

Stepping Into Nature

CONSERVATION AREAS

"Step into Nature" at one of Ontario's 270 conservation areas - natural lands owned and managed by Ontario's Conservation Authorities. Conservation areas encourage people to get outdoors and be active, as well as to enjoy and appreciate nature. They protect important natural features, in addition to ecosystems and their functions; providing recreational opportunities and living classrooms for schools, nature groups and others to explore and learn about nature.

The LTVCA owns over 691 hectares of protected wetlands, forests, tallgrass prairies, lakefront and habitat restoration sites. Of these properties, 18 publicly accessible conservation areas provide places for nature to thrive and people to discover. Many areas offer pavilions, trails and boardwalks, interpretive facilities, and venues for fishing, hiking, camping, canoeing, picnicking, cross-country skiing, snowshoeing and even outdoor weddings!

The C.M. Wilson and Longwoods Road Conservation Areas are our flagships. C.M. Wilson is a unique escape to nature in Chatham-Kent, with its campground, barn pavilion, small lake, memorial forest and Childrens' Safety Village. Attendance totalled 12,587 visitors. Longwoods Road, home of the Ska-Nah-Doht Village and Museum, is located in the Municipality of Strathroy-Caradoc. Over 18,507 visitors enjoyed events, education programs, and year round activities at the pavilion, Carolinian forest trails, group campgrounds and the Resource Centre Museum.

Conservation area development and maintenance were enhanced by donations of money and volunteer time from the community. At C. M. Wilson, many improvements were made including the addition of the "Let's Camp" reservation system, canoe rental, and a redesign of the barn. With the introduction of the MacKay Pay Phone app, users were able to pay for their day use, or purchase an annual Vehicle Day Use Permit through their smart phone at Sharon Creek and Big Bend Conservation Areas. The "Ward property" donation of a 10.5 hectare carolinian forest, wetland and prairie was also received.

EDUCATION

Our education program is beginning a new focus, with the blending of conservation and heritage at Longwoods Road Conservation Area. We emphasize the importance of balancing the use of our natural resources with proper stewardship, as exemplified by First Nations communities.

Conservation Education

The Conservation Education program operated from Longwoods Road Conservation Area provides Ontario Curriculum based, field trip and in-class programs to students, community groups and at public events. Our programs foster an understanding and appreciation of the natural resources and encourage wise stewardship practices.

At Longwoods Road and C.M. Wilson Conservation Areas, programs reached 1,467 students. A popular in-class program sponsored by local service clubs was the grade 2 River and Creek Safety Program, engaging 275 children. Along with hosting public events, staff mentored a high school coop student, judged and presented a Conservation Award for local elementary students, and installed donated taxidermy wildlife in a Resource Centre exhibit.

Ska-Nah-Doht Village & Museum

Ska-Nah-Doht Village and Museum continued to be a community leader, educating about the past, collecting and preserving local history, and faithfully interpreting the Haudenosaunee - People of the Longhouse. Staff acknowledge the financial support from the Ministry of Culture. Also, Canada Summer Jobs provided two students to assist with events onsite and in the community.

Ska-Nah-Doht Village welcomed tourists from around the world and operated The Turtle Trail Gift Shop, a feature not to be missed! Our Ontario Curriculum based education programs attracted 3,490 students. Ska-Nah-Doht was also the background for a television documentary series featuring Indigenous leaders preserving culture within their communities.

Partnering With The Community

COMMUNITY RELATIONS ... a part of all programs

Communications enhance awareness and understanding Conservation Authority programs and initiatives for our target audiences, enabling them to support and enjoy our facilities and services.

We inform the LTVCA Board of Directors and Committee members, Councillors and staff from member municipalities, Government agencies, Conservation Authority staff, watershed residents, media, conservation area visitors, project partners and more. Through social media, publications, advertising, media releases, special events, watershed tours, festivals and displays, our messages are broadcast across the watershed.

Highlights of the year included the creation of the LTVCA's Annual Report and Watershed Report Card. We attended the "Go Wild Grow Wild Expo", organized the "Lake Erie Student Conference", and hosted events including the annual "Longwoods Heritage Weekend" and "Season's Greetings". Public events expanded to Sharon Creek Conservation Area, with a visit from "Salt Haven Wildlife Rehabilitation & Education Centre" and a "Learn to Fish" workshop. We created a tent display for the International Plowing Match in Pain Court, in partnership with the St. Clair Region and Essex Region Conservation Authorities, and the Chatham-Kent & Lambton Children's Water Festival.

Outstanding individuals were recognized at an annual award presentation. We thank all our 100's of volunteers that helped create a balanced and healthy watershed for our communities!



370

Dedicated volunteers gave 950 hours of their time

30

LTVCA-hosted events offered in conservation areas

1

Land donation totalling 10.5 hectares

27

Inspired partners provided \$1.55 M for watershed conservation



463

Hectares preserved at 18 public conservation areas

14,874

Campers experienced our four conservation area campgrounds

6,145

Students & chaperones engaged in conservation and native studies education programs

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Conservation ONTARIO
Natural Champions

for a detailed 2018 annual report visit our website under publications

2018 Annual Report Summary

Lower Thames Valley Conservation Authority

February 24, 2018 6:27 pm
6th Street Backwater Dam and Pumping Station - Chatham

Protecting Life & Property

WATER MANAGEMENT

Conservation Authorities are on the front lines of the Provincial Flood Forecasting and Warning program, and undertake floodplain mapping; modeling; monitor streamflow, rainfall and snowpacks; issue warnings; acquire floodplain lands and flood vulnerable structures; and operate dams, dykes, channels and erosion control structures.

Flooding, Lake Levels, Drought

The most significant river flooding in the last several decades occurred between February 19th and the 27th. Thamesville voluntarily evacuated, as historical events of that scale had put several feet of water throughout the town. In Chatham, the highest water levels since 1985 and the highest levels without an ice jam since 1947, were observed. The 6th St. Backwater Dam and Pumping Station was operated and held back the high flows, preventing significant flooding on the McGregor and Indian Creek systems in the south end of Chatham. Several other heavy rainfall events during the year caused local watercourses to rise and flood their banks, triggering operations of the Indian-McGregor Creek Diversion Channel.

High water levels on Lake Erie and strong seasonal winds from the south led to significant amounts of erosion all along the shoreline, and frequent flooding along Erie Shore Drive in Chatham-Kent. There was water across the road, flooded front yards and basements, shoreline erosion, breakwall failures, and structural damages to homes and cottages.

Water Quality

The LTVCA partners with the Ministry of the Environment, Conservation and Parks on the Provincial Groundwater and the Provincial (Stream) Water Quality Monitoring programs. These programs assist in environmental reporting, decision-making, and program implementation by the LTVCA, member municipalities and the province. The groundwater monitoring was conducted at nine wells throughout the watershed. Stream water quality sampling was conducted at 11 locations. The LTVCA received a Canadian - Ontario Agreement grant to expand the surface water sampling network with an additional 11 locations. Sampling for benthic macroinvertebrates (insects, worms and crustaceans that live at the bottom of the stream) continued at 16 locations, with the Biology Department at the University of Windsor. The research will assist the development of a monitoring program most suitable for the region's unique biogeophysical environment.

Thames River Clearwater Revival (TRCWR)

The TRCWR is a multi-agency partnership with the objective of improving the Thames River. Partners include First Nations communities, Environment and Climate Change Canada, provincial ministries, the Upper Thames River and Lower Thames Valley Conservation Authorities and the City of London. Currently, the primary activities are the drafting of a Shared Waters Approach intended to update the 1975 Water Management Plan.

LAND USE PLANNING & REGULATIONS

Municipal Plan Review & the Development, Interference with Wetlands & Alteration to Shorelines & Water Courses - Ontario Regulation 152/06

To maintain the vitality of our watersheds and protect peoples' lives and property from flooding and erosion, Conservation Authorities administer the Conservation Authorities Act and its regulations. Under Section 28 of the Act (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation), staff regulate development and activities in or beside river or stream valleys, Great Lake shorelines, watercourses, hazard lands and wetlands. Development on these lands may require permission from the Conservation Authority to confirm that control of flooding, erosion, dynamic beaches, pollution or land conservation are not affected. Property inquiries from the public, lawyers, and real estate agents are important so that prospective buyers or people wishing to work in high risk areas understand the hazards. In 2018, the LTVCA reviewed 287 applications under this Regulation. Staff also provided 2,520 plan input and review services for our residents and member municipalities.

Chatham-Kent Lake Erie Shoreline Study

The LTVCA, Municipality of Chatham-Kent (CK), the Province of Ontario, the Government of Canada, the International Joint Commission, Pete Zuzek of Zuzek Inc. and other partners were successful in obtaining a Natural Resources Canada grant for a comprehensive Lake Erie shoreline study in CK. Using existing knowledge of natural hazards and projected effects of climate change, the study will develop information to reduce coastal risks, increase the resilience of the shoreline, and protect natural assets such as beaches and coastal wetlands. The study will produce updated 100 year erosion rates, estimates of changes in ice cover, and storm frequency and severity information.



Enhancing Watershed Health

TREE PLANTING, RESTORATION, STEWARDSHIP

The responsible care of our natural resources on a watershed basis is essential to balancing human and economic needs against the needs of our natural environment. Conservation Authorities have a long history working with landowners in the planning and delivery of watershed stewardship initiatives. We provide opportunities for local projects, which encourage a sense of ownership of environmental rehabilitation efforts. The LTVCA thanks our 10 member municipalities who recognize the need for and contribute to land stewardship, and also acknowledges the financial support of our granting partners and dedicated volunteers.

The LTVCA collaborated with over 30 partners including First Nations communities, federal and provincial government ministries, corporations and ENGOS, and the outcomes were tremendous! Over \$1.3 million in stewardship grants provided assistance to landowners to plant trees and to naturally restore the landscape. Working together, we restored habitats, enhanced biodiversity, protected species at risk, improved water quality and soil health, conducted scientific research and monitoring, and shared environmental knowledge between communities.

Species at Risk (SAR) in the LTVCA

Highlights of this program included the drafting of a Section 11 Conservation Agreement under the Species at Risk Act (SARA) with Fisheries and Oceans Canada (DFO) to ensure a coordinated and focused approach to help aquatic species at risk. We organized delivery of a DFO-led freshwater mussel identification workshop with local First Nations communities and as well, Environment and Climate Change Canada, the University of Guelph and LTVCA assessed effects of road salt-impacted winter meltwaters on freshwater mussels in creeks. Canada Summer Jobs and Habitat Stewardship Program grants funded a social media campaign, and fisheries and flow assessments were completed on drains as part of a DFO-funded drain classification project. SAR road signs were installed and a reptile SAR education program was developed using ten new life-like models of local reptiles at risk.



Phosphorus Reduction Initiatives

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 also needs to see a 40% reduction in dissolved phosphorus and total spring loadings. 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. The LTVCA engaged in phosphorus reduction programs and initiatives, including the addition of several new phosphorus reduction projects during the year.

- **Thames River Phosphorus Reduction Collaborative (TRPRC)** - LTVCA performed water quality monitoring services for the TRPRC at the phosphorus filter tank pilot site, southeast of Chatham - monitoring the technology for its efficacy at reducing phosphorus loads from agricultural subsurface tile drainage systems. This will continue to 2022 with funding from TRPRC. The TRPRC raises awareness and provides extension services to reduce phosphorus entering waterways or municipal drains from agricultural land.

- **LTVCA Agricultural Improvement Fund** - This Fund provided money to nine agricultural landowners for projects to improve soil health, water and air quality.

- **McGregor & Jeannettes Creek Phosphorus Reduction Program** - Funds were approved for monitoring and applied research from the Agricultural Adaptation Council - Canadian Agricultural Partnership (CAP) Organization and Collaborations Program (2018 - 2020). Environment and Climate Change Canada approved funding from the Great Lakes Protection Initiative for monitoring, research and Best Management Practice (BMP) incentives for subwatershed farmers (2018-2022). These grants will sustain activities that began through the GLASI Jeannettes Creek Priority Subwatershed Project (2015 - 2018). The new project will be geographically expanded, offering incentives to agricultural producers to implement BMP's in the McGregor and Jeannettes Creek subwatersheds. This will improve soil health and reduce the amount of agriculturally sourced phosphorus entering the Thames River, Lake St. Clair and ultimately the western basin of Lake Erie.

Protecting Drinking Water Sources

THAMES - SYDENHAM & REGION

The purpose of the provincial Clean Water Act (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 (SPP) to protect drinking water. The Source Protection Committee (SPC) 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 SPP. Jenna Allain is the Source Protection Coordinator.

On May 1st, the Thames-Sydenham and Region submitted their first Annual Progress Report on the implementation progress of the Thames-Sydenham and Region Source Protection Plan. This report reflected implementation efforts from January 1, 2015 to December 31, 2017 and indicated that the Plan is progressing well, with 845 of significant drinking water threat policies being implemented, or in progress. Of the 1,054 existing threats identified at the time that the Plan was approved, over half have been addressed through policy implementation or have been confirmed to no longer exist. Forty-one risk management plans regulate significant threats in the Region.

A selection and appointment process was initiated for the seven SPC member positions that were expiring in June. All new and reappointed members were appointed for three year terms that extend until June 2021.



ABOUT THE LTVCA

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 collaboration.

Lower Thames Valley Conservation Authority (LTVCA) watershed means those lands draining into the Thames River from the community of Delaware to Lake St. Clair, those lands draining into Lake Erie south of the lower Thames River watershed from the Two Creeks watershed in the west to the Talbot Creek watershed in the east and the lands draining into Lake St. Clair north of the Thames River watershed north to and including the Boyle Drain watershed. The area covers approximately 3,274 square kilometers (1,264 square miles) and is home to over 120,000 people.

Ten member municipalities appoint representatives to a Board of Directors. The LTVCA's budget of \$3,179,437 received approval in February.

65 Flood bulletins issued
2,520 Regulatory and municipal plan review services provided
28 Media releases published
31 Provincial water quality monitoring sites operated

179 Landowners assisted with \$1.3 M in stewardship grants
92,189 Trees planted
83 Hectares naturally restored