

Lower Thames Valley Conservation Authority 2012 Annual Report



2012 Table of Contents



*The LTVCA is one of 36
Conservation Authorities in the
Province of Ontario.
Member of Conservation Ontario.*



*Cover - McGeachy Pond. Photo
by Randall VanWagner.*

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Thanking Partners in Conservation



Investing in Conservation



To mark its Centennial, **Spectra Energy**, the parent company of Union Gas, awarded a \$100,000 Signature Grant to the LTVCA in June 2011 to fund new biodiversity education, conservation and restoration programs, and an expanded community trees initiative.

In 2012, these programs raised awareness of the benefits of variety in the natural ecosystem, provided cleaner air and water, reduced soil erosion and added green space within the ten member municipalities served by the Conservation Authority. Highlights included: researching a fund-raising database, teaching the Grade 6 Biodiversity Education Program, planting trees through the Biodiversity Conservation and Restoration Program, and expanding and enhancing programs in the Community Trees Initiative Program. Elementary to University aged students enjoyed seed collection, germination workshops, transplanting seedlings, and tree planting. Thousands of trees were planted at restoration sites. Hundreds of grade 6 students learned about the importance of biodiversity through classroom programs. This funding has allowed for these LTVCA programs to continue into 2013.

At the Annual General Meeting in February, John Kavelaars - Vice-Chair of the Lower Thames Valley Conservation Authority (left) presented Mr. Mark Egbideyi-Emmanuel, District Manager, Union Gas Limited, Windsor / Chatham with a plaque of appreciation for Union Gas' \$100,000 donation in 2011.

Recognizing Funding Partners, Private Donors and Volunteers

The LTVCA also wishes to extend its appreciation to the following for their contribution to Conservation Authority programs and services in 2012. With donations and grants valued at **\$225,679** (\$216,104 donations plus \$9,575 government grants) and hundreds of hours of volunteer service, conservation programs across the watershed and region were augmented. Support is highlighted throughout this Annual Report. LTVCA Registered Charitable Number 107646580RR0001.

Financial Donors

AHCOM Shrine Club
Blenheim Rotary Club
Canada Summer Jobs
Canadian Museum Association
Captain Garnet Brackin IODE
Chatham Kent Community Foundation
Community Partnership Fund
- Municipality of Chatham-Kent
Delaware Lioness Club
Delaware Lions Club
Dillon Consulting Ltd.
Environment Canada
Friends of the St. Clair River
Glen Caetano
Glencoe District Lions Club
Kent Federation of Agriculture
Lower Thames Valley Conservation Foundation
McGeachy Charitable Foundation
Ministry of Culture
Ministry of Natural Resources
Ministry of Training, Colleges and Universities
Northern Casket
Ontario Power Generation
Optimist Club of West Lorne
Raymond J. Pilon Enterprises Ltd.
Rodney Lions Club
Rotary Club of Chatham
Royal Canadian Legion Branch 251

Royal Canadian Legion Branch 598
Scribendi Editing
TD Community Giving
TD Friends of the Environment Foundation - Chatham Chpt.
TD Friends of the Environment Foundation - Lambton Chpt.
Tilbury Lions Club
Trees Ontario Foundation
Union Gas, a Spectra Energy Company
Ursuline Sisters
Vancouver Foundation
Wheatley Two Creeks Association
William Dodman
Winners Merchants International LP

Volunteers

Blenheim District High School
Bluewater Centre for Raptor Rehabilitation
Boy Scouts of Chatham
Chatham Christian School
Chatham Community Living
Chatham-Kent Children's Safety Village
Chatham-Kent Secondary School
CKSS Life Skills
Don Hector
Ecole Secondaire de Pain Court
Fanshawe College - Co-op Program

Forest City Checkers
Friends of C.M. Wilson Conservation Area
Friends of Tilbury Northside Park
George Wickham
Guardians of Longwoods
John McGregor Secondary School
Lambton Kent Composite School
London District Chiefs Council
Longwood Kennels
Lower Thames Valley Conservation Foundation Directors
Mark Gagner
Montessori House of Children - London
Ontario Archaeological Society - London Chpt.
Ontario Museums Association
Ontario Stewardship Rangers
Ridgetown High School
Rondeau Bay Watershed Coalition
Ska-Nah-Doht Advisory Committee
Southern First Nations Secretariat
Strathroy District Collegiate Institute - Co-op Education
Tilbury and District Horticultural Society
Tilbury High School
Upper Thames Military Re-enactment Society
Ursuline College Secondary School
Victor Lauriston Public School
Western University - Restoration Ecology Program
Western University Althouse College T2P Program

Chair's Remarks



It is my pleasure as Chair, to bring greetings from the Lower Thames Valley Conservation Authority (LTVCA). Our vision remains to work with our municipalities to protect and enhance the environment for present and future generations. We manage this watershed and region's natural resources by working with conservation partners, leveraging contributions in 2012 valued at nearly \$226,000. This funding augmented our 2012 operational expenses of \$2.3 million, and combined with the hundreds of hours of volunteer service, allowed us to efficiently serve our ten member municipalities across the lower Thames region. We are extremely grateful and recognize everyone's support throughout this report.

The LTVCA protects life and property from natural hazards such as flooding and erosion by predicting flows and water levels, operating flood control structures and releasing flood warnings to municipalities and agencies. During 2012, the Lower Thames River experienced no significant flooding events. The input the LTVCA has on new development near or in the natural hazards like flood plains and steep slopes, ensures identification of potential hazards before complications arise. In

2012, over 1,200 municipal plan reviews identified potential threats. One hundred and sixty-six applications were inspected under the Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation. Moving through our fifteenth year of an agreement with the Federal Department of Fisheries and Oceans, staff undertook 418 reviews of proposed works in watercourses and impacts on fish habitat. Work continues in areas of research and monitoring with the Ontario Ministry of the Environment in the Provincial Groundwater Monitoring Program, laying the groundwork for the development of watershed report cards for the lower Thames region in 2013.

Habitat is protected and restored as the pace continued to increase in our reforestation efforts. Staff engaged local schools, community groups and businesses in tree plantings made possible through the Chatham-Kent Greening Partnership and funding provided through many partners highlighted in this report. In 2012, over 67,000 trees were planted across the watershed and region.

Through the Drinking Water Source Protection Program pre-consultation of proposed policies occurred in 2012 for the implementing bodies - Municipalities, Conservation Authorities and the Province. This was the opportunity to provide official comment on draft policies prior to the later public consultation on the Draft Source Protection Plans. Following comments from implementers, the Source Protection Committee prepared formal public consultation on the Draft Proposed and Proposed Source Protection Plans. The Proposed Source Protection Plan for the Thames, Sydenham and Region was submitted to the Province in December 2012 and contains local policies that address a range of drinking water threats. Landowners with significant threats on their property will be required to follow these policies.

Conservation lands allow the public to enjoy, learn and respect the environment, and provide important habitat for wildlife. In 2012, over 5,000 students, youth and chaperones took part in education programs, while nearly 21,000 recorded visitors enjoyed events, camping and day use in our conservation areas. We accessed \$13,000 of funding to hire five workers, who assisted full time staff with conservation projects and services on our conservation lands.

2012 represented a significant milestone in that our long-standing General Manager / Secretary-Treasurer retired at the end of the year after 40 years of faithful service. Jerry Campbell has been a monumental figure for the Lower Thames and we wish him the best in his retirement. Don Pearson has been hired to take on this position effective January 1, 2013. With 30 years of experience in conservation and environmental management, Don will be an invaluable asset to the LTVCA in his new role. I also extend best wishes to Jack Robertson, who retired after 31 years as our Water Management Supervisor. Jason Wintermute has assumed this key role in the Conservation Authority's program.

The Lower Thames Valley Conservation Foundation has raised over \$600,000 for conservation projects within the LTVCA over the years, and I recognize the volunteer Directors for their ongoing support.

In closing, I thank our Directors who represented their municipalities well over the past year, balancing watershed needs with needs of individual municipalities, and the staff team for their dedicated work and support.

A handwritten signature in dark ink, appearing to read "Brian W. King".

Brian King - Chair LTVCA

Board of Directors & Committees

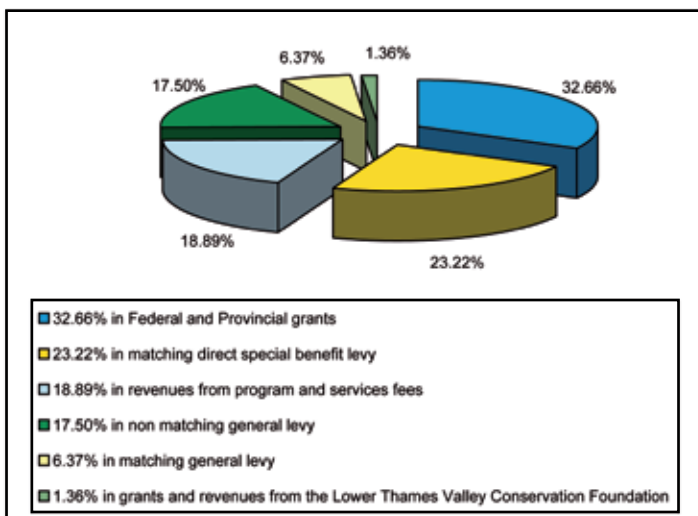
Directors 2012

Brian King (Chair) - Municipality of Chatham-Kent
John Kavelaars (Vice-Chair) - Municipality of Southwest Middlesex

Michael Bondy - Municipality of Chatham-Kent
Stanley Caveney - City of London
Ron Doane - Municipality of Strathroy-Caradoc
Ian Fleck - Municipality of Dutton / Dunwich
Grant Jones - Township of Southwold
Linda McKinlay - Town of Lakeshore
Norm Miller - Municipality of West Elgin
Steve Pinsonneault - Municipality of Chatham-Kent
Jim Straughan - Municipality of Middlesex Centre
Charlie Wright - Municipality of Leamington

Budget

The LTVCA's 2012 budget of \$2,987,701 received approval in February. Jerry Campbell - General Manager / Secretary-Treasurer, directed the administration and financial aspects of the LTVCA, with support from the Accounting Clerks - Sharlet Piggott and Sandy Maynard.



This chart illustrates the breakdown of the 2012 LTVCA budget.

Committees

Personnel and Finance / Executive

Chair Brian King, Vice - Chair John Kavelaars, Ron Doane, Stanley Caveney, Charlie Wright

Ice Management

Chair Brian King, Vice - Chair John Kavelaars, Steve Pinsonneault, Michael Bondy, Linda McKinlay

Ska-Nah-Doht

(Conservation Authority Representatives):

Brian King, John Kavelaars, Ron Doane, Stanley Caveney, Ian Fleck, Jim Straughan, Jerry Campbell



The Annual General Meeting was held on February 23, 2012 at Willson Hall, Ridgetown Campus of the University of Guelph. Displays highlighted forestry programs and the Chatham-Kent Greening Partnership.



Staff Directory 2012

Lower Thames Valley Conservation Authority Administration Building

Jerry Campbell - General Manager / Secretary-Treasurer

Sandy Maynard - Accounting Clerk

Sharlet Piggott - Accounting Clerk

Jack Robertson / Jason Wintermute

- Water Management Supervisor

Valerie Towsley - Resource Technician

Jason Wintermute - GIS Specialist / Resource Technician

Randall VanWagner - Environmental Project Coordinator

Greg VanEvery - Environmental Technical Assistant

Amanda Griffore - Community Trees Initiative Coordinator

Chris Tasker - Source Protection Manager of the Thames, Sydenham and Region Source Protection Region - (Lower Thames Valley, St. Clair Region and Upper Thames River Conservation Authorities)

Happy Retirement!

Jerry Campbell



**40 Years
1972- 2012
General Manager /
Secretary-Treasurer**

Jack Robertson



**31 Years
1981- 2012
Water Management
Supervisor**

We wish you all the best!



LTVCA Staff

Front row l to r: Amanda Griffore, Valerie Towsley, Jerry Campbell, Jack Robertson

Second row l to r: Jason Wintermute, Bruce Clark, Karen Mattila, Bonnie Carey, Sandy Maynard, Sharlet Piggott

Back row l to r: Greg VanEvery, Randall VanWagner, Russ Dysarz, Agnes Vriends, Jerry DeZwart, Rose Nicholas, David Little

Absent: Derekica Snake, Chris Tasker

Longwoods Road Conservation Area

Workshop

David Little - Eastern District Supervisor

Bruce Clark - Construction & Maintenance Technician

Resource Centre and

Ska-Nah-Doht Village and Museum

Bonnie Carey - Community Relations Coordinator

Agnes Vriends - Clerk / Secretary

Karen Mattila - Village Curator

Rose Nicholas - Village Education Technician

Jerry DeZwart - Conservation Education Technician

Derekica Snake - First Nations Liaison / Source Protection Technician of the Thames, Sydenham and Region Source Protection Region

C.M. Wilson Conservation Area

Workshop

Russ Dysarz - Western District Supervisor

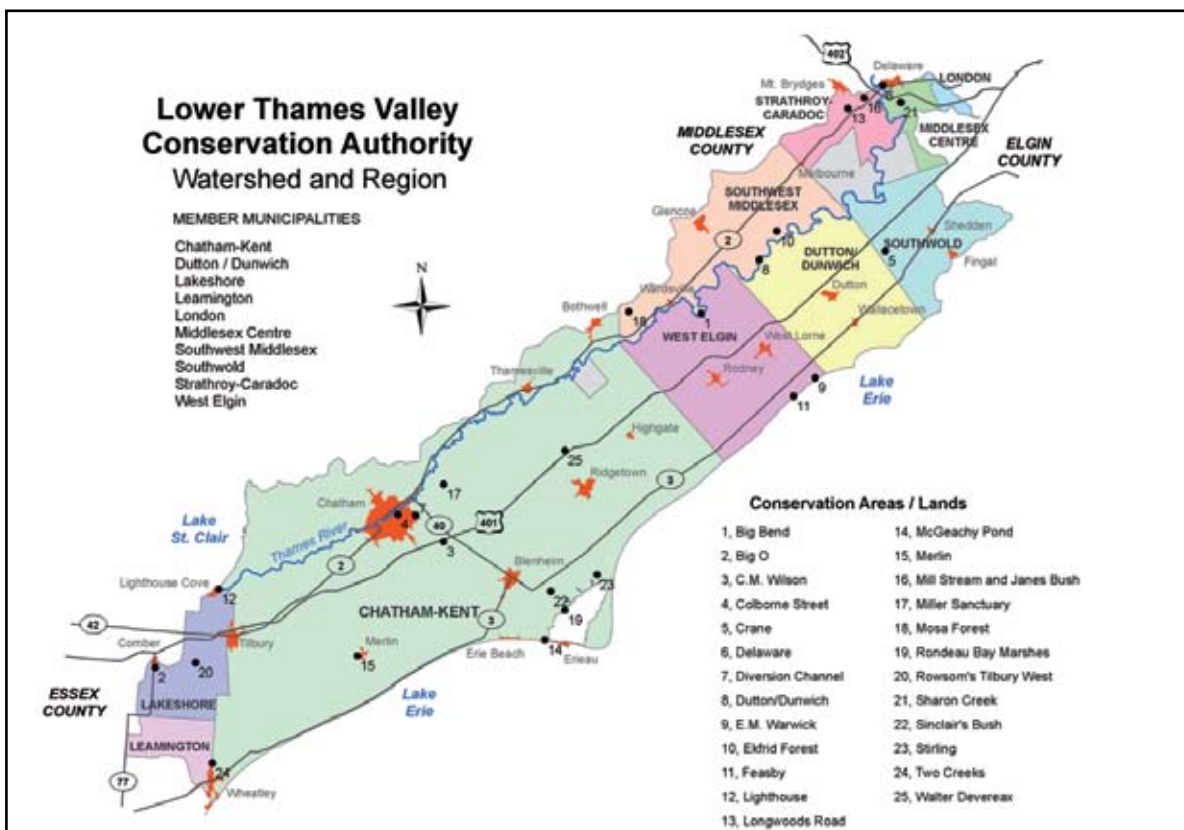
Our Vision ~ Protecting and enhancing the environment



“The Lower Thames Valley Conservation Authority (LTVCA) is a watershed-based partner, working with the local community, providing services and information to efficiently protect and enhance the environment for present and future generations.”

Our Objectives

- Protecting Life & Property
- Protecting & Restoring Habitat
- Research & Monitoring
- Providing Opportunities to Enjoy, Learn & Respect
- Partnering with the Local Community



Area of jurisdiction lies over the watersheds of all streams, which drain into the Thames River from the Village of Delaware, to Lake St. Clair. Southern boundary has jurisdiction over the watersheds of all streams which drain into Lake Erie, from the Talbot Creek watershed in the east, to the Two Creeks watershed in the west. Total area covers over 3,275 square kilometres (1,264 square miles) in southwestern Ontario and is home to over 120,000 people.

Protecting Life & Property

Water Management

Flood Control

The Water Management and Technical Services program provides science-based support for land and water resources management, including natural heritage programs, as well as technical expertise to forecast, control and monitor floods and erosion to protect life and property. Jack Robertson was succeeded by Jason Wintermute as Water Management Supervisor in the spring of 2012.

The Lower Thames region experienced a fairly dry year in 2012 with no significant flooding events to speak of. There were no flow events of sufficient magnitude to justify closing the McGregor Creek Dam and to undertake pumping operations for the south Chatham area. There was only one event large enough to justify closing the Rivard Dam at the upstream end of the Diversion Channel.

On January 17th, 19 mm of rainfall on frozen ground produced flows of 38 cubic metres per second (cms) in McGregor Creek; enough to justify closing the Rivard Dam and to commence use of the Diversion Channel. The largest flow event on the Thames River occurred on January 2nd. Local rainfall produced flows of about 200 cms observed at Thamesville. Flows of this magnitude do not trigger the issuing of flood messages.

Two Watershed Condition statements were issued during the year, primarily as information bulletins for the public. One was issued on August 10th, since up to 100 mm of rainfall was being predicted. This rain event had very little impact on flows producing only 29 cms in the Thames River and 19 cms in McGregor Creek. The second was issued on October 29th as the remnants of Hurricane Sandy passed through the region. Rainfall predictions were only for 25 to 55 mm of rainfall and ended up producing flows of 89 cms in the Thames River and 9 cms in McGregor Creek. However, high winds of 60 km / h with gusts of up to 100 km / h from the north were being predicted, which could have impacts on the shorelines.

Ontario Low Water Response Program

The most significant water related issue of the year was the lack of water and the Conservation Authority was involved in the Ontario Low Water Response Program. By May, portions of the watershed had entered a Level One Low Water Condition. The indicators for this condition are

a three-month precipitation total being between 80% and 60% of normal, or stream flows being between 70% and 50% of the lowest average summer month's flow (100% to 70% in the spring). A meeting of the Water Response Team for the Lower Thames Valley Conservation Authority was held on June 7th. Throughout the summer, the watershed as a whole remained at a Level One Condition. However, certain areas did fall beneath the 60% of normal precipitation threshold. By mid-August, rainfall totals had returned to near normal conditions but stream flows remained low due to the prolonged dry spell in both the Upper Thames and Lower Thames watersheds. The Low Water Condition was finally lifted in mid-November.

Provincial Grant Funding for Capital Maintenance & Flood Forecasting

The LTVCA receives grant funding from the province each year for the operation, routine minor maintenance and preventative maintenance of flood and erosion control projects, flood forecasting and warning, chronic ice management, legal costs for ongoing joint Conservation Authority / Provincial capital projects, watershed management and related administration.

Category	2012	2011	2010
Flood Control Operations	120,603	120,603	120,603
Hazard Prevention, Watershed Management	37,006	37,006	37,006
Total	157,609	157,609	157,609

The above table outlines the total approved funding in each category in 2012, as well as comparable numbers in 2011 and 2010. The costs outlined are the grants received. Eligible project costs would be twice the number shown in the table.

Provincial Water Monitoring

The Conservation Authority continued to work with the Ontario Ministry of the Environment (MOE) on the Provincial Groundwater and the Provincial (Stream) Water Quality Monitoring Programs. Both programs emphasize the Conservation Authority's role as the primary delivery agent for provincial programs related to the environment and natural resources. Such programs assist in the implementation of provincial and local action plans and environmental decision making by the LTVCA, member municipalities and the province. At a Conservation Authority level, these programs contribute significantly to the development of Watershed Report Cards.



The LTVCA is responsible for sampling in-stream waters at 11 locations throughout the watershed.

The intent of the groundwater program is to have a provincial network for monitoring ambient ground water conditions. Monitoring of groundwater levels is conducted through the use of water level loggers contained in wells throughout the watershed. Specific wells may also have rain loggers and barometric pressure loggers. It is the LTVCA's responsibility to monitor and maintain the instrumentation, as well as to conduct data quality checks and corrections. Every fall, the Conservation Authority samples nine of the wells and sends the samples to the MOE laboratories for water quality analyses.

The intent of the stream monitoring program is to have a provincial network for monitoring surface water quality throughout the province. The LTVCA is responsible for sampling in-stream waters at 11 locations throughout the watershed. Samples are collected on a monthly basis in the spring, summer and fall and then sent to the MOE laboratory in Toronto for testing. For the last several years, the standard program has been supplemented with a pesticides monitoring program at an additional three sites. These samples are sent to the University of Guelph for analyses. Since biological analyses are not part of the provincial programs, the LTVCA undertakes testing for e-coli at each of its stream sampling locations.

Great Lakes Levels

Lake St. Clair water levels began the year approximately 15 cm above the long term normal for that time of the year. Water levels remained fairly stable until July; a period when water level rises are usually observed. In July, water levels were 25 cm below the long term normal for that month. The typical season decline was observed after July, with water levels tracking below normal. Lake St. Clair water levels finished the year about 35 cm below the long term normal. Lake Erie water levels began the year approximately 40 cm above the long term normal for that time of the year. Water levels remained fairly stable until March, when they began a steady decline. Around October, water levels stabilized again, ending the year about 20 cm below the long term normal. With lake levels below normal for most of the year and the lack of any significant wind generated storms, no flood events were recorded on the lakes in 2012.



Large amounts of Blue Green Algae appeared along the north shore of Lake Erie in the fall.

Land Use Planning & Regulations

Municipal Plan Input & Review Under the Conservation Authorities Act

The Land Use Planning and Regulations program provides environmental planning expertise to guide municipal and other land-use planning decisions on a watershed basis, consistent with current applicable Federal and Provincial legislation and policies, Conservation Authority policy and municipal planning policy.

Plan input and review is one of the ways the Conservation Authority monitors development and achieves its objectives. The input the LTVCA has on new development near or in natural hazard areas like flood plains and steep slopes, ensures identification of potential hazards before complications arise. This can be of great importance to municipalities, developers and private individuals who may not be aware of potential hazards. Valerie Towsley and Jason Wintermute are the LTVCA staff responsible for administering the land use planning and regulations program.

	2012	2011	2010	2009	2008	2007
Official Plans	0	3	3	0	2	3
Official Plan Amendments	5	4	2	7	8	11
Comprehensive Zoning Bylaws	1	3	2	2	2	3
Zoning Bylaw Amendments	116	96	91	110	135	102
Severances	140	117	123	107	132	128
Minor Variances	47	43	52	42	39	46
Plans of Subdivision	2	3	3	5	1	3
Drainage Reports & Maintenance	44	46	115	46	54	49
Property Clearances	49	31	50	82	41	72
General Property Inquiries	879	723	649	735	694	731
Total	1,283	1,069	1,090	1,136	1,108	1,148

Planning development issues reviewed in 2012.

Official Plans										
Official Plan Amendments	3				2					
Comprehensive Zoning Bylaws							1			
Zoning Bylaw Amendments	64	9	8		5	2	5	6	4	13
Severances	83	12	1	2	1	5	6	5	3	22
Minor Variances	33	8				1	1		2	2
Plans of Subdivision	1	1								
Property Clearances	28	3	3	1		4	2	1	3	4
Drainage Reports & Maintenance	28	3	4	2		1		3		3
General Property Inquiries	512	42	102	8	5	11	21	10	20	74
TOTAL SERVICES PER MUNICIPALITY	752	78	118	13	13	24	35	26	32	118
SERVICES										
MUNICIPALITY	Chatham-Kent	Dutton/Dunwich	Lakeshore	Leamington	London	Middlesex Centre	Southwest Middlesex	Southwold	Strathroy-Caradoc	West Elgin

Plan input and review services by Municipality 2012.



Staff undertake site surveys to determine the minimum flood proofing elevation for the lowest openings into proposed structures. Such structures could be potentially locating in flood prone areas.

Regulation of Development, Interference with Wetlands & Alterations to Shorelines & Watercourses

2012 marked the sixth year that the Conservation Authority's new Regulation has been in effect. The regulation is known as the Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses. The LTVCA reviewed 166 applications under the Regulation in 2012 and all were approved. Two

applications, issued in 2011, came before a hearing of the Conservation Authority's Executive Committee, since the conditions on those permits could no longer be met. The Committee deferred a decision on the case until technical work on the issue could be conducted.



Several applications were reviewed for steel wall repair/replacement in the Lighthouse Cove community. Low water levels are affecting short sheet walls which were installed in the 1980's, when water levels were higher.

Two permits issued in 2011 were pulled last year as 20 m of bluff had slipped, resulting in a building envelope no longer available for development purposes.

Shorelines are not static. Landowners intending to purchase property and / or build along Lake Erie bluffs must understand that the banks will shift at varying rates and change over time. These individuals should be aware that what land is there today, may not be there tomorrow. They are purchasing an erodible asset and no matter how much money they invest in erosion control down the bank, erosion will still occur.

The illustrations below demonstrate Lake Erie shoreline erosion over a seven month period occurring in Raleigh, east of Bloomfield Road in Chatham-Kent. Bank saturation was the cause of this movement, resulting from large amounts of rainfall in 2011 and the warm winter weather that caused little to no ice cover on the lakes. Waves from winter storm events reached the toe of the bluff and caused increased erosion rates. With the banks saturated to the extent they were, and with the toe of the bluff undermined, significant bank slumping occurred. This was not an isolated event, as the LTVCA pulled two permits in 2012 in Romney that were issued in 2011 because the landowner lost over 20 m of upper table land. This was the equivalent of their building envelope. These lots became “unbuildable” under the provisions that were applied for in the permits.



October 11, 2011 minor erosion occurring.



February 22, 2012.



March 1, 2012.



May 24, 2012 a minimal beach has re-established.

Department of Fisheries & Oceans Drain Classification

2012 marked the 15th year of an agreement with the Federal Department of Fisheries and Oceans (DFO) for the review of proposed works in watercourses and their effect on fish habitat as it relates to the Federal Fisheries Act. The LTVCA entered a "Level Two" agreement with the DFO in 2004. Level Two status means that the Conservation Authority conducts the initial assessment of the project to identify any impacts on fish habitat. If an impact is foreseen as a result of the proposal, the matter is then referred to DFO. With Level Two status, the LTVCA is able to determine how the proponent can mitigate any impacts.

The LTVCA wrote 156 items of correspondence regarding DFO applicable works. Those included items relating to the Conservation Authority Regulation, Municipal Drainage Report reviews and 131 Notifications of Drain Maintenance Works submitted by Municipal Drainage Superintendents. There were 71 Notifications of Drain Maintenance Works in Chatham-Kent along with 31 in Elgin County, 16 in Middlesex and 13 in Essex.



A landowner undertook the 'cleanout' of a natural watercourse without prior approval being given. Staff are working with the individual to rehabilitate the site back to or better than existing.



Staff investigated a complaint from a resident on Erie Shore Drive regarding a backhoe working in the water on Lake Erie, without any sediment control.

Other Water Related Initiatives

Summer Student Employment

The Conservation Authority hired two students for the summer under three grants. Two grants were from the Provincial Summer Experience Program. The third was from Canada Summer Jobs. The students were Emily Armstrong and Brent Zimmer, both of Chatham. They undertook numerous projects including;

- Site surveying for the Conservation Authority Regulation
- Water quality sampling
- Downloading and data corrections from the wells within the Provincial Groundwater Monitoring Program
- Converting paper graphs of flood levels to digital formats
- Watershed Report Card data compilation
- Gathering and calculating information for Low Water reporting
- Assisting with updating Health and Safety information

Drainage Superintendents Association of Ontario

The LTVCA is also a longstanding associate member of the Chatham-Kent-Essex Chapter of the Drainage Superintendents Association of Ontario. This organization holds approximately four to six meetings per year. Relationships with our region's Drainage Superintendents are extremely important due to their responsibilities under the Drainage Act. Within the Lower Thames watershed there are large areas of highly drained agricultural lands. The watercourses draining these lands are managed under both the Drainage Act and the Conservation Authority's Regulations, requiring a large degree of cooperation between our two groups.



Emily Armstrong and Brent Zimmer surveyed to determine the 80th percentile for work along the Lake Erie shoreline. The 80th percentile means erosion control structures can be placed on the beach adjacent to the shoreline at the toe of the bluff, so long as 80% of the time the structures are high and dry for the effects of normal wave uprush from the lake, with the potential to be wet 20% of the time during storm events.

Protecting & Restoring Habitat

Reforestation

LTVCA Tree Planting Program

In partnership with the community, the Land, Conservation and Water Stewardship Services program provides opportunities to enjoy, learn and respect our environment through hands-on, local projects, which protect and restore species and habitats, encourage a sense of ownership of environmental rehabilitation efforts, and protect our source water resources now and in the future.

From 1988 to 2012, the LTVCA has planted approximately 2,197,442 trees within the Lower Thames Valley Conservation Authority's watershed. In 2012, 67,037 trees were planted into windbreaks and woodlots on private lands, memorial forests and conservation areas. (2011 - 49,140 trees planted). The Lower Thames Valley Conservation Foundation funded \$7,519.50 for 501 memorial trees (2011 trees), supported by local funeral homes and private individuals.

The spring had moderate precipitation and made for a successful planting season. A total of 66,579 trees were sold by the LTVCA. Forty-one hectares were planted by the Conservation Authority and landowners. It was a record year for the number of hectares planted by the

LTVCA alone. Out of the total 41 ha the LTVCA planted, 33 ha were in plantations for landowners. Conservation services also equipped a spray unit to assist with plantation management.

One site in particular was significant. A 12 ha parcel owned by Andrew McLeod near Thamesville on Fysh Line was planted with a mix of Carolinian species. This property is a vital linkage to the Thames River located along its tributary White Ash Creek. Now, combined with adjacent woodlots, the plantation is 53 ha in size.

TREES SOLD TO INDIVIDUALS FOR PRIVATE PLANTING

Municipality of Chatham-Kent	56,474
Municipality of Dutton/Dunwich	2,393
Municipality of Middlesex Centre	175
Municipality of Southwest Middlesex	2,417
Township of Southwold	500
Municipality of Strathroy-Caradoc	770
Municipality of West Elgin	3,850
TOTAL	66,579

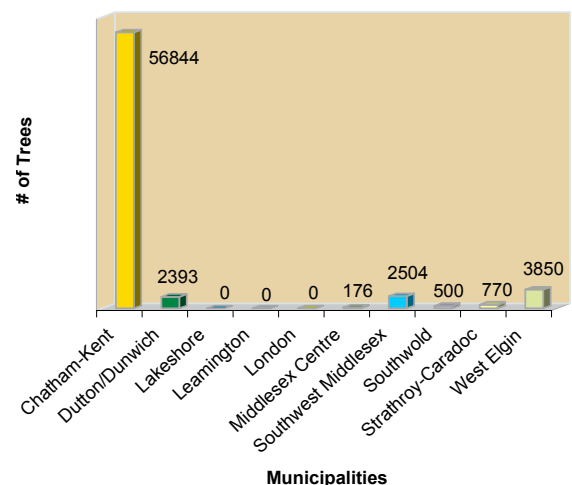
MEMORIAL FOREST PLANTINGS

Badder & Robinson at Mosa Forest	87
McKinlay Woodlands at C.M. Wilson Conservation Area	337
Secord & Smith at Merlin Conservation Area	18
Sharon Creek	1
Tilbury Northside Park	15

TOTAL TREES PLANTED IN 2012 **67,037**



The largest planting site for 2012, was on Andrew McLeod's 12 hectares.



Forestry program by Municipality 2012.

Forestry Grant Programs

In 2012, Trees Ontario Foundation supported private landowner plantings in Chatham-Kent, through a Trees Ontario grant of \$66,266.

Another fund the LTVCA accessed for landowners is sponsored by Ontario Power Generation and is split between Essex County and Chatham-Kent. It is called the Natural Areas Grant Restoration Program. A total of \$59,576 dollars covered tree planting costs for landowners in 2012.

The Union Gas Spectra Energy grant received in 2011 continued to assist landowner tree planting projects into 2012. In addition, \$2,000 was donated through a Union Gas Community Improvement Grant through the Vancouver Foundation and the Union Gas Helping Hands Program. Union Gas volunteers helped to plant trees at Mud Creek Park in Chatham.

Support from TD Friends of the Environment Foundation was welcomed in 2012 through several forestry related grants. One donation of \$2,500 assisted windbreak plantings in Chatham-Kent. This one year grant ending August 2013, will create corridor linkages and native tree rows throughout Chatham-Kent. Another grant supplied trees for Mitchell's Bay. A \$1,000 TD Community Giving grant supported training of forestry staff regarding site assessments.

All grants combined to make tree planting more financially viable to farmers and landowners in 2012.



The National TD Canada Trust Tree Days event was held at Mitchell's Bay Marine Park. Large stock trees were planted by volunteers as a result of a \$3,353 grant from TD Friends of the Environment Foundation.

Chatham-Kent Greening Strategy

Our "Greening Partners" - the Municipality of Chatham-Kent and Stewardship Kent, were involved in reforestation in many ways. Chatham-Kent Parks Cemeteries and Horticulture also assisted. Randall VanWagner - Environmental Project Coordinator and Greg VanEvery - Environmental Technical Assistant were contracted for a sixth year by Chatham-Kent Council to continue the C-K Greening Strategy in partnership with the LTVCA.

Several organizations, including Chatham Rotary Club, Blenheim Rotary Club, Winners Merchants International LP, and Scribendi, stepped forward and offered financial and volunteer assistance with the Greening Partnership efforts. Over \$148,309 in funding was donated by ten different organizations and spent within the community of Chatham-Kent. Above this, over \$17,000 of in-kind contributions were acquired.



Chain saw artist Robin Wenzowski carved this plaque - an annual landowner award presented to someone who shows dedication to the environment in Chatham-Kent.

Community Trees Initiative Program

The Community Trees Initiative Program (CTIP) emphasizes forest and prairie restoration, factors affecting source water quality, and wildlife habitat corridors. It demonstrates how water quality parameters relate directly to vegetation within riparian zones, and link to ecosystem biodiversity. Amanda Griffore was hired as Coordinator to implement this program.

Elementary, secondary, college students and other public audiences learn about the balance of woodland and grasslands. The CTIP follows the Ontario Science Curriculum and serves to educate students and community groups in the field and in the classroom.

Seed collection and planting events were set up for community and school participation with hands on experience with seed to plant processes. Students were taken through important parameters of species identification, stratification, and scarification requirements. During late fall and early spring, several restoration sites were planted. The greening partnership greenhouse was used to establish

prairie plugs and tree seedlings.

The CTIP continued to grow in 2012 with extended help from the 2011 Union Gas grant. The Chatham-Kent Reforestation Funds also gave \$6,000 to CTIP for a tree nursery yard, which was installed during the summer.

Fall participants included two University / College groups, 14 High School groups, six Public School groups, and one 'Bring Students to Work Day' group. Twenty-four events were held which included: six introductory lessons on the importance of trees, seven tree transplantation workshops, one cold-frame seeding event, six seed collection events, three tree and prairie planting events, and one tour of program facilities.

In the spring, 760 student volunteers and 1,673.7 volunteer hours were logged. Three hundred and eighty-seven students participated in the fall program with a total of 486.6 volunteer hours. Sixty-four large and medium stock trees were planted at the Merlin Conservation Area and Autoliv Tilbury manufacturing plant. One hundred and twenty prairie plugs were also planted.



Seed collection and planting events were set up for community and school participation with hands-on experience with seed to plant processes.



Community Trees Initiative Nursery Yard donated by Chatham-Kent Reforestation Fund.

Elgin County Clean Water Project

In September, a new rural water quality program was launched to help protect water quality in Elgin County. The Royal Bank of Canada's (RBC) Blue Water Project awarded \$120,000 to the Catfish Creek, Kettle Creek, Long Point Region and Lower Thames Valley Conservation Authorities to assist landowners with projects that will help improve and protect water quality. The Elgin Clean Water Program will be delivered by local Conservation Authority staff.

Helping to improve the environmental conditions across Elgin County will be easier for landowners. Many landowners are interested in putting up a fence to keep livestock out of the creek or decommissioning an unused well but the cost can be prohibitive. The Elgin Clean Water Program will provide the financial means to help landowners undertake stewardship projects that inevitably will benefit the entire County.

Landowners will be provided with up to 50% of the cost of environmental projects undertaken on their property. The Elgin Conservation Authorities want to ensure we do our part to maintain the quality and quantity of water for drinking, fish and wildlife, tourism and recreation. Funds are limited and will be distributed by a review committee. Any landowner in the County can apply for up to 50% of the costs associated with projects such as erosion control, decommissioning or upgrading wells, livestock access restriction, wetland and riparian habitat restoration and clean water diversion.

Conservation Area Habitat Restoration

Rowsom's Tilbury West Conservation Area

Plans are being finalized to install the agri-drain and excavate ponds. Six hundred seedlings were planted during the spring 2012 in the front portion of the conservation area to create a sheltered environment for habitat.

A Green Apple Grant was received by staff on behalf of Tilbury District High School. Funds were used to purchase 50 large stock Kentucky Coffee Trees and the school's environment club planted them on the south side of the property.

CM Wilson Conservation Area

At the Chatham-Kent and Lambton Children's Water Festival, staff taught students the importance of wetland plants. Another portion of the pond shoreline was planted with native plants.

Merlin Conservation Area

Two classes from the Merlin Public School participated in our Community Trees Initiative and finished planting the windbreak on the west side of the property with 50 Eastern Red Cedars. The school also planted more prairie plugs in and around our new limestone boulders. The boulders were trucked in and placed by Reg Clark Trucking. Funding of \$10,000 was provided by the Chatham-Kent Community Partnership fund.

A fence with pedestrian access and a gate was installed to divide the southern ¼ of the property from the northern ¾ of the property.

Big "O" Conservation Area

In 2012, an 80 m trail extension was completed along with trail maintenance and grooming. Added features include a snake hybernaculum, and a Prothonotary Warbler nesting box. Contract work was done by Ericson Excavating. Ericson did an admirable job, with minimal impact to the area.

The Ministry of Transportation has approved the parking lot design. Construction is slated to begin summer 2013. \$25,000 in funding was acquired from the Community Infrastructure Improvement Fund to complete this project.



The new Secord and Smith Memorial Forest sign was installed at the Merlin Conservation Area in partnership with the Lower Thames Valley Conservation Foundation.



A 200 m trail at Big "O" Conservation Area winds through a wet area of the forest and rises up at the end to give birders a view of the adjacent lagoons - a great birding spot.

Conservation Scholarships and Awards

For over 25 years, the Conservation Authority has made a contribution to the Scholarships and Awards Committee of the Ridgetown Campus of the University of Guelph. The Ridgetown Campus of the University of Guelph offers an excellent program and for years has been a promoter of the conservation ethic in agriculture.

The Conservation Authority also provided financial support to the Chatham-Kent Soil and Crop Association with their Conservation Farm of the Year Award in 2012. The award was presented at the Chatham-Kent Soil and Crop Association Annual Meeting on February 21, 2012. The award went to Rob and Linda Smyth. The Smyths make extensive use of minimum tillage techniques, cover crops, buffer strips and other conservation practices.

A new award “Greening Partnership-Environmental Award” applauds environmental dedication or achievement in Chatham-Kent. Wayne Sonneveld and Theo Van Asten received this award in 2012. They are neighbours and collectively planted over 8 ha in trees. Landowners take the award home for six months, after which it is displayed at the LTVCA Administration Building.



Left to right - Randall VanWagner (LTVCA), Rob Smyth, Linda Smyth, son Matthew Smyth and Jeremy Segeren (Vice President of the Kent Soil and Crop Improvement Association).



Greening Partnership-Environmental Award 2012 winners left to right: Wayne Sonneveld and Theo Van Asten .

Thames-Sydenham and Region Source Protection Region

Drinking Water Source Protection

The purpose of the provincial Clean Water Act (CWA) (2006) is to protect existing and future sources of drinking water. Protecting water at the source - municipal wells and water intakes - is the first barrier in a multi-barrier approach to providing a safe, clean supply of water. The Act is part of the Ontario government's commitment to protecting and enhancing human health and the environment, as well as implementing the Walkerton Inquiry recommendations.

Water is critical to all aspects of our lives and it is important that we ensure there is a safe and reliable source of water for all our uses - now and in the future. Our municipal drinking water comes from lakes, rivers, streams or underground sources (aquifers) located across the province. In our region, most municipalities rely on piped water from the Great Lakes. This does not lessen the importance of protecting water source areas within our watersheds. We need to be proactive to protect our

watersheds and, as a result, the Great Lakes upon which we depend.

The Upper Thames River, Lower Thames Valley and St. Clair Region Conservation Authorities have partnered together to form the Thames, Sydenham and Region Source Protection Region. We are committed to working with our municipalities, other stakeholders and the public to develop a Source Protection Plan that serve to protect our drinking water, while taking into account the other needs of our communities.

The Source Protection Committee is a group of citizens, appointed under the Clean Water Act, 2006, representing municipal, business, general public and interest group sectors from across the region. The Committee is responsible for guiding the development of the local Source Protection Plan.

2012 Highlights

Proposed Source Protection Plan Submitted to Province

The Thames, Sydenham and Region Proposed Source Protection Plan was submitted to the province in December of 2012. The goals of the plan are:

- To protect existing and future drinking water sources in the Source Protection Area
- To ensure that, for every area identified in an Assessment Report as an area where an activity is or would be a significant drinking water threat,
 - the activity never becomes a significant drinking water threat, or
 - if the activity is occurring when the Source Protection Plan takes effect, the activity ceases to be a significant drinking water threat.

The Source Protection Plan contains local policies that address a range of drinking water threats. Landowners with significant threat activities on their property will be required to follow these policies. Examples of activities that could be a significant threat in a vulnerable area include septic systems, storing fuel, spreading manure, handling or storing road salt, and applying pesticides.

There were many tools available to accomplish the job. The Source Protection Committee chose the most appropriate tool, based on Committee knowledge and expertise, current

municipal approaches and provincial guidance.

The Source Protection Committee worked hard to create a balance between the important goal of protecting our municipal supplies of drinking water and the burden this would create on municipalities and other implementers. In general, for existing activities that are a significant risk, the approach was to manage the risk through the use of Risk Management Plans and Prescribed Instruments. This allows the activities to continue while managing the risk such that the activity is no longer a significant threat to the drinking water source.

For future activities that would create a new significant risk, generally the approach was to prohibit this activity in those vulnerable areas where it would be a significant threat. Whenever possible, where other agencies have mechanisms in place that adequately address the significant threats, these mechanisms were used to reduce duplication. If additional policies were needed, these were developed to complement existing mechanisms.

The Committee also felt it was important to address moderate and low risks. This was done primarily through education and outreach.

Pre-consultation refers to the regulatory requirements within the CWA and Ontario Regulation 287 / 07 “General” (O.Reg. 287 / 07 or the Regulation) to carry out consultation activities. More specifically, it refers to the requirement to send notices to persons or bodies responsible for implementing policies, and to government ministries that have obligations under the CWA. This includes the Ministry of Municipal Affairs and Housing (MMAH), the approval authority for many land use planning decisions under the Planning Act.

Pre-consultation took place from March 29 – June 1. The week of April 9, individual packages were circulated to persons or bodies responsible for implementing specific policies and to government agencies that have obligations under the CWA. The packages included: cover letter explaining the purpose of the pre-consultation; the materials enclosed and instructions on receiving comments; specific draft policies and references to applicable discussion papers and assessment report references.

In addition, three municipal forums were held that included both staff and councillors to review the role of municipalities in implementing the proposed policies and to receive feedback. These forums took place immediately prior to the official notice being sent to municipalities for pre-consultation. The municipal forums were held on March 29, April 3 and April 4, 2012.

Derekica Snake - First Nations Liaison / Source Protection Technician for the Thames, Sydenham and Region Source Protection Region ended her contract position in December. We are grateful for her contributions to the program, which have been invaluable to the relationship building with the region's First Nations Communities.



A spring municipal forum was held in Chatham that included both staff and councillors to review the role of municipalities in implementing the proposed policies and to receive feedback.

Details for formal consultation are outlined in ON. Reg. 287 / 07 Section 41 and 42 and include:

Formal Consultation on Draft Proposed Source Protection Plan (Section 41 ON. Reg. 287/07) August - September, 2012

- posted the Draft Proposed Source Protection Plan on the internet on August 17, 2012
- published notice of posting for Draft Proposed Source Protection Plan on August 18 with comments due by September 26
- sent notice of posting to: implementers (see sections 35 – 39 ON. Reg. 287/07); First Nations; and landowners who are or could be engaged in activities that are a significant risk
- four public meetings were held: September 11, 12, 18, 20
- SPC considered comments on October 12 and November 2
- SPC submitted Proposed Source Protection Plan to the lead Source Protection Authority (SPA) following their meeting on November 2

Formal Consultation on Proposed Source Protection Plan (Section 42 ON. Reg. 287/07) November 2012

- SPA posted Proposed Source Protection Plan on the Internet on November 16
- SPA published notice on November 17 and sent notice of posting to: municipalities; First Nations; and anyone who submitted written comments on the draft proposed source protection plan
- SPA provided First Nations and municipalities with a copy of the proposed source protection plan

December 2012

- SPA submitted Proposed Source Protection Plan to the Minister of the Environment along with comments received and the explanatory document by December 31, 2012



A public meeting was held in Chatham in September as part of the formal consultation on the Draft Proposed Source Protection Plan.

Providing Opportunities to Enjoy, Learn & Respect

Employment Grants

In 2012, the LTVCA accessed \$12,874.22 of grant funding for five workers to assist with the completion of projects over and above those of full time staff in field services management, forestry, watershed planning, water quality sampling, groundwater monitoring, community relations, visitor services, museum assistance, clerical and GIS. Through the Provincial Ministry of Training, Colleges and Universities (MTCU) Job Creation Partnership (JCP), seven workers finished their placements in early 2012, having started in 2011. They assisted the LTVCA with field and technical services in our eastern watershed conservation areas. The five summer student positions funded in 2012, through other Provincial and Federal grant programs, gained experience working with an environmental agency and the public. We were able to augment and improve our programs and services through these Federal and Provincial employment program grants.

In addition, the Municipality of Chatham-Kent (C-K) Council, approved the extension of two forestry positions for a sixth term in 2012 to continue the Greening Partnership (LTVCA, C-K, and Stewardship Kent) with a mandate to 'green' Chatham-Kent, through tree planting, wetland, and tall grass prairie restorations.

	MTCU Job Creation Contribution	LTVCA Authority Contribution	LTVCA Foundation Contribution	Length of Program	Total Program Costs
Resource Centre/Museum Handyperson 1 Position				26 weeks	
Marketing/Communications Assistant 1 Position				26 weeks	
Conservation/GPS Education Assistant 1 Position				26 weeks	
Ska-Nah-Doh Education Assistant 1 Position				26 weeks	
Field Service Management Technicians - Eastern District 3 Positions				26 weeks	
Total Job Creation Program Costs			All program costs reported in 2011 Program ended February 2012		
	Prov. Summer Experience Contribution				
Assistant Water Resource Technician 1 Position	\$2,785.35			34 days	\$2,785.35
GIS Assistant 1 Position	\$2,785.35			34 days	\$2,785.35
	Canada Summer Jobs Contribution				
Assistant Water Resource Technician 1 Position	\$1,041.00	\$1,343.64		6 weeks	\$2,384.64
	Young Canada Works Contribution				
Village Research Assistant 1 Position	\$2,963.52		\$1,299.00	10 weeks	\$4,262.52
	LTVCA Foundation				
Longwoods Summer Student 1 Position			\$2,000.00	8 weeks	\$2,000.00
TOTALS	\$9,575.22	\$1,343.64	\$3,299.00		\$14,217.86

2012 Employment Programs and Grant Funding Accessed by LTVCA.



Summer students learned how to collect data from the wells within the Provincial Groundwater Monitoring Program.



Summer nature trail maintenance of wheelchair accessible trails at Longwoods Road Conservation Area was one of this student's responsibilities.

Conservation Lands

The Lower Thames Valley Conservation Authority has protected environmentally sensitive lands, wetlands, culturally unique features and significant biological, ecological, and scenic qualities through its conservation lands program. Nearly 690 ha of conservation land have been preserved at 25 properties for public use in the LTVCA watershed and region.

We endeavour to introduce the general public to the LTVCA through recreational and educational opportunities by promoting the Conservation Areas as places to experience the natural world and increase environmental awareness with interpretive signage and special events.

Russ Dysarz and David Little - Western and Eastern District Supervisors respectively, and Bruce Clark - Construction and Maintenance Technician, are responsible for the management of these sites. The LTVCA's Staff Safety Committee tour the conservation lands annually to ensure the properties are safe for public use. In addition, it is one of the Conservation Authority's policies, to ensure conservation area facilities and programs are as accessible as possible for everyone's enjoyment.

Conservation Area development and maintenance of facilities is enhanced by many annual donations of money and volunteer time from local individuals, companies, and conservation clubs and organizations. The LTVCA is grateful to all 2012 donors, and has recognized all at the beginning of this annual report.



The LTVCA increases environmental awareness with interpretive signage in several of its conservation areas. Signage enhances the experience of the natural world with information about the local habitat and the plants and animals that make it their home.



Safe and accessible features in conservation areas are priority whenever possible.

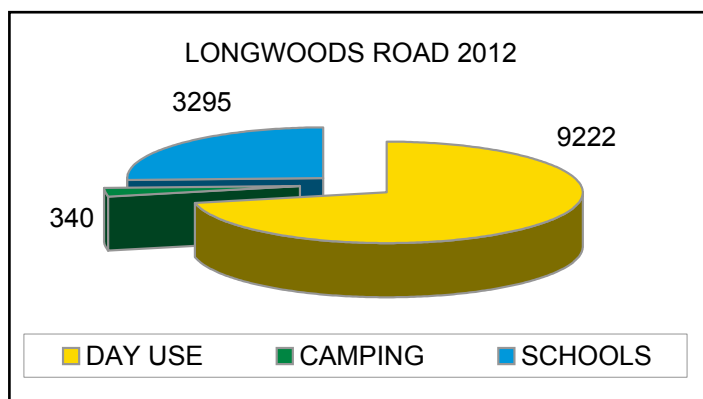


The LTVCA has protected culturally unique features and environmentally sensitive lands and wetlands, across the watershed at our public conservation areas.

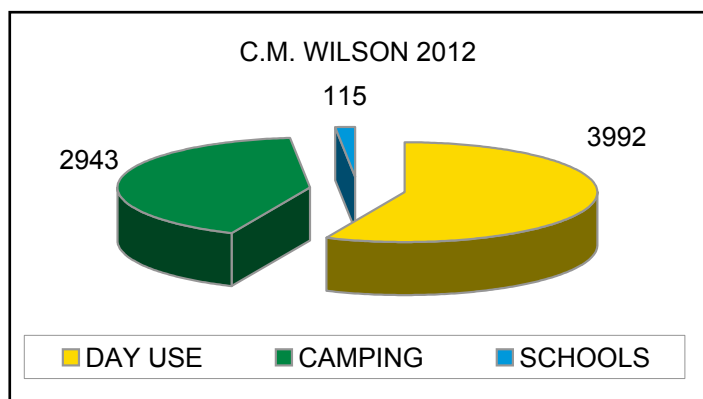


Recorded Conservation Area Visitation

Not all of our conservation areas have recorded attendance figures, however the following statistics are available for 2012: Big Bend CA - camping 1,972 (2011 - 1,990), E.M. Warwick CA - camping 2,290 (2011 - 2,299). The charts below breakdown the visitation at Longwoods Road and C.M. Wilson Conservation Areas in 2012.



Recorded Visitation 12,857 (2011 - 15,208)



Recorded Visitation 7,050 (2011 - 9,387)

MUNICIPALITY	Chatham-Kent												Dutton/Dunwich	Lakeshore				Middlesex Centre		Southwest Middlesex			Southwold	Strathroy-Caradoc		West Elgin	
FACILITIES	Chatham-Kent												Dutton/Dunwich	Lakeshore				Middlesex Centre		Southwest Middlesex			Southwold	Strathroy-Caradoc		West Elgin	
Land Area (hectares)	35.21	2.22	30	1.62	8.09	20.64	14.97	33.55	2.86	39.83	.48	.93	.78	25.66	4.53	46.37	3.06	36.42	40.47	121.2	3.19	9.22	59.68	7.88	14.16		
Day Use	■	■	3992	■	■		■	1000's	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Historic / Museum													■														
School Program			115																					3295			
ANSI / PSW Site				■		■	■					■	■	■	■	■	■			■				■		■	
Wetland / River			■					■			■	■	■	■	■	■	■						■		■	■	
Forest	■	■	■	■	■			■				■	■	■	■	■	■		■	■	■	■	■	■	■	■	
Family Camping			2943															1917									
Group Camping			■					■						■		■		■					340		2290		
Memorial Forest			■					■						■		■		■		■							
Volunteer Groups			■					■						■		■		■		■				■			
Pavilion			■					■						■		■		■					■	■	■	■	
Trails / Boardwalks	■		■	■			■	■						■	■	■	■	■	■		■		■	■	■	■	
Fishing			■			■	■					■	■			■	■	■	■				■			■	
Boat Launch																		■									
Unsupervised Beach			■				■									■										■	
Picnic Table			■				■	■					■					■					■	■		■	
CONSERVATION AREA LANDS	Walter Devereux	Miller Sanctuary	C.M. Wilson	Sinclair's Bush	Stirling	Rondeau Bay Marshes	McGeachy Pond	Two Creeks	Merlin	Diversion Channel	Colborne Street	Dutton/Dunwich	Lighthouse	Rowsons Tilbury West	Big 'O'	Sharon Creek	Delaware	Big Bend	Ekfrid Forest	Mosa Forest	Crane	Mill Stream/Janes Bush	Longwoods Road	Feasby	E.M. Warwick		

Conservation Authority Education Programs

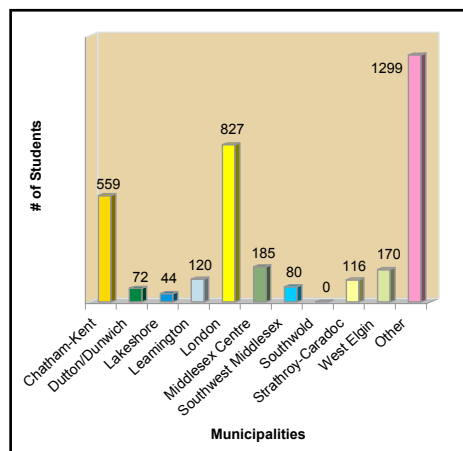
The LTVCA offers two types of education programs from Longwoods Road Conservation Area - Conservation Education and Native Studies at the Ska-Nah-Doht Village and Museum.

	SKA-NAH-DOHT VILLAGE						BOTH SKA-NAH-DOHT and CONSERVATION EDUCATION			CONSERVATION EDUCATION LONGWOODS ROAD C.A.					CONSERVATION EDUCATION C.M. WILSON C.A.				
	# Adults	# Students		# Classes			# Adults	# Classes	# Students	# Adults	# Students		# Classes		# Adults	# Students		# Classes	
		Half Day	Full Day	Half Day	Full Day						Half Day	Full Day	Half Day	Full Day		Half Day	Full Day	Half Day	Full Day
January	4	44		2															
February	6		76		3														
March	24	42	63	2	3						3	46		2					
April	20		152		7		5	1	16		3	30		1					
May	50	85	186	4	9						14	89	25	4	1				
June	176	259	577	12	24		4	1	18		29	51	104	2	5	26	89		6
September																			
October	79	23	521	1	21						27	67	48	3	2				
November	25	27	123	1	5						3		60		3				
December	12		79		4														
TOTALS	396	480	1777	22	76		9	2	34		79	207	313	9	14	26	89	0	6

Field Trip Programs 2012.

	GENERAL						BIODIVERSITY and YOU			RIVER and CREEK SAFETY			PROTECTING OUR DRINKING WATER		
	# Adults	# Students		# Classes			# Adults	# Classes	# Students	# Adults	# Classes	# Students	# Adults	# Classes	# Students
		Half Day	Full Day	Half Day	Full Day										
January															
February										2	1	23			
March										19	13	251			
April							12	2	48						
May							1	1	26						
June							2	1	28						
September															
October							3	2	59						
November							1	1	15				4	4	65
December													1	1	23
TOTALS	0	0	0	0	0	0	19	7	176	21	14	274	5	5	88

Classroom Outreach Programs 2012.



Education programs by Municipality 2012.



The LTVCA's Education Programs are Ontario Curriculum based, designed for all ages with experiential, hands-on learning about our natural environment and Native studies.

LTVCA Provides Experience through Co-op Education!

Longwoods Road Conservation Area received volunteer help from many university, college, secondary and elementary age students from education institutions across Middlesex County in 2012.

These volunteers receive training and experience in the field of conservation and the help they provided is greatly appreciated!



The Protecting Our Drinking Water Program was developed and delivered to five classes in 2012. Cori Charlton, a Fanshawe College student enrolled in the Environmental Technology program, worked her co-op semester at Longwoods Road. She developed the Drinking Water program for Grade 8 and 11 students at schools located in municipal drinking water well head protection areas and intake protection zones in the LTVCA watershed.



Staff delivered a partnership program to Western University students enrolled in Resource Ecology. This program focused on Alien Invasive Plant Species, outlining the challenges these pose to native species. Professor Daria Koscinski and her students subsequently visited Longwoods Road Conservation Area and performed qualitative sampling of alien species present at the site.



Dylan Boersma is a Grade 12 student working through his Strathroy District Collegiate Institute co-op at Longwoods Road Conservation Area. Dylan assisted with displays, trail maintenance, tree and species inventory and program delivery from Sept. 2012 to Jan. 2013.

Chatham-Kent & Lambton Children's Water Festival

The sixth annual Chatham-Kent & Lambton Children's Water Festival was held October 2-4, at the C.M. Wilson Conservation Area. A total of 1,301 grade three to five students attended the festival. Over 100 volunteers helped each day! \$10,450 of donations were received **through the LTVCA** for the 2012 Water Festival. Many thanks to Coordinator Don Hector, for his many volunteer hours, along with these following financial donors:

AHCOM Shrine Club - \$500
Canadian Tire Corporation - \$150
Captain Garnet Brackin IODE - \$1,000
Friends of St. Clair River - \$2,500
Kent Federation of Agriculture - \$100
TD Friends of the Environment Foundation - Chatham Chapter - \$3,000
TD Friends of the Environment Foundation - Lambton Chapter - \$3,000
Tilbury Lions Club - \$100
Ursuline Sisters - \$100



Ska-Nah-Doht Village Programs



Advisory Committee

Don Fairbairn - Chair Ron Watts - Vice-chair

Brian King, John Kavelaars, Ron Doane, Stan Caveney, Ian Fleck, Andy Chisholm, Jim Straughan
Glenn Stott, Stan Lidster, Conrad Wodrich, Darcy Fallon, Jerry Campbell

The Ska-Nah-Doht Village and Museum is a public facility for research, education and enjoyment, protecting, promoting and maintaining the heritage resources of the Lower Thames Valley Conservation Authority and the collections of the museum for present and future generations.

The Staff and Budget

Village Curator - Karen Mattila managed the \$229,213 Ska-Nah-Doht Village and Museum budget for 2012. Rose Nicholas - Village Education Technician, conducted programs, events and administered the inventory for the Turtle Trail gift shop. Financial support is acknowledged from the Ministry of Culture through the Community Museum Operating Grant (CMOG) of \$22,992. Our Museum is a member of the Ontario Museums Association, which facilitates the CMOG and offers many programs for staff development.

Volunteers Celebrated in Queen's Jubilee Year

Three volunteers were honoured at the Ontario Volunteer Awards ceremonies in April. Andy Chisholm, Glenn Stott and Ron Watts received their 40 year pins for their work with Ska-Nah-Doht. All three are now retired education professionals but were instrumental in the early years of the village and continue as Community Members on the Advisory Committee. This being the Queen's Jubilee year, the volunteers also received a second commemorative pin.



Andy Chisholm (left) and Ron Watts received 40 year volunteer pins for their work with Ska-Nah-Doht at the Ontario Volunteer Awards.

Education Programs

A total of 2,291 students (2011 – 3,230) and 405 supervisors and parents (2011 - 592) enjoyed the Village programs this year. In addition, there were 535 public tour / workshop participants (2011 - 384). In more recent years as in 2012, there were, and continue to be, a number of variables affecting education programs, some of which are challenging, such as bussing costs and teachers work-to-rule action. We broadened program choices to accommodate scheduling shifts in school hours to help teachers avoid prime time bussing.

Annual Events

The Village hosted Archaeology Day in July, Nightwalk with the Spirits in August and Tastes of Fall in October. Nightwalk with the Spirits in August had a record crowd, perfect weather, and received excellent reviews.

JCP and Summer Student Grants

The longhouse was completed on time thanks to the participants of the Job Creation Partnership Program just as 2012 began. Students are able to experience the past by sitting in the longhouse.

We received a Young Canada Works in Heritage grant through the Canadian Museum Association and hired Briana Mazzilli of Lambeth. She worked on creating a traveling display to take into the community. The display celebrated the upcoming 40th Anniversary of Ska-Nah-Doht Village and Museum, as well as events at Longwoods. The Ontario Stewardship Rangers lent a hand in the village in July.

Conservation Education Programs

The Conservation Education program provides Ontario Curriculum based conservation area field trip and inclass programs to students and community groups, to foster an understanding and appreciation of our renewable natural resources, thereby encouraging wise stewardship practices. Jerry DeZwart is the Conservation Education Technician.

Union Gas Supports “Biodiversity and You!” Program

A generous grant from Union Gas in 2011 enabled the development of this program which addresses grade six curriculum requirements. The Biodiversity and You! Program was delivered to seven grade six classes (176 students) during 2012. Initial funding will extend the program into 2013. Designed as a free-of-charge resource that provides educators with a basic introduction to the major theme of biodiversity, the program addresses other curricular themes including species at risk, invasive species, and a multicultural / heritage strand. It also includes a free, one hour in-class presentation to schools within the LTVCA watershed to be performed by LTVCA staff, along with a Biodiversity and You! Presentation Package. The Package contains all of the materials necessary for future teacher use of the program. The program is available on the www.ltvca.ca website and can be downloaded free-of-charge for any educator/education facility wishing to use it. The Biodiversity and You! Program is available for sharing across the Province of Ontario.

Classroom Programs

The “Protecting Our Drinking Water Program”

augments the efforts of the Thames, Sydenham and Region Source Protection Region, of which LTVCA is a part. Schools targeted with this proposed program are located within or near the five drinking water surface intakes and well head protection areas in our region. In 2012, 88 students from five classes received the program.

The “River and Creek Safety Program” was jointly presented by LTVCA staff (offered to schools East of Chatham-Kent) and the Chatham-Kent Safety Village (teaching the program to schools within the Municipality of Chatham-Kent). This outreach program for schools in West-Elgin, Dutton-Dunwich, Southwest Middlesex, Middlesex Centre, Strathroy-Caradoc and Southwold performed by LTVCA staff, was delivered to 274 grade two students - 14 classes (2011 - 274 - 12 classes) during the month of March. Special thanks goes to the following service clubs for their ongoing support of this important safety program:

Delaware Lioness Club - \$200

Delaware Lions Club - \$200

Glencoe District Lions Club - \$300

Optimist Club of West Lorne - \$200

Rodney Lions Club - \$200

Royal Canadian Legion Branch 251 - \$100

Royal Canadian Legion Branch 598 - \$200

Water Safety for Rural Students presentations were also delivered to 145 students at Mosa Central School for the Ontario Federation of Agriculture's Farm Safety Day, and 120 students for the Chatham-Kent Farm Safety Day held at Ridgetown College.

Field Trips

During 2012, 643 elementary and secondary students (2011 - 1,297) accompanied by 114 adult supervisors (2011 - 249), participated in field trips to Longwoods Road Conservation Area (Municipality of Strathroy-Caradoc) and C.M. Wilson Conservation Area (Municipality of Chatham-Kent). These numbers represented 25 half and full day class visits (2011 - 59). Pre-school through secondary school groups participated in various curriculum related programs, which greatly enhanced student comprehension of scientific, geographic, mathematic and environmental concepts. In more recent years as in 2012, there were, and continue to be a number of variables affecting education programs, some of which are challenging, such as bussing costs and teachers work-to-rule action in 2012.

Conservation Workshops

A variety of workshops at Longwoods Road Conservation Area and LTVCA outreach locations were offered to 513 Scouts, Guides, Cubs, Brownies, Beavers, Sparks, and Venturers (2011 - 156). Youth groups obtained different badges for various outdoor activities including Owl Hikes, Snowshoeing, World Conservation and Forestry.

London's Western Fair Wetlands Display

The importance of wetland ecosystems to the environment and to themselves was realized by Thames Valley District School Board and London District Catholic School Board students visiting the Western Fair in London. The message was conveyed by LTVCA staff to an audience averaging 300 students per day, over a four day period.

Partnering with the Local Community

Community Relations - A Part of All Programs

Communications efforts enhance awareness and understanding of the goals and programs of the LTVCA to our target audiences, enabling them to support and / or utilize our facilities and services. Through accurate, consistent and clear messaging, we expand the range of the target audiences whenever possible.

Community Relations activities inform our primary audiences - LTVCA Board and Committee members, Councillors and staff from member municipalities, Government agencies, as well as LTVCA staff about all LTVCA's programs and services. Watershed residents, media, users of LTVCA services, partners including the LTVCA Foundation, and potential partners, are additional vital audiences.

Staff participate in special events and tours, initiate and assist with local environmental projects, produce literature on conservation programs, design and create displays for fairs and conferences and write articles for local newspapers and newsletters. We partner with organizations, volunteers and other stakeholders, to help with the conservation of our

watershed resources.

Communications staff worked on many projects for the Thames, Sydenham and Region Source Protection Region as well in 2012. These included advertising, organizing and supporting meetings as per the Clean Water Act. A spring municipal forum was held in Chatham for staff and councillors to review the role of municipalities in implementing the proposed policies and to receive feedback. A public meeting was also held in Chatham in September, as part of the formal consultation on the Draft Proposed Source Protection Plan.

The communication of information and education about the LTVCA encourages the wise management of our natural environment in the lower Thames River watershed and region. This report highlights Community Relations activities in 2012. Bonnie Carey - Community Relations Coordinator is assisted by Agnes Vriend - Clerk - Secretary with many communications projects.

Communications Products & Services

writing, editing, designing, presenting

- annual reports
- presentations for member municipalities and stakeholder groups
- conservation area brochures and publications
- displays and exhibits
- advertising, marketing, public relations
- website updates
- media releases and public service announcements
- communications plans for special projects
- "Lower Thames Beacon" newsletter

organizing

- meeting facilitation
- public events / public consultations

fund raising

- employment programs
- conservation projects and services

representation on watershed committees and working groups



The importance of wetland ecosystems to the environment was highlighted to students, teachers and adult chaperones during their visit to the Western Fair in London in the fall.

Year-round Special Events

Exploring the natural environment is made fun at the special events organized in our many conservation areas. Whether learning about endangered species or habitat restoration, enjoying an activity like hiking, canoeing or bird watching, reliving local history or listening to an outdoor concert, the LTVCA joins with great partners, provides ideal locations and has the expertise to offer year-round activities for everyone! Effort is made to host or help partners organize events in as many of our conservation areas as possible. Highlights of some 2012 events have been included in this report.

Moonlight Winter Family Hike

A snowy winter's evening was enjoyed by 78 participants (2011 - 106) who searched for Eastern Screech Owls at Longwoods Road Conservation Area. Many thanks to Foundation Directors volunteering at the February event: Peter and Dawn Snow, and Glenn Stott. Community volunteers Vickie and Corey Day, Rick Carey, Nigel and Gale Steadman, Cleve Lowthian, Cori Charlton and the DeZwart family - Deb, Collin, Justin and Rachel lent a hand, making the night a huge success. Over \$672 was raised for the LTVCA from registered hikers. Hikes were fully booked two weeks before the event, however the weather kept some away. Screech and Great Horned Owls were seen and heard on the hike, and live owls were a hit indoors at the Resource Centre. George Wickham was present to reveal his award winning bird carvings while Linn Eves and her assistant from the Bluewater Centre for Raptor Rehabilitation, provided audiences a view of a long-eared and a screech owl up close! Owl crafts were made downstairs and owl pellets were investigated by children to determine what owls eat.

Longwoods Heritage Weekend



In May, the Upper Thames Military Re-enactment Society hosted the annual Longwoods Heritage Weekend and Friday school program. The event brought nearly 3,000 people to Longwoods, including re-enactors from across North America, students, public, and guide and scout campers.

Doors Open Middlesex



As part of the Doors Open Middlesex event in September, members of the Ska-Nah-Doht Advisory Committee toured 448 visitors through Longwoods Road facilities including the museum's artifact collection.



Linn Eves from the Bluewater Centre for Raptor Rehabilitation held several theatre presentations with an Eastern Screech Owl stealing the show!

Nightwalk with the Spirits



The annual Nightwalk with the Spirits event in August was enjoyed by 108 people at Ska-Nah-Doht Village.

Lower Thames Valley Conservation Foundation

2012 Highlights



The Lower Thames Valley Conservation Foundation works in partnership with the Lower Thames Valley Conservation Authority, to raise funds towards the wise management of our renewable natural resources. Since 1995, the Foundation has raised over \$600,000 for natural and cultural heritage conservation. Thousands of dollars were raised in 2012 for conservation projects.

The Lower Thames Valley Conservation Foundation assists volunteer organizations with their fund raising efforts and manages the Sharon Creek Trust Fund, initiated by the Friends of Sharon Creek. The Foundation supports special projects and events like the annual Moonlight Winter Family Hike, the Carey Carolinian Arboretum and Trail and the William Erickson Bursary. Through the Foundation's Memorial Forest Program, the Conservation Authority has planted thousands of trees in the lower Thames region. The Foundation submits funding applications to corporations, government agencies, service clubs and other philanthropic organizations to undertake projects and programs which assist the LTVCA.

The Conservation Foundation is an independent, not-for-profit, federally registered charity - Number 898198171 RR0001. Tax receipts are issued for all donations. It is governed by a Board of Directors.

The Foundation helped fund many Conservation Authority and watershed initiatives in 2012:

- Summer student at Longwoods Road Conservation Area
- Greenlane Community Trust Fund successful application
- New McKinlay Woodlands signage
- 501 memorial trees from 2011 and 12 ceremonial trees in 2012
- Sharon Creek Conservation Area land taxes
- Taste of Fall event support
- William Erickson Bursary
- Thames Talbot Land Trust Wardsville Woods support

Carey Carolinian Arboretum & Trail

Facilitated through the Foundation, a \$26,000 gift in 2008 from a private donor - Dr. Lewis Carey, was used by the Lower Thames Valley Conservation Authority for an educational "Carey Carolinian Arboretum and Trail" project at Longwoods Road Conservation Area in 2009. Dr. Carey passed away in November of 2009.

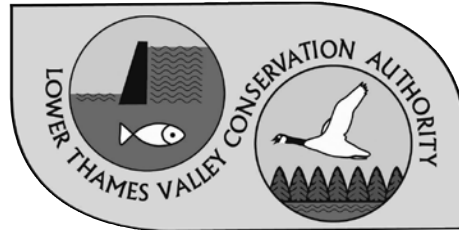
Large stock Carolinian trees have been planted with their signage. An official opening and recognition ceremony was held in 2010.

Both the Conservation Foundation and Conservation Authority realize the importance of creating a Carolinian arboretum and trail system as an educational tool for this unique habitat. Dr. Carey's wish for messaging to reflect the connection between First Nations peoples and the natural surroundings of a Carolinian forest came to fruition, as Longwoods highlights both native and natural history. The final phase of this project began in 2012, with the initial excavating for the Carolinian information kiosk.



Annually, close to 2,000 people attend memorial forest dedications at McKinlay Woodlands in C.M. Wilson Conservation Area near Chatham, Badder and Robinson Memorial Forest in Mosa Forest near Bothwell (above), and Tilbury Northside Park. The newest memorial forest is the Secord and Smith Memorial Forest in Merlin Conservation Area.

Contact the LTVCA



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In 2012, the Thames River celebrated its twelfth year as a Canadian Heritage River. The thirteenth Annual Thames River Clean-up was held in April with thousands of volunteers cleaning up hundreds of kilometres along the river.