



2020 Annual Report

Lower Thames Valley Conservation Authority

*... continuing vital programs & services for the people
of our watershed during difficult times.*

Message from the Chair



Linda McKinlay
Linda McKinlay
Chair LTVCA

With life changing rapidly in 2020 and respect to COVID-19, a clear understanding of the year is not easy to articulate. When the pandemic hit Ontario in March, millions of employees began working from home, including all but a few essential workers at the Lower Thames Valley Conservation Authority (LTVCA) – an unprecedented and ongoing change. The loss of life and the hardships experienced by Ontarians in the pandemic will leave lasting impacts, especially the tragic loss of friends and loved ones. Yet, the pandemic response also leaves strong evidence of our region's collective sense of kindness and resilience.

In many ways, 2020 was a banner year for the LTVCA. More residents undertook stewardship of their properties as they worked from home, or came to a conservation area to recharge and experience the peace of nature. The LTVCA was privileged to provide these much needed services to our residents during these very challenging times.

How the LTVCA does business may change, as

we consider that the new normal could be working from home. Yet, the LTVCA remains committed to always providing local and personal service to the residents of our watershed.

At the end of 2020, the Province of Ontario passed Bill 229, Protect, Support and Recover from COVID-19 Act - Schedule 6 – Conservation Authorities (CA) Act. This Bill proposes significant amendments to the Conservation Authorities Act and Planning Act. Changes will diminish the LTVCA's ability to serve its municipal partners and other watershed stakeholders, putting public safety and watershed science at risk. As we move forward, the LTVCA is committed to working with the province to limit the impacts of this bill on the people in our watershed.

It is understood that the next phase of moving out of the pandemic must look beyond the COVID-19 pandemic and seek to build resilience into the way everyone, including the LTVCA functions. In the fall of 2021, the LTVCA will move forward with an update to its Strategic Plan. This will include many opportunities for the residents of this watershed to provide input into our programs and services. While COVID-19 exacerbated various existing challenges, it also created conditions for accelerating good ideas. In 2021, the LTVCA will work to bring the good ideas of the community into how we plan to move forward in the continued improvement of the Lower Thames Valley watershed. The future of this watershed is not only our inheritance, it is our opportunity, and our responsibility.

Chief Administrative Officer's Remarks



Mark Peacock
Mark Peacock
CAO LTVCA

On November 5, 2020, the Province of Ontario introduced Bill 229, Protect, Support and Recover from COVID-19 Act - Schedule 6 – Conservation Authorities (CA) Act through Budget Measures. Although the government made some last minute changes to the Act, the changes did not address many of the concerns raised by numerous Conservation Authorities (CA's), municipal councils, environmental organizations, as well as Conservation Ontario, the Big City Mayors, Association of Municipalities of Ontario, Ontario Farmers Association and thousands of Ontario residents. The Lower Thames Valley Conservation Authority (LTVCA) is concerned that the changes will increase red tape and reduce the ability to provide services and protection of residents from natural hazards, including flooding and erosion. However, we are committed to moving forward with the province to smoothly implement the changes. LTVCA welcomes the establishment of a provincial working group as a good step to allow consultation between CA's and the province as we move forward in the development of regulations to implement the revised Conservation Authorities Act. The working group provides a way for Conservation Authorities to share their knowledge and best practices, which will help

to ensure that they can operationalize the regulations out in the field.

In the months since the COVID-19 pandemic began, the LTVCA has worked to adhere to the direction of public health officials. We have prepared and are following a LTVCA Pandemic Management Plan, a LTVCA COVID-19 Safety Plan and COVID-19 Standard Operating Procedures (SOP's) for all work undertaken outside of the home. While providing almost all service to the public, staff have limited their high risk activities and stayed home as much as possible. Some business areas such as in person environmental education classes have been considerably reduced. Other business areas have expanded to deliver much needed services. Examples include expanded online learning, Conservation Area maintenance to address significantly increased numbers of persons using our facilities, stewardship and communications regarding activities of the LTVCA. Employees have adapted to the new environment and have learned to manage significant professional and personal pressures.

Recovering and rebuilding from this pandemic depends on building public confidence in living, working and visiting our watershed. The LTVCA will support local residents and municipalities in the building of this confidence by professionally and effectively addressing natural hazards and providing local green spaces for community members to relax and unwind. The LTVCA looks forward to rolling up our sleeves and embracing the opportunity to work, as we reshape and improve our communities in moving past this COVID-19 pandemic.

"We often miss opportunity because it's dressed in overalls and looks like work"

— Thomas A. Edison

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

Mission

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

Core Values

Respect, integrity, commitment, objectivity, and collaboration.



Addressing COVID-19 in 2020

The Lower Thames Valley Conservation Authority (LTVCA) has been following the COVID-19 pandemic closely. As the situation has progressed, we have abided by local, provincial and national recommendations while maintaining services to the public.

In March, a Pandemic Management Committee was formed. Through consultation with staff, the committee developed and moved forward with implementation of the "LTVCA Pandemic Management Plan". All staff working away from home complete "COVID-19 Standard Operating Procedures" (SOP's) to ensure that tasks being carried out can be done safely. In April, the Province provided direction allowing Board Meetings and Hearings to occur remotely. The Board has amended its Administrative By-law to define how this is to happen.

Effective March 16, the Longwoods Road Conservation Area Resource Centre/Museum was closed to the public and remains so. The Longwoods Road Conservation Area grounds, nature trails and the outdoor Ska-Nah-Doht Village remain open. All other Conservation Areas also are open. Effective March 18, the LTVCA Administration Office in Chatham was closed to the public and has stayed as such, with all departments continuing to provide services remotely.

Members of the public have been asked to communicate with employees by telephone or email. Protocols are in place to ensure prompt response to public questions and concerns. Staff have been asked to participate in meetings through alternative means, including teleconference and webinar.

Conservation Area campgrounds and facilities were opened approximately 1 month later than normal, as the province developed and provided information regarding camping rules and procedures for their safe use.

Lastly, the LTVCA is ensuring that flood forecasting and warning operations will not be compromised during this time. Our staff will continue to monitor watershed conditions, issue bulletins as required, and operate Flood Control Structures.

Bill 229 – Changes to the Conservation Authorities Act

On November 5, the Province of Ontario released the first reading of Bill 229, Protect, Support and Recover from COVID-19 Act (Budget Measures) 2020, an omnibus bill which included proposed changes to the Conservation Authorities Act.

The new changes had the effect of:

1. Removing oversight and control of Conservation Authorities (CA's) from local municipalities giving it to the Minister; resulting in less transparency, less responsibility to local citizens, and removal of consistency. Note: municipalities, not the province pay the large majority of CA costs.
2. Not streamlining but increasing Red Tape in permitting, and slowing and encumbering the Section 28 permitting process.
3. Endangering the protection of the watershed and its environment.
4. Removing the emphasis on watershed management of CA's and stressing only Provincially mandated programs, thereby limiting the local initiative to study and develop programs which address local watershed issues. Since 1946, Watershed Management has been the mandate and object of CA's, tasking CA's to over time, improve the watershed in their jurisdictions.

Because Bill 229 was a budget Bill, very limited consultation was required. To address these issues, the LTVCA Board of Directors passed a motion requesting the Government of Ontario remove the proposed amendments to the Conservation Authorities Act and Planning Act as contained in Bill 229. All member municipalities of the LTVCA passed similar motions.

In December 2020, the Bill was passed with a number of changes, however it still contained a number of revisions that will challenge the efficiency and effectiveness of the LTVCA. We will work with the province to limit impacts on watershed residents as the province moves forward to develop regulations to implement this new Bill.

Board & Staff Directory ...

Directors 2020

Linda McKinlay (Chair) – Town of Lakeshore
Trevor Thompson (Vice-Chair) – Municipality of Chatham-Kent

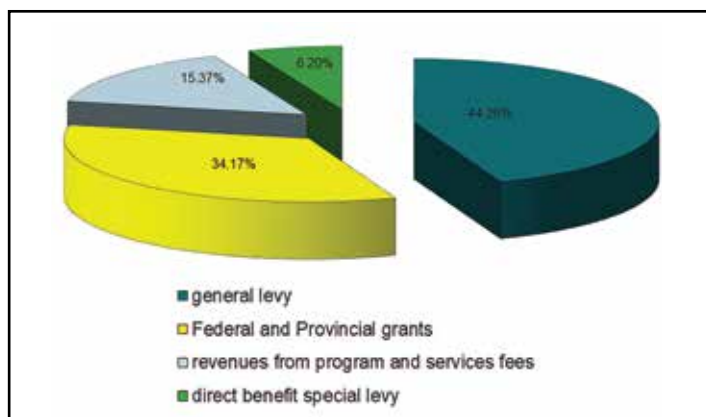
Kimble Ainslie – City of London
Christa Cowell – Municipality of Southwest Middlesex
Sarah Emons – Township of Southwold
Amy Finn – Municipality of Chatham-Kent
Jeannie Frawley – Municipality of Middlesex Centre
Mike Hentz – Municipality of Dutton Dunwich
Sandi Hipple – Municipality of Strathroy-Caradoc
Richard Leatham – Municipality of West Elgin
Paul Tiessen – Municipality of Leamington
John Wright – Municipality of Chatham-Kent

Ska-Nah-Doht Village Advisory Committee

Don Fairbairn – Chair
Willem Bruinink – Vice-chair
Gayle Bogart, Ron Doane, Sarah Emons, Darcy Fallon,
Jeannie Frawley, Mike Hentz, Mark Peacock

Budget

Mark Peacock – CAO Secretary–Treasurer, directed the administration and financial aspects of the LTVCA, with support from the Manager, Finance and Administrative Services – Todd Casier, and Finance and Administrative Assistant – Kally Casier.



The LTVCA's budget of \$3,304,046 received approval in February.

Joint Health & Safety Committee (JHSC)

The JHSC is committed to improving health and safety conditions in the workplace by identifying potential health and safety issues and bringing them forward. The Full Committee met via remote conference four times. Due to COVID-19, individual committee members completed site inspections of all LTVCA properties. Committee members ensured that new and returning employees completed mandatory Ministry of Labour Health and Safety Awareness Training and were made aware of LTVCA policies and procedures.

Full-time / Long-term Contract Staff

Mark Peacock - CAO Secretary-Treasurer

Melissa Abrosimoff - Outreach Specialist (*began November*)
Daniel Bittman - Watershed Monitoring Specialist
Amanda Blain - Land Stewardship Technician / ALUS CK Coordinator
Bonnie Carey - Mgr, Communications, Outreach & Education
Ryan Carlow - Soil & Water Quality Technician
Kally Casier - Finance & Administrative Assistant
Todd Casier - Mgr, Finance & Administrative Services
Jerry De Zwart - Community Conservation Educator
Adam Gibb - Western District Supervisor (*began June*)
Jason Homewood - Water Resources & Regulations Technician
Carlyn Johnston - Community Educator (*maternity leave*)
Paul Kominek - Western District Supervisor (*to May*)
Colin Little - Agricultural Program Coordinator
Karen Mattila - Ska-Nah-Doht Village & Museum Curator
Vicki M'Kay - Species at Risk Biologist
Peter Moddle - Land Stewardship Technician / ALUS Middlesex Coordinator
Elizabeth Philip - Water Resources Engineer (*began November*)
Neil Pothier - GIS Technician
Sarah Rabideau - GIS Technical Assistant (*to November*)
Sarbjit Singh - Natural Hazards Program Assistant
Vance Stark - Eastern District Supervisor
Valerie Towsley - Resource Technician
Greg Van Every - Environmental Project Coordinator
Randall Van Wagner - Mgr, Conservation Lands & Services
Agnes Vriends - Clerk
Jason Wintermute - Mgr, Watershed & Information Services

Seasonal / Part-time Staff

Duane Antone - Labourer
Chad Barry - Ranger
Sophia Castrogiovani - Conservation Area Interpreter
Dakota Cornelius - Labourer
Colin De Zwart - Maintenance
Rachael De Zwart - Conservation Area Interpreter
Joey Fraser - Ranger
Anastasia Heuvelmans - Tree Planter
Craig Irwin - Watershed Monitoring Technician
Evan John - Labourer
Mike Johnston - Ranger
Gregory Kett - Ranger
Matthew Laprise - Ranger
Micheal Latham - Lead Hand
Patrick A. Love - Lead Hand
Cameron Nelson - Maintenance
Daniel Nydam - Aquatic Biology Technician / Species at Risk Assistant
Elise Pinsonneault - Tree Planter
Ashley Smith - Ranger
Claire Soles - Environmental Data Analyst

Protecting Life & Property ...

Water Management

The Water Management program provides science-based support for water resources management and includes activities that protect life and property such as flood forecasting, control and monitoring of flooding and erosion, as well as broader watershed monitoring. Staff overseeing this program are: Jason Wintermute – Manager, Watershed and Information Services; Jason Homewood – Water Resources and Regulations Technician; Valerie Towsley – Resource Technician; and Daniel Bittman – Watershed Monitoring Specialist. Additional support is provided by other Conservation Authority staff as needed.

Thames River & Watercourse Flooding

A winter rain event produced unusually high water levels on the Thames River in January, and the 6th Street Backwater Dam and Pumping Station was operated for a third year in a row. Heavy rains on January 10th lasting through to the 12th, caused flooding of the flats all along the lower Thames River. Flows at Byron (in west London) peaked on the evening of January 12th at around 765 m³/s. This flow was above the threshold that usually requires closing bridge crossings of the Thames River. However, flows routed down quickly as the flood wave moved downstream and the peak flow at Dutton was only around 700 m³/s on the morning of the 14th, and around 625 m³/s at Thamesville the afternoon of the 15th. These flows passing through the city of Chatham, required the 6th Street Backwater Dam and Pumping Station to be closed on the afternoon of the 14th and pumping operations continued until the dam was reopened on the afternoon of the 17th. Residential areas in the city that had flooded the previous two years were spared this time, and flooding was limited to those businesses along King St. that back onto the river. Although a high flow event on the Thames River without any ice usually doesn't affect Lighthouse Cove, the community did have some minor flooding this time around.

High water levels on Lake St. Clair and a strong northwest wind, conditions which have been causing flooding in the community throughout the year, occurred at the same time as high flows on the Thames River were passing through the community.

Although it was not a particularly dry year, there were not very many rainfall events that caused high water levels on the smaller local watercourses. Other than during the Thames River flood in January, the Indian-McGregor Creek Diversion Channel only had to be operated three times, on January 25th, March 29th and May 19th.

Fourteen flood messages were issued for flooding concerns on the Thames River and local watercourses; two Safety Bulletins, three Flood Outlooks, five Flood Watches and four Flood Warnings. Of those, three were joint advisories for the Thames River and Great Lakes shorelines; one Flood Outlook and two Flood Watches. Seven of the fourteen messages spoke to the January flood with two Flood Watches, four Flood Warnings and a wrap-up Safety Bulletin.



In January, high water levels on the Thames River from a winter rain event, passed through the city of Chatham. The 6th Street Backwater Dam and Pumping Station was closed on January 14th, and pumping operations continued until the dam was reopened on January 17th.

Great Lakes Levels & Shoreline Flooding

It was another very difficult year for shoreline residents on both Lake Erie and Lake St. Clair. On Lake Erie, previous monthly average record water levels were broke from February through May. On Lake St. Clair, previous monthly average record water levels were matched in January, missed the record by 1 cm in February, broke the records from May through June, missed the record by 1 cm in July, and broke the records in August and September.

The very high water levels on Lake Erie created problems for the shoreline throughout much of the year. Shoreline protection works suffered damages and increased erosion was observed along the bluffs. Flooding was observed in many low-lying shoreline areas; from Wheatley in the west, to the Port Glasgow Marina in the east. But Erie Shore Drive in Chatham-Kent continued to be the hardest hit. There was far more flooding along the road than might be suggested by the nine Flood Warnings. Staff were not able to mobilize and confirm every flood event; particularly for short duration or overnight events. In late February, consultants monitoring the stability of Erie Shore Drive (which also acts as a flood protection structure) determined that work needed to be done immediately to prevent its failure. The road was closed from address 18146 eastwards and residents were asked to evacuate while repairs were undertaken. However, those works did not address the cause of flooding along the road, and flooding continued throughout the year.

The record setting Lake St. Clair water levels had the community of Lighthouse Cove near the point of flooding

for much of the year. Lake levels were very close to ground level in many low-lying areas of the community. Wave spray produced flooding in shoreline areas, such as along Melody Drive and Island Crescent. When west or north winds created setup on the lake, water would rise up in the canals spilling out onto nearby properties and roadways. April was a particularly challenging month, with flooding from northwest winds leading to two Flood Warnings for the community. As lake levels dropped later in the year, so too did the flooding risks.

High lake levels led to 97 Flood Messages being issued for the shoreline areas. For events on Lake Erie there were eight Flood Warnings, 41 Flood Watches and 10 Flood Outlooks. There was also one Flood Watch for an event on both Lake Erie and on the smaller watercourses. For events on Lake St. Clair there were two Flood Warnings and two Flood Watches. For events anticipated to impact both lakes, there were 22 Flood Watches, one Flood Outlook, and one message that was a Watch for Lake St. Clair and a Warning for Lake Erie. In addition, there was one Flood Watch that covered both lakes and an event on the smaller watercourses, and one Flood Outlook that covered both lakes and a Thames River event. In many cases, these Flood Watches probably could have been upgraded to Flood Warnings, but staff were simply not able to get out there in time to observe the flooding. There were also seven monthly standing messages issued as general informational messages for shoreline flooding and erosion; four being Flood Watches and three being Flood Outlooks.



Erie Shore Drive, February 22 - The very high water levels on Lake Erie created problems for the shoreline throughout much of the year.



Record setting Lake St. Clair water levels had the community of Lighthouse Cove near the point of flooding for much of the year.

Water Quality Monitoring

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 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. We maintain the instrumentation and sample the wells, while the Ministry provides equipment and lab analyses.

The provincial stream water quality sampling is conducted at 11 locations throughout the watershed. Staff sample monthly in the spring, summer and fall for general water chemistry, and the Ministry 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. We expect to receive a Canada Ontario Agreement grant from the Ministry to expand the surface water sampling network with an additional 11 locations across the watershed. By expanding the network to 22 locations, and sampling during the winter months, a better understanding of water quality can be achieved. The winter and spring months have demonstrated to be the time period where most nutrients / contaminants are transported to the Great Lakes.



Craig Irwin - Watershed Monitoring Technician samples stream water for water quality throughout the watershed.



Elise Pinsonneault - helped with the sampling for benthic macroinvertebrates (insects, worms and crustaceans that live at the bottom of the stream) at 11 sites in May and early June. The University of Windsor will complete benthic analyses (picking, identifying and counting the organisms) once laboratory restrictions at the University due to COVID-19 have been lifted.

Thames River Blue-green Algae Bloom



LTVCA staff once again aided provincial staff and academic researchers by monitoring the extent of the algae bloom and collecting samples.

For the third year out of the last four, the Lower Thames River experienced an extensive blue-green algae (cyanobacteria) bloom. The bloom lasted from approximately August 13 to September 3.

For the first few days it was located just around the city of Chatham. However, as time passed, it became more noticeable upstream and by August 18th, the distinctive green tint could be noticed all the way up to Delaware. By September 2nd, the bloom had shrunk back to just within the city and by the 4th, the bloom was virtually gone.

The dominant species of algae in the bloom was *Aphanizomenon*, which is capable of producing toxins. However, testing by provincial agencies did not indicate toxin levels in the water that would pose a risk.



Thames River algae bloom in Chatham on August 31.

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 and provides some means of responding to the issue. Local response is managed by a group of local stakeholders referred to as the Low Water Response Team. There was very little activity throughout the year with regards to the program, as there were adequate rainfalls and river flows.

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.

Land Use Planning & Regulations

The staff responsible for administering the land use planning and regulations program include: Jason Wintermute – Manager, Watershed and Information Services; Valerie Towsley – Resource Technician; Jason Homewood – Water Resources and Regulations Technician; Elizabeth Philip – Water Resources Engineer; Neil Pothier – GIS Technician; and Sarbjit Singh - Natural Hazards Program Assistant.

Municipal Plan Input & Review Under the Conservation Authorities Act

The land use planning and regulations program directs development away from hazardous areas to reduce hardship, loss of property / possessions and to aid in the protection of life. Reducing the impacts of humans along / within hazardous areas, also leaves locations for natural processes to continue to occur without interference from mankind. This allows nature to continue to use these crucial areas. Education of the public and our member municipalities is key to helping maintain these spots in a natural state.

Planning and regulations staff dealt with 303 municipal planning submissions in 2020 (OP's, ZBL's, OPA's, ZBLA's, Severances, Minor Variances, etc.) as it relates to Provincial Policy and Section 28 of the Conservation Authorities Act. These planning numbers are up from 2019.

COVID – 19 Planning and Regulatory Processes

This year has been an unusual one in that most staff worked from home for the majority of the time. This posed unique challenges for undertaking 'business as usual'. Even with the shut down, staff were extremely busy, between planning submissions and the record setting permits that were processed. As staff were not at their office desks and able to answer phone calls promptly, we directed them to contact us by email. For the most part, the public and other agencies were flexible and understood our work situation. On occasion, individuals experienced slight delays with their inquiries, until staff were able to access the office for relevant information. Overall, we were able to respond to inquiries in a timely manner.

Here 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 floodplains and steep slopes, ensures identification of potential hazards before complications arise.

Permits	Municipal Drain	116	7	9			1	7		1	6		147
	Private Property Owner	263	6	34	1		1	10	1	2	14		332
	Utility Company	43		13	1						1		58
	Municipal / County Infrastructure	10		1					1		1		13
	Habitat / Stewardship	1	3								2		6
	Wind Turbine												0
Plan Input and Review	Official Plans		1	1	1				1				4
	Official Plan Amendments	5		1									6
	Comprehensive Zoning Bylaws		1								1		2
	Zoning Bylaw Amendments	52	16	7	2	1	1	6	1	2	11		99
	Severances	85	9	3	5			5	4	1	5		117
	Minor Variances	38	6	3		1	1	1		1	3		54
	Plan of Subdivision	7	3					1	2		3		17
	SWM Ponds/Other Studies	4											4
	Legal Inquiries	65	2	16	10		5	5			1		104
	General Property Inquiries	1414	58	217	9	7	15	148	29	20	131	54	2102
TOTAL SERVICES PER MUNICIPALITY		2103	112	305	29	9	25	184	37	28	179	54	3065
SERVICES													
MUNICIPALITY		Chatham-Kent	Dutton Dumwich	Lakeshore	Leamington	London	Middlesex Centre	Southwest Middlesex	Southwold	Strathroy-Caradoc	West Elgin	General Inquiries	TOTALS

Development, Interference with Wetlands & Alteration to Shorelines & Watercourses - Ontario Regulation 152/06

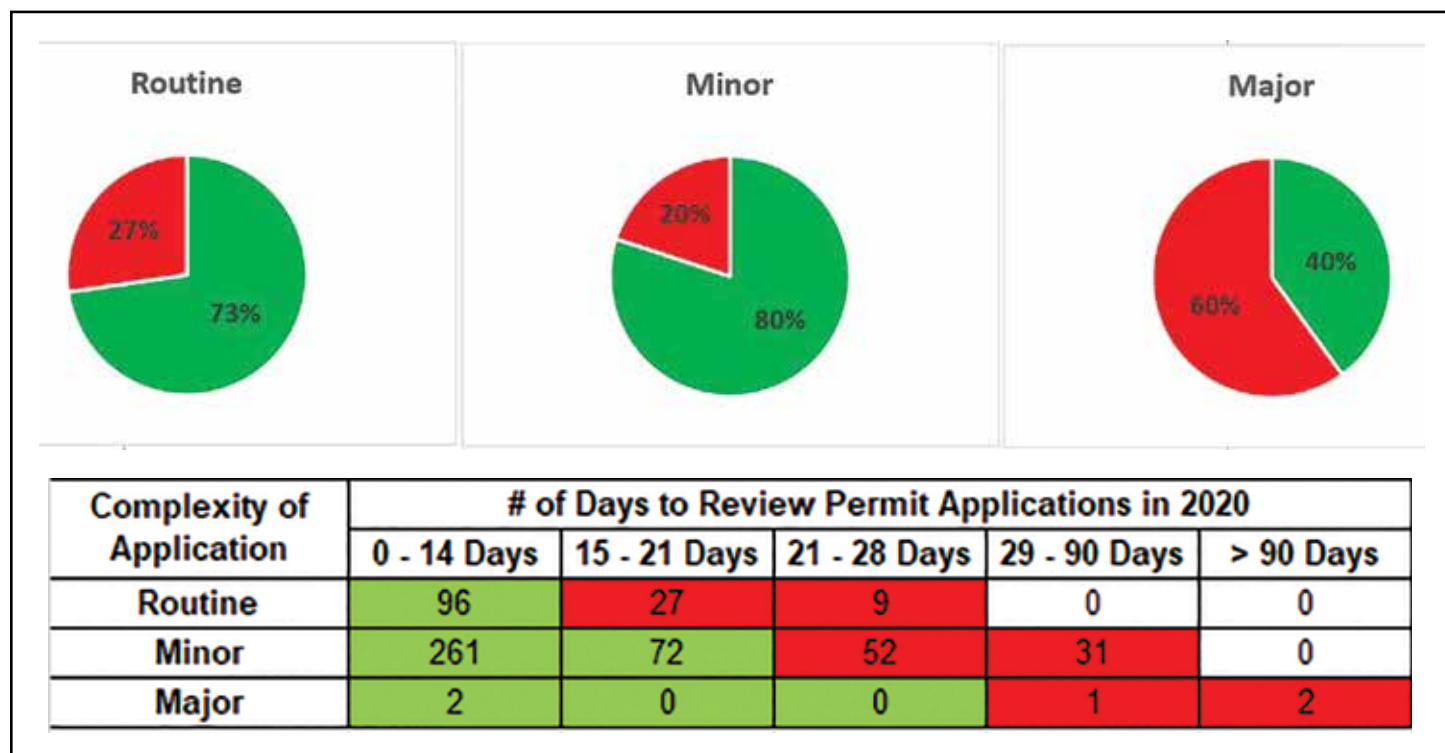
Regulations staff reviewed 556 permit applications with respect to Section 28 of the Conservation Authorities Act and Ontario Regulation 152/06. This is 62 more than 2019, and 269 more than 2018. Of the 556 permit applications, one application was withdrawn by the applicant, two applications were incomplete and temporarily withdrawn, and three applications required hearings in front of the Board's Executive Committee. One of the three hearings was yet to be held by year end. The remainder of the applications were all approved by staff.

Private property landowners submitted 338 permit applications for a wide range of projects, some of which included the construction of new homes in floodplains, additions to existing development in hazardous lands, altering shorelines, and habitat / stewardship projects in LTVCA regulated areas. One hundred and forty-seven permit applications were related to municipal drainage works and the Drainage Act, 13 applications were related to municipal / county infrastructure, and 58 applications

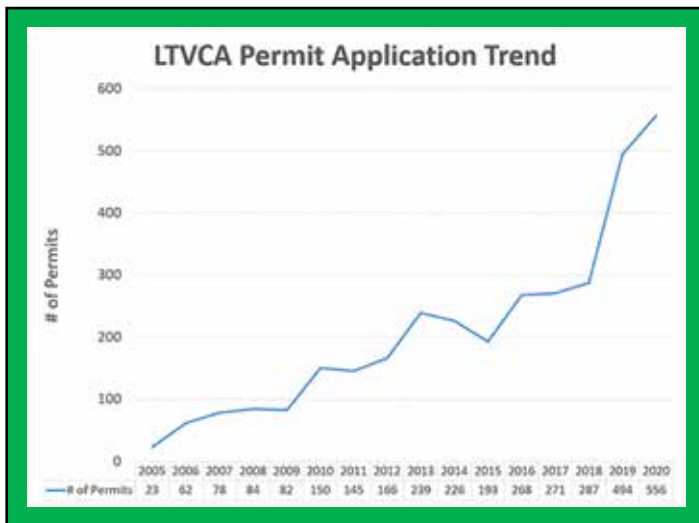
were related to utility companies (including gas, oil, communications, and electricity generation / transmission). Two hundred and thirty-eight private properties were surveyed for permit and official plan flood proofing requirements.



It was another busy year for Water Resources & Regulations Technician - Jason Homewood, reviewing permit applications and property inquiries.



Using the customer service standards developed by Conservation Ontario for comparison, the above table indicates that 73% of routine applications met their delivery standard, 80% of minor applications met their delivery standard, and 40% of major applications met their delivery standard.



For the fifth consecutive year, the volume of permit applications set a new record. Correspondingly, the number of property inquiries handled by the Regulations Technician also increased (from 1,333 in 2019 to 1,736 in 2020). The charts above summarize the trend and fees collected from Section 28 permit applications over the last decade.



This picture captures the damaging impacts of wind events and lake surges, along the Lake Erie shoreline.



Flooding of the roadway along Erie Shore Drive often occurred during high winds from the lake.

Unprecedented Erosion

The last four years (2017-2020) has seen unprecedented erosion and flooding along the Lake Erie shoreline. With the high lake levels and ice free winters on the lake, damaging waves are making it on shore, impacting the toe of the shoreline bluff as well as making it further in land from wind events pushing the high lake levels even higher. This impacts development in low lying areas.



The Wheatley Provincial Park day use access road.



Works on eroding bluffs are not stable.

Enforcement Issues

Thirty new complaints / tips were received and one notice of violation was issued with multiple ongoing investigations - the goal being to obtain compliance or future compliance. Twenty-six of the 30 complaints / tips were violations of the Conservation Authorities Act and five of those files have been closed without prosecution. Of the 30 complaints / violations received, 19 were in Chatham-Kent, nine were in Lakeshore, one was in West Elgin, and one was in Southwold. Ongoing enforcement issues from previous years were also monitored, and continue to be investigated.

Drainage Superintendents Association of Ontario

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

Despite operational challenges due to the COVID-19 pandemic, our stewardship department was able to overcome hurdles and meet funder targets, while delivering valuable services to our 10 member municipalities and watershed citizens in the lower Thames valley. A pivot to offering services remotely, allowed us to continue this work during the pandemic, and no stewardship programs were cancelled. We thank our municipalities who recognize the need for and contribute to stewardship programs. LTVCA also acknowledges the financial support of our many granting partners, and dedicated volunteers. Above and beyond municipal funding, \$1,185,659 was generated from various sources to enhance watershed health through stewardship projects. Randall Van Wagner – Manager, Conservation Lands and Services; Greg Van Every – Environmental Project Coordinator; and Peter Moddle and Amanda Blain – Land Stewardship Technicians / ALUS Coordinators, oversee the stewardship projects.

Land Stewardship Project Summary

- Funding Partners – 26
- Funding – \$1,185,659
- Reforestation – 117 acres / 47.4 ha
- Wetland – 31 acres / 12.6 ha
- Prairie – 131 acres / 53 ha
- Trees Planted – 97,666
- Landowners assisted – 287



Restoration Projects

Tree Plantings

Our tree program was facing grave uncertainty amidst the pandemic. However, with careful planning, the LTVCA was able to safely accept the one time delivery of over 91,000 seedlings from Somerville and Pine Needle nurseries, and offer zero contact delivery on all tree orders. Many of these trees went to larger scale tree plantings, in part funded by the 50 Million Tree Program through Forests Ontario. The tree seedlings resulted in 117 acres (47.4 hectares) of reforestation across the watershed. All planned projects were completed on schedule by the end of May.

LTVCA was also involved in facilitating an agreement with the Ministry of Transportation to plant 14,650 trees into windbreaks along the 401. These windbreaks help reduce snow drifts during the winter months to provide safer driving conditions and create a greener landscape.

Two local university students, Elise Pinsonneault (L) and Anastasia Heuvelmans (R), were hired to help with tree planting and restoration work throughout the summer, funded by grants from ECO Canada Jobs and Project Learning Canada. In addition, they helped staff conduct in-field tree survival assessments, and maintained conservation area lands and facilities. Tree survival assessments revealed that plantings done by the LTVCA had an average survival rate of 85%!

Prairies and Wetlands

Interest in prairie and wetland projects remained high, with 23 prairie projects completed, resulting in 131 acres (53 hectares) of new prairie. There were 25 wetland projects completed, creating 31 new acres (12.6 hectares) of wetlands. Funds through project specific grants and local partner funding helped make these projects possible. Thanks to our local funders: ALUS Elgin, ALUS Chatham-Kent, ALUS Middlesex, Elgin Clean Water Program, Elgin Stewardship Council, Engie, Enbridge, Ducks Unlimited Canada, Grasslands Ontario, our LTVCA member municipalities, Ridge Landfill, and various service clubs.



Working with Indigenous Communities

LTVCA continued stewardship work with watershed Indigenous communities, completing projects along the Thames River with both Chippewas of the Thames First Nation and Delaware Nation at Moraviantown. Over 7,000 trees were planted as well as two major wetland initiatives and tallgrass buffers created.

Events

LTVCA offered stewardship events benefitting the community, providing an opportunity to connect with nature.

- Wardsville Species at Risk Information Night
- Greening the Landscape Webinar
- Ridgeway Horticulture Society & Rotary Club tree planting
- Wheatley Soccer Association and Wheatley Horticulture Society tree planting
- Tilbury and Area (Wheatley, Merlin and Comber) Free Tree Giveaway, trees donated by The Tilbury Mini Storage



You're Invited a Free Webinar!
October 8, 2020
Zoom Webinar, 2-3PM
Can't make the live webinar? It will be posted on our YouTube Channel for later viewing!

GREENING THE LANDSCAPE:
URBAN AND RURAL ENVIRONMENTAL STEWARDSHIP

Join us for an informational webinar and learn about:

- Naturalizing your yard
- Tall grass prairie care and maintenance
- Stewardship opportunities
- Agricultural programs and incentives

Register at: <https://bit.ly/30d5vkX>
Join at: <https://zoom.us/j/9323>

Lower Thames Conservation

In the fall, LTVCA stewardship staff held their first landowner webinar. Jumanah Khan with ALUS Elgin discussed tallgrass prairies, Mike Smith from Releaf CK spoke on naturalizing a residential property, and LTVCA's Greg Van Every reviewed our programs. The webinar was recorded and is available on our YouTube channel.

Partnerships

Working together was more important than ever to reach our stewardship goals. The LTVCA had numerous new and continued partnerships established.

Through a partnership with the West Elgin Roads Department and the Municipality of Dutton Dunwich, we provided a tree giveaway to citizens to help replace trees that were removed for maintenance and infrastructure needs. Three hundred eighty-seven large-stock trees were given away in May to the public, providing opportunities for people to spend time outside, connect with nature, and steward a better environment. This was also part of the Municipality of Dutton Dunwich Climate Change Action Plan. In addition, the LTVCA assisted with the restoration of a portion of the Dutton landfill, developing a plan and then seeding an acre (.4 hectares) into tallgrass prairie.

Carolinian Canada Coalition has implemented a pilot investment project known as Deshkan Ziibi Impact Bond, which LTVCA plays a key role in implementing stewardship restoration. They offered \$85,000 to invest in land stewardship, with a focus on First Nation projects watershed wide.

Ridge Landfill Community Trust is a community driven committee that donated \$1M in 2019 to the LTVCA for stewardship projects to be used over the next 10 years. A kick off media event was held at landowner Violet Shadd's property in North Buxton to view her newly excavated wetland project. These funds will be used in the Municipality of Chatham-Kent in the South Kent Ward. Currently, there are 16 reforestation projects, six wetland, and six prairie projects supported. In turn, these project funds were matched by Ducks Unlimited Canada, Canada Nature Fund, Habitat Stewardship Program, Wildlife Habitat Canada, and Carolinian Canada Coalition. Waste Connections Canada is the corporate body which runs the landfill. Due to some recent expansions, environmental assessments have determined certain mitigation measures have to be implemented, and the LTVCA is in the perfect position to implement these. These projects require significant funding beyond the Community Trust \$1M funds.

Enbridge has also committed \$10,000 for a pilot shoreline naturalization / habitat restoration project for implementation in 2021.

ALUS - Alternate Land Use Services

ALUS Middlesex

The ALUS Middlesex program secured \$164,700 in funding from ALUS Canada and an additional \$170,100 in matching funding for project costs through local project partners. A total of 36.9 hectares (91.2 acres) were enrolled in Middlesex County, tripling growth from 2019. ALUS Middlesex prioritizes restoration along the Thames River and had completed four hectares (10 acres) of such projects this year. The program had the privilege of working with over 20 different landowners in completing these projects and was also able to complete a project with Chippewas of the Thames First Nation, making it one of the first ALUS communities in Canada to complete work with an Indigenous community.

ALUS Middlesex was able to employ two local Farmer Liaisons to conduct project monitoring and verification for every project enrolled in the ALUS Middlesex program. While providing a supplementary income to two members of Middlesex County, Farmer Liaisons ensures project health and acts as a conduit for other local farmers to connect with the program and talk about challenges and successes.

During the summer months, ALUS Middlesex contracted the services of Sunflower Films to produce three short films on ALUS participants and their projects. These films will help tell the story of farmers in Middlesex County and showcase the benefits that restoration projects can have on our shared environments. These films are set to debut in 2021.

ALUS Middlesex partnered with ReForest London to host a free-to-the-public webinar in November; Resilient Agriculture: Growing Food & Supporting Biodiversity. The event drew international attendees and featured Tom Heeman, President of the North American Berry Growers Association, who delivered a compelling talk on how to plant gardens that encourage pollinators.



With help from funding from Wildlife Habitat Canada, a .4 hectare (1 acre) patch of phragmites, an invasive species, was removed adjacent to a new wetland creation project.

ALUS Chatham-Kent

ALUS Chatham-Kent secured \$105,720 in funding from ALUS Canada and an additional \$77,058 in matching funds from multiple partners, which includes \$34,000 from the Ridge Landfill Community Trust.

This year offered many challenges, but with the help of 17 landowners and many community partners, we were able to pull off another great year. The ALUS Chatham-Kent program was able to enroll 17.3 hectares (42.7 acres); 1.8 hectares (4.5 acres) of wetlands, 3.4 hectares (8.5 acres) of trees, 4.7 hectares (11.7 acres) of buffer strips and 7.3 hectares (18 acres) of tallgrass prairie.

ALUS Canada hosted a Partnership Advisory Committee (PAC) conference for ALUS members. Originally, it was a two day, in-person conference but was changed to online due to COVID-19. The Conference was changed to three sessions, one day a week, for three weeks. Many PAC members from Chatham-Kent, Middlesex and Elgin were in attendance. Members learned about engaging community, how to help ALUS coordinators and about making decisions on projects.

Two PAC members and farmers were hired as Farmer Liaisons to help the ALUS Chatham-Kent program coordinator with monitoring projects. Through the ALUS program, all the projects enrolled must be monitored every year for size and maintenance. The Farmer Liaisons monitored three projects each from 2019.



Native tallgrass prairie seed mix ready for hand broadcasting.

Species at Risk

LTVCA's Aquatic SAR program entered its second year of Habitat Stewardship Program (HSP) and Canada Nature Fund for Aquatic SAR (CNFASAR) funding provided by Fisheries and Oceans Canada (DFO). These funds supported the SAR Biologist Vicki McKay and the GIS Technical Assistant/ Environmental Projects Technician Sarah Rabideau.

Work continued on the *LTVCA Aquatic Species at Risk Threat Assessment*. Individual reports detail the biotic and abiotic characteristics of this Conservation Authority's 55 subwatersheds.

Based on the factors summarized in these reports (SAR present, watershed features, threats to aquatic SAR and impacts to SAR downstream), LTVCA's subwatersheds were assessed and prioritized. This was in terms of their potential to maximize fish and mussel SAR recovery

through the completion of habitat restoration and threat mitigation activities. The need for landowner permissions and the momentum gained through cooperation with other initiatives was also considered. A report entitled *Lower Thames Valley Conservation Authority Subwatershed Prioritization Exercise to Guide Implementation of Projects to Benefit Aquatic Species at Risk* outlines the process by which the following 11 priority subwatersheds were selected: Newbiggin Creek, Gentleman Creek/Hendry Drain, Longwoods, Sharon Creek, Turkey and Baird Creeks, Jeannettes Creek, McGregor Creek, Big Creek, McFarlane Relief Drain, Rondeau Bay and Patton to Osbourne Drain.

A *Salt Vulnerable Areas Municipality of Southwest Middlesex* report identifies the significant aquatic resources in the municipality within the LTVCA as well as the current level of chloride loading to freshwater environments and the SAR that live there. The report also identifies improvements that could be realized through 10% and 25% reductions in chloride application via road salt. This report has been shared with the Municipality of Southwest Middlesex and Middlesex County staff.

The LTVCA has purchased a drone and four LTVCA staff have acquired their Remotely Piloted Aircraft Systems (RPAS) pilot's certificate. Drone and roadside surveys of riparian areas were conducted to identify locations in need of habitat restoration to benefit aquatic SAR.

Staff also assisted the Municipality of Chatham-Kent in fish salvage work needed in association with an emergency drain repair. An Aquatic Biologist was hired with Canada Summer Jobs and CNFASAR funding to assist with this fieldwork.

HSP and CNFASAR funds also contributed to the successful implementation of 27 projects reported elsewhere in the Enhancing Watershed Health section of this report, including 15.89 ha of prairie riparian corridors, 3.82 ha of treed riparian corridors, 4.2 ha of restored wetland habitat and two rock chutes. These projects will reduce the quantity of sediment, nutrients and contaminants reaching watercourses that are home to or upstream of aquatic SAR. Funding also supported Stewardship Information Nights held in Wardsville and Tilbury to increase awareness of aquatic SAR and human threats to them, and to generate interest in undertaking stewardship projects to reduce threats and highlight available funding.



Daniel Nydam - Species at Risk Assistant uses an eDNA sampler. The sampler was purchased, four staff were trained in its use and sampling occurred in seven LTVCA subwatersheds to detect presence of fish and mussel SAR. Staff conducted seine netting of fish at three sample sites and collected mussel shells found at all sites to help verify SAR present.

Phosphorus Reduction Initiatives

Colin Little – Agricultural Program Coordinator oversees the phosphorus reduction program, along with assistance from Ryan Carlow – Soil and Water Quality Technician, Dan Bittman – Watershed Monitoring Specialist, and Melissa Abrosimoff – Outreach Specialist.

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 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 requires a 40% reduction in dissolved phosphorus and total spring loadings. If this reduction is achieved, 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. In February 2018, the Canada Ontario Lake Erie Action Plan was released. The LTVCA continued to engage watershed stakeholders in 2020 through the delivery of phosphorus reduction initiatives, with the goal of reducing the Thames River's load contribution to Lake Erie.

McGregor & Jeannettes Creek Phosphorus Reduction Program

The LTVCA continued to deliver the McGregor and Jeannettes Creek Phosphorus Reduction Program with the main goal to improve soil health and reduce agriculturally sourced phosphorus from entering the Thames River, Lake St. Clair and ultimately the western basin of Lake Erie. The subwatershed Best Management Practice (BMP) incentive program provided \$85,172 to 40 agricultural producers to implement agronomic BMPs in McGregor and Jeannettes Creek. This resulted in the planting of 3,127 acres (1,265 ha) of cover crops, grid or zone soil sampling of 4,387 acres (1,775 ha) to assess soil fertility and health, 3,127 acres (1,265 ha) of alternative phosphorus application practices, and the completion of two erosion control projects. The LTVCA sustained environmental monitoring operations in both subwatersheds. This data is collected to assess how effective the implemented BMPs are at reducing nutrient loads and improving water quality. The project will continue until March 2022, funded in part by the Environment and Climate Change Canada Great Lakes Protection Initiative and the Canadian Agricultural Partnership.

Lower Thames Valley Soil Health Program

LTVCA successfully raised \$221,866.00 to support the development of a watershed Soil Health Program. The project is funded by the Environment and Climate Change Canada Great Lakes Protection Initiative. The Soil Health Program will launch during 2021, and will provide financial incentives to farm businesses to plant cover crops and to conduct grid or zone soil sampling. The primary objective of the project is to assist watershed farm businesses with implementing agricultural best management practices to improve soil health and water quality. The secondary goal of the project is to enhance LTVCA agricultural education and outreach activities to increase participation in LTVCA conservation services programs. The delivery of this project will be led by the LTVCA Agricultural Program Coordinator and Outreach Specialist. The Outreach Specialist, Melissa Abrosimoff, was hired in October 2020.

On-Farm Applied Research & Monitoring (ONFARM) Program

LTVCA continued to conduct environmental and agricultural monitoring to support the objectives of the ONFARM program. During the 2020-2021 fiscal year, the program will provide \$124,329 to LTVCA to support monitoring and agricultural research operations in the Jeannettes Creek study subwatershed. LTVCA has conducted rigorous monitoring in this 20km² area of Jeannettes Creek since 2016. The goal is to support the agricultural sector to strengthen environmental stewardship, enhance water quality, and improve soil health. The project is administered by the Ontario Soil & Crop Improvement Association, and is funded by the Canadian Agricultural Partnership.



Ryan Carlow checks water samplers, on a network of sampling locations in the Jeannettes Creek area, as part of the ONFARM program.

Awards & Sponsorships

LTVCA Volunteer Heroes Award



Dianne Flook
- 15+ years dedicated service to CK Trails Council
- donated Thames River property- Flook Trail at Harwich Raleigh Public School
- award presented by Randall Van Wagner – Manager, Conservation Lands & Services to Genevive Champagne - CK Trails/Active Living Coordinator on Dianne's behalf



Margaret Hulls
- control of invasive phragmites in west Elgin County
- Buttermilk Bog improvement
- West Elgin Nature Club weekly nature walks
- award presented by Mike Hentz, Deputy Mayor and LTVCA Director from the Municipality of Dutton Dunwich



Sheila Simpson (L)
- years of volunteering at Longwoods Road Conservation Area events
- grant writing on our behalf
- extra effort and support for our committees and boards
- award presented by Bonnie Carey – Manager, Communications, Outreach & Education (R)

LTVCA Environmental Award

- *Organizational Category*



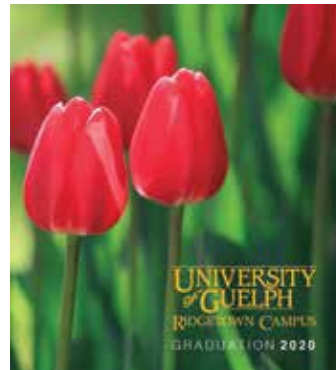
Chatham-Kent Public Health
- awarded the outstanding environmental organization for its program 'Tomorrow's Greener Schools Today'
- Sandy Kalabalikis (L) received the award, presented by Greg Van Every - Environmental Projects Coordinator (R)

LTVCA Environmental Award

- *Landowner Category*

- Dan & Janet McKillop received this award in the fall of 2019 for their exemplary leadership in environmental stewardship on their property

Graduation Award Sponsorship



- LTVCA awarded \$500 for the Academic Proficiency - Environmental Management Diploma to Andre Pinsonneault of Chatham, ON, with the top mark (University of Guelph - Ridgetown Campus)
- the university was unable to hold a spring in person Graduation 2020 event due to the COVID-19 pandemic

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. Jenna Allain is the Source Protection Coordinator.

Highlights of the Year

2020, marked by the COVID-19 pandemic was a difficult year for everyone, and for those working in source protection, it was no exception. Source Protection Authority staff within the Thames-Sydenham and Region spent most of the year working from home. Risk Management Officials and Inspectors throughout the region put a pause on all site visits for most of the spring, with outdoor only visits eventually resuming over the summer months. However, most Risk Management Officials and Inspectors have reported that it has been a challenging time to try and engage people to negotiate risk management plans, with many businesses just focused on saving or maintaining their operations. Risk Management Officials understand these challenges, and continue their efforts to ensure that municipal drinking water supplies are protected without creating undue hardships for businesses.

On May 1st, the Thames-Sydenham and Region submitted their third Annual Progress Report on the implementation progress of the Source Protection Plan. This report reflected implementation efforts made in 2019 and showed that 100% of the source protection plan policies addressing significant drinking water threats have been implemented, or, are progressing well. A total of 56 risk management plans have been established across the Region since the Plan took effect. These plans are in place to manage activities that pose a significant threat to municipal drinking water supplies.

The month of May marked 20 years since the water tragedy in Walkerton, Ontario occurred, where a municipal well became contaminated with deadly bacteria resulting in seven deaths and over 2,000 people becoming very ill. To commemorate Walkerton, a "Trust the Tap" campaign was rolled out across the Province to communicate how much we have learned and accomplished since that time, and to emphasize the importance of source protection work. The Trust the Tap logo can be found on the Thames, Sydenham and Region Source Protection website www.sourcewaterprotection.on.ca, which directs visitors to a webpage that outlines all the actions taken to date to ensure drinking water is protected in Ontario.



Stepping Into Nature ...

Conservation Areas

The LTVCA has protected 1,712 acres (693 ha) of environmentally sensitive lands, wetlands, culturally unique features and significant biological, ecological and scenic qualities through its conservation areas program. Out of the 31 LTVCA owned lands, 1,144 acres (463 ha) have been preserved at 18 conservation areas for public use in the watershed. The remaining are set aside as Nature Reserves.

We promote our objectives through recreational and educational opportunities in the conservation areas, providing places to actively experience the natural world and increase environmental awareness through interpretive signage and special events.

Randall Van Wagner – Manager, Conservation Lands and Services along with Paul Kominek (to May) / Adam Gibb (began in June) – Western District Supervisor; and Vance Stark - Eastern District Supervisor, are responsible for the development and maintenance of these sites. Our Safety Committee tours the 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 Areas are enhanced by annual donations of funds and volunteer time from local individuals, companies, conservation clubs and organizations.

Conservation Area Updates

It was a challenging year with the COVID-19 pandemic, presenting a delay in early spring campground openings followed by the decision to keep all our public properties open to the public. Temporary signage to educate the public on the safe use of facilities during the pandemic was posted at our high use properties.

Ontario Job Creation Program applications were successfully accessed for both ends of the watershed. The extra hands and funding assisted our Conservation Area Lands staff with the finishing of new steel roofs on several buildings, upgrading signage and washroom facilities, and the creation of four new boardwalks in the western district at C.M. Wilson and Big O Conservation Areas. A new woodland trail at C.M. Wilson Conservation Area now provides a circuit around the popular property. In the east,

Longwoods Road Conservation Area's longhouses at the Ska-Nah-Doht Village received new bark coverings, and the Millstream Trail's accessible boardwalk replacement began. Upgrades to Sharon Creek Conservation Area continued, with new signage designed for both north and south parking areas.

A new mower was purchased specifically for the maintenance of the LTVCA diversion channel floodway. The channel is a man-made, engineered structure designed to protect south Chatham from flooding. It must be kept as a grassed waterway with no trees impeding the flow of flood waters.

Our Conservation Area booklet was completed and its printing made possible by several financial donations.



Our Lands staff worked hard keeping conservation areas open to the public so visitors could safely enjoy camping, hiking and other outdoor activities during the pandemic.



Eighteen public conservation areas are highlighted within our new booklet, complete with area maps, and listings of facilities and services. Handy tips accompany each conservation area. Local businesses that helped to sponsor the printing of the publication and area upgrades are recognized throughout. Pages from the booklet will be posted on our website for each of the conservation areas for an easy download in the new year.

Conservation Area Attendance

For the health and well-being of the public, our decision was to keep our conservation areas open safely, for day use and camping during the pandemic. Our campgrounds were busy as area residents stayed close to home and looked to our conservation areas as a healthy option. Day use attendance was also high, including visitors hiking, picnicking, paddling, bird watching, dog walking and simply stretching legs to get some fresh air.

2020 LTVCA Parking Pass sales were strong with 271 sold, resulting in revenue of \$16,240 that will assist with future property upgrades and maintenance. A fall promotional sale of the 2021 Parking Pass generated sales of 111 passes before year end.

Recorded overall attendance at five of our 18 public conservation areas is as follows:

Longwoods Road - 8,573 (day use)
C.M. Wilson - 15,638 (includes 13,467 campers)
Big Bend - 2,595 (campers)
Sharon Creek - 1,932 (day use)
E.M. Warwick - 654 (camping)



A small ribbon cutting ceremony was held on August 13 to announce the \$1000 grant through the McGregor Morris Fund with the Elgin - St. Thomas Foundation - Art in Public Spaces. This grant was used to create a sculpture with a Lake Erie theme, especially designed for the E.M. Warwick Conservation Area, near Eagle. Local Artist David Morris was selected to create this piece called "The Oluuc" - a mythical creature that swam in the waters of Lake Erie.

Conservation Area Events

Conservation Areas are full of adventure and are just waiting to be explored! Public events encourage us to 'Step into Nature'. However, with the COVID-19 pandemic, most of our events were cancelled. But much to the delight of our visitors, we were able to provide several events that strictly adhered to local health unit and government safety protocols. Some of these experiences have been noted throughout this Annual Report in the education section, including *Family Day*, *Moonlight Winter Family Hike* and *Hallowed-Scenes* at Longwoods Road Conservation Area.

Events of special note not mentioned elsewhere were two outdoor concerts at C. M. Wilson Conservation Area and ribbon cutting / unveiling ceremonies at the E.M. Warwick and Big O Conservation Areas.

Land Donations

Lakeshore area realtor, Pat Lavin donated two parcels of land totalling 1.2 hectares (3 acres), adjacent to the Big "O" Conservation Area in Comber, and was formally recognized at the ribbon cutting event noted below.



On December 9, a socially distanced recognition ceremony was held at the Big O Conservation Area in Comber to applaud recent donations, including a land parcel from Pat Lavin, Blain Trucking of Tilbury for the parking area upgrades, and Evulgen for new trail features.

Conservation Areas - Healthy Spaces During Difficult Times

The LTVCA's conservation areas provided plenty of space and facilities for safe, social distancing this past year. Visitors were grateful to have water and trees to surround them, providing much needed time to reflect and recharge from the world's pandemic. Picnicking, fishing, paddling, birding, hiking, camping, enjoying an outdoor concert or drive-through event were activities enjoyed by thousands. We were pleased to do our part and be able to continue our operations to the best of our abilities during this time for the pleasure of our watershed residents and visitors.



Longwoods Road - trails, Ska-Nah-Doht Village.



C.M. Wilson - camper entertainment.



Sharon Creek - bewitching paddle adventures!

Some New Upgrades and Developments

The LTVCA's conservation areas receive regular maintenance and new developments to provide accessible facilities that are safe, durable and attractive. Maintenance crews worked safely to construct new trails and campsites, repaired existing structures and created some new amenities too!



New canoe access to Thames River at Big Bend.



Longwoods Road workshop gets a new steel roof.



Local artist provides a splash of colour at Big Bend pavilion.



New docks at C.M. Wilson.

Partnering with the Community ...

Communications, Outreach & Education – Supporting All Programs

Communication, outreach and education efforts enhance awareness and an 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. This year, Bonnie Carey – Manager, Communications, Outreach and Education was assisted by Agnes Vriends – Clerk with communications and education projects. Education staff included Karen Mattila – Ska-Nah-Doht Village and Museum Curator, and Jerry DeZwart – Community Conservation Educator. Additional support was provided by other Conservation Authority staff as needed.

Programs 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 and visitors, media, users of LTVCA facilities and

services, partners including the LTVCA Foundation and potential partners, are additional vital audiences. Through regular updates of social media and the production of literature, our goals and objectives are broadcast across the watershed. Education programs, public events and tours are hosted, and staff initiate and assist with local environmental projects. As well, displays are designed, arranged and created for fairs and conferences when possible. Meeting facilitation, fund-raising with the Lower Thames Valley Conservation Foundation, supervising employment programs and contributing to conservation committees and working groups, all support the LTVCA's vision and mission. Fostering partnerships and collaboration with organizations, volunteers and other stakeholders are priority, and help to further the conservation of our watershed resources. Although the number of volunteers was significantly lower this year due to the affects of the pandemic on our programs, we appreciate the 73 volunteers who did dedicate 672 hours of time for activities like environmental research and tree planting!

Communications & Outreach Highlights

The year began with the creation of the LTVCA's annual report and its presentation to the Board of Directors at the Annual General Meeting in February. Then we were impacted by the COVID-19 pandemic, which dominated much of our news and messaging going forward. Our website was updated regularly as new COVID-19 protocols were set in place for the public use of our conservation areas and campgrounds. Daily briefs were posted to Facebook page (2,418 followers), Twitter (1,137 followers) and Instagram (615 followers). Over a dozen media releases were issued announcing openings, events, cancellations, special grants received, and explaining the impacts that Bill 229 - Schedule 6 would have on Ontario's Conservation Authorities. Several special events were planned, six reports for Directors' meetings were prepared, and publications were reviewed and produced. Along with the communications resulting from the pandemic, much time was spent assisting with conveying key messaging to our municipalities and the public about the changes that Bill 229 - Schedule 6 would have on the Conservation Authorities Act and the Planning Act. Helping with the writing and editing of the LTVCA's campaign products surrounding Bill 229 was the main focus during the last 2 months of the year.



Close to 300 social media posts reflected current activities of each LTVCA department and their mission throughout the year - Monday water management, Tuesday land stewardship, Wednesday conservation areas, Thursday outreach and education and Friday agriculture and water quality. Our Directors and municipalities received these regular updates as well. In addition, we supported Conservation Ontario Healthy Hikes and Drinking Water Source Protection media campaigns.

Education Programs

Education programs provide field trip and in-class presentations to students and our community. Education staff enable and enhance the efforts of stewardship partners, service clubs, schools, volunteers and public to foster an understanding and appreciation of our renewable natural resources.

2020 provided many challenges for the Education team who delivered creative programs in response to the COVID-19 pandemic. The pandemic caught the *River and Creek Safety Program* mid-stride this year resulting in only 2/3 of schools receiving the program (8 classes - 163 gr.2's). A web based video presentation was in its first stages of development at year end to be used by teachers in the new year. And the *Chatham-Kent & Lambton Children's Water Festival* could not be held, however script rewrites for Activity Centres were completed in hopes for a return of the festival in 2021.

Field Trips to Longwoods Road & Ska-Nah-Doht & Outreach Programs

Trips were impacted early on with teachers' actions and later in March by the pandemic, so staff shifted perspective. School boards cancelled excursions and only private / homeschooler groups took field trips to year end. Without access to the Resource Centre Museum, presentations were outdoors. We adhered to health unit and government safety guidance and used the beautiful features of Longwoods Road Conservation Area - trails, woodlots and meadows, along with the Ska-Nah-Doht Village, to provide a perfect solution for visitation. After a day in nature, teachers were positive about the lasting effects on students, which lifted spirits and inspired outlooks back in the classroom! Attendance remained heavily impacted by the pandemic with two half day classes (37 in 2019) and eight full day classes (124 in 2019) classes taking part in field trips to Longwoods. This equated to 21 half day students (762 in 2019), 134 full day students (2,581 in 2019) and 34 teachers/chaperones (690 in 2019). Outreach programs reached 59 students and three adults.

Public Education & Engaging Events at Longwoods!

The year had a great start at the annual *Moonlight Winter Family Hike* on February 22 with 104 participants enjoying an evening of owl viewing along moonlit trails, indoor live raptor presentations, chili, bonfire, and crafts.

By March, the pandemic halted all other annual events, but we came up with a new way to keep the community engaged. Developing short informative videos for YouTube was our focus with a two-part *Twilight Tuesdays* video so our public wouldn't miss out on these summer evening excursions into nature and culture. This series, produced by staff and volunteers, featured a guided hike, Ska-Nah-Doht tour, owl calling, and awesome guitar-picking skills with sing-alongs and stories around a bonfire.

Longwoods staff, with the help from 30 volunteers created *Hallowed-Scenes* on October 29. This 'drive-thru' event had visitors in their cars driving by scenes featuring "family pods" playing 1812 reenactors versus zombies, witches, mummies, singing werewolves, a bloody chop shop with fake chain saw and lots of screams! There were displays along the way, including a hay wagon with 43 carved and lit pumpkins. Scary good fun for staff, volunteers and the

community during this pandemic, with hopes to become an annual event!



A hay wagon brimming with 43 illuminated carved pumpkins, wowed the Hallowed-Scenes viewers during their drive-thru spooky experience!

Community Education

In July and August, *Camp-in-a-Bag* became an instant success! Canada Summer Jobs funded two Conservation Area Interpreters to create eight weeks of Summer Camp for the “at home” campers ages 8 – 14. The team made 35 bags each week, full of fun activities and crafts. Eight different themes like Species At Risk, Water is Life and Stories Tell Tales, featured conservation information with a First Nations approach to the environment. Final sales were just over \$5,000.



Sophia Castrogiovanni and Rachael De Zwart created and rolled out Camp-in-a-Bag with gatehouse curb-side pick-up.

Its all about timing! The weather was perfect for the 44th Windsor Beaver Colony who participated in a snowshoeing workshop this year pre-pandemic!



Earning their badges with some outdoor fun snowshoeing!

Longwoods Embraces Technology & New Program Development

School field trips declined, but staff adapted by recording narrations and producing videos of our presentations, and researching ways to make them available to schools / classrooms and home learning. Much effort has been put toward the future direction of environmental and heritage education. Webinars will be considered when our enthusiasm is equal to our available internet!

The pandemic caused us to continually think “outside of the box”. Programs for adults geared toward team building and supplements to Indigenous training became a focus. An illustrated version of the “Sky Woman” story is available, along with a new adult program. The TEK (Traditional Ecological Knowledge) – A Heritage Perspective program, incorporates and shares themes of natural balance and living, and how past lessons can be carried forward to today. Ska-Nah-Doht Village and the surrounding nature of Longwoods will provide a unique experience, promoting personal and societal well-being and the value of stewardship for our natural world. If uptake is successful, a workplace Team Building program will be developed.

New Pollinator interpretive signs with QR codes are now linked to our Pollinator webpage in the Native Garden Kiosk at Longwoods. Efforts to sustain and improve our Species at Risk continued with maintenance checks of southern flying squirrel and bluebird nest boxes. Co-op students helped check squirrel boxes and two boxes were used to raise a brood. Bluebird boxes were also checked and maintained with nine fledglings rewarding our efforts!

Student Coop Placement

Education staff mentored two co-op students. A third year Environmental Sciences student from Western University - Raegan Davis, surveyed amphibians present at Longwoods and an Environmental Technology student from Fleming College - Devon Krause, performed a fish and benthic invertebrate inventory.



Co-op student, Devon Krause adds to our knowledge and his by testing creeks for fish and benthic invertebrates.



Ska-Nah-Doht Village & Museum

OUR MISSION

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.

OUR VISION

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.

Village Curator – Karen Mattila managed the \$172,449.00 Ska-Nah-Doht Village and Museum budget. We graciously acknowledge the \$22,992 in financial support from the Ministry of Culture through the Community Museum Operating Grant. We are also grateful for the financial support of \$19,453.00 from Pandemic Relief Fund facilitated by the Museums Assistance Program Grant (MAP) 2020-21 through the Department of Canadian Heritage.

In April, the Museum hosted a four week Alternate Field Placement with Althouse College for former summer student, Leeanne Doxtator. The project researched Treaties and Wampum Belts for local First Nations in the lower Thames watershed – Oneida of the Thames, Chippewas of the Thames and Muncey-Delaware. This document is now available for staff, and it will be incorporated into education programs. Leeanne also provided a timeline as a visual aid, a craft for elementary levels, and drafted a wampum belt display to be installed in the museum.

Putting People to Work During Pandemic – Ontario Job Creation Partnership (OJCP)

With a successful application to Job Creation Partnership, three positions were contracted with Service Ontario for the Longwoods/Ska-Nah-Doht Village & Museum Enhancement. Firstly, Leeanne Doxtator was hired as Assistant Curator to create six artifact cases as part of the museum's actions to repatriate artifacts towards Truth & Reconciliation. The artifacts represent every archaeological time period of Indigenous occupation of the Great Lakes. Leeanne is also researching and developing Ontario School Curriculum based materials and lesson plans for both Grade 3 and 5 to complement the artifact cases. The project includes cataloguing three donated collections intended for education. When completed, the artifact cases will be offered to six local schools. This project ends March of 2021.



Assistant Curator, Leeanne Doxtator surrounded by her work!



Our outdoor "Pop-Up" Turtle Trail Gift Shop was held in November. Customers were happy to have the opportunity to purchase unique gifts, some going to England for Christmas!

In addition, our eastern district Conservation Areas Lands staff hired General Labourers, Brian Watson and Matt Jeffery. The crew was able to complete the bark application to our southern most longhouse. Brian and Matt designed and built a new lookout, integrating new materials with cedar pole coverings to complement the village palisade, keeping the heritage esthetic. The crew is repairing the palisade and working on new “hands-on” features, making new pestles and fish traps. They will also stabilize the existing features of the burial area and drying racks. The public has been very appreciative of all the work at Ska-Nah-Doht Village especially during the pandemic. Brian and Matt will likely be back in the village in the spring, as these two OJCP positions continue until May 2021.

To support the above projects and expand the crew at Longwoods with Ska-Nah-Doht Village and the eastern district, staff facilitated a partnership with Oneida Job Development to place three community members as General Labourers. This crew is receiving training and gaining experience in conservation area maintenance, acquiring multiple transferable skills over 20 weeks, including assisting with the rebuild of the accessible marsh boardwalk.



Brian Watson and Matt Jeffery join a select few who can add 'longhouse builder' to their resumes!



A stunning drone shot of Ska-Nah-Doht Village taken by staff at year-end, showcases the great work our OJCP and LTVCA maintenance team completed, including a new look-out at the back of the village.

Wishing you the best!

Movin' On ...

Western District Supervisor Transition

With a new baby on the horizon, Paul Kominek decided the time was right to follow his dreams of living up north. He moved on from the LTVCA in May.

Paul began his employment with the LTVCA in April of 2016 as a seasonal labourer, on contract at the C.M. Wilson Conservation Area. He later was awarded the position of Western District Supervisor, in June of 2017.

Paul made many positive changes to the western district conservation area properties under his charge. These improvements included, but were not limited to the implementation of the "Let's Camp" online booking system, annual training of conservation area Ranger staff and the creation of the trail at the Walter Devereux Conservation Area. In addition, Paul enjoyed assisting staff with the Children's Water Festival at the C.M. Wilson Conservation Area, operation of the McGregor Creek Dam in Chatham, and spring tree planting throughout the western half of our watershed.



Paul Kominek, LTVCA's Western District Supervisor left his position at the end of May. A socially distanced "thank you and paddle presentation" was held at C.M. Wilson Conservation Area. L to R : Mark Peacock - CAO, Paul Kominek and Randall Van Wagner - Mgr, Conservation Lands and Services. Paul was employed by the LTVCA 2016 – 2020.



The Directors and staff wish Paul all the best in his future. Being an avid hunter and outdoorsman, Paul plans on living off the land up near Muskoka. He will be missed for his easy going personality and team player attitude! Fitting he is pictured here trying out the 'Muskoka Chair' he created beside the pond at C.M. Wilson Conservation Area!

Lower Thames Valley Conservation Foundation

Highlights of the Year



The Lower Thames Valley Conservation Foundation (LTVCF) 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 \$900,000 for natural and cultural heritage conservation. Nearly \$16,000 dollars were raised this year for watershed conservation projects and initiatives through the memorial forest program, and private donations.

The Foundation assists volunteer organizations with their fund raising efforts and manages the **Sharon Creek Trust Fund**, initiated by the Friends of Sharon Creek. LTVCF 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**. Since the beginning of the Foundation's **Memorial Forest Program**, 9,003 trees have been planted in partnership with the Conservation Authority, local funeral homes and horticultural societies across the lower Thames region – funded by private and funeral home donations. 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 volunteer Board of six Directors. Tax receipts are issued for all donations. The Executive – President Dan McKillop, Vice-president Ken Brooks and Secretary-Treasurer Don Pearson are recognized for their dedication and support in 2020.

Because of the COVID-19 pandemic this year, all Directors' meetings were held virtually. Work by an outside contractor regarding the Trillium grant boardwalk replacement funded in 2019, was for the most part delayed until 2021.

As well, the four annual memorial forest tree dedication services were cancelled. A virtual service was pre-taped by the McKinlay Funeral Homes Ltd. at the C.M. Wilson Conservation Area's McKinlay Woodlands with a family and streamed online, in lieu of a public onsite service.

The Foundation continued to work towards undertaking the Longwoods Road Resource Centre redevelopment fund-raising campaign. As well, special mention is made of two significant donations to the Foundation. R. Carey donated \$1,000 directed to the Carey Carolinian Arboretum and Trail, and Romsa Medicine Professional Corp. donated \$4,892 to the Foundation for conservation projects. The LTVCF Foundation also provided its annual Bursary to Carrie McDonald of Muirkirk, who is pursuing post-secondary education in an environmental field of study.

In 2020, the Foundation helped fund and support several Conservation Authority and watershed initiatives:

- 300 memorial trees \$4,216
- Carey Carolinian Arboretum and Trail maintenance \$300
- LTVCF Foundation Bursary \$500



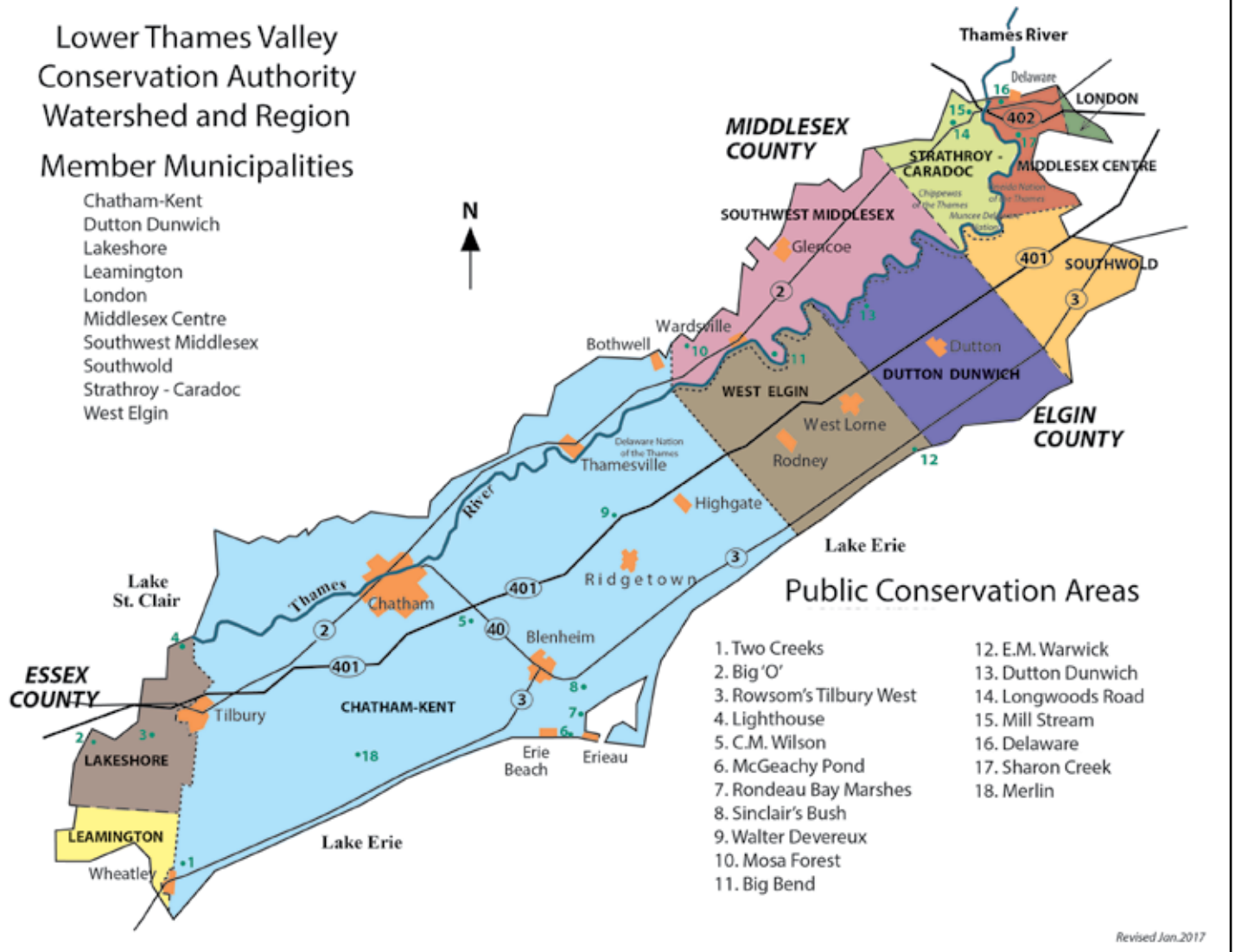
Carrie McDonald of Muirkirk was the 2020 recipient of the LTVCF Foundation Bursary.



The Conservation Foundation recognizes the continued support of the McKinlay Funeral Home, the Tilbury and District Horticultural Society and the LTVCA as partners in the memorial forest program.

Lower Thames Valley Conservation Authority Watershed and Region Member Municipalities

Chatham-Kent
Dutton Dunwich
Lakeshore
Leamington
London
Middlesex Centre
Southwest Middlesex
Southwold
Strathroy - Caradoc
West Elgin



Revised Jan. 2017

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 kilometres (1,264 square miles) and is home to nearly 100,000 people.



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



The Thames River celebrated its 20th year as
a Canadian Heritage River. The 21st Annual
Thames River Clean-up was cancelled due to
the pandemic.

