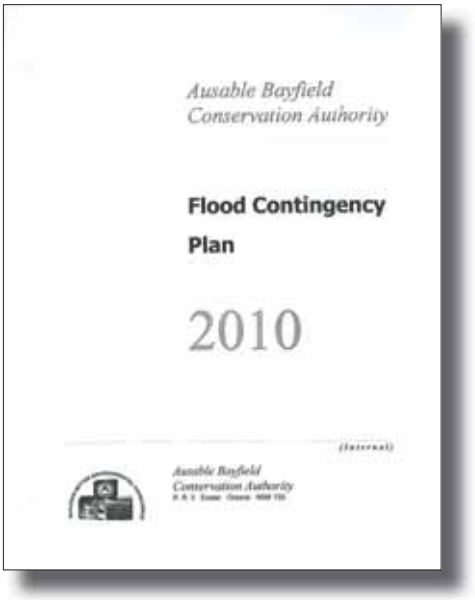
By Alec Scott, P. Eng., ABCA Water and Planning Manager

Ausable Bayfield Conservation Authority hosted a Flood Emergency Planning Meeting on March 2, 2010, as part of its responsibility to promote Planning for Flood Emergencies among its watershed municipalities.

Twenty-seven people attended the workshop representing municipal, county and provincial agencies as well as the local media. The workshop included presentations by ABCA staff on roles and responsibilities in flood emergencies, current watershed conditions and results from a spring flood communications exercise, in addition to general discussion about emergency planning.

Flood Emergency Planning

Ian Siertsema, from the County of Huron, provided an informative presentation on the PRISM Emergency Notification System which the county recently implemented.



ABCA staff maintain and repair flood, erosion control structures

Ausable Bayfield Conservation Authority (ABCA) inspected and performed maintenance on water and erosion control structures owned or constructed by the ABCA, as part of the conservation authority's mandate.

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 unless it is determined that it would be more efficient to contract the work out to local companies.

Structures, Operations and Maintenance

Conservation authority staff members completed repairs on a number of structures, as a result of the inspections.

Work included vegetation control around structures and general minor repairs to prevent larger maintenance problems in the future.

Photo above shows the removal of Parkhill Dam controller for refurbishing.

Photo above shows the refurbished controller at Parkhill Dam.

WECI program supports Parkhill Dam gate controller servicing

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

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

The Ausable Bayfield Conservation Authority can apply, under this program, for 50 per cent grant funding for major maintenance projects.

The following Water and Erosion Control Infrastructure project was completed in the year 2010:

Water and Erosion Control

Parkhill Dam Gate Controller Servicing

The motors and gearboxes which control the operation of the gates at Parkhill Dam have been in service with no operational issues for more than 40 years. In 2010, both of the controller units were removed, completely refurbished, tested, and then reinstalled. The work was done by Flowserve Corporation, of Sarnia, at a cost of $56,100.

Some ABCA subwatersheds sensitive to climate change impacts

By Ross Wilson, ABCA Water and Stewardship Technologist

Ausable Bayfield Conservation Authority (ABCA) partnered, early in 2010, with Conservation Ontario and the Ontario Ministry of the Environment (MOE) on a project to assess the Provincial Groundwater Monitoring Network (PGMN) and the Provincial Water Quality Monitoring Network (PWQMN) for various climate change study purposes.

Ross Wilson

All of the ABCA subwatersheds were evaluated using local scale data to assess each subwatershed's sensitivity to climate change impacts. Two subwatersheds (Parkhill Creek and Upper Ausable River) were found to have high sensitivity to climate change impacts. As an illustration, the shallow overburden wells in these two subwatersheds would be at greater risk of running dry if less precipitation (rain and snow) was experienced as a result of climate change.

The existing PGMN and PWQMN networks were also assessed for their capability to monitor climate change impacts in these highly sensitive subwatersheds. The water quality monitoring network was found to have very limited capability to monitor climate change impacts, mainly due to infrequent sampling (monthly) and limited period of record for most stations in the network.

Other Water Management Projects

The PGMN network has limited capability mainly because the wells are not located in the best locations for climate change purposes and the period of record is not very long. As a result, recommendations for station upgrades were made including the addition of four new PGMN shallow overburden wells, three new PWQMN wells with automated samplers, and three new hydrometric stations.

As a follow-up to this exercise, ABCA staff was included in a national survey on network design to monitor climate change impacts and were selected to be the first contributors towards the creation of a national Canadian Council of Ministers on the Environment (CCME) guidance document. Also, the ABCA was selected to potentially receive an upgrade to the existing Parkhill Creek hydrometric station to include integrated monitoring capabilities which would link groundwater quantity with surface water quantity and quality. This enhanced station would then be one of only five such stations proposed to be installed in Ontario to specifically monitor long-term changes due to climate change.

Baseflow monitoring data assists low water, flooding programs

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

In 2010, the Ausable Bayfield Conservation Authority and Maitland Valley Conservation Authority (MVCA) continued the multi-year baseflow study which began in 2007.

Baseflow was measured throughout the two watersheds from May to September of 2010.

This study is part of the drinking water source protection (DWSP) planning project, funded by the Province of Ontario.

Reports prepared each year serve as a technical summary of each baseflow monitoring season. For the 2011 report, all measured values are compared and contrasted with data from the three previous years. The collected discharge values can be used to develop a water budget for the area and help to identify significant recharge areas for the drinking water source protection project.

Other Water Management Projects

The data also contributes to watershed knowledge in relation to a number of other programs including Low Water Response, Flood Forecasting and Warning, and Healthy Watershed projects.

ABCA moves closer to valuable three-dimensional mapping

By Tracey Boitson, ABCA GIS/CAD Specialist

Geographic Information Systems, or GIS, supports programs and projects at the Ausable Bayfield Conservation Authority (ABCA).

Geographic Information Systems, as the name implies, has information that is linked to a spatial or geographic location. It is for the storage, display and analysis of geographic data.

Tracey Boitson

GIS staff members, at the ABCA, can be involved in creating databases, linking databases to a spatial layer, data manipulation (aggregation, changing file formats, etc.) or map creation. Staff members can also complete 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.

Map shows Ausable Bayfield Conservation Authority Hydrometric Monitoring Network.

New air photography was completed in 2010 after flights were conducted for partners in the South Western Ontario Orthophotography Project (SWOOP II). The project delivered 20-centimetre-resolution ortho-rectified images as well as all RAW photos, control points, and triangulation files. This means the ABCA will be able to fly projects in the future without the added cost of collecting ground control, giving us more control on when and where future flights will occur. This also means the ABCA has the ability in the future to set up three-dimensional (3D) mapping systems, allowing for the accurate collection of features on the ground and for the creation of Digital Elevation Models used in floodline delineation and other projects.

GIS Mapping Report

In 2010, ABCA GIS staff members also:

- Completed analysis using Revised Universal Soil Loss Equation (RUSLE) and sediment loading in the Ausable River to direct stewardship work
- Added additional layers of information to internal Internet mapping system making the number of layers being displayed and accessed by staff almost 130 layers
- Participated in discussions on Natural Heritage updates for the Huron County Natural Heritage Study
- Transferred a number of *Access* software databases into SQL server 2008 databases
- Helped in the programming of flood forecasting software
- Assisted Maitland Valley Conservation Authority staff in developing an Information System Strategy for the MVCA
- Continued to complete updates as required to core information databases for various programs.

Directors and staff gained a greater understanding of properties and project sites during a bus tour on June 8, 2010. The tour focused on the south and west portions of the watershed.

ABCA will provide important comments, data, and mapping related to a study of natural heritage in Huron County. Natural heritage features and areas include significant wetlands, habitat for species at risk, and other features.

CA comments help reduce risks to life, property, municipalities

By Geoffrey Cade, ABCA Supervisor of Water and Planning

The Ausable Bayfield Conservation Authority (ABCA) has been provincially designated as the lead agency, within its jurisdiction, providing natural hazard comments to landowners and municipalities.

The conservation authority provides input and technical support on broad land use policies (the municipal Official Plans and zoning by-laws) and on individual planning applications including severances, minor variances, and subdivisions.

Geoffrey Cade

The conservation authority also provides comments with respect to the agency's own hazard regulation – *Ontario Regulation 147/06*.

It is important that development, as it takes place, be located safely away from hazardous areas such as floodplains or unstable slopes. Conservation authority comments help prevent future risks to life and property, and protect the interests, and reduce liability, of our member municipalities.

The total number of files processed in 2010 was at a level consistent with 2009 – despite the challenging economic climate. As in past years, much of the conservation authority's planning activity is focused along the Lake Huron shoreline.

PLANNING INPUT AND REVIEW

In addition to our daily activities, there are a number of emerging issues that have been identified for the conservation authority's planning program.

They include:

- Assisting the County of Huron in undertaking a county-wide Natural Heritage Study
- Assisting in the creation of proposed policies for the protection of municipal sources of drinking water
- Input and review of proposed industrial wind farms – as outlined in the *Green Energy Act* (It is important to note that this review is limited to natural hazard issues such as flood plain and erosion concerns)
- Adaptation to climate change
- Undertaking updates to conservation authority shoreline policies.

Shoreline sediment valuable resource that helps protect property

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

The Ausable Bayfield Conservation Authority (ABCA) is empowered to regulate specific activities through the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (*Ontario Regulation 147/06*).

Andrew Bicknell

Areas which are regulated include river or stream valleys, the Lake Huron shoreline, watercourses, hazardous lands, and wetlands. Development affecting these areas may require prior written permission of the conservation authority to ensure that the control of flooding, erosion, dynamic beaches, pollution, or the conservation of land is not affected.

One primary objective of the conservation authority's regulation program is to safeguard life and property by directing new development away from hazardous lands such as flood plain or unstable slopes.

The ABCA is often the first agency contacted when in-water work is proposed. Under our fish habitat management agreement with Fisheries and Oceans Canada, the conservation authority reviews proposals to assess their potential impacts to fish habitat. Additionally, proposals are appraised to determine if there are any special concerns or considerations under federal Species at Risk Act (SARA) legislation or under the provincial Endangered Species Act (ESA). The proponent is typically referred to the Ontario Ministry of Natural Resources to facilitate a provincial-level ESA screening.

Traditionally, the conservation authority has issued permits under *Ontario Regulation 147/06* allowing dredging activities to occur within the marina environments of Bayfield, Grand Bend and Port Franks. In the past, for many of these projects, the standard practice has been to haul away the dredged material to locations off site. There is a need to reconsider this practice. Today there is, perhaps, a greater awareness in regard to the naturally occurring coastal process of sediment transport and in particular, the concept of a 'sediment budget.' Beaches provide a natural barrier or protection against the effects of lake storms and the energy from wave action which, in turn, causes erosion. River systems and gullies emptying into Lake Huron supply significant quantities of sand and sediment to these beaches and to the coastal environment in general.

As we speak more in terms of sustainability, there is a need to have regard for the overall sediment budget and to return this valuable resource back to the system as opposed to the traditional practice of removing it off site.

REGULATIONS REPORT

Statistics for 2010

- 73 Applications for Permission
- 70 minor work permits
- One hearing conducted (*Ontario Regulation 147/06*)
- 12 Drain reports reviewed
- 81 letters of advice issued (under agreement with Fisheries and Oceans Canada)

IMAGE SOURCE:
Joseph R. Tomelleri

Beaches can provide natural protective barriers against the erosion effects of storms and waves.

Region submits proposed assessment reports to Minister

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

DRINKING WATER SOURCE PROTECTION

Cathie Brown, Project Manager

The year 2010 began with extensive municipal and public review of draft proposed assessment reports for the Ausable Bayfield and Maitland Valley source protection areas. The Ausable Bayfield Maitland Valley Drinking Water Source Protection Committee (SPC) looked at the municipal and public comments as they revised and adopted proposed assessment reports. The source protection authorities sent these documents to the Ontario Minister of the Environment for consideration.

The creation of detailed proposed assessment reports and mapping would not have been possible without the dedication of the committee, project staff, and consultants. We thank the municipal staff members who have been so cooperative during the development of assessment reports and we look forward to working closely with them next year during the development of planning policies.

The source protection committee undertook many worthwhile projects last year. Staff members met in person with property owners and designates of almost all industrial, commercial, agricultural, institutional and municipal properties in the most vulnerable areas near municipal wells of the region. The region also surveyed residents of homes in the most vulnerable areas and corresponded with all property owners in those areas to keep them informed of opportunities for financial assistance and engagement.

Chair Larry Brown and the 15 voting community and municipal members, and the four liaisons, will be busier than ever next year as this region prepares to further engage municipalities, landowners in vulnerable areas, and other partners, in the development of source protection planning policies. The committee has to complete source protection plans by 2012 but there is a lot of work to prepare these comprehensive documents. The committee will also be busy updating the assessment reports.

The Ausable Bayfield Conservation Authority and Maitland Valley Conservation Authority have been leaders in delivery of the provincial stewardship program. The committee applauds the on-the-ground stewardship landowners have been doing near municipal wells this year, with the support of the Province of Ontario and local conservation authorities, and the region looks forward to additional on-the-ground projects to protect drinking water next year.

The Ausable Bayfield Maitland Valley Drinking Water Source Protection Region was also honoured and excited to work with Chief Elizabeth Cloud and the band and people of Chippewas of Kettle and Stony Point First Nation to facilitate, in partnership, numerous stewardship projects on properties around their drinking water intake.

The drinking water source protection work is exciting and challenging as we now move into the most important phases of all: plan preparation (by 2012), followed by implementation. It's been demanding, engaging work and our entire team is gratified to know our municipal drinking water sources will be better protected by the efforts of the committee and the people of this region.

I encourage property owners, tenants, and residents of properties in vulnerable areas, the public, and our other municipal and public partners, to be part of source protection planning development over the coming year.

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 toll-free at **1-888-286-2610** or by e-mail at **info@sourcewaterinfo.on.ca** or feel free to arrange a meeting with our staff at the source protection authority offices.

Partnerships increase ABCA's capacity to monitor water quality

By Brynn Upsdell, ABCA Water Quality Technician

Brynn Upsdell

Water quality monitoring continued at 18 long-term stations from March to November, 2010.

Nine stations are a part of the Provincial Water Quality Monitoring Network. The Ausable Bayfield Conservation Authority (ABCA) collects the water samples, the Ontario Ministry of the Environment (MOE) analyzes the samples, and both partners share the data.

Monitoring at nine additional sites, with sample analysis at a laboratory approved by the MOE, is funded by the ABCA.

ABCA continues to partner with Bayfield Ratepayers Association, Bluewater Shoreline Residents' Association, Wee Lake Residents' Association, Municipality of Bluewater, Ontario Ministry of the Environment, and Pinery Provincial Park, to collect water from 45 other locations around Ausable Bayfield watersheds. These additional sampling sites were located at the Bayfield River, Gully Creek, Old Ausable Channel, Ridgeway Drain, Zurich Drain, Wee Lake, and the outlets of the Houston Heights, Kingsmere, Ridgeway, St. Joseph Shores, and Wildwood Drains.

Staff members collected benthic macro-invertebrates from 41 stations in October 2010, to complement the water chemistry monitoring. Benthic macro-invertebrates are bottom-living animals (e.g., aquatic insects, crustaceans – crayfish, mollusks – mussels, and worms). These animals provide biologically integrated information about our watersheds.

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, are reviewing the grading categories for the watershed report card to better reflect the range of conditions in southern Ontario.

Monitoring

Mayfly nymphs are among benthic macro-invertebrates ABCA staff members find at water quality monitoring stations. Mayflies are used as an important water quality monitoring tool, as their presence and diversity are indicators of the health of the water and aquatic environment. This adult mayfly was found near the Ausable River. *(Photo courtesy Shawn Staton, Fisheries and Oceans Canada).*

Watershed communities plan, act to protect water in the year 2010

Rural non-point pollution to water sources comes from many seemingly insignificant sources around individual homes, farms, businesses, or construction sites.

Individual property owners have the best chance to identify and act upon improvements to water quality. Linking individual actions to downstream water quality condition can be achieved through community-based watershed planning. Communities implementing watershed actions, in 2010, included: the Municipality of Central Huron, the Municipality of Bluewater (Dashwood), Grand Bend, Clinton, and Port Franks. (– *M. V.*).

Communities in Watershed Action

Residents' plan resulting in tree planting, wetlands, erosion control

By Hope Brock, ABCA Healthy Watersheds Technician

Bayfield North Watersheds Management Plan

Residents of a forty-square-kilometre area 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. These actions will help address one of the main recommendations of the plan, which is to protect and enhance the natural environment.

Hope Brock

The planning work of the community north of Bayfield is now resulting in the implementation of practical projects recommended by those residents.

Work with landowners improving Ridgeway Drain in Dashwood

Ridgeway Drain Water Quality Improvement Project (Dashwood)

The Ridgeway Drain watershed is a small ravine, emptying into Lake Huron, just north of Grand Bend. It is one of four ravines that the Bluewater Shoreline Residents' Association (BSRA) monitors in cooperation with the Ausable Bayfield Conservation Authority (ABCA).

The main approach to improving water quality within the ravine and at the lake will be working with landowners to identify possible rural best management practices (BMPs). Some visits with landowners were initiated in 2010, and these visits will continue in 2011. (– *H. B.*).

Crops and Creeks Huron looks at value of Best Management Practices

By Mari Veliz, ABCA Healthy Watersheds Coordinator

The Huron County Federation of Agriculture (HCFA) and ABCA were successful, late in 2010, in an application to examine the environmental effectiveness and economic costs and benefits of agricultural best management practices (BMPs).

This project, *Crops and Creeks Huron*, is one of two watershed-based evaluation projects that the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is helping to fund in Ontario.

Mari Veliz

This study will expand on previous water quality improvement efforts in three watershed areas of the ABCA:

- The Bayfield North watersheds in the Municipality of Central Huron
- The Zurich Drain watershed, and;
- The Ridgeway Drain watershed

(The latter two watersheds are in the Municipality of Bluewater).

Specifically, the purpose of this three-year study is to:

a) Assess the environmental effects of BMPs, and;

b) Estimate private costs and benefits of BMP implementation.

The evaluation project will run until 2013.

Port Franks residents active in community-based turtle monitoring

By Kari Jean, ABCA Aquatic Biologist

The Port Franks area supports a wide variety of plants and animals, some of which are designated as species at risk (e.g., Dwarf Hackberry tree and Lake Chubsucker fish).

Residents of Port Franks recognize they live in a unique place and worked in 2010 to implement actions to enhance their community including learning about native plants and monitoring local turtles.

A workshop was held in early spring 2010 to teach residents about local turtle biology and how to record sightings. As a result, ABCA received more than 50 calls and e-mails from the community throughout the spring and summer regarding turtle sightings, nesting turtles, and turtle mortalities along roadsides. Nesting turtle information was particularly important as it gave baby turtles a chance at survival.

Kari Jean

Turtle surveys were also conducted in the area and information collected included: type of turtle, measurements, weights and sometimes blood for genetic purposes. This project was the start of a long-term monitoring program that will tell us about turtle presence and habitat in the Grand Bend - Port Franks area.

What can you do for local turtles? Don't feed turtle-nest predators such as raccoons – keep garbage contained so raccoons and skunks are not encouraged. The pet trade is a serious issue for turtles. Please contact the Ontario Ministry of Natural Resources if you see suspicious turtle collection (**1-877-TIPS-MNR**).

Slow down and watch for turtles crossing the road especially during May and June (nesting time). Remember, if you feel safe helping a turtle cross the road, always move them the way they are already traveling.

Port Franks Community Biodiversity Strategy

The surveying and protection of turtles, both common and species at risk, has been possible with the support of the Port Franks community (as shown in photo of meeting, second from top).

Old Ausable Channel management plan implemented in Grand Bend

Ausable Bayfield Conservation Authority continued to conduct water quality monitoring and fisheries studies in the Old Ausable Channel near Grand Bend in 2010, with help from federal and provincial partners.

The Old Ausable Channel (OAC) is an isolated portion of the Ausable River.

This historic channel was cut off from the present Ausable River at the end of the nineteenth century.

Old Ausable Channel Long-Term Management Plan

The OAC has been identified as an important ecosystem in the Ausable River Recovery Strategy, as it is home to three species at risk fishes, and the oak savanna ecosystem on its shores is internationally significant. (– *K. J.*).

Healthy Ausable River offers habitat for mussels, fish species at risk

Ausable Bayfield Conservation Authority (ABCA) has worked with Fisheries and Oceans Canada to identify areas of the Ausable River that provide suitable homes for its fish and mussel species at risk.

This information will help identify areas that need to be protected for these species to survive. Projects undertaken near these areas will help to prevent the species from disappearing and hopefully help their populations to grow.

Hydrologically active areas in the headwaters are important source areas for downstream sediment and nutrient concentrations. Mari Veliz, ABCA Healthy Watersheds Coordinator, worked on a project led by the Toronto and Region Conservation Authority in the Lake Simcoe watershed to develop criteria to document the form and function of these important ecosystem features. The development of these criteria will help with ongoing recovery actions for the Ausable River.

(– *B. U.*).

Ausable River Recovery Strategy

Sixteen new wetlands created in Middlesex and Huron counties in 2010

By Angela Van Niekerk, ABCA Wetlands Specialist

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

Angela Van Niekerk

Water storage is a key wetland function. Stored water provides moisture during drought to enhance crop production and helps to reduce downstream flooding. Wetlands also improve water quality by filtering pollutants.

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

Financial support for wetland restoration continued, in 2010, from the Ontario Trillium Foundation (OTF), an agency of the Government of Ontario. Healthy Headwaters Wetlands Initiative also received financial support of the Government of Canada, provided through the Department of the Environment (Habitat Stewardship Program for Species at Risk and EcoAction Community Funding Program); Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA); Huron Clean Water Project; Ducks Unlimited Canada; and Ontario Ministry of Natural Resource's Community Fisheries and Wildlife Involvement Program.

Healthy Headwaters Wetlands Initiative

The Healthy Headwaters partnership has created 30 wetlands since its inception in 2008. There were 16 new wetlands created in 2010.

Ecosystem Benefits from Healthy Headwaters Wetlands Initiative

	2008	2009	2010
Trees planted	5,890	48,060	32,583 *
Number of wetlands created	4	10	16
Wetlands created (acres)	50	110	102

** 2010 tree planting totals for the Healthy Headwaters Wetlands Initiative were not finalized at time of printing.*

Thanks go to all of the landowners who have worked with ABCA and its partners to protect or restore these wetlands. We continue to look for interested landowners who have flooding, soil erosion issues, or need more streamside vegetation on their properties in Middlesex and Huron counties.

Contact Angela Van Niekerk, Wetlands Specialist, at ABCA at **519-235-2610** or toll-free **1-888-286-2610**, or e-mail **avanniekerk@abca.on.ca** if you are interested in enhancing wet areas on your property.

ABCA lands provide environmental benefits of green infrastructure

By Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands

Ausable Bayfield Conservation Authority (ABCA) provides green infrastructure and builds resiliency into the watershed.

For example, each year, millions of litres of flood water is stored in Hay Swamp and released slowly through the year to the groundwater, watercourses, or trees. The lands and waters are habitat for many species at risk.

Kate Monk

ABCA is a corporation and its properties are *not* Crown Land. They are owned by the conservation authority and taxes are paid on the majority of the lands. ABCA establishes rules and permitted activities, in accordance with the *Conservation Authorities Act* and other applicable legislation. Recreation and nature appreciation are important secondary benefits but the permitted activities must respect the sensitivity of the lands while balancing the needs of the community.

Three Environmental Monitoring and Assessment Network vegetation monitoring plots were established at the Ausable River Cut Conservation Area and L-Lake Management Area, using a protocol established by Environment Canada. This will allow for changes in vegetation communities to be tracked over time. Funding for this initiative is from the Ontario Ministry of Natural Resources (MNR) Species at Risk Fund.

This year, conservation authority staff identified Emerald Ash Borer larvae in ash trees at Ausable River Cut Conservation Area near Port Franks. Staff has yet to observe the insect on any other properties. Affected trees will be removed where they are a safety hazard near roads and trails.

The ABCA began stewardship efforts on two properties acquired in 2009. A wetland was created on the Triebner Tract in Hay Swamp by intercepting drainage tiles. In 2011, trees that thrive in swamps will be planted.

At Linfield Wildlife Area, near Bayfield, nine acres were retired from cropping and planted in trees by ABCA staff, Community Living South Huron, and students from the following schools: Huron Centennial, St. Boniface, and South Huron District High School.

CONSERVATION LAND MANAGEMENT

These students from Huron Centennial School planted trees at Linfield Wildlife Area on Earth Day .

Maple trees were planted along the roadsides to re-establish the tradition of the stately roadside maples. The buffers along the watercourse were enhanced by planting the sloped farmland. It is suiting that the trees were planted by youth since Bill Linfield, the former owner of the property, spent his career as a teacher and principal in Huron County. The students and families from the nearby schools will be able to watch the trees grow and appreciate their contribution to restoring the site.

Nineteen people take Hike Ontario hike leader certification course

By Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands

The Ausable Bayfield Conservation Authority (ABCA) hosted a Hike Ontario Hike Leaders' Certification Course on May 4, 2010.

Nineteen people learned how to be safe and effective hike leaders. Participants were from Friends of the South Huron Trail, the community, Ausable Bayfield Conservation Authority, and Maitland Valley Conservation Authority.

The Friends of the South Huron Trail volunteers put these skills to work leading evening hikes in August along the MacNaughton - Morrison and Morrison Dam Conservation Area sections of the South Huron Trail, and the *Spirit Trail Supernatural Hike.* That evening hike drew 80 interested participants as part of Trails Open Ontario and Doors Open Haunted Huron initiatives in October.

Conservation areas complement the facility-based recreation provided by municipalities for their residents. The use of trails, forests, and rivers for outdoor recreation continues to increase. Partnerships play a critical role in funding and maintaining the properties.

CONSERVATION AREAS

Volunteers from Friends of the South Huron Trail were among those who took a hike leaders' course. They then tested their skills leading hikes including evening *Spirit Trail* hike (bottom right photo).

ABCA replaces first section of boardwalk at Bannockburn CA

The replacement of the first section of boardwalk from the parking lot through the wet meadow at Bannockburn Conservation Area was funded from the ABCA project levy, Ausable Bayfield Conservation Foundation, and the Shell Environmental Fund. Boards had been replaced on original boardwalk installed in the mid 1980s but a total replacement was now needed. Phase 2 of the project will see the remaining boardwalk replaced in 2011.

CONSERVATION AREA DEVELOPMENT

The Smith Family Heritage Trail was created this year on the 16-acre forested property, adjacent to Bannockburn Conservation Area, donated by Ralph and Eleanor Smith in 2009. Highlights of the natural-surface trail are the pioneer log cabin stone foundation and the footprint of the barn used in the 1800s. *(– K. M.)*

Photo at left shows replaced boardwalk at Bannockburn Conservation Area. Photo at right shows the Smith Family Heritage Trail.

Geocaching brings new visitors to conservation lands

Geocaching is a family-friendly, high-tech game of treasure hunting. People visit geocache web sites to learn of locations and clues to finding the cache. There are more than 20 geocaches on Ausable Bayfield Conservation Authority (ABCA) lands. Environmental damage is an unintended consequence: trampled vegetation, habitat damage, and destruction of an area's historic and cultural resources. Conservation authorities and Ontario Parks are experiencing similar issues.

In 2010, the ABCA adopted a policy for geocaches on ABCA lands. This policy is largely based on the Parks Canada policy for geocaching on Parks Canada sites. Through the implementation of this policy, the ABCA can facilitate responsible enjoyment of this recreational activity and potentially attract new audiences to experience and learn about cultural and natural heritage. This policy sets minimal required standards. Individual ABCA sites may have additional restrictions to caching activities. The policy addresses the following:

Conservation Area Development

- Cache placement
- Containers and content
- Process for cache placement
- Monitoring and compliance

The policy adheres to the *Conservation Authorities Act* with the exception of 'abandoning' articles. The policy will be implemented through the Special Use Permit procedure. *– (K.M.)*

Landowners plant thousands of trees with help of ABCA staff

By Ian Jean, ABCA Forestry and Land Stewardship Specialist

Landowners in Ausable Bayfield Conservation Authority (ABCA) watersheds continue to plant thousands of trees each year.

Ian Jean

Conservation authority staff members planted 44,500 trees (mainly seedlings), in the spring, for landowners at 38 project sites.

There were 19 of these planted as farm windbreaks, 12 watercourse buffers, and the remaining were block type reforestation projects ranging from 0.25 to seven acres in size. In addition, landowners planted an additional 12,000 trees through the 'pick-up' program. Funding came from a variety of programs including Government of Canada - Environment Canada Habitat Stewardship Program for Species at Risk, Trees Ontario, and the Ontario Ministry of Natural Resources (MNR) Canada-Ontario Agreement for Lake Huron Water Quality. This funding support was available to help cost-share eligible projects.

The autumn saw an increase in planting to more than 2,500 two-foot balled and burlap conifers and potted hardwoods. ABCA staff members installed 1,600 of these at eight project sites. Landowners picked up and planted most of the remaining balance.

Tree Planting Program

The Municipality of Lucan Biddulph continued its initiative to replace hazard trees removed from roadsides, purchasing 120 maple and oak whips to distribute to affected landowners for planting. Two trees are provided for every tree removed under the roadside tree replacement program.

For fall projects, new provincial funding provided through the Species at Risk Farm Incentive Program (SARFIP) and renewed funding through the Canada-Ontario Farm Stewardship Program (COFSP) complemented the funding available from Middlesex and Huron Clean Water Projects to help cover project costs for eligible landowners with Environmental Farm Plans.

ABCA contractor uses horse logging in tree harvesting

FOREST MANAGEMENT
ON ABCA LANDS

Selective thinning of Ausable Bayfield Conservation Authority (ABCA) conifer plantations continued in 2010 in white and red pine plantations along Corbett Line in the former township of Stephen.

Approximately 60 acres were mechanically thinned in August and September. Ontario Thinning Specialists was the contractor. This was the second thinning operation for these stands, with fourth row thinning completed in the late 1990s. The conservation authority received $15 per cord for pine and spruce sawlogs less than 20 feet in length and $25 for sawlogs greater than 20 feet in length. A total of 480 cords at less than 20 feet and 20 cords greater than 20 feet were removed. Total revenue for the operation was $7,700.

ABCA hardwood stands were inventoried and prioritized for improvement harvest in 2010. Inventory and prescription was completed in Parkhill Conservation Area stands along and north of McGuffin Hills Drive between Grieves and Godkin Road and for ABCA Loomis Tract. Two stands along and north of McGuffin Hills Drive, totaling approximately 40 acres, were marked using the selection system.

Ash was targeted for removal over other species due to the impending invasion of Emerald Ash Borer. Diseased and poor quality stems of all species were marked for removal to improve forest health and spacing and future economic potential of residual trees. Arbor North Forest Management was awarded the tender. Distinctive to their operation was the use of horses to haul logs to a main forwarder trail. This reduces soil compaction, rutting and damage of sapling regeneration during the harvest operation. The harvest operation was completed September to November. A total of 85,831 board feet was removed, with 72,000 being white and green ash. Revenue for the operation, which included the removal of firewood, was $20,000. *(– I. J.)*

Significant Dwarf Hackberry population in Port Franks surveyed

TERRESTRIAL SPECIES AT RISK
ON ABCA LANDS

Ausable Bayfield Conservation Authority initiated a project to inventory terrestrial plant species at risk and their habitats on ABCA-owned lands in 2008.

This project continued in 2009 and in 2010 inventory work was completed at Parkhill Conservation Area, Kime Tract, and Wright-Thompson Tracts. Several new occurrences were documented and many historic records verified during the work.

Staff members endeavoured, in the Port Franks area, to quantify the population of Dwarf Hackberry, listed as threatened both provincially and federally. Staff members conducted sweeps of 500 square metre survey cells following a protocol used by Pinery Provincial Park. A total of 1,015 individuals were counted within survey cells covering just under two per cent of the land area of ABCA properties north and south of the Ausable River Cut. In Canada, Dwarf Hackberry occurs only in Pinery Provincial Park, Port Franks-Ipperwash area, at Point Pelee, and at few small sites in Eastern Ontario. Surveys completed this summer show that the population of Dwarf Hackberry on ABCA Port Franks properties is large in number and with a large number of seedlings indicating abundant reproduction.

Ontario Ministry of Natural Resources Species at Risk Stewardship Fund, the Ausable Bayfield Conservation Foundation, and the Ausable Bayfield Conservation Authority, contributed to the project in 2010.

– (I. J.)

Landowners complete more than 100 stewardship projects

By Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands

Ausable Bayfield Conservation Authority (ABCA) stewardship staff members work with private landowners and municipalities to implement on-the-ground projects to conserve water and soil.

Important secondary benefits of stewardship include forest cover, biodiversity, carbon sequestration, watershed resiliency to climate change, fish and wildlife habitat, and a healthy future for agriculture and the community.

Staff members provide technical assistance and link landowners to various grant programs. ABCA has a long history of stewardship services and is an important local delivery agent for ministries and agencies.

Landowners often need financial incentives to help them begin stewardship projects. Staff members play an important role in linking people with the best funding opportunities and completing paperwork. ABCA thanks the following funding partners:

- Clean Water Projects for Middlesex, Huron, and Perth counties
- Canada-Ontario Agreement (COA) – Ontario Ministry of Natural Resources (MNR), Clinton District; and Middlesex Stewardship Council
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Huron Stewardship Council
- Government of Canada – Environment Canada – Habitat Stewardship Program for Species at Risk
- Ontario MNR Species At Risk Fund
- Ontario Ministry of the Environment (MOE) Ontario Drinking Water Stewardship Program (ODWSP)
- Government of Canada, provided through the Department of the Environment – EcoAction Community Funding Program
- Trees Ontario
- Canada-Ontario Farm Stewardship Program

Stewardship Projects Receiving Grants through Programs Delivered by ABCA

Municipality	Number of projects
Bluewater	22
Central Huron	17
Huron East	21
South Huron	27
Lucan Biddulph	7
Adelaide Metcalfe	3
Middlesex Centre	3
North Middlesex	10
Lambton Shores	1
Warwick	0
South Perth	0
West Perth	2
Total Projects:	**113**

NOTE: Totals do not include funding from Environmental Farm Plan Program.

PRIVATE LAND STEWARDSHIP PROGRAM

Landowners across the watershed implement best management practices each year but uptake is particularly high in areas with focused community work by the ABCA Healthy Watersheds team.

More than 100 stewardship projects were completed in 2010. A few of those merit special mention. Four significant watercourse fencing projects were completed: two in Central Huron, one in Bluewater, and one in Huron East. Livestock at these sites had unrestricted access to watercourses for decades, if not a century. There was no streamside vegetation. Stream banks were trampled and significant sedimentation was evident. These four projects protected a total of five kilometres of watercourses. These projects benefit habitat and water quality downstream.

There continues to be strong participation in programs to decommission unused wells. These old wells – mostly shallow, stone or brick-lined wells – are direct pathways to the shallow aquifer. Many have not been used for decades and are in fields, former barn sites, or near houses. Several well owners in Bayfield have promptly decommissioned their wells after connecting to municipal water.

More than 200 projects have been completed in wellhead areas of the Ausable Bayfield Maitland Valley Source Protection Region through Ontario Drinking Water Stewardship Program – Early Actions. The region has received more than $1 million from MOE for landowner grants. The greatest uptake includes septic system upgrades and well decommissioning.

The region received $315,400 at the end of 2010 for grant funding and program delivery to address significant threats and transport pathways though the Early Response program of ODWSP.

Bob Down accepts the Conservationist of the Year Award on behalf of he and his wife, the late Patricia 'Pat' Down. The award was presented in prior ceremony by Jim Ginn, Chairman, ABCA Board.

Barb Down and husband Brian Clarke accept award on behalf of Barb's parents. Jim Ginn, ABCA Chairman, and Kate Monk, ABCA Supervisor of Stewardship and Conservation Lands, presented the award.

Pat Down was a long-time volunteer with the Conservation Dinner.

Conservation award presented to Bob and the late Pat Down

The Ausable Bayfield Conservationist of the Year Award was announced on Thursday, March 18, 2010.

The recipients were Robert Down and Patricia Down (posthumously).

Barb Down, their daughter, accepted the award on her parents' behalf at the March dinner event. Jim Ginn, Chair of the Ausable Bayfield Conservation Authority (ABCA) Board of Directors, and Kate Monk, Supervisor of Stewardship and Conservation Lands, presented the award.

The presentation was made at a ceremony, attended by 55 people, at Ironwood Golf Club near Exeter. The award consisted of a conservation edition print by Robert Bateman, called *Northern Wetland – Lesser Scaups*, and the Ausable Bayfield Conservation Authority made a donation towards a tree and plaque at a Commemorative Woods site maintained by the Ausable Bayfield Conservation Foundation.

Pat Down was a tireless volunteer. She volunteered for 20 years at the Conservation Dinner, where she took care of flower arrangements, and served from 1987-1993 as a provincial representative on the ABCA Board of Directors. She volunteered on the Low Water Response Team, served on the Healthy Futures program peer review committee, and made many other contributions to leave her watershed community a better place.

The people of this watershed mourn her passing but the crowd heard that the Down family's legacy of tree planting, environmental improvements, and community involvement lives on. Bob and Pat Down have farmed with conservation and the environment at top of mind at their RR 1 Hensall farm property. They have planted trees for windbreaks and shelterbelts, created buffer strips, installed new septic systems, and responsibly managed their woodlot.

The March 18 partner appreciation evening was attended by people representing federal, provincial and municipal bodies, and environmental and farm organizations, and was attended by Don Pearson, General Manager of Conservation Ontario.

Years of services awards were presented to ABCA directors and staff. Board of directors service awards were received by Robert Norris, West Perth (12 years); Jim Ginn, Central Huron (six years); Dave Frayne, South Huron and Perth South (three years); Paul Hodgins, Lucan Biddulph (three years); and Vice Chair George Irvin, Bluewater (three years). Staff service awards were received by Cathie Brown (five years), Dale Cable (10 years) and Sandra Funk (20 years).

The event featured an International Year of Biodiversity talk by Alistair MacKenzie, Natural Heritage Education and Resource Management Supervisor for Pinery Provincial Park near Grand Bend. He spoke on 'Rare and Unique Species, Spaces and Places in the Pinery Provincial Park Greater Park Ecosystem.'

ABCA brings in three dollars for every dollar of municipal levy

By Brian Horner, ABCA Financial Services Supervisor

Brian Horner

Local levy dollars, contributed by member municipalities, represented approximately 25 per cent of total revenue in 2010.

This shows that ABCA was successful in getting an additional three dollars in third-party funding for every dollar raised through the local levy. Conservation authorities in Ontario, by comparison, receive about 44 per cent of their funding, on average, from the local levy. There are 36 conservation authorities in Ontario. Twenty-six of those CAs have a greater percentage of their budget come from the municipal levy than ABCA does.

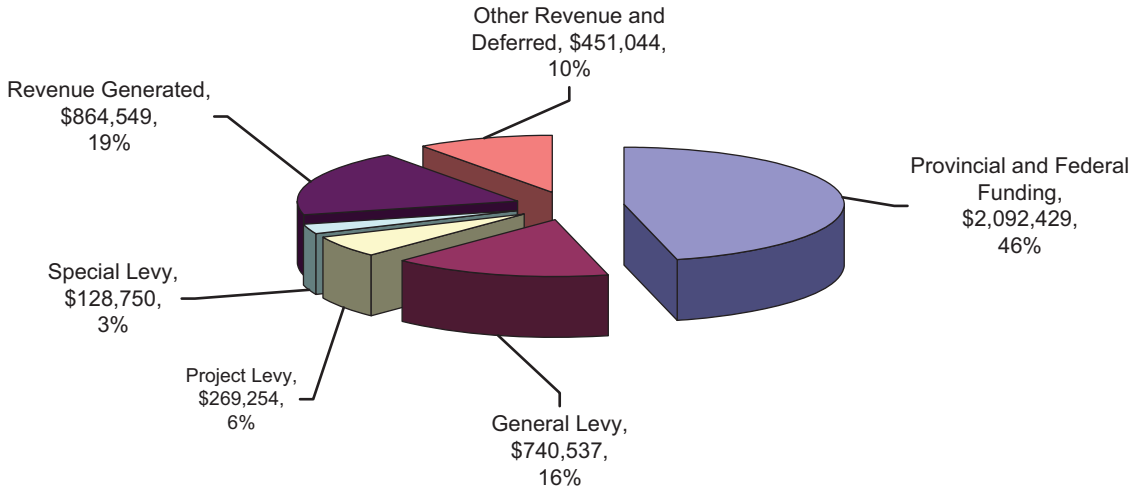
Member municipalities should be commended for their commitment to improving local watersheds. The financial figures show ABCA staff are extremely effective at leveraging local levy dollars to bring additional revenue to maintain effective watershed programming.

See Revenue and Expenses below.

FINANCIAL SUMMARY

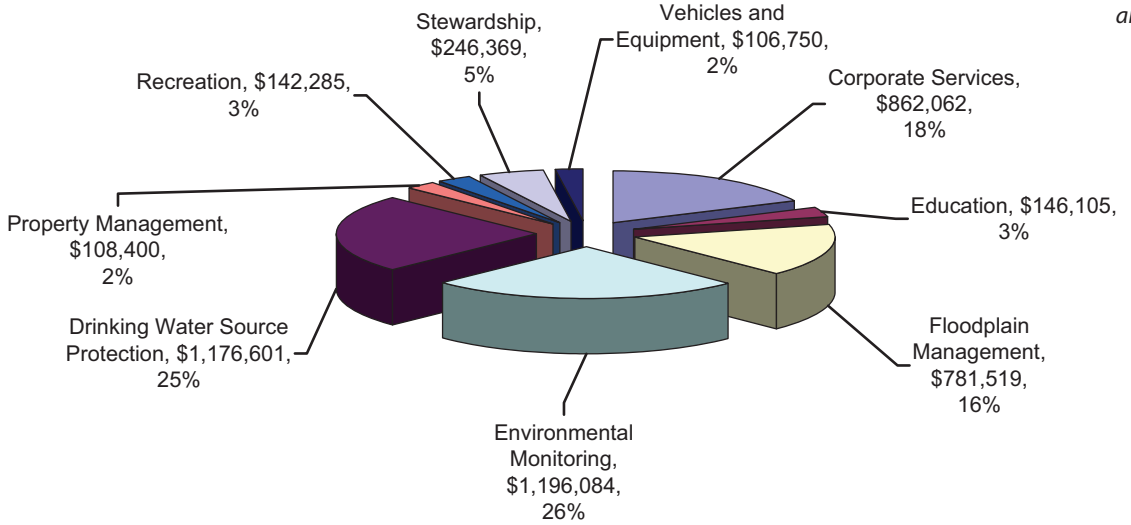
2010 Sources of Revenue

- Total Revenue $4,546,563 *(Unaudited Figures)*



2010 Expenses

- Total Expenses $4,766,175 *(Unaudited Figures)*



** Unaudited expense figures (chart at left) include $219,000 in amortization*

Hundreds of people honour and remember loved ones through Commemorative Woods ceremonies.

Foundation supports conservation education, trails and more

By Ernie Miatello, Chair, Ausable Bayfield Conservation Foundation

The nine volunteer directors on the Ausable Bayfield Conservation Foundation (ABCF) Board of Directors met five times during 2010 to fulfil their commitments of conservation, preservation, and protection of the unique natural landscapes of the Ausable River, Bayfield River, and Parkhill Creek watersheds.

Ernie Miatello

The following are project success highlights:

Conservation Education

- The Foundation was proud to provide $1 subsidy for each student attending an education program offered by the ABCA
- ABCF continued its ongoing sponsorship of the Aquatic Species at Risk Busing Program
- The Foundation made a financial contribution to education activities at *Aquafest 2010*, Grand Bend
- ABCF also provided funding towards the Conservation Education Assistant position to further contacts with schools and groups in promoting education programming

Accessible Trails and Facilities

The Ausable Bayfield Conservation Foundation:

- Partnered with the Bayfield River Valley Trail Association to receive donations towards a phased development of a trail system along the Bayfield River
- Accepted donations from the Fifth Annual Gord Strang Memorial Golf Tournament, in support of enhancements to the MacNaughton-Morrison Section of the South Huron Trail. (The Ausable Bayfield Conservation Foundation will coordinate the 2011 golf tournament)
- Provided funding for the Bannockburn Conservation Area boardwalk improvements and Morrison Dam Conservation Area fishing dock

Ausable Bayfield Conservation Foundation Report

- Received donations for upkeep of the South Huron Trail Mobile

Protection of Wetlands and Natural Heritage

Ausable Bayfield Conservation Foundation is:

- Completing final year of a three-year grant from Ontario Trillium Foundation (OTF) for $225,000 in support of the Healthy Headwaters Wetlands Initiative. Sixteen new wetlands were constructed in 2010
- Serving as funding partner for the Port Franks Biodiversity Strategy and undertaking unique turtle monitoring near L-Lake Management Area in Port Franks

Commemorative Woods Program

The ABCF, in 2010:

- Co-hosted Ninth Annual Klopp Commemorative Woods tree dedication service (between Zurich and Hensall), with J.M. McBeath Funeral Home, on June 6th, with 140 guests
- Co-hosted annual Morrison Dam commemorative woods tree dedication service, with Haskett Funeral Home, on September 19th, with 350 guests in attendance
- Created the Morrison Dam Commemorative Woods Reflection Area Ad Hoc Committee. This group of community volunteers and Foundation members will oversee a fundraising campaign and construction of a pavilion-like structure with a metal tree affixed to the inner wall where plaques will recognize memorial donations in the Commemorative Woods.

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Foundation establishes Huron Tract Land Trust Conservancy

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Huron Tract Land Trust Conservancy

The Ausable Bayfield Conservation Foundation (ABCF) Board of Directors has established a new land trust and decided on the name Huron Tract Land Trust Conservancy. The geographic location of the land trust will follow the historic boundaries of the original Huron Tract. Next will be the development of a nine-member board. The land trust will follow the same governance policies as the ABCF and use the ABCF support staff.

Conservation Dinner

The Foundation's major fundraising event is the annual Conservation Dinner, in cooperation with the Exeter Lions Club. The year 2010 was the 21st event. The gala charitable dinner and art auction has raised more than $600,000 in its history for accessible nature trail projects, family fishing derby, Commemorative Woods, and conservation education.

Morrison Dam Fishing Derby

The Annual Morrison Dam Fishing Derby was held the first Saturday of May, in cooperation with Exeter Lions Club. Thanks to donation of $2,000 from the Lions Club and ABCF, -rainbow trout are stocked in the Morrison Dam Reservoir prior to the derby for enjoyment of young anglers or those young at heart.

Junior Conservationist

Kate Docking was the 2010 Junior Conservationist – a summer position with the ABCA – offered to a student who is interested in pursuing a career in the environmental field. This position is funded by the Ausable Bayfield Conservation Foundation.

Kate Docking

Student Environmental Award

The ABCF created a $1,000 scholarship award for a student currently enrolled in University or College, or a high school graduate pursuing a post-secondary education in environmental studies and residing in the watershed. Four applications were received for the award and Ryan Finnie was chosen as the recipient.

Foundation Chairman Ernie Miatello presents Student Environmental Award to Ryan Finnie, recipient chosen for 2010.

Foundation Board of Directors for 2010

Ernie Miatello, London – *Chairman*
Roger Lewington, Bayfield – *Vice Chairman*
Peter Darbishire, Exeter
Ted Jones, Exeter
Dave McClure, Grand Bend
Bob Norris, Staffa
Teresa Ondrejicka, Exeter
Bob Radtke, Ailsa Craig
John Walsh, London

Bev Brown – *Treasurer*
Judith Parker – *Secretary*
Sharon Pavkeje – *Assistant*
Tom Prout – *Staff Advisor*

Ausable Bayfield Conservation Authority

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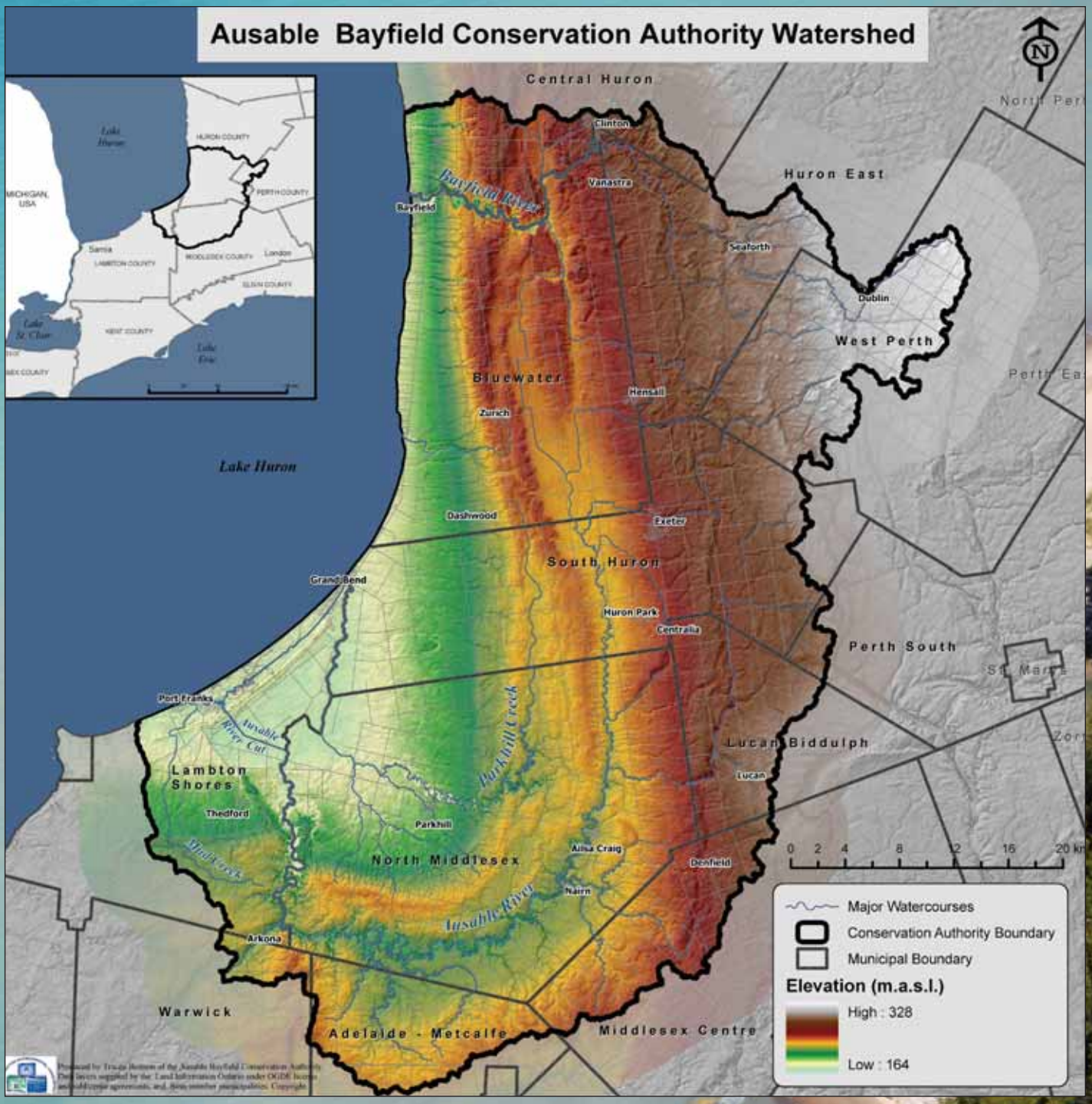

BUILDING BETTER ENVIRONMENTAL CONSCIENCE