

Stepping Into Nature

CONSERVATION AREAS

Step into Nature at one of Ontario's 270 conservation areas! Conservation areas are natural lands that are owned and managed by Conservation Authorities.

The Lower Thames Valley Conservation Authority owns nearly 640 hectares of protected wetlands, forests, tallgrass prairies, and lakefront and habitat restoration sites. Of these properties, 18 publicly accessible conservation areas provide a place for nature to thrive and people to explore. Many of these lands have been naturalized and have few or no facilities, however the more developed conservation areas offer pavilions, trails and boardwalks, interpretive facilities, and venues for fishing, hiking, camping, canoeing, picnicking, cross-country skiing and snowshoeing.

C.M. Wilson and Longwoods Road Conservation Areas have many facilities for the public. Wilson, with its campground, barn pavilion, small lake, memorial forest and Childrens' Safety Village increased attendance to 17,156 visitors in 2016, providing a unique escape to nature right in Chatham-Kent's back yard! Longwoods Road, home of the Ska-Nah-Doht Village and Museum is located in the Municipality of Strathroy-Caradoc. Over 16,350 visitors enjoyed special public events, educational programming, and year round activities at the pavilion, trails and group campgrounds.

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. Many improvements to conservation areas were completed this year, including replacement of entrance signs at many of our conservation areas to display our new logo. In addition, energy and stormwater conservation measures were completed at the Administration Building.



EDUCATION

Conservation Education

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

At Longwoods Road and C.M. Wilson Conservation Areas, our programs reached 1,691 students over the past year. A popular in-class program sponsored by local service clubs is the grade 2 River and Creek Safety Program, with 279 children participating. The Chatham-Kent and Lambton Children's Water Festival was a record breaking success with over 2,700 students, teachers, parent leaders, sponsors and volunteers participating over the 3 day October event.

Ska-Nah-Doht Village & Museum

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. Staff acknowledge the financial support from the Ministry of Culture as well as summer student grants. Phase 1 of the Heritage Build project had a great start in 2016. The longhouse frame, built in 1989 came down, extensive palisade work and new maze construction were completed and there are now several new structures including a corn crib. Thanks to GreenLane Community Fund and Lower Thames Valley Conservation Foundation for their financial support. Their contributions were also key to our success in receiving a Canada 150 grant. Phase 2 of the Heritage Build Project will continue in 2017 featuring a new longhouse and a fall celebration.

Ska-Nah-Doht Village welcomes tourists from around the world and operates The Turtle Trail Gift Shop, a feature not to be missed! Our Ontario Curriculum based education programs attracted 3,575 students in 2016.

Partnering With The Community

COMMUNITY RELATIONS

Communications enhance awareness and understanding of the goals and programs of the Conservation Authority 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, literature, advertising, media releases, special events, watershed tours, festivals, and displays, we broadcast our messages across the watershed.

Highlights of the year include an exhibit at the "Go Wild Grow Wild" expo in London, assisting with the Administration Building's Open House in Chatham, helping with the "Paddle Day for Syrian Refugees" at Sharon Creek Conservation Area, hosting the Chatham-Kent & Lambton Children's Water Festival at C.M. Wilson Conservation Area and special events like the annual Moonlight Family Winter Hike and the Longwoods Heritage Weekend at Longwoods Road Conservation Area. We thank the hundreds of volunteers that helped create a balanced and healthy watershed for our communities in 2016!



Picture courtesy of Jim Blake



710

Awesome volunteers gave 5,500 hours of their time

26

LTVCA hosted events in conservation areas

2

Land donations totalling 80 hectares

41

Funding partners provided \$2.1M for watershed conservation



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for a detailed annual report visit our website under publications



Conservation ONTARIO
Natural Champions

2016 Annual Report Summary

Lower Thames Valley Conservation Authority



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

463

Hectares at 18 public conservation areas

14,210

Campers at our four conservation area campgrounds

8,000

Students participated in conservation and native studies education programs

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.

Flood and Drought

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. Several heavy spring rains and a winter melt event caused watercourses to flood their banks, triggering operation of the Indian-McGregor Creek Diversion Channel in February, March, April and December. Eleven advisories were issued during the year. The LTVCA participates in a provincial program monitoring watershed conditions to determine if the area is in a low water (drought) situation. From October 2015 until March 2016, July to August, and October until year end, the region was in a Low Water Level One Condition. 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).

Water Quality

Water quality monitoring is conducted at nine groundwater wells and 11 stream (surface) water locations in our watershed for standard water quality indicators such as dissolved oxygen, pH, conductivity, temperature and nutrients with supplementary analyses such as e-coli, metals and pesticides at select locations. Results form the basis for grades reported in the Watershed Report Card.

Binational Phosphorus Reduction Targets for Lake Erie

The 2012 Great Lakes Water Quality Agreement, required revised binational phosphorus reduction targets for Lake Erie by 2016. In late 2014 the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health was signed. In 2015, it was determined that the amount of phosphorus entering the western and central basin of Lake Erie, from Canada and the United States, should be reduced by 40% by 2025. The Thames River was identified as a priority watershed for the reduction of phosphorus. During 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.

LAND USE PLANNING & REGULATIONS

Municipal Plan Input and Review

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 2016, the LTVCA reviewed 268 applications under this Regulation. Staff also reviewed 357 municipal planning applications and 1,239 general inquiries.

Planning & Regulations Policies

The LTVCA's Planning and Regulations Policies have been in place since the new Regulation came into effect in 2006, with Operational Guidelines updated in 2012. Significant changes in how the Regulation has been implemented since 2006 included an amendment to the Regulation in 2013. Draft Policies were completed mid-2016 and available on our website and at the Administration Office. Four public open houses were held across the watershed. Work on editing the draft Policies to address initial comments will carry into the new year.



Thames River Clearwater Revival

This is a multi-agency partnership with the objective of improving the Thames River. Partners include Environment and Climate Change Canada, First Nations communities, provincial ministries, the Upper Thames River and Lower Thames Valley Conservation Authorities and the City of London. Currently, drafting of a Water Management Plan is underway. A final set of recommendations for the water quality section has been compiled for release in early 2017.

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. Staff provide opportunities for local projects, which protect and restore species and habitats, encourage a sense of ownership of environmental rehabilitation efforts, and protect our water resources.

Chatham-Kent Greening Partnership

Our partnership with the Municipality of Chatham-Kent (C-K) provides municipal funding for LTVCA staff who apply for grants for natural restoration projects. In 2016, \$922,000 in grants were generated from various sources. 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.

The Natural Heritage Implementation Strategy identifies how C-K will work with the community to maintain and enhance the natural heritage system, and manage the greater ecological goods and services that benefit society. 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 this municipality.

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. Programs are delivered through the Ontario Soil and Crop Improvement Association. The key components are improving soil health, water quality and pollinator health. The LTVCA continued its involvement in the delivery of three programs: 1. *Jeannettes Creek Agricultural Phosphorus Reduction and Monitoring* - Eight tile drainage plots at two edge sites were constructed for monitoring. The program generated \$60,000 in grants to farmers in

the study area. Another OMAFRA grant of \$130,000 will assist LTVCA in setting up water quality monitoring on nine wetlands in the Rondeau Bay watershed. 2. *McGregor Creek Subwatershed Education and Outreach* - A web page, brochures, and presentation to Ridgetown College students were produced. 3. *Elgin County Watersheds Education and Outreach* - Best management practices for soil health and water quality were promoted.

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.

Elgin Clean Water

The Elgin Clean Water Project is a cooperative program between the Catfish Creek, Kettle Creek, Long Point Region and Lower Thames Valley Conservation Authorities. It assists landowners with projects to improve and protect water quality in Elgin County. Five landowners from the LTVCA watershed received funding for seven projects.

Species At Risk (SAR)

SAR projects on municipal drains establish wetland and riparian vegetation to improve water quality and habitat for aquatic and terrestrial species. Projects reduce pollution and siltation of downstream areas like the Thames and Sydenham Rivers and Rondeau Bay; increase and restore riparian habitat and biodiversity; and improve aquatic and terrestrial corridors which link key coastal/nearshore wetlands along Lakes St. Clair and Erie. The LTVCA entered into an agreement with the Department of Fisheries and Oceans and Environment and Climate Change Canada to target aquatic SAR in our watershed.

Conservation Scholarships and Awards

The LTVCA supported local scholarships and awards to the Ridgetown Campus of the University of Guelph's Environmental Management diploma program, and to The Greening Partnership Environmental Award.



Protecting Drinking Water Sources

THAMES, SYDENHAM AND 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 Ontario 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 CWA 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.

With the Drinking Water Source Protection Plan now approved, the program is 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. The CWA has provisions for reducing the size of the Source Protection Committee once Source Protection Plans are approved. This was coordinated along with the change of our Chair. The Ministry of the Environment and Climate Change (MOECC) is revising the Technical Rules for Assessment Reports of surface water intakes, allowing 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.



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 collaborative.

The Conservation Authority's 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.

Ten member municipalities appoint representatives to a Board of Directors. The LTVCA's budget of \$3,026,022 received approval in February 2016.

11

Flood advisories issued

1,864

Regulatory and municipal plan review services

27

Provincial water quality monitoring sites

200

Landowners assisted with \$922,000 in grants

128,000

Trees planted

152

Hectares naturally restored

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

St. Clair Conservation

Lower Thames Conservation

UPPER THAMES RIVER CONSERVATION AUTHORITY