

2016 Annual Report

Lower Thames Valley Conservation Authority



"The LTVCA...for a balanced and healthy watershed"

Message from the Chair



A handwritten signature in dark ink, reading "John Kavelaars".

John Kavelaars
Chair LTVCA

As I complete my second term as Chair of the Lower Thames Valley Conservation Authority, I want to extend my appreciation for the support extended to me by the members and staff, especially during my convalescence. This experience reinforces that none of us are indispensable and that we are all at our best when we are pulling together!

We are fortunate to have a dedicated and professional staff, who, along with the support of our Board, manage to deliver our programs and services to the community while engaging in many important extraordinary activities. During the past year alone, these included participating in the Review of the Conservation Authorities Act, and initiating an update of our Planning and Regulations Policies and Guidelines. Staff were again actively participating in the planning and delivery of the Chatham-Kent and Lambton Children's Water Festival. Planning for minor but important boundary clarification between

the Upper Thames River and Lower Thames Valley Conservation Authorities culminated in a supporting resolution from one of our shared municipalities, Strathroy-Caradoc. Lastly, the renovations to the Administration building and parking lot redevelopment were finished, with a Workplace Wellness recognition from Chatham-Kent Public Health being a crowning achievement! Congratulations to all the staff for earning this award.

The Provincial Government Review of the Conservation Authorities Act is an important opportunity to tweak the roles and relationships among the Conservation Authorities, our member municipalities, and the Provincial Government. Especially important to our watershed partners is the need to establish a fair and equitable funding formula that recognizes that there are limits to the local capacity to fund important programs and services. We are looking forward to progress on this initiative through 2017.

General Manager's Remarks



A handwritten signature in dark ink, reading "Don Pearson".

Don Pearson
General Manager LTVCA

As demonstrated within the pages of this annual report, the Staff and Members of the Lower Thames Valley Conservation Authority continue to work toward the fulfilment of our vision for the watershed – balancing the health of our water and natural heritage with a healthy economy.

This bold vision requires the Conservation Authority to work cooperatively with our watershed community, as most of the land within our jurisdiction is owned privately. To support this need, our member municipalities made a substantial new investment in 2016 to allow the Conservation Authority to expand its program of land stewardship on both public and private lands. Reforestation, wetland and prairie habitat creation are the main activities of this program, with the demand remaining strong.

To lead by example as our mission statement suggests, the Conservation

Authority continues to invest in its own properties as well, ensuring that the best environmental stewardship practices are followed. To that end, the LTVCA engaged with a private by-law enforcement firm in an attempt to curb abuse and environmental degradation of some of our significant natural areas, including our holdings in Skunk's Misery. The additional enforcement capacity also assisted our efforts to work pro actively with property owners, to ensure that development remains in compliance with our regulatory requirements, thereby avoiding the hazards of flooding and erosion and the need for costly remediation.

We encourage everyone to become familiar with the Conservation Authority's programs and services and engage with our staff at every opportunity to help fulfil our collective goals. We are fortunate to live and work in the heart of our Great Lakes region and have a duty to protect the region's assets for present and future generations.

Our Vision ~ The LTVCA...for a balanced and healthy watershed



Our Mission

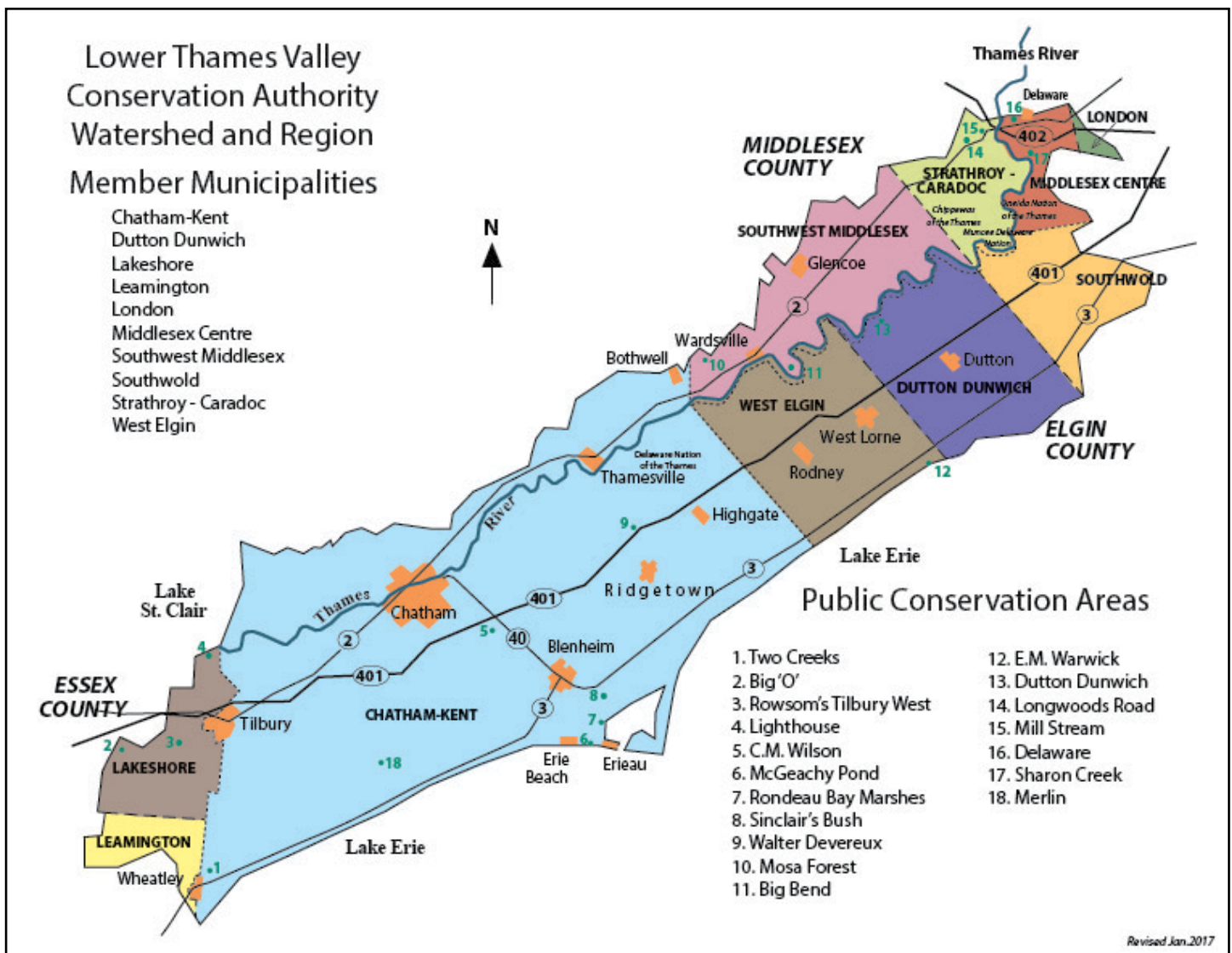
*Leading by example in environmental protection
in partnership with the community.*

Our Core Values

*Respect, integrity, commitment, objectivity,
and collaborative.*



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



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.

Board & Staff Directory

LTVCA Directors

John Kavelaars (Chair) - Municipality of Southwest Middlesex

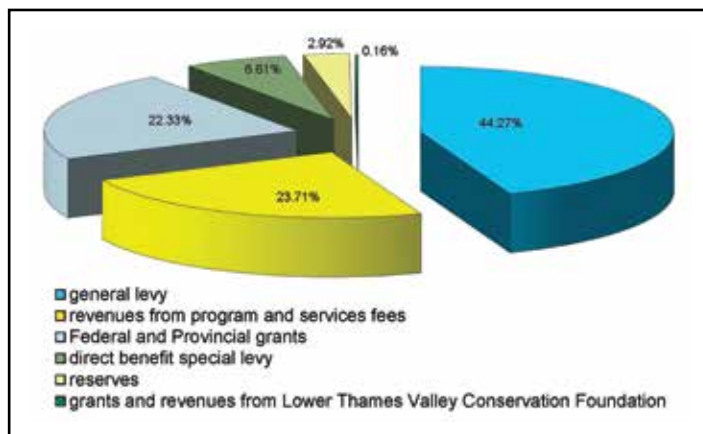
Linda McKinlay (Vice-Chair) - Town of Lakeshore
Gayle Bogart – Township of Southwold
Stanley Caveney – City of London
Ron Doane – Municipality of Strathroy-Caradoc
Leon Leclair – Municipality of Chatham-Kent
Hilda MacDonald – Municipality of Leamington
Dan McKillop – Municipality of Dutton Dunwich
Steve Pinsonneault – Municipality of Chatham-Kent
Michelle Smibert – Municipality of Middlesex Centre
Trevor Thompson – Municipality of Chatham-Kent
Jonathan Wolf – Municipality of West Elgin

Ska-Nah-Doht Village Advisory Committee

Don Fairbairn – Chair
Darcy Fallon – Vice-chair
Ron Doane, Gayle Bogart, Dan McKillop, Elvira Pupinski,
Lynn Chelchowski, Bill Bruinink, Don Pearson

Budget

Don Pearson – General Manager / Secretary-Treasurer, directed the administration and financial aspects of the LTVCA, with support from Financial Services Supervisor – Todd Casier and Finance and Administrative Assistants – Kally Casier and Sandra Schnekenburger.



The LTVCA's budget of \$3,026,022 received approval in February.

Joint Health & Safety Committee

Two committee members received their Joint Health and Safety Committee Certification under the WSIB 1996 Standard bringing the number of certified members to three. To comply with the Ministry of Labour (MOL), all staff completed new and refresher health and safety training. The committee continues to develop task and operating procedures and stays current with MOL updates as they impact the health and safety of all LTVCA employees.

LTVCA Full-time Staff

Don Pearson - General Manager / Secretary-Treasurer

Stephanie Allison – GIS / Communications
Lindsay Bennett – Species At Risk Drainage Biologist
Amanda Blain / Liam Laforest – Land Stewardship Technician
Dan Brinkman – Land Stewardship Technician / General Labourer
Kally Casier – Finance & Administration Assistant (parental leave)
Todd Casier – Financial Services Supervisor
Bonnie Carey – Community Relations Coordinator
Bruce Clark – Construction & Maintenance Technician
Jerry DeZwart – Conservation Education Technician
Russ Dysarz – Western District Supervisor
Jason Homewood – Water Resources & Regulations Technician
Paul Kominek – General Labourer
Colin Little – Agricultural Program Coordinator
David Little – Eastern District Supervisor (on leave)
Michael Latham – Eastern District Lead
Karen Mattila – Ska-Nah-Doht Village & Museum Curator
Rose Nicholas – Ska-Nah-Doht Village Education Technician
Austin Pratt – Water Quality Specialist
Sandra Schnekenburger – Finance & Administrative Assistant
Valerie Towsley – Resource Technician
Greg VanEvery – Environmental Project Coordinator
Randall VanWagner – Manager of Conservation Lands & Services
Agnes Vriends – Clerk / Secretary
Jason Wintermute – Water Management Supervisor

LTVCA Seasonal / Part-time Staff

Emily Armstrong – Tree Planter
Kara Blair – Gatehouse
Brain Boland – Security
Laura Brown – Environmental Planning & Policy Assistant
Colin DeZwart – Heritage Build Labourer
Justin DeZwart – Heritage Build Labourer
Leeanne Doxtator – Exhibit Design Assistant
Codie Kish – Visitor Services
Christine Langille – Visitor Services / Community Outreach Assistant
Michael McKerrall – GIS Technical Assistant
Buddy Morrison – General Labour / Security
Kirsten Neuts – Gatehouse
Jennifer Nieuwland – Tree Planter
Megha Rathod – GIS Technical Assistant
Christine Reynolds – Gatehouse
Blake Sykes – General Labour / Security
Larissa VanBommel – Gatehouse
Brandon Wijsman – Conservation Technician
Elizabeth Young – Community Outreach Coordinator

Protecting Life & Property

Water Management

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. Jason Wintermute is the Water Management Supervisor and the Water Quality Specialist is Austin Pratt.

Binational Phosphorus Reduction Targets for Lake Erie

The 2012 Great Lakes Water Quality Agreement recognized the need to reduce phosphorous loadings to Lake Erie. In December of 2014, the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health was signed and in June 2015, Ontario signed the Western Basin of Lake Erie Collaborative Agreement. The consensus is that the annual total phosphorus loadings to the western and central basin of Lake Erie should be reduced by 40%.

The Thames River has been identified as a priority watershed that needs to see a 40% reduction in dissolved phosphorus and total spring loadings as well. At this reduced rate of nutrient loading, it is anticipated that the lake will maintain algal species consistent with healthy aquatic ecosystems and minimize the extent of hypoxic zones in the lake.

Throughout 2016, the LTVCA engaged in a variety of consultation and early actions to assist in developing the Domestic Action Plan, collecting required research and reducing phosphorous loadings.

Great Lakes Levels

Lake St. Clair water levels began the year 30 cm above the long-term normal for January. Water levels tracked 30 to 45 cm above average throughout the year, ending the year at about 20 cm above the long term normal.

Lake Erie water levels began 25 cm above the long-term normal for January. Water levels tracked 20 to 40 cm above average throughout the year, ending the year at about 15 cm above the long term normal. There were no advisories issued this year for the lake shore flooding.

Flood Control

This year was milder than last with less snow accumulation. Ice on the Thames melted and flushed out in late February with no major jamming or significant flooding events. A Thames River peak flow of 413 m³/s was observed April 3rd during the spring melt event from March 24th to April 14th.

Several heavy rainfalls over the spring and a winter melt event caused local watercourses to flood their banks, triggering operation of the Indian-McGregor Creek Diversion Channel during February 24th to 26th, March 27th to April 5th, and December 26th to 29th.

Flood forecasting was complicated as the water level gauge on McGregor Creek at Hwy. 40, used to determine when to operate the Diversion Channel, was down due to telephone line issues from January to October. Eleven advisories were issued during the year.



The Thames River in Chatham on February 2 shows high waters with an ice breakup.

Provincial Grant Funding for Capital Maintenance & Flood Forecasting

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

Provincial Water Monitoring

The LTVCA partners with the Ontario Ministry of the Environment and Climate Change (MOECC) on the Provincial Groundwater and the Provincial (Stream) Water Quality Monitoring Programs. This program assists in environmental reporting, decision-making, and program implementation by the Conservation Authority, member municipalities and the province.

Groundwater monitoring is conducted at nine wells throughout the watershed with the use of water level loggers and supplemental rain and barometric pressure loggers at some locations. Five of the wells were sampled in the late fall for water quality. The LTVCA maintains the instrumentation, samples the wells, and undertakes data corrections, while the MOECC provides equipment and lab analyses.

Stream water quality sampling is conducted at 11 locations throughout the watershed. The Conservation Authority samples monthly in the spring, summer and fall for general water chemistry and the MOECC performs the lab analyses. Since biological analyses are not part of the provincial program, the LTVCA tests for e-coli at the same sites. Currently, the program is supplemented with pesticide monitoring at three sites and the LTVCA is also participating in a special study examining different lab methods of determining total phosphorus.

The LTVCA received a Canada Ontario Agreement grant from the MOECC to expand the surface water sampling network with an additional 11 locations across the watershed. By expanding to 22 locations and sampling winter months, we gain a better understanding of water quality as winter and spring months show the most nutrients and contaminants transported to the Great Lakes.

Ontario Low Water Response Program

The LTVCA participates in a provincial program that monitors watershed conditions to determine if the area is in a low water (drought) situation. The Low Water Response Team is a group of local stakeholders who oversee local response. From October 2015 until March 2016, July to August 2016, and October until the end of the year, the region was in a Low Water Level One Condition. A Level One Condition is triggered if there is between 60% and 80% of the long term average rainfall over the last 3 or 18 month period, or if river flows are between 50% and 70% of the lowest average summer month flow (100% to 70% in the spring).

Thames River Clearwater Revival

The Thames River Clearwater Revival (TRCWR) is a multi-agency partnership with the objective of improving the Thames River. Partners include Environment and Climate Change Canada (ECCC), First Nations communities, provincial ministries, the Upper Thames River and Lower Thames Valley Conservation Authorities and the City of London. Currently, the primary activity for the TRCWR is the drafting of a Water Management Plan. A final set of recommendations for the water quality section has been compiled. The TRCWR continues to be involved in other activities such as supporting the Antler River Guardians from the 4 Directions: First Nation Youth Stewardship Program.

Land Use Planning & Regulations



Valerie Towsley, Jason Wintermute and Jason Homewood are the staff responsible for administering the land use planning and regulations program.

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, and Conservation Authority and municipal planning policy.

January 14, Lake Erie. Wind events can cause inland flooding from waves cresting shoreline protection and/or dunes. Storm events can occur at any time. Conservation Authority Regulations prevent new development in these hazardous areas eliminating the concern for property damage and keeping residents safe.

At right are the regulatory and municipal plan review summaries for the year. 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.

Permits	Municipal Drain	70	20	13	1		2	6	2		7		121
	Private Property Owner	66	5	21	1				2	3	4		102
	Oil / Gas	12		6									18
	Municipal / County Infrastructure	9	1		1		2	1	2		5		21
	Habitat	3	1								2		6
Plan Input and Review	Official Plans					1							1
	Official Plan Amendments	3						2					5
	Comprehensive Zoning Bylaws												0
	Zoning Bylaw Amendments	52	12	9	4	3	5	8	1	4	13		111
	Severances	68	10	6	4		3	9	10	8	9		127
	Minor Variances	36	7	3	2		1			3	2		54
	Plans of Subdivision												0
	Property Clearances	33	8	7	1		1	4		2	3		59
	General Property Inquiries	600	77	145	4	5	10	27	27	18	81	245	1239
	TOTAL SERVICES PER MUNICIPALITY	952	141	210	18	9	24	57	44	38	126	245	1864
	SERVICES												
MUNICIPALITY	Chatham-Kent												
	Dutton-Danwich												
	Lakeshore												
	Leamington												
	London												
	Middlesex Centre												
	Southwest Middlesex												
	Southwold												
	Strathroy-Caradoc												
	West Elgin												
	General Inquiries												
	TOTALS												

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

The LTVCA reviewed 268 applications under the Regulation, an increase of 72 permits from 2015. Landowners submitted 108 applications, 6 of which were habitat projects. Eighteen submissions were received for oil and gas pipeline installations/repairs, 120 were for municipal engineers' reports and maintenance work on drains and 22 were submitted by municipal and county bodies for road culvert and bridge replacements. All applications were approved in 2016.

Enforcement Issues

The LTVCA obtained a conviction on three charges related to interference with and development in and around a wetland (fine of \$15,000). A site rehabilitation plan is pending from the individual. There were 11 Notices of Violation issued in 2016. Two site inspections were conducted in relation to a prior conviction and six site inspections were undertaken as a result of complaints received from the public. The Municipal Enforcement Unit and LTVCA staff work in conjunction with these cases, with the Ontario Ministry of Natural Resources and Forestry taking the lead on one of the violations.

LTVCA Planning & Regulations Policies

The LTVCA's Planning and Regulations Policies have been in place since the new Regulation came into effect in 2006, with the Operational Guidelines updated in early 2012. There have been significant changes in how the Regulation has been implemented since 2006, including an amendment to the Regulation in 2013. Draft Policies were completed mid-year, and available on our website and at the Administration Office. Four open houses were held across the watershed. In total, 31 landowners and stakeholders attended the meetings (Middlesex 5, Elgin 18, Essex 3, & Chatham-Kent 5). A comparison table was created to show what has changed. Work on editing the draft Policies to address initial comments will carry into the new year.

Drainage Superintendents Association

The LTVCA is a long-standing associate member of the Chatham-Kent-Essex Chapter of the Drainage Superintendents Association of Ontario. The watershed consists of highly drained agricultural lands and is managed under both the Drainage Act and the LTVCA's regulations. Cooperation and good relationships with our region's Drainage Superintendents are extremely important.

Enhancing Watershed Health

Tree Planting, Restoration, Stewardship

Chatham-Kent Greening Partnership

The Municipality of Chatham-Kent recognizes that a 'greening' effort is needed to address environmental concerns. A partnership with the LTVCA provides municipal funding that helped support five positions at LTVCA - Randall Van Wagner, Greg Van Every, Lindsay Bennett, Stephanie Allison and Amanda Blain. These employees apply for additional funds for tree planting, wetland creation and tallgrass prairie projects. Funds are then offered to landowners as incentives to restore habitat and educate and build awareness about the importance of healthy environments.

Nearly \$922,000 in grants were generated, assisting 200 landowners for environmental restoration from various sources. Partners and donors include: Ontario Ministry of Agriculture and Rural Affairs, Ontario Ministry of Natural Resources and Forestry, Environment and Climate Change Canada, Habitat Stewardship Program, Land Stewardship Habitat Restoration Program, Forests Ontario, Ontario Power Generation, TD Friends of the Environment Foundation, Wildlife Habitat Canada, Union Gas, Stewardship Kent, Chatham-Kent Community Fund, Scribendi Editing, Truly Green Farms (Cedarline Greenhouses), Ontario Parks, Municipality of Chatham-Kent and community volunteers. Nearly 375 acres (152 ha) were naturally restored: 151 acres (61 ha) reforested, 36 acres (15 ha) of tallgrass prairie planted and over 54 acres (22 ha) of wetlands created. Across the entire watershed, 128,000 trees were planted. Invasive species control was tackled and 104 acres (42 ha) of *Phragmites Australis* were targeted.



Over 22 hectares of wetlands were created. Wetlands filter sediment, nutrients and pollution, helping to clean drinking water sources. They also recharge groundwater, which many people rely on for drinking water.

Natural Heritage Implementation Strategy (NHIS)

The purpose of the NHIS is to identify how the Municipality of Chatham-Kent will work with all sectors of the community to maintain and enhance the natural heritage system within the municipality, and manage collectively, the greater ecological goods and services that are a benefit to all members of society. The Greening Partnership actively engages the community for the NHIS to succeed. In return, the community gains millions in natural restoration incentives, and hands on engagement to educate and foster cultural change toward sustainable ecological goods and services.

This year, nearly \$1.3 million was leveraged from numerous funders to enhance agricultural, water quality monitoring and species at risk programs of value to Chatham-Kent. Health Benefits/Environmental Goods and Services could also be weighed into this equation. Every acre of land restored is of direct benefit to every Chatham-Kent citizen by offering cleaner air and water, achieving the Chatham-Kent Strategic Plan goals. These programs are providing the science to lead to new, high value opportunities with industry leaders such as Ontario Ministry of Agriculture Food and Rural Affairs, Environment and Climate Change Canada, the Department of Fisheries and Oceans, and Ontario Ministry of Natural Resources and Forestry.

Tours, Events and Workshops

A bus tour was held September 22, highlighting restoration projects completed during the year and the monitoring stations for the Jeannette's Creek GLASI research.

On September 24 over 100 tickets were sold to our film entitled "A Living History- Heritage Trees of Chatham-Kent" - raising over \$5,000. The 45 minute documentary featured local citizens discussing significant trees of the area.



Partnering with Kent Federation of Agriculture, Kent Soil and Crop Improvement Association, the Chatham-Kent Christian Farmers and the Sunshine Rotary Club, LTVCA set up a booth, presented projects and communicated our message to their membership.

Tree Planting



Twenty-six landowners were engaged in tree plantings greater than 1 hectare or 2.5 acres. Over 128,000 trees were planted.



Great Lakes Agricultural Stewardship Initiative (GLASI)

Funding for GLASI programs is provided by Agriculture and Agri-Food Canada and the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) through Growing Forward 2, a federal-provincial-territorial initiative. GLASI is delivered through the Ontario Soil and Crop Improvement Association. The key components are improving soil health, water quality and pollinator health. Colin Little – Agricultural Program Coordinator, targets areas with projects to reduce phosphorus entering the Thames River and Lake Erie. The LTVCA has delivery of three programs:

The Jeannettes Creek Agricultural Phosphorus Reduction and Monitoring Program

This program implements and monitors the effectiveness of Best Management Practices (BMPs) on reducing agriculturally sourced phosphorus within a 20 km² region located near Fletcher. The goal is to verify the effectiveness of BMPs and to improve the quality of discharged water in the region. Eight tile drainage plots at two edge sites were constructed for monitoring. Water quality sampling was limited this summer, however auto-motivated samplers tested at three pump stations this fall and winter.

The Greening Partnership along with the Chatham Horticulture Society had a successful “**Tree of the Year**” program. One thousand sugar maples were given out to very happy Chatham-Kent landowners. Additionally, 800 Carolinian species were planted in public green space, cemeteries and roadsides. Enbridge hosted an appreciation ground breaking ceremony for the 57 hectare (140 acre) restoration project at Clear Creek. This project is being completed over a two year span and includes three wetlands and reforestation. “**Your Roots are Always in CK**” is an initiative sponsored by the Health Unit of Chatham-Kent and accomplished by the Greening Partnership and Chatham-Kent Community Attraction & Promotion. The program sponsors a graduating class to plant a tree in their name within the community. This year 14 classes planted a tree. Trees were also planted along 10 public trails.

Benthic Monitoring

Sampling for benthic macroinvertebrates (insects, worms and crustaceans that live at the bottom of the stream) continued with a new partnership with the Biology Department at the University of Windsor. Sampling helps us to better understand where to target stewardship projects in areas of greatest need.

The McGregor Creek Education & Outreach Program

This grant enabled development of a webpage and distribution of brochures about soil conservation, phosphorus loading, pollinator health and funding opportunities to initiate landowner BMP's. A presentation was given by Conservation Education staff to University of Guelph - Ridgetown College students and faculty.

Elgin County Watersheds Education & Outreach Program

Kettle Creek Conservation Authority in partnership with Lower Thames Valley, Longpoint Region and Catfish Creek Conservation Authorities, is undertaking outreach and education over the next three years to engage local producers on soil health and water quality, encouraging action through on-the-ground projects. The peer-driven project will engage local champions to provide expertise, and empower producers to learn more about and implement BMPs for soil health and water quality.

Elgin Clean Water Project (ECWP)

The Elgin Clean Water Project is a cooperative program between the Catfish Creek, Kettle Creek, Long Point Region and Lower Thames Valley Conservation Authorities. ECWP assists landowners with projects, which improve and protect water quality in Elgin County. Landowners undertake stewardship practices to benefit the entire County and beyond. Nine landowners from the LTVCA watershed submitted applications, with only five receiving funding for seven projects in total. One project was not funded as it didn't fit the requirements, one deferred as more information was required, and two were deferred to 2017 at the landowner's request.

Land Donations

Two land donations from private landowners were received. The 23 ha Skakel property, appraised at \$470,000 and the 57 ha Courey Islands property appraised at \$300,000 are located in the Municipality of Chatham-Kent.

Species at Risk (SAR)

SAR projects on priority municipal drains establish wetland and riparian vegetation to improve water quality and habitat for aquatic and terrestrial species. Projects reduce pollution and siltation of important downstream areas like the Thames and Sydenham Rivers and Rondeau Bay. They increase and restore riparian habitat and biodiversity for SAR including Eastern Foxsnakes and Bobolinks. Aquatic and terrestrial corridors are improved, linking key coastal/nearshore wetlands along Lakes St. Clair and Erie. The LTVCA has entered into an agreement with the Department of Fisheries and Oceans and Environment and Climate Change Canada to target aquatic SAR in our watershed. An initial \$49,000 will assist staff with creating a broader program for the LTVCA.



Thames, Sydenham and Region Source Protection Region

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 government's commitment to protecting and enhancing human health and the environment, while implementing the Walkerton Inquiry recommendations.

The Upper Thames River, Lower Thames Valley and St. Clair Region Conservation Authorities partnered together to form the Thames, Sydenham and Region Source Protection Region and worked with municipalities, stakeholders and the public to develop a Source Protection Plan to protect drinking water, while taking into account the needs of our communities. The Source Protection Committee is appointed under the Clean Water Act, 2006, representing municipal, business, general public and interest group sectors in the region. The Committee is responsible for guiding the development of the Source Protection Plan.

Highlights of the Year

- With the Drinking Water Source Protection Plan approved, the program is now in the implementation stage. Municipalities either contracted our Risk Management Services or trained their own staff.
- At year end, Project Coordinator Michelle Fletcher stepped down and was replaced by Jenna Allain. Katie Ebel was hired as a short-term Risk Management Official to handle the start-up risk management workload for which the Source Protection Region is now responsible, having contracted with municipalities for the service.
- The Clean Water Act has provisions for reducing the size of the Source Protection Committee (SPC) once Source Protection Plans were approved. This was coordinated along with the change of

our Chair. There will be one municipal representative for Chatham-Kent, Essex and Elgin.

- The Ministry of the Environment and Climate Change (MOECC) is revising the Technical Rules for Assessment Reports pertaining to surface water intakes. This will allow more flexibility to Source Protection Authorities to adopt technical approaches that reflect local characteristics and concerns of drinking water systems.
- To help with annual reporting by Provincial Ministries, Municipalities, Conservation Authorities and other agencies, the MOECC is working on reporting requirements and standardized forms.

Stepping Into Nature

Conservation Areas

The Lower Thames Valley Conservation Authority has protected 640 hectares of environmentally sensitive lands, wetlands, culturally unique features and significant biological, ecological, and scenic qualities through its conservation areas program. Out of the 27 LTVCA owned lands, 463 hectares have been preserved at 18 conservation areas for public use in the watershed and region. The LTVCA promotes its objectives through recreational and educational opportunities in the Conservation Areas - places to actively experience the natural world and increase environmental awareness through interpretive signage and special events.

Russ Dysarz - Western District Supervisor, Michael Latham - Eastern District Lead, Bruce Clark - Construction and Maintenance Technician, Paul Kominek and Dan Brinkman - General Labourers, are responsible for the maintenance of these sites. The LTVCA's Staff Safety Committee tours the conservation properties regularly to assess their safety for public use. Additionally, it is the Conservation Authority's policy, 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 annual donations of money and volunteer time from local individuals, companies, conservation clubs and organizations. The LTVCA is grateful to all donors. This year saw many changes and events in our areas.

- ♦New signage at entrances and regulations type signage in high traffic areas were installed in most conservation areas.
- ♦The Municipal Enforcement Unit (MEU) was engaged to actively patrol problem areas like **Skunk's Misery/ Mosa Forest**, issuing several tickets for ATV violations. Here, staff installed fencing and a new gate to deter motorized vehicles entering the Area of Natural Scientific Interest.
- ♦With assistance from the Municipality of Chatham-Kent, LTVCA acquired the vacant brownfield lot next to our **Administration Building**. A grant of \$75,000 from the Royal Bank Blue Water program assisted us with naturalizing our office parking area and remediating a brownfield adjacent to the Thames River.
- ♦The **Walter Devereux Conservation Area** received \$20,000 from Ontario Ministry of Agriculture and Food to develop as a self-guided farm demonstration site. A new parking area, gate and interpretive signage will showcase what best management practices can be undertaken on agricultural, tall grass prairie and forest systems.
- ♦At **C.M. Wilson Conservation Area**, 17,156 day users and campers 'stepped into nature' to enjoy a local gem! The boardwalk across the pond had serious structural

issues and staff began its dismantling with plans and grant money set aside to create an earthen berm with less maintenance and a naturalized shoreline. Approximately \$30,000 has been raised with the bulk of the funding coming through the Land Stewardship Habitat Restoration Program.

- ♦In the eastern half of the watershed, **Longwoods Road Conservation Area and the Ska-Nah-Doht Village and Museum** welcomed 16,335 students and general public to its unique blend of natural and Native history.
- ♦**E.M. Warwick Conservation Area** overlooking the shore of Lake Erie, welcomed 2,376 campers to its rustic cabin and mess hall facilities.
- ♦At **Big Bend Conservation Area** 864 visitors chose the largest bend on the Thames River to set up camp!
- ♦In July, London's Syrian refugee families were treated to a day at **Sharon Creek Conservation Area**. With the help of Nova Craft Canoe, the London Canoe Club, London's Cross-Cultural Learning Centre and the LTVCA, they discovered the very Canadian past-times of how to paddle a canoe and enjoy a bbq shore lunch!



The MEU patrols problem areas like Skunk Misery to reduce infractions on area regulations.



The parking area outside our Administration Building was naturalized by staff and volunteers.



Dismantling C.M. Wilson boardwalk to create an earthen berm will result in a safe, naturalized shore.



Syrian refugee families from London were thrilled to learn how to canoe at Sharon Creek.

Conservation Education

Conservation Education programs provide elementary and secondary field trip and in-class presentations to students and the community. Staff work with stewardship partners, service clubs, schools, volunteers and the public to foster an understanding and appreciation of our renewable natural resources. Jerry DeZwart is the Conservation Education Technician.

Community Education

- ♦Staff attended the **Thames Valley District School Board's STEAM conference** for teachers to promote and share Longwoods and Ska-Nah-Doht education programs.
- ♦Children and parents learned water and ice safety during two **Farm Safety** events, one held at Ekcoe School in Glencoe in May, the other at Ridgetown College in July.
- ♦LTVCA joined the Upper Thames River and Kettle Creek Conservation Authorities to judge and present the Conservation Award at the **Thames Valley Science and Engineering Fair** in April. Students receive this award for projects that best address the themes of natural resource stewardship and conservation.
- ♦We worked in partnership with Thames Valley District School Board, Chippewa of the Thames Recreation and



Beautiful weather and 40+ interactive activities enabled the LTVCA to host an amazing record breaking Chatham-Kent and Lambton Children's Water Festival in early October at C.M. Wilson Conservation Area. Over a three day period, 2,700 students, teachers, parent leaders, sponsors, volunteers and dignitaries partook in engaging water related activity centres dealing with water conservation and stewardship.

School Programs

Conservation Area outdoor classroom experience programs reached 1,412 students and 267 adults at Longwoods Road this year. In-Classroom programs were delivered to 279 students and 15 adult educators.

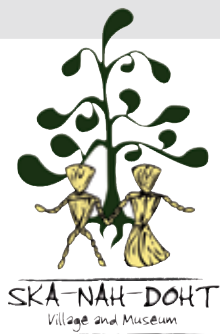
The River and Creek Safety classroom program was presented to 208 watershed grade 2 children and 14 educators. Supported by area service clubs, the LTVCA delivers water safety education to those most vulnerable to the dangers of seasonal melt waters. The Royal Canadian Legion Branch 251, Glencoe District Lions Club, Rodney Lions Club, and Optimist Club of West Lorne are greatly appreciated for funding the program for over 15 years.



Grade 2 students practice holding their breath to overcome cold-water shock while cooling their hands in ice water. All part of the River and Creek Safety program.

Antler River Guardians to hold the annual **Environmental Symposium** at Longwoods Road Conservation Area in late October. Erin Mutch, the School Board's Environmental Learning Coordinator, and 150 students and teachers participated in four learning centres about climate change and First Nations' relationship and regard for the environment.

- ♦Staff also conducted many special events for the public including owl hikes, native plant workshops and twilight walks throughout the year.



Ska-Nah-Doht Village & Museum

OUR MISSION

Ska-Nah-Doht Village and Museum continues to be a community leader, to educate about the past, collect and preserve local history, and faithfully interpret the Haudenosaunee - People of the Longhouse.

OUR VISION

Ska-Nah-Doht Village and Museum is an interactive museum that engages the public in the preservation and presentation of the past through experiences on-site and in the community.

Village Curator - Karen Mattila managed the \$172,223 Ska-Nah-Doht Village and Museum budget. Rose Nicholas - Village Education Technician conducted programs, events and directed inventory for the Turtle Trail Gift Shop. We graciously acknowledge the \$22,992 in financial support from the Ministry of Culture through the Community Museum Operating Grant. The Ska-Nah-Doht Advisory Committee drafted the 5 year Strategic Plan 2017-2021. It outlines goals including participating in a visioning process in 2017 followed by a feasibility study for Longwoods/Ska-Nah-Doht.

Canada 150 Grant Approved!

Thanks to community partners GreenLane Community Fund and Lower Thames Valley Conservation Foundation for financially supporting the Heritage Build Project. Their contributions were key to our success in receiving the Canada 150 grant in late December. Phase 2 of the Heritage Build Project will continue in 2017 featuring a new longhouse and fall celebration.

Artifact Day Yields Rare Find

At the annual Artifact Day event in July, a visitor shared a rare quartz hunting point for identification by the Ontario Archaeological Society - London Chapter. The 'Walsh Quartz Fluted Point' pictured here will be displayed in the Ska-Nah-Doht Museum for a year. It is from near Napanee, Ontario and dates back 12,000 years!

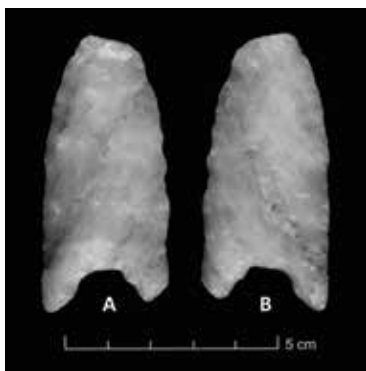


Photo credit - Ed Eastaugh. See also OAS Kewa article by Dr. Chris Ellis.

Education Programs

As part of its Mission to educate about the past, Ska-Nah-Doht's education programs attracted 3,575 students and 775 adult supervisors. In addition, 174 public tour and workshop participants enjoyed the interactive museum.

Heritage Build Project Underway

Phase 1 for the Village rebuild had a great start in 2016. The longhouse frame, built in 1989, had to come down. Visitors watched with great interest at the extensive palisade work and new maze construction. There are several new structures including a corn crib.



Ska-Nah-Doht Heritage Build – The new maze is A-mazing!

Partnering with the Local Community

Community Relations

Communication efforts enhance awareness and understanding of the goals and programs of the LTVCA for our target audiences, enabling them to support and enjoy our facilities and services. Through accurate, consistent and clear messaging, staff expand the range of the target audiences whenever possible. Bonnie Carey - Community Relations Coordinator is assisted by Agnes Vriends - Clerk - Secretary on communications projects.

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

Staff assisted with the Open House at the LTVCA's newly renovated Administration Building June 30.



Community events at Longwoods Road included 'Twilight Tuesdays', 'Moonlight Family Winter Hike' and 'Native Plants Workshop'.



Displays went to the Southwest Agricultural Conference and the Chatham-Kent Farm Show in January. The London Farm Show was attended in March, followed by an exhibit at the Go Wild Grow Wild Expo in April.

Through regular updates of social media and production of literature, our goals and objectives are broadcast across the watershed. Special events and tours are hosted across the watershed. Staff initiate and assist with local environmental projects such as children's festivals, and design, arrange and create displays for fairs and conferences.

Fostering partnerships and collaboration with organizations, volunteers and other stakeholders are priority, and help to further the conservation of our watershed resources. Meeting facilitation, fund-raising with the Lower Thames Valley Conservation Foundation, supervising employment programs, and contributing on conservation committees and working groups, help the LTVCA meet its objectives. As well, communications staff work on many projects for the Thames, Sydenham and Region Source Protection Region, including advertising, and organizing and supporting meetings as per the Clean Water Act.

Highlights of the Year

It was a busy year beginning with the creation of the LTVCA's annual report and presentation to the Board at the Annual General Meeting and our new logo continued its soft launch with placement on our vehicles. Daily updates to our website and Facebook pages were made, 35 media releases were issued, special conservation area events were planned, reports were prepared for our Board of Directors' meetings and staff publications were reviewed and produced.

Throughout the spring and fall, assistance was provided in the delivery of conservation education programs. In April, a display at the "Go Wild Grow Wild" expo in London was well attended. Ads were created for public open houses requested by our planning and regulations department and a 'Paddle Day' for Syrian refugee families was enjoyed at Sharon Creek Conservation Area in July.

New interpretive trail signs were designed for Longwoods Road and in the fall, time was spent preparing for and conducting a very successful Chatham-Kent and Lambton Children's Water Festival. Four memorial forest dedication services were planned and held across the watershed in connection with the Conservation Foundation.

At year-end, new conservation area advertisements for county tourist organizations were designed, and information gathered to formulate a Longwoods Road Conservation Area 'visioning' grant application for the new year.

Lower Thames Valley Conservation Foundation

Highlights of the Year



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 \$750,000 for natural and cultural heritage conservation. Thousands of dollars were raised throughout the year 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 Lower Thames Valley Conservation Foundation Bursary. Through the Foundation's Memorial Forest Program, the Conservation Authority has planted thousands of trees across 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 and watershed region.

The Conservation Foundation is a not-for-profit, federally registered charity, governed by a Board of Directors. Tax receipts are issued for all donations. The Executive - President Grant Jones, Vice-president Ken Brooks and Secretary-Treasurer Dan McKillop are recognized for their dedication and support in 2016.

The Foundation helped fund and support several Conservation Authority and watershed initiatives in 2016:

- ♦ 459 memorial trees from 2015 and 435 memorial trees from 2016
- ♦ Carey Carolinian Arboretum & Trail Kiosk display panels
- ♦ Ska-Nah-Doht Heritage Build Project
- ♦ 14 large stock trees for memorial forest dedication services
- ♦ Volunteers for Moonlight Winter Family Hike event and 4 memorial forest dedication services



At the Longwoods Road Conservation Area, the Conservation Foundation continued its support of the Ska-Nah-Doht Village 'Heritage Build Project' with a substantial donation of \$10,000 as well as display panels for the Carey Carolinian Arboretum and Trail project kiosk.



Over 1,400 family and friends of loved ones attended four Memorial Forest Dedication Services held across the watershed. The Conservation Foundation recognizes the support of the McKinlay and Badger Funeral Homes, the Tilbury and District Horticultural Society and the LTVCA as partners in the reforestation program.





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The Thames River celebrated its sixteenth year as a Canadian Heritage River. Thousands of volunteers cleaned up hundreds of kilometres along the river during the seventeenth Annual Thames River Clean-up in April.