



Lower Thames Valley Conservation Authority 2019 Annual Report Highlights *‘Changes & Challenges’*

October 27, 2019
Erie Shore Drive – Municipality of Chatham-Kent

ABOUT US

Our Vision

The LTVCA...for
a balanced &
healthy
watershed

Our Mission

Leading by example
in environmental
protection in
partnership with
the community

Our Core Values

Respect, integrity,
commitment, objectivity, &
collaboration



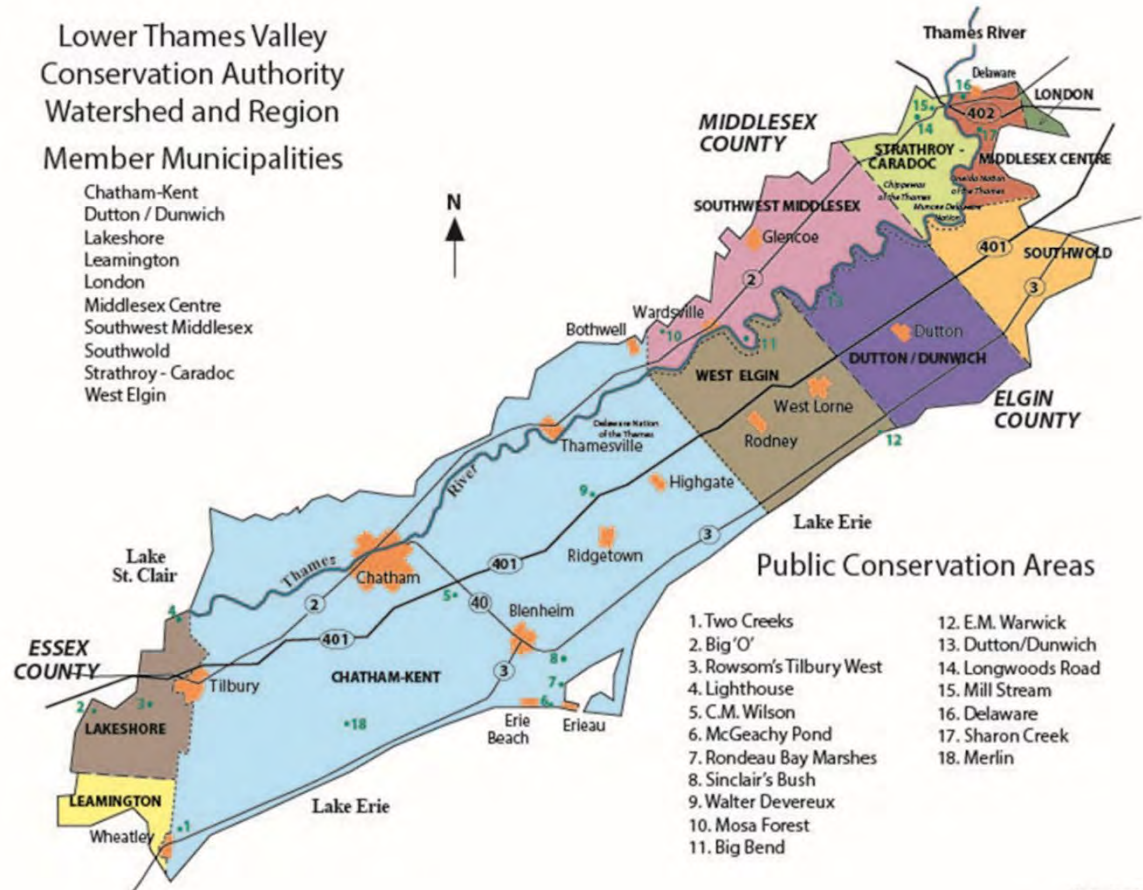
PRIORITIES

- Protecting life & property
- Protecting drinking water sources
- Enhancing watershed health
- Stepping into nature
- Partnering with the community



OUR AREA OF JURISDICTION

- area covers approximately 3,274 square kilometers (1,264 square miles) & is home to over 100,000 people.



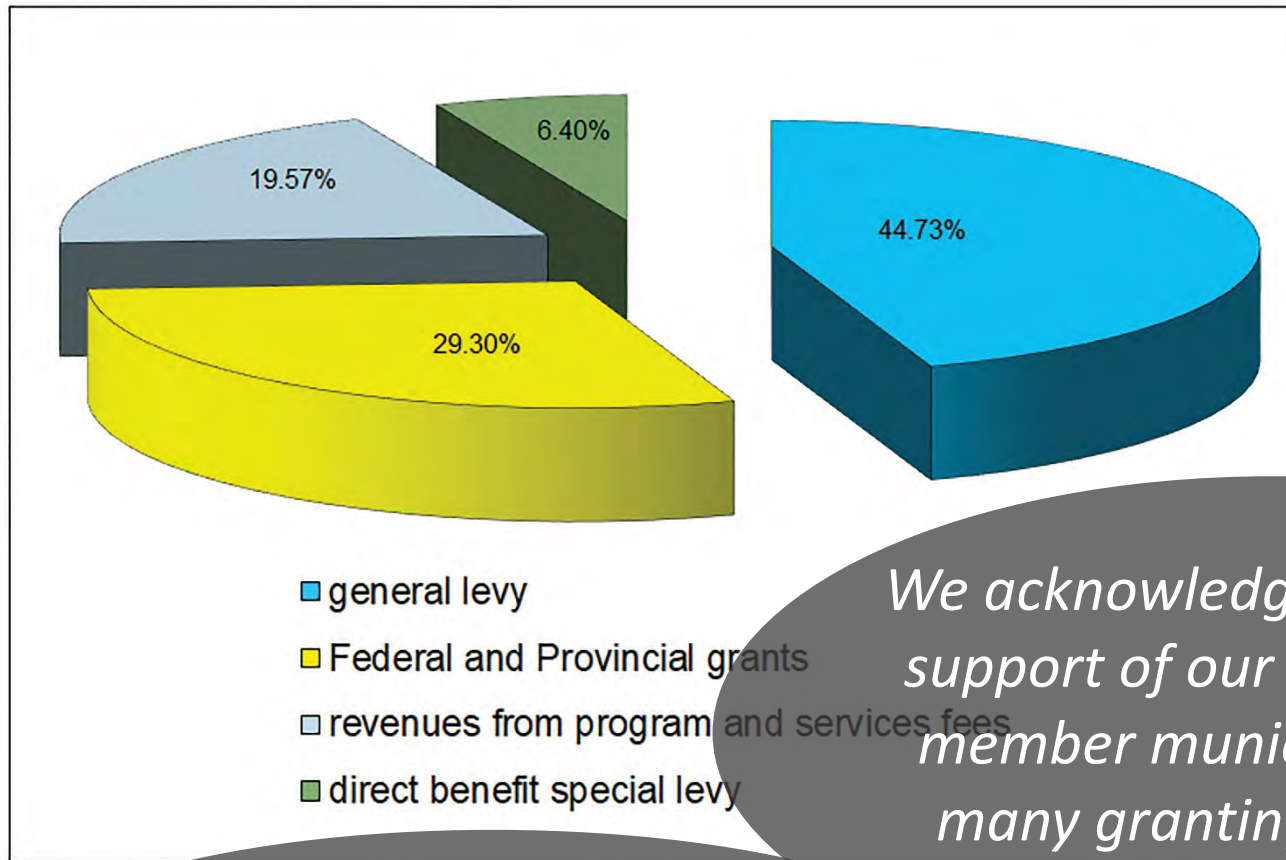
OUR DIRECTORS & MUNICIPALITIES

- **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



Linda McKinlay– Chair

\$ BUDGET \$



We acknowledge the financial support of our 10 watershed member municipalities, our many granting partners & dedicated volunteers!

LTVCA's budget of \$3,205,524 received approval in February

LTVCA STAFF



*Mark Peacock –
CAO / Secretary-Treasurer*

Staff
25 full-time positions
11 seasonal / part-time



Happy Retirement Bruce & Michael!

Bruce Clark

Construction & Maintenance
Technician
1977-2018



Michael
Latham

Eastern District
Lead Hand
2006-2019

PROTECTING LIFE & PROPERTY

Water Management

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



*February 06, 2019
3:04 pm
Thames River -
Thamesville*

PROTECTING LIFE & PROPERTY

Water Management

- **Flood Forecasting & Warning**

Thames River

- 6th St. backwater dam and pumping station operated Feb.6
- Feb. 7 ice jam occurred at Prairie Siding, and moved towards Lighthouse Cove stressing flood protection works
- Feb. 8 dikes failed on both sides of the river flooding
- Rainfall events caused high waters throughout the year

**98
flood bulletins
issued**

Lakes Erie and St. Clair Shorelines

- Affected by high lake levels and flooding and erosion
- August 27 on Erie Shore Drive 50 properties asked to evacuate, 12 homes damaged and road closure



Thames River ice jam with failed dikes



Lake St. Clair flooding – Lighthouse Cove

**50%
funding
reduction from
Province for
flood forecasting
& warning**

PROTECTING LIFE & PROPERTY

Water Management

- **Water quality monitoring sites**
 - Monitoring conducted at nine groundwater wells & 11 stream (surface) water locations for water quality indicators - dissolved oxygen, pH, conductivity, temperature & nutrients with analyses such as e-coli, metals & pesticides at select locations
 - A Canada – Ontario Agreement grant adds 11 more surface water locations & winter sampling
 - Results used towards grades reported in the Watershed Report Card

31

Provincial water
quality monitoring
sites operated



Groundwater monitoring provides baseline information about groundwater levels and quality across the Province.

PROTECTING LIFE & PROPERTY

Water Management

- **Benthic Monitoring**

- Sampling for benthic macroinvertebrates (*insects, worms & crustaceans that live at the bottom of the stream*) continued with a 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



PROTECTING LIFE & PROPERTY

Land Use Planning & Regulations

To maintain the vitality of our watersheds & protect peoples' lives and property from flooding & erosion, Conservation Authorities administer the **Conservation Authorities Act & its regulations**.



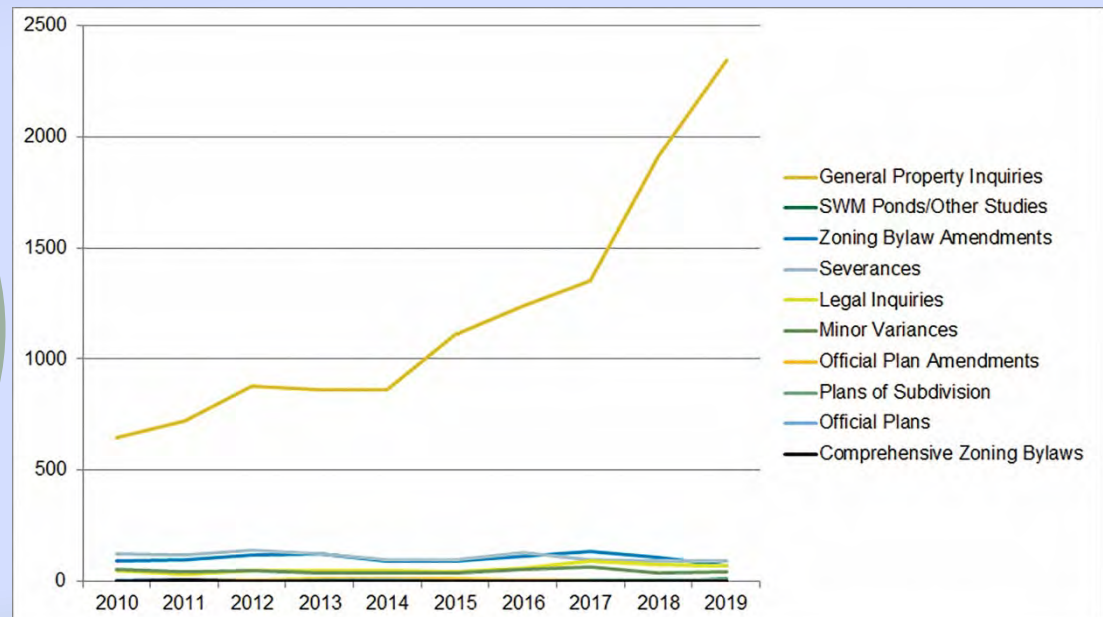
August 27, 2019, wind event along Lake Erie – Erie Shore Drive

PROTECTING LIFE & PROPERTY

Land Use Planning & Regulations

- **Municipal Plan Review & the Development, Interference with Wetlands & Alteration to Shorelines & Water Courses – Ontario Regulation 162/06**
 - Staff reviewed 494 applications under this regulation
 - Regulate development in or beside river & stream valleys, lake shores, hazard lands & wetlands to maintain & protect peoples' lives & property from flooding & erosion

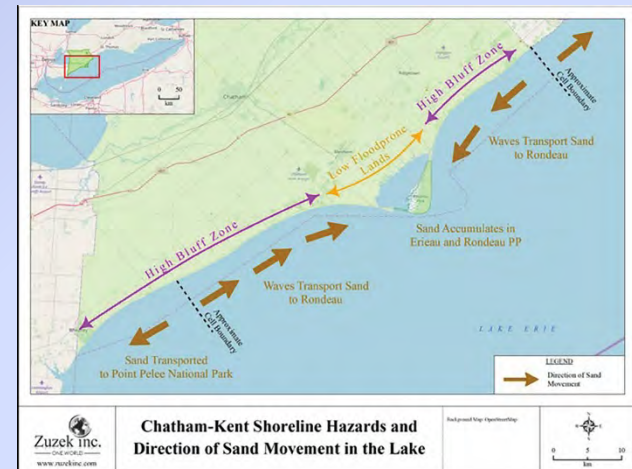
3,121
regulatory &
municipal plan
review services



PROTECTING LIFE & PROPERTY

Land Use Planning & Regulations

- **Chatham-Kent Lake Erie Shoreline Study**
 - LTVCA, Chatham-Kent, the Province, Gov't of Canada, International Joint Commission, Zuzek Inc. obtained a Natural Resources Canada grant for a comprehensive Lake Erie shoreline study in CK
 - The study investigates Climate Change impacts on Lake Erie. Multiple public consultation meetings held
 - Study will be completed in March 2020



PROTECTING LIFE & PROPERTY

Land Use Planning & Regulations

- **LTVCA updated policies for the Chatham-Kent Lake Erie Shoreline**
 - Policies are used for the review of municipal planning applications and private submissions for development within regulated areas under O. Reg. 152/06 of the CA Act
 - Outline types of development for which we will grant permissions until larger C-K shoreline planning study is complete
 - In response to increasing damages along shoreline
 - When study completed, anticipated regulated area will be increased



Lakeshore erosion – Rose Beach Line in Chatham-Kent

PROTECTING LIFE & PROPERTY

Land Use Planning & Regulations

- **Lighthouse Cove Secondary Plan**
 - With assistance from LTVCA, Lakeshore received a National Disaster Mitigation Program grant to investigate how to address safe access to the community during an ice jam flood
 - Public information session held in May



PROTECTING LIFE & PROPERTY

Land Use Planning & Regulations

- **Thames River Blue-green Algae Bloom**



Late September, Thames River at Hwy.40

PROTECTING LIFE & PROPERTY

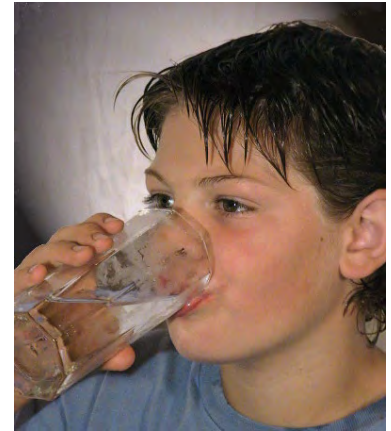
Water Management

- **Thames River Clearwater Revival**

- Multi-agency partnership to improve the Thames
- Drafting of a Shared Waters Approach intended to update the 1975 Water Management Plan
- Supporting the Antler River Guardians from the 4 Directions: First Nation Youth Stewardship Program



The purpose of the provincial Clean Water Act (CWA) 2006 is to protect existing & future sources of drinking water. Protecting water at the source – municipal wells & water intakes – is the first barrier in a multi-barrier approach to providing safe, clean supply of water.



Highlights of the Year

- Submission of the second Annual Progress Report on the implementation progress of Source Protection Plan
- Updates to mapping in the Source Protection Plan and Assessment Reports to reflect changes to drinking water systems; changes to certain plan policies address implementation challenges; and updates to the documents include new scientific information and technical changes.
- A refresh of the source protection committee (SPC) was required, for SPC member positions that expired in June.

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

The responsible care of our natural resources on a watershed basis is essential to balancing human & economic needs against the needs of our natural environment. Conservation Authorities have a long history working with landowners in the planning & delivery of watershed stewardship initiatives.

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



Such as...

- Tomorrow's Greener Schools Today
- Your Roots are in CK
- Free Tree Give-Away
- Tree Planting Community Group Events
- Public Workshops & Presentations
- Community Partnerships

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

Aamjiwnaang First Nation

ALUS Canada

Agricultural Stewardship Council

Canada Summer Jobs

38+
stewardship partners

Chatham-Kent Public Health

Chatham-Kent Retention & Attraction

Chatham-Kent Secondary School

Chatham Lions Club

Chippewas of the Thames First Nation

Delaware Nation at Moraviantown

Ducks Unlimited Canada

Elgin Clean Water Program

Elgin Stewardship Council

Enbridge Gas

Engie (Erieau Wind Farm)

Environment & Climate Change Canada

Fisheries and Oceans Canada (DFO)

Forest Gene Conservation Association

Forests Ontario

Kent Bridge Women's Association

Kiwanis Club of Chatham-Kent

LTVF Foundation

Oneida Nation of the Thames

Ontario Federation of Agriculture

Ontario Native Scape

Ontario Ministry of Agriculture, Food & Rural Affairs

Ontario Ministry of Environment, Conservation & Parks

Ontario Ministry of Transportation

Ontario Soil & Crop Improvement Association

209 landowners

benefited from \$1.3 M

in stewardship grants

Thames River Phosphorus Reduction Collaborative

Tilbury District High School

Wildlife Habitat Canada

Neighbouring Conservation Authorities

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

\$1M

**Ridge Landfill
Community Trust
10 year stewardship
endowment
South Kent**



ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

85 hectares
naturally restored
across the
watershed

ENGIE North America
(Erieau Wind Farm)
\$20,000 annually for
stewardship



ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship



24 hectares
tallgrass prairie
planted



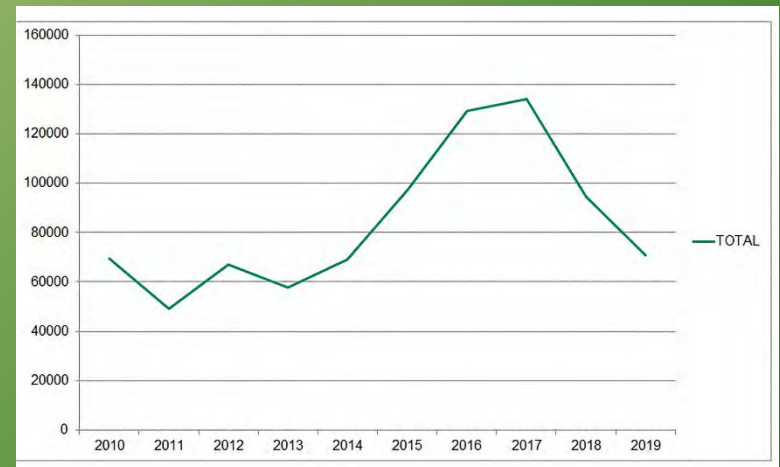
ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- Forests Ontario - \$60,336 for 23 tree planting projects

71,279
trees planted

37
hectares reforested



ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- Ducks Unlimited Canada \$21,636
- Elgin Stewardship Council \$16,504

24
hectares
wetlands
created



ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- **The Elgin Clean Water Project**

- A cooperative program between the Catfish Creek, Kettle Creek, Long Point Region & Lower Thames Valley Conservation Authorities
- Assists landowners with projects to improve & protect water quality in Elgin County

\$30,152

towards

**13 clean water
landowner projects**



ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- **Species at Risk (SAR)**

- Signing Section 11 Conservation Agreement under the Species at Risk Act (SARA)
- Habitat Stewardship Program and Canada Nature Fund for Aquatic SAR funding approved by DFO for 2 and 4 years respectively for riparian corridors, wetlands
- Aquatic SAR flyers, social media postings on fish and mussel SAR

‘Smart About Salt’
Training Session Held



Photo: Shawn Statton, DFO

Body tissue is used to make a fish-like lure to attract a host fish



Photo: MC Bernhart, Missouri State University

SPECIAL CONCERN
Wavy-rayed Lampmussel
(*Lampsilis fasciola*)

Mussels need native fish to complete their life cycle and disperse
Some make a lure to attract fish for their young to attach to
If you fish, please consider catch-and-release

To find out more, visit:

https://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=583
OR
<https://www.ontario.ca/page/wavy-rayed-lampmussel>

 Lower Thames Conservation

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

-  **Alternative Land Use Service**



ALUS Middlesex

12

Farmer Participants

12 hectares
stewardship



ALUS Chatham-Kent

17

Farmer Participants

23 hectares
stewardship

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- **Phosphorus Reduction Initiative**

- Western & central Lake Erie, Thames River identified as a priority watershed that need to see a 40% reduction in dissolved phosphorus & total spring loadings



- **ONFARM Applied Research & Monitoring**
 - Administered by OSCIA and funded by Canadian Agricultural Partnership
 - Environmental monitoring in 20km² area of Jeannettes Creek subwatershed

\$648,748

**ONFARM Program
2019-2023**

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- MJCPRD continued to improve soil health and reduce agriculturally sourced phosphorus
- Launched Best Management Practice (BMP) incentive program for cover crops, grid or zone soil sampling, alternative phosphorus application practices, erosion control projects
- Expanded monitoring for data collection
- Environment and Climate Change Canada Great Lakes Protection Initiative and Canadian Agricultural Partnership



**McGregor & Jeannettes Creek
Phosphorus Reduction
Program – launched BMP
incentive program \$50,000**

ENHANCING WATERSHED HEALTH

Tree Planting, Restoration, Stewardship

- **Watershed Awards Applauding Special People & Groups**

Environmental Awards
for Landowners &
Organizations



Graduation Award
Sponsorship



Volunteer Heroes
Awards



STEPPING INTO NATURE

Conservation Areas – *Be Active! Be Healthy!*

- **270 Conservation Areas in Ontario!**
- Safety Committee regularly inspects our CA's
- 1 land donation totaling 4.9 hectares "Elva Gray Tallgrass Prairie"

18

public conservation areas

463 hectares

LTVCA

693 hectares

**protected wetlands, forests,
tallgrass prairies, lakefront &
habitat restoration sites**



STEPPING INTO NATURE

Conservation Areas — *Be Active! Be Healthy!*



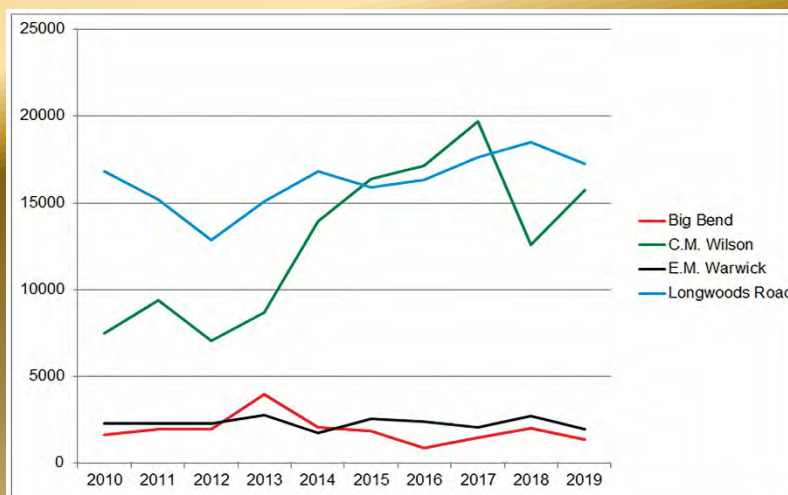
15,728
visitors to
C.M. Wilson
Conservation Area



13,401
campers in
4
campgrounds



17,257
visitors to
Longwoods Road
Conservation Area



STEPPING INTO NATURE

Conservation Areas – *Be Active! Be Healthy!*

- **New in 2019**

‘Let’s Camp’ online camping
for Big Bend CA



‘Elva Gray Tallgrass Prairie’
land donation



New steel roofs and windows
at E.M. Warwick CA hall and
cabins



COMMUNICATIONS, OUTREACH & EDUCATION

– *A Part of All Programs*

Communications enhance awareness & understanding of the goals & programs of the LTVCA for our target audiences, enabling them to support & enjoy our facilities & services. We use social media, literature, advertising, media releases, special events, watershed tours, festivals, speaking engagements & displays to relay our messaging.



Directors & Committee Members
Member Municipal Councillors / Staff
Government Agencies
CA Staff
Watershed residents
Media
CA Visitors
Project partners...

27
Media
Releases

COMMUNICATIONS, OUTREACH & EDUCATION

– A Part of All Programs

- Some Highlights



Publications and Presentations



“Go Wild Grow Wild” Expo in London & Other Displays



*Directors' Bus Tour
East Watershed*



*Daily Social
Media Posts*



*Longwoods Resource Centre
Feasibility Study*

COMMUNICATIONS, OUTREACH & EDUCATION

– *A Part of All Programs*



STEPPING INTO NATURE

Education Programs – Take Learning Outdoors!

- **in Ontario over 410,000 students** participate annually in CA outdoor education programs which meet curriculum expectations of the Ontario Ministry of Education
- **37 Interpretive Centres** operated by Conservation Authorities in Ontario

We teach children about local & global environmental issues, explore linkages between humans & natural environment, & instill a greater appreciation & understanding of nature.



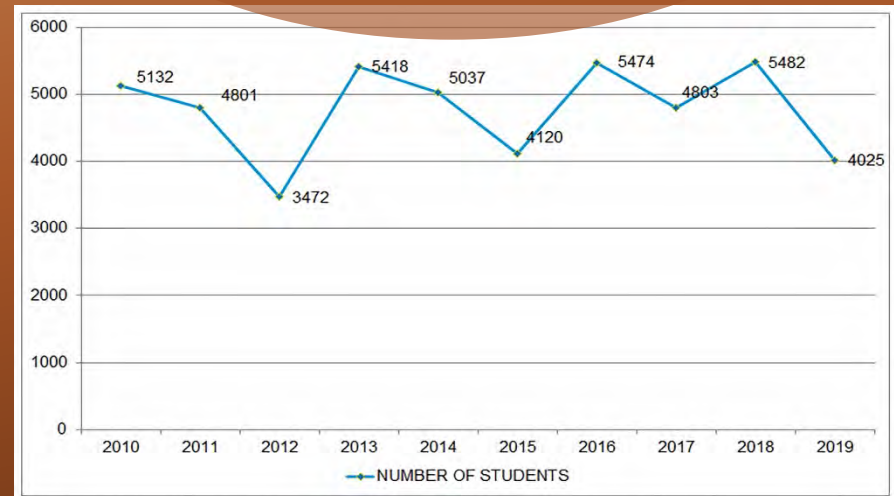
STEPPING INTO NATURE

Education Programs – Take Learning Outdoors!

- Longwoods, C.M. Wilson, Ska-Nah-Doht Village, inclass & outreach programs
- Ontario Curriculum based education programs



4,025
children & their chaperones
received education
programming



STEPPING INTO NATURE

Education Programs - Take Learning Outdoors!

- **10th Annual Chatham-Kent & Lambton Children's Water Festival**
 - At C.M. Wilson Conservation Area



**2,749 Total
Attendees**

1,930 elementary students

41 school

77 teachers

275 adult chaperones

305 high school volunteers

162 adult volunteers



STEPPING INTO NATURE at Ska-Nah-Doht Village Longwoods Road Conservation Area



OUR MISSION

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

OUR VISION

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

STEPPING INTO NATURE at Ska-Nah-Doht Village

Our programs reflect First Nations' approach to living within the environment & combine the Heritage and Sciences curriculum strands



STEPPING INTO NATURE

Education Programs - *Conservation*

- **River & Creek Safety Program sponsored by local service clubs**
 - Watershed inclass program



229
grade 2's

SKA-NAH-DOHT VILLAGE & MUSEUM

- Ska-Nah-Doht Village welcomes tourists from over 24 countries around the world
- The Turtle Trail Gift Shop
- \$22,992 from the Ministry of Tourism, Culture & Sport through the Community Museum Operating Grant

Special Events

Canada Summer Jobs
summer student grant

Chippewas of the Thames
summer student placement



COMMUNICATIONS, OUTREACH & EDUCATION



Fund
Raising



Tree
Planting

Thanks to the

1,282

Dedicated volunteers who
provided 7,853 hours

of their time for conservation in
2019!



Habitat
Restoration



CA
Maintenance



CA
Events



COMMUNICATIONS, OUTREACH & EDUCATION

Aamjiwnaang First Nation
ALUS Canada
Agricultural Adaptation Council
Canada Summer Jobs
Canadian Agricultural Partnership
Canadian Chestnut Council
Captain Garnet Bracken IODE
Chatham-Kent Community Foundation
Chatham-Kent Community Partnership Fund
Chatham-Kent Public Health
Chatham-Kent Retention & Attraction
Chatham-Kent Secondary School
Chatham Lions Club
Chippewas of the Thames First Nation
Delaware Lioness Club
Delaware Nation at Moraviantown
Dillon Consulting
Ducks Unlimited Canada
Elgin Clean Water Program
Elgin Stewardship Council
Enbridge Gas
Engie (Erieau Wind Farm)
Environment & Climate Change Canada
Fisheries and Oceans Canada (DFO)
Forest Gene Conservation Association
Forests Ontario
Friends of St. Clair
Glencoe District Lions Club
Kent Bridge Women's Association
Kiwanis Club of Chatham-Kent
LTVF Foundation

Oneida Nation of the Thames
Ontario Federation of Agriculture
Ontario Native Scape
Ontario Ministry of Agriculture, Food & Rural Affairs
Ontario Ministry of Culture
Ontario Ministry of Environment, Conservation & Parks
Ontario Ministry of Natural Resources and Forestry
Ontario Ministry of Transportation
Ontario Soil & Crop Improvement Association
Optimist Club of West Lorne
Project Learning Tree Canada Green Jobs
Ridge Landfill Community Trust
Rodney Lions Club
Rotary Club of Chatham Sunrise
Royal Canadian Legion Caradoc Branch 251
Scouts Canada & Riparian Rangers
South Kent Wind
Stewardship Kent Legacy Funds
Sunrise Rotary
TD Bank
Thames River Phosphorus Reduction Collaborative
Tilbury District High School
Tree Canada
Walker Environmental
West Elgin Mutual Insurance
Wildlife Habitat Canada



**Applauding the
inspired partners that provided
\$1.6 M to support our
watershed conservation!**

CONTACT US!

Lower Thames Valley Conservation Authority

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N7L 2Y8

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www.ltvca.ca

The details are in our
Annual Report, posted
on our website.
Thank You!

