



Board of Directors Meeting

A G E N D A

April 18, 2019

2:00 p.m.

Board Room, Administration Building

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We will begin by acknowledging that the land on which we gather is the traditional territory of First Nations people who have longstanding relationships to the land, water and region of southwestern Ontario. We also acknowledge the local lower Thames River watershed communities of this area which include Chippewa's of the Thames First Nation, Oneida Nation of the Thames, Munsee Delaware Nation and Delaware Nation at Moraviantown. We value the significant historical and contemporary contributions of local and regional First Nations and all of the Original peoples of Turtle Island (North America). We are thankful for the opportunity to live, learn and share with mutual respect and appreciation.

5. Approval of Previous Meeting Minutes

5.1) Board of Directors Meeting Minutes – February 21, 2019



Board of Directors Meeting MINUTES

The meeting of the Lower Thames Valley Conservation Authority's Board of Directors was held at the Rudy Brown Building in Room 110 at the University of Guelph Ridgetown Campus at 11:00 A.M. on Thursday, February 21, 2019. The following directors were in attendance: L. McKinlay, T. Thompson, M. Hentz, J. Frawley, C. Cowell and R. Leatham. A. Finn, J. Wright, K. Ainslie and J. Brennen sent their regrets.

1. First Nations Acknowledgement
Mr. Mark Peacock read the First Nations Acknowledgement for those present.
2. Call to Order
3. Adoption of Agenda

BD-2019-01

1. C. Cowell – T. Thompson

Moved that the agenda be adopted as presented with a noted change for item 9.10) GM's Report to be changed to CAO's Report for the minutes and future agendas.

CARRIED

4. Disclosures of Conflicts of Interest
None Declared.
5. Approval of Previous Meeting Minutes (Previously circulated)

BD-2019-02

2. J. Frawley – M. Hentz

Moved that the minutes of the meeting of October 18, 2018 be approved as circulated.

CARRIED

6. Business Arising From the Minutes
None declared.
7. Presentations
 - 7.1) Strategic Plan Update, present by Mr. Mark Peacock
 - 7.2) Seasonal Ice Management Update, presented by Mr. Jason Wintermute
 - 7.3) 6th Street Dam Repairs, presented by Mr. Jason Wintermute

BD-2019-03

3. R. Leatham – C. Cowell

Moved that the presentations on the LTVCA's Strategic Plan Update, the Seasonal Ice Management Update, and the 6th Street Dam Repairs be approved as presented.

CARRIED

8. Business for Approval

8.1) Budget vs Revenue and Expenditures for the period ending Nov 30th, 2018

BD-2019-04

4. C. Cowell – M. Hentz

Moved that the Budget vs Revenue and Expenditures for the period ending Nov 30th, 2018 be approved as presented.

CARRIED

8.2) A proposed or pending acquisition or disposal of land by the Authority, In Camera Session

Due to time constraints, the matters relating to the in Camera Session will be presented at the next full Board of Directors meeting.

9. Business for Information

- 9.1) Water Management
- 9.2) Regulations and Planning
- 9.3) Conservation Areas
- 9.4) Conservation Services
- 9.5) Community Relations
- 9.6) Conservation Authority Education
- 9.7) Ska-Nah-Doht Advisory Committee Minutes
- 9.8) Joint Health & Safety Committee Meeting Minutes
- 9.9) Wheatley Two Creeks Association minutes
- 9.10) CAO's Report

BD-2019-05

5. M. Hentz – T. Thompson

Moved that report 9.1) through to 9.10) be received for information.

CARRIED

10. Correspondence

- 10.1) Johnson, Feduk, King Chartered Professional Accountants correspondence to the LTVCA
- 10.2) New Provincial Environment Plan Commits to Working with Conservation Authorities: A Made-in-Ontario Environment Plan
- 10.3) Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan
- 10.4) CO Comments on the "Consultation: Increasing Housing Supply in Ontario"
- 10.5) Chatham This Week: New home builds pushing into historic floodplain
- 10.6) Chatham This Week: Chatham-Kent must take lead on building soil health
- 10.7) Chatham Daily News: Lake Erie shoreline erosion under investigation
- 10.8) Chatham Daily News: Climate change impact part of Lake Erie shoreline study

BD-2019-06

6. C. Cowell – J. Frawley

Moved that correspondence items 10.1) through to 10.8) be received for information.

CARRIED

11. Events Calendar

12. Other Business
None declared.


13. Adjournment


BD-2019-07

7. M. Hentz – R. Leatham

Moved that the meeting be adjourned.

CARRIED


Linda McKinlay
Chair


Mark Peacock, P.Eng.
General Manager/Secretary-Treasurer

5.2) Annual General Meeting, Board of Directors Meeting Minutes – February 21, 2019



Board of Directors Meeting MINUTES

The Annual Meeting of the Lower Thames Valley Conservation Authority's Board of Directors was held at Willson Hall at the University of Guelph Ridgetown Campus at 2:30 P.M. on Thursday, February 21, 2019. The following directors were in attendance: L. McKinlay, T. Thompson, M. Hentz, P. Tiessen, J. Frawley, C. Cowell, S. Emons and R. Leatham. A. Finn, J. Wright, K. Ainslie and J. Brennen sent their regrets.

1. First Nations Acknowledgement

M. Peacock read the First Nations Acknowledgement to the Board of Directors and guests.

2. Call to Order

3. Adoption of Agenda

Motion: AGM-2019-01

1. P. Tiessen – T. Thompson

Moved that the agenda be adopted as presented.

CARRIED

4. Disclosures of Conflicts of Interest

None Declared.

5. Chair's Remarks

The Chair, Linda McKinlay welcomed the new members, staff and guests to the Conservation Authority's 2019 Annual General Meeting.

The Chair welcomed the new Board of Director members present and noted members not able to attend.

In attendance:

Mike Hentz, Municipality of Dutton Dunwich

Paul Tiessen, Municipality of Leamington

Jeannie Frawley, Municipality of Middlesex Centre

Christa Cowell, Municipality of Southwest Middlesex

Sarah Emons, Township of Southwold

Richard Leatham, Municipality of West Elgin

Regrets sent:

Amy Finn, Municipality of Chatham-Kent

John Wright, Municipality of Chatham-Kent

Kimble Ainslie, City of London

John Brennan, Municipality of Strathroy-Caradoc

Returning members:

Trevor Thompson

Linda McKinlay

6. Introduction of Guests

Chair, Linda McKinlay, introduced the guests present at the meeting.

- Dan McKillop, past LTVCA Board of Director member
- Gayle Bogart, past LTVCA Board of Director member
- Allan Bogart, guest
- Hilda MacDonald, Mayor, Municipality of Leamington and past LTVCA Board of Director member
- Stan Caveney, past LTVCA Board of Director member
- Ron Doane, past LTVCA Board of Director member
- John Kavelaars, past LTVCA Board of Director member
- Mrs. Kavelaars, guest
- Bill Bruinink, Ska-Nah-Doht Village Advisory Committee
- Darcy Fallon, Ska-Nah-Doht Village Advisory Committee
- Darrin Canniff, Mayor, Municipality of Chatham-Kent
- Grant Jones, Mayor, Township of Southwold, and KCCA Board Member
- Emma Young, Senior Environmental Officer, Chippewas of the Thames First Nations
- Theodore Albert, Chippewas of the Thames First Nations
- Raechelle Chatterton, Greening Award recipient
- Rick Taves, Wheatley Two Creeks Association, award recipient
- John Cofell, award recipient
- Jennifer Cofell, award recipient
- John Lawrence, award recipient
- Glenn Stotts on behalf of Ron Watts, award recipient
- Kelly Riley, Chippewas of the Thames First Nations, Guest Speaker
- Don Hector, Chatham-Kent Children's Water Festival Coordinator
- Sheila Simpson, Sheila Simpson & Associates
- Jenn Richards, MNRF
- Doriene Cushman, MNRF
- Mark McKinlay, guest

7. Business for Approval

7.1) 2018 Annual Report, present by Ms. Bonnie Carey

Motion: AGM-2019-02

2. C. Cowell – S. Emons

Moved that the LTVCA's 2018 Annual Report be approved as presented.

CARRIED

7.2) 2018 Audited Financial Statements, presented by Ms. Laura Poland

Ms. Laura Poland, representative of Baker Tilly CK, presented the 2018 Audited Financial Statements to the Board of Directors.

Motion: AGM-2019-03

3. M. Hentz – S. Emons

Moved that the LTVCA's 2018 Audited Financial Statements be approved as presented.

CARRIED

7.3) Election of Officers

Motion: AGM-2019-04

4. C. Cowell – P. Tiessen

Moved that Mark Peacock chair the LTVCA's 2019 elections.

CARRIED

Mr. Mark Peacock assumed the chair for the elections and declared all elected offices, positions and appointments vacant and outlined the voting procedures to the Board of Directors.

a) Chair

Mr. Peacock called for nominations for Chair of the LTVCA for 2019.

P. Tiessen nominated L. McKinlay

Mr. Peacock called twice more for nominations. There being no further nominations,

Motion: AGM-2019-05

5. M. Hentz – S. Emons

Moved that nominations be closed.

CARRIED

L. McKinlay was declared to be elected as Chair.

b) Vice-Chair

Mr. Peacock called for nominations for Vice-Chair of the LTVCA for 2019.

L. McKinlay nominated T. Thompson

Mr. Peacock called twice more for nominations. There being no further nominations,

Motion: AGM-2019-06

6. C. Cowell – R. Leatham

Moved that nominations be closed.

CARRIED

T. Thompson was declared to be elected as Vice-Chair.

Mr. Peacock congratulated those elected and turned the chair over to L. McKinlay, the Chair for 2019, to continue with the rest of the elections and meeting.

c) Personnel & Finance/Executive Committee (3 members to be elected)

Chair, L. McKinlay called for nominations to the Personnel & Finance/Executive Committee for 2019.

J. Frawley nominated C. Cowell

L. McKinlay nominated P. Tiessen
L. McKinlay nominated R. Leatham

Chair, L. McKinlay called twice more for nominations. There being no further nominations,

Motion: AGM-2019-07

7. P. Tiessen – S. Emons

Moved that nominations be closed.

CARRIED

C. Cowell, P. Tiessen & R. Leatham were declared members of the Personnel & Finance/Executive Committee.

d) Ska-Nah-Doht Village Advisory Committee (3 members to be elected)

Chair, L. McKinlay called for nominations to the Ska-Nah-Doht Village Advisory Committee for 2019.

C. Cowell nominated J. Frawley
R. Leatham nominated M. Hentz
L. McKinlay nominated S. Emons

Chair, L. McKinlay called twice more for nominations. There being no further nominations,

Motion: AGM-2019-08

8. C. Cowell – R. Leatham

Moved that nominations be closed.

CARRIED

J. Frawley, M. Hentz & S. Emons were declared members of the Ska-Nah-Doht Village Advisory Committee.

e) Ice Management Committee (2 members to be appointed from the Municipality of Chatham-Kent, plus the member from the Town of Lakeshore). Chair and Vice-Chair are ex-officio.

As only one member from the Municipality of Chatham-Kent was present at the time of the appointments, it was decided to delay the appointment of members to the Ice Committee until the next full Board of Directors meeting.

7.4) 2019 Budget and Levy

M. Peacock presented the 2019 Budget and Levy.

Motion: AGM-2019-09

9. C. Cowell – S. Emons

That the non-matching levy of \$1,255,974 be approved and apportioned in accordance with the levy apportionment table. (weighted vote)

A recorded vote followed with all members voting in favour of the motion.

CARRIED

Motion: AGM-2019-10

10. T. Thompson – P. Tiessen

That the 2019 proposed budget totalling \$3,205,524 be adopted as presented, and that the matching levy of \$177,807 and the Chatham-Kent Greening, Natural Heritage and Flood Control Levy of \$205,000 be approved and apportioned in accordance with the table accompanying the budget.

CARRIED

7.5) Appointment of Auditor

Motion: AGM-2019-11

11. R. Leatham – M. Hentz

Moved that the Board of Directors direct staff to undertaking a competitive bidding process to obtain Auditing services for the 2019 fiscal year and provide results of the bids to the Board for its decision at a subsequent board meeting.

CARRIED

7.6) Appointment of Bank

Motion: AGM-2019-12

12. S. Emons – P. Tiessen

Moved that the Canadian Imperial Bank of Commerce be appointed as the Lower Thames Valley Conservation Authority's bank until the next Annual Meeting in February 2020.

CARRIED

7.7) Appointment of Solicitor

Motion: AGM-2019-13

13. S. Emons – M. Hentz

Moved that the firm of Mr. James D. Wickett be appointed the Lower Thames Valley Conservation Authority's solicitor until the next Annual Meeting in February 2020.

CARRIED

7.8) Authorization to Borrow

Motion: AGM-2019-14

14. P. Tiessen – R. Leatham

Moved that the Authority Chair or Vice-Chair and the CAO/Secretary Treasurer be authorized to borrow from the Canadian Imperial Bank of Commerce a sum not to exceed \$300,000 for the Lower Thames Valley Conservation Authority and to be repaid from grants received from the Province of Ontario, Government of Canada, levies assessed the member municipalities and self-generated revenues.

CARRIED

7.9) Appointment to Conservation Ontario

Motion: AGM-2019-15

15. C. Cowell – S. Emons

Moved that the Chair be appointed as Voting Representative; and CAO / Secretary-Treasurer as first Alternative to Conservation Ontario council.

CARRIED

7.10) 2019 Board of Directors Meeting Schedule

Thursday, April 18, 2019 – 2:00-4:00 pm, Administration Board Room
Thursday, June 13, 2019 – 2:00-4:00 pm, Administration Board Room
Thursday, August 22, 2019 – 2:00-4:00 pm, Administration Board Room
Thursday, October 17, 2019 – 2:00-4:00 pm, Administration Board Room
Thursday, December 12, 2019 – 2:00-4:00 pm, Administration Board Room
Thursday, February 20, 2020 – 2:00-4:00 pm, Willson Hall, University of Guelph Ridgetown Campus

Motion: AGM-2019-16

16. C. Cowell – J. Frawley

Moved that the meeting schedule for 2019 and the Annual General Meeting for 2020 be endorsed as amended.

CARRIED

8. Other Business

None declared.

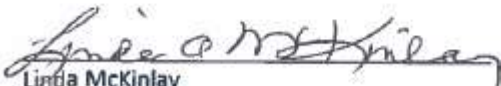
9. Adjournment


Motion: AGM-2019-17

17. T. Thompson – S. Emons

Moved that the meeting be adjourned.

CARRIED


Linda McKinlay
Chair


Mark Peacock, P.Eng.
CAO/Secretary-Treasurer

7. Presentations

7.1) Customer Service Presentation

Mark Peacock will be providing the Board of Directors with a power point presentation on the Authority's Customer Service Policy.

7.2) Public Safety Assessments and Plans for LTVCA Water Management Structures

Mark Peacock will be providing a power point presentation on the Public Safety Assessments and Plans for LTVCA Water Management Structures.

7.3) Flood Control Structures and Operations – Training Session No. 1

Jason Wintermute will be providing a power point presentation on the LTVCA's Flood Control Structures and Operations.

8. Business for Approval

8.1) Election of members to the Ice Committee

- a) Ice Management Committee (2 members to be appointed from the Municipality of Chatham-Kent, plus the member from the Town of Lakeshore). Chair and Vice-Chair are ex-officio.

As only one member from the Municipality of Chatham-Kent was present at the time of the appointments at the Annual General Meeting, it was decided to delay the appointment of members to the Ice Committee until the next full Board of Directors meeting.

Mr. Peacock called for nominations to the Ice Management Committee for 2019.

nominated
nominated

Mr. Peacock called twice more for nominations. There being no further nominations:

1. —

Moved that the following members be appointed to the Ice Management Committee:

&

8.2) Public Safety Review: LTVCA Dams

Date: December 13, 2018
Memo to: LTVCA Board of Directors
Subject: Public Safety Around LTVCA Dams
From: Mark Peacock, P. Eng. C.A.O. / Secretary Treasurer

Public Safety around LTVCA Dams

The Ministry of Natural Resources and Forestry has prepared a best management practices guideline to provide dam owners with guidance on the identification of public safety hazards associated with a dam, and the measures that can be taken by the owner to either eliminate or mitigate these hazards.

Addressing public safety around dams requires addressing both the physical structure and the dam's operation, particularly as it relates to discharging water. This includes associated upstream and downstream hazardous conditions resulting from the discharge of water.

Public safety measures implemented to eliminate or mitigate the public's exposure to hazards include physical barriers, operating controls, warning systems, signage as well as initiatives designed to raise public awareness and understanding of the potential hazards.

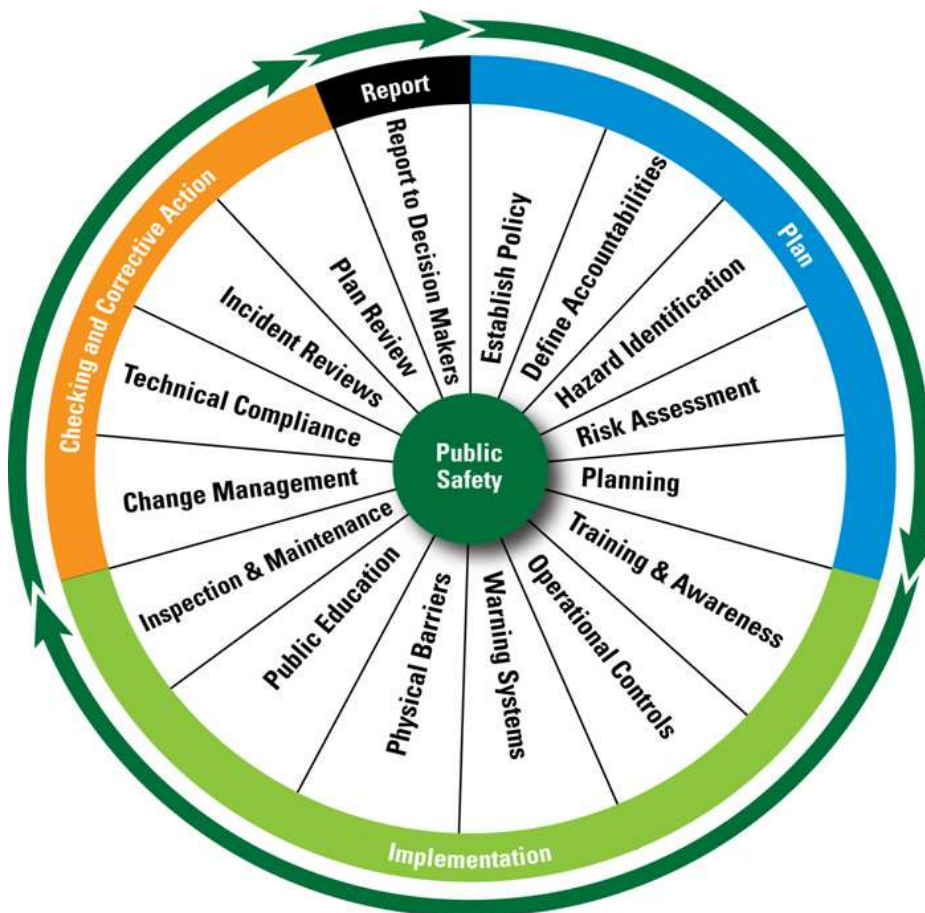
Dam safety has traditionally been associated with protecting the public from catastrophic failure resulting from unusual loading conditions and extreme events. However, an important aspect in meeting the principles regarding the safe management of dams throughout their life cycle is to guard the public from hazards associated with the dam and its operations.

Dam owners and operators should be aware of both known and potentially significant public safety hazards associated with these structures, their operation and how it impacts the surrounding area. Once these hazards have been identified, public safety measures, commensurate with the potential hazard, should be taken to either eliminate or mitigate the hazard.

The Dam owner (the LTVCA) is responsible for the safe operation and maintenance of LTVCA dams. Part of safe operation and maintenance is a responsibility to implement appropriate public safety measures to address potential exposure to hazards created by the dam and its operation.

The Public Safety Wheel

The LTVCA has adopted a managed system approach to address the potential hazards to the public that are associated with dams and their operations. The ‘Public Safety Wheel’ (Canadian Dam Association - Dam Safety Guidelines: Public Safety Around Dams Technical Bulletin), Figure 1 illustrates the elements of public safety management that involves planning, implementing, checking, revising and reporting. In adopting such an approach, the LTVCA has built into its management systems a cyclical process that insures follow up to any public safety issues. As part of the process, the LTVCA will undertake a routine review of the hazards and the measures taken to safe guard the public. This review is entitled the Public Safety Assessment.



Public Safety Assessment

The Lower Thames Valley Conservation Authority has undertaken a formal Public Safety Assessment (PSA) of the Sixth street Dam, the Sharon Creek Dam and the Rivard’s Diversion Dam and their appurtenant facilities. Only minor public safety issues were found at the Sixth Street and Rivard’s Diversion Dam. There were a few more significant issues found at the Sharon Creek Dam.

Results of Public Safety Assessments:

Rivard / Diversion Channel Dam – one minor hazard defined

Hazard #1

- No warning signage to the public at the dam's entrance gate and at safety railings

Action/ safety measure:

- Warning signage must be installed at the entrance gate and at railings

Assessment Recommendations

Based on field observations, it is concluded that there is no need for a Public Safety Plan to be prepared for the Rivard's Dam as there is limited public activity there and limited hazards.

Sixth Street Dam – five minor hazards defined

Hazard #1

- Fall hazard from dam walkway

Action/ safety measure:

- Proper guard railing is in place which is in compliance with Ontario Building Code – O. Reg. 332/12 9.8.8.5. Hence, no action is required

Hazard #2

- Fall hazard from stream banks

Action/ safety measure:

- Signage to warn public of the potential risk

Hazard #3

- Danger to boats and swimmers at dam inlets during pumping

Action/ safety measure:

- Signage at dam

Hazard #4

- Raised water upstream during a flood-event

Action/ safety measure:

- Signage at dam

Hazard #5

- Swift currents during pumping

Action/ safety measure:

- Signage at dam

Assessment Recommendations:

Since the safety measures required at the Sixth Street Dam for public safety are minor, it is recommended that there is no need for a Public Safety Plan to be prepared for the Sixth Street dam in order to address the identified hazards.

Sharon Dam – four hazards defined

The hazards associated with the design of the Sharon Creek Dam are:

Hazard #1

- Vertical fall (more than 3 meters) from the culvert of the emergency spillway

Action/ safety measure:

- Replace inadequate railings at emergency spillway – in 2019 budget

Hazard #2

- Vertical fall (more than 3 meters) from the wing walls at the stilling basin

Action/ safety measure:

- Replace inadequate railings at stilling basin – in 2019 budget

Hazard #3

- Vertical fall through the Morning Glory spillway

Action/ safety measure:

- Replace inadequate hazard signage with Canadian Dam Safety Association Approved Signage – completed in 2018

Hazard # 4

- Swift currents at the stilling basin may cause hydraulic jump during periods of high flow

Action/ safety measure:

- Replace inadequate railings at stilling basin – in 2019 budget

Assessment Recommendations

Due to the major hazards identified, a Public Safety Plan was recommended and prepared for the Sharon Creek dam in order to address the identified hazards, the results of which are shown above.

I would like to acknowledge the work of volunteer Engineer in Training Sarbjit (Tony) Singh in completing these Public Safety Reviews.

Recommendation:

That the LTVCA Board of Directors approve the Public Safety Assessments for the Rivard/Diversion Dam, Sixth Street Dam and Sharon Creek Dam. And additionally;

That the LTVCA Board approve the Sharon Creek Dam Public Safety Plan.

8.3) Budget vs Revenue and Expenditures for the period ending February 28, 2019

Background:

Review the 2019 Budget to the Revenue and Expenditures for the 2 months ended February 28th, 2019.

Current Situation and Discussion:

REVENUE	2019 BUDGET	2019 BUDGET FEB PROJECTED	2019 ACTUAL TO FEB 28	\$ VARIANCE TO PROJECTED
GRANTS	939,253	156,542 *	466,080	309,538
GENERAL LEVY	1,433,781	1,433,781 ^	1,191,443	(242,338)
DIRECT SPECIAL BENEFIT	205,000	205,000 ^	205,000	0
GENERAL REVENUES	627,490	104,582 *	22,401	(82,181)
FOUNDATION GRANTS & REVENUES	0	0 *	0	0
RESERVES	0	0 *	0	0
CASH FUNDING	3,205,524	1,899,905	1,884,924	(14,981)
OTHER	0	0	0	0
TOTAL FUNDING	3,205,524	1,899,905	1,884,924	(14,981)

*-based on a 2 of 12 month proration of the budget

^-based on cash received to April 9th, 2019

Grant income is greater than budget due to the reversal of deferred revenue for on-going programs and the timing of grants invoiced, including several large grants for Wetland projects.

Note: Grant income is based on funds received/invoiced and not matched to expenses, meaning there may be expenses outstanding and not recognized in the attached expense statement. At year-end, each grant is reviewed individually and unspent funds are reduced from grant income and deferred for future expenditures.

Levy revenue is shown on a cash basis. The following municipalities are paid in full as of April 9th, 2019: Chatham-Kent, Lakeshore, Leamington, London, Middlesex Centre and Southwold.

General Revenue is below budget due to the following factors:

- Conservation Area revenues; Conservation Education and SKA-NAH-DOHT Village revenues; and Conservation Services and the Chatham Kent Greening Project are lower as most activities and income are received later in the spring and into summer. This is partially off-set by Planning & Regulations being above budget.

Foundation Grants and Revenues are below budget as there is normally a settlement for the memorial tree programs at the end of the year.

Reserves are zero as this account is used to balance the accounts at year-end if expenses are greater than revenues.

EXPENSES	2019 BUDGET	2019 BUDGET FEB PROJECTED	2019 ACTUAL TO FEB 28	\$ VARIANCE TO PROJECTED
WATER MANAGEMENT				
FLOOD CONTROL STRUCTURES	212,371	35,395	28,059	(7,336)
EROSION CONTROL STRUCTURES	11	2	5	3
FLOOD FORECASTING AND WARNING	162,935	27,156	49,170	22,014
TECHNICAL STUDIES	76,535	12,756	2,475	(10,281)
PLANNING & REGULATIONS	238,056	39,676	29,002	(10,674)
WATERSHED MONITORING (PGMN)	137,336	22,889	1,562	(21,327)
SOURCE PROTECTION	26,892	4,482	5,720	1,238
THAMES MOUTH DEBRIS REMOVAL	0	0	0	0
Water Management Subtotal	854,136	142,356	115,993	(26,363)
CONSERVATION & RECREATION PROPERTIES				
CONSERVATION AREAS	745,144	124,191	87,216	(36,975)
COMMUNITY RELATIONS AND EDUCATION				
COMMUNITY RELATIONS	176,815	29,469	29,014	(455)
CONSERVATION EDUCATION	100,066	16,678	15,067	(1,611)
SKA-NAH-DOHT VILLAGE	206,843	34,474	25,699	(8,775)
Community Relations & Education Subtotal	483,724	80,621	69,780	(10,841)
CONSERVATION SERVICES/STEWARDSHIP				
CONSERVATION SERVICES (FORESTRY)	102,892	17,149	6,510	(10,639)
CHATHAM-KENT GREENING PROJECT	628,839	104,807	22,155	(82,652)
PHOSPHORUS REDUCTION	334,509	55,752	121,826	66,074
SPECIES AT RISK	56,278	9,380	18,586	9,206
Conservation Services/Stewardship Subtotal	1,122,518	187,088	169,077	(18,011)
CAPITAL/MISCELLANEOUS				
ADMINISTRATION BUILDING	0	0	0	0
REPAIRS/UPGRADES	0	0	0	0
UNION GAS CENTENNIAL PROJECT	0	0	0	0
EMPLOYMENT PROGRAMS (FED/PROV)	0	0	0	0
Capital/Miscellaneous Subtotal	0	0	0	0
TOTAL EXPENDITURES	3,205,522	534,256	442,066	(92,190)

Water Management

Flood Control Structures and Erosion Control Structures are below budget as most large projects are performed during the summer months but slightly offset due to the expenses incurred from the February flood.

Flood Forecasting and Warning expenses are above budget due to the costs and human resources required for the February flood.

Technical Studies are below budget due to the timing of hiring a GIS technician and his time charged to Species at Risk to complete the grant requirements of that program.

Planning and Regulations are below budget due to the February flood event and staff time spent responding to the flood.

Watershed Monitoring is below budget due to the staff time being spent on other programs and waiting on further funding for this program.

Source Protection is above budget due increased activity to complete work before the provincial year-end.

Conservation Areas

Conservation area expenses are below budget as most large projects, operation of the campgrounds and other large operational costs are incurred during the summer months.

Community Relations and Education

Conservation Education and SKA-NAH-DOHT Museum and Village are below budget due to the seasonal nature of large activities in these programs. Community Relations is comparable to budget.

Conservation Services/Stewardship

Conservation Services (Forestry) and Chatham-Kent Greening expenses are below budget as most activities and related expenses are completed during the spring and summer months.

Phosphorous Reduction is above budget due mostly to one transfer payment of \$45k to the University of Waterloo for research services performed and wages and expenses related to an Environment Canada and Canadian Adaptation Council grant received after the budget was created and not reflected in the budget.

Species at Risk is above budget due to the wages of the GIS Technician required to complete the project for the program ending Mar 31 and only 6 months of the program being budgeted for with the allocation over 12 months. Budget spent to fully utilize grant funding.

Capital/Miscellaneous

No Capital/Miscellaneous expenses to date.

Summary:

	2019 BUDGET	2019 BUDGET FEB PROJECTED	2019 ACTUAL TO FEB 28	\$ VARIANCE TO PROJECTED
TOTAL CASH FUNDING	3,205,524	1,899,905	1,884,924	(14,981)
TOTAL EXPENDITURES	3,205,522	534,256	442,066	(92,190)
OPERATING SURPLUS (DEFICIT)	2	1,365,649	1,442,858	77,209
LESS: ACQUISITION OF CAPITAL ASSET	0	0	0	0
NET CASH FUNDING SURPLUS (DEFICIT)	2	1,365,649	1,442,858	77,209

Note: The difference between the projected budget funding and projected budget expenditures is due to the recognition of the full General Levy and Special Levy versus all other income and expenses are prorated for the period.

At February 28th, 2019, LTVCA's operating surplus is slightly more favourable than the projected budget as more grants have been received than budgeted and by less expenditures compared to budget due to the seasonal nature of a large amount of the Conservation Authorities expenses. This is slightly off-set by some outstanding levy funds not collected.

Recommendation: That the Board of Directors receives the Budget vs Revenue and Expenditures report for the period ended February 28th, 2019.

8.4) Change in meeting date – Bus Tour

At the annual meeting, the Board of Directors reviewed proposed meeting dates for 2019 and the 2020 Annual General Meeting. It is recommended that the June meeting date be changed to June 27th and be a full day, with a combined bus tour in the morning and meeting to follow in the afternoon, to be held in the eastern jurisdiction of the LTVCA watershed. The tour will include projects and initiatives undertaken by landowners and staff, conservation areas, with a lunch provided prior to the meeting.

Recommendation: That the Board of Directors approve the changes to the June meeting location with a bus tour prior to the meeting.

8.5) A proposed or pending acquisition or disposal of land by the Authority, In Camera Session

1. –

Moved that the Board of Directors meet 'in camera'.

CARRIED

2. –

Moved that the Board of Directors move out of the 'in camera' session.

CARRIED

3. –

Moved that

CARRIED

9. Business for Information

9.1) Water Management

9.1.1) *Lake Erie Action Plan*

The Canada Ontario Lake Erie Action Plan (Official Title: Partnering on Achieving Phosphorus Loading Reductions to Lake Erie from Canadian Sources) was released in February 2018. Under Category E: Strengthen leadership and co-ordinate, E2: Establish an adaptive management framework and governance structure for implementation, the governments of Canada and Ontario committed that “Canada and Ontario will build on existing governance structures to ensure partner participation in the implementation of the action plan. Parties identified in the plan will work together to develop a workplan by February 2019 that establishes timelines for actions and expected phosphorus reductions (as applicable), identifies lead agencies, and determines the investment required”. Those ‘parties identified in the plan’ convened in mid-January to restart this process after the change in provincial government. This group is being referred to as the Implementation Team and is made up of any group that put a commitment into the Plan, and includes the LTVCA. The parties have been asked to enumerate their activities over the last year related to the commitments, including how much money was spent and estimates of phosphorous reductions. Given the long history of Conservation Authority involvement in such programs, CA’s were asked to compile their data all the way back to 2008 (the baseline year against which phosphorous reductions are measured). The parties were also asked to project forward to 2023 their anticipated activities related to the commitments from already secured funding as well as additional resources they anticipate needing. This is a substantial effort that has taken longer than expected. Moving forward, this Implementation Team is expected to be the mechanism to create the broader work plan, as well as reporting on progress towards the commitments.

9.1.2) *Flood Forecasting and Operations*

There have been seven Watershed Condition Statements issued since the last Board of Directors Agenda was drafted. Five of these messages were Safety Bulletins, one for the Lake Erie shoreline, three for high water levels on the Thames River and local watercourses, and the fifth a message addressing both areas. The other two messages were Flood Outlooks for high water on the Thames River.

The first shoreline event on February 23rd to the 25th, was predicted to have very high winds with sustained speeds of 70 km/hr and gusts up to 110 km/hr. This would almost certainly have caused flooding and erosion issues along the lakeshore. However, the lake ice did not really break up and as a result there was little wave action to cause damage. The second event on March 30th called for winds and waves only slightly above the thresholds that have caused issues down on Erie Shore Drive the last few years. Staff were unable to get out and investigate to see if there were any damages for this event.

The messages issued for potential flooding on local watercourses and the Thames River were fairly typical spring high water level type messages. The first message on February 23rd addressed the fact that the ice jam was still in place at Lighthouse Cove. By the time the next message was issued on March 8th, the ice jam had largely disappeared, but 5-10 cm of new ice had formed on the river. Rainfall forecasts were calling for enough rain to operate the Indian- McGregor Diversion, but in the end, there wasn’t that much rain. By the time of the next heavy rainfall on the 14th, the Thames River had lost its ice cover and the snow was pretty much all gone from the Lower Thames. There was enough rain and snowmelt from the Upper Thames to put water in the Thames River flats. The last event was on March 30th, there was a Rainfall Warning issued by Environment Canada. There wasn’t enough rain to have to operate the Diversion Channel, but the Thames River rose enough to cover the sidewalk in downtown Chatham.

9.1.3) Water Control Structures

There have been continuing delays in getting the LTVCA rain gauge network back up and running. Currently only one of the 5 gauges is operational. Conservation Areas staff are now assisting to resolve the issue.

The Municipality of Chatham-Kent recently received a large Disaster Mitigation and Adaptation Fund grant from Infrastructure Canada, which included money directed at some of the LTVCA's flood control infrastructure in the municipality. The LTVCA will also be submitting applications to the Water and Erosion Control Infrastructure (WECI) grant from the MNRF for these projects as well as a safety railing replacement at Sharon Creek Dam. There is expected to be significant efforts directed towards the LTVCA's flood control infrastructure over the next few years.

9.1.4) Low Water Response Program

During the spring, summer and autumn, brief reports outlining the watershed conditions as they relate to the Low Water Response Program are created by LTVCA staff. During the winter, as demand for water across the watershed is significantly less, these reports are not created. However, the Ministry of Natural Resources and Forestry does broad screening throughout the province all year long for the program. Based on that screening, the Lower Thames watershed was not in any type of low water condition.

9.1.5) Watershed Monitoring

Surface water quality monitoring continues at 22 sites throughout the watershed. The Provincial (Stream) Water Quality Monitoring Network (PWQMN) program starts in April, so samples from 8 of those sites will be sent to the MECP to be analysed each month. The provincial pesticides sampling program will also continue this year but full details have yet to be worked out.

The LTVCA will be partnering again this year with the University of Windsor for benthic sampling in the watershed. The research will provide guidance and recommendations on benthic sampling procedures for southwestern Ontario, especially the clay plains in Chatham-Kent and Essex. The research is expected to be published later this year. Conservation Authorities have yet to hear back with regards to the Canada-Ontario Agreement (COA) on Great Lakes Water Quality and Ecosystem Health grant programs that have been assisting in funding watershed monitoring and research.

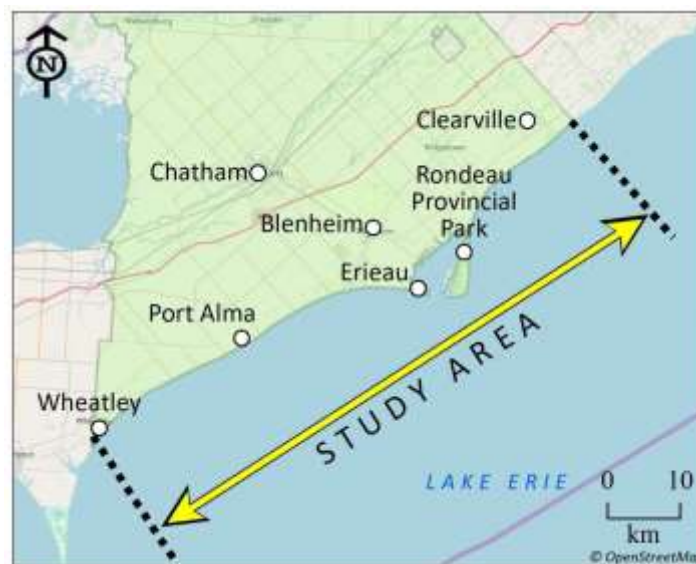
9.2) Regulations and Planning

9.2.1) Chatham-Kent Shoreline Management Study

The Coastal Management study within the Municipality of Chatham-Kent is moving to the next stage which is public pre-consultation. A meeting will be held on April 10, 2019 from 2:00 pm until 4:00 pm and from 6:00 pm until 8:00 pm to be held at the Erieau Fire Station #14, in the Multi-Purpose Room in the community of Erieau. Chatham-Kent has also included a live link on their let's talk Chatham-Kent website <https://www.letstalkchatham-kent.ca/> to increase public input into this community process (**Attachment #1**). This site will have several surveys over the course of the study, with the first survey now live, with a deadline for input on April 30th, 2019. Subsequent surveys will follow as the project moves forward.

Attachment #1

Chatham-Kent Lake Erie Shoreline Study



Learn about the Chatham-Kent Lake Erie Shoreline Study

The study area stretches from Wheatley in the southwest to Clearville in the northeast and includes Rondeau Bay. This stretch of Lake Erie shoreline is approximately 90 km in length. Refer to the map. A first for the Canadian Great Lakes region, this study explores the influence of climate change on future coastal hazards due to changes in storms and ice cover and the associated challenges for the coastal communities of Chatham-Kent. The Municipality with the Lower Thames Valley Conservation Authority and researchers from Zuzek Inc. and the University of Waterloo are collaborating on the study. Our goal is to increase the resilience of the Chatham-Kent community through the development of short- and long-term solutions to the existing coastal hazards and associated challenges.

What are we studying?

First, we are modelling the influence of climate change on future ice cover conditions on Lake Erie and changes to severe coastal storms and waves. We are comparing the projected future storm surge and wave exposure with the current threats to the shoreline communities, infrastructure, natural areas, and beaches. This work will be completed by the end of April 2019.

Next, we will work with the community throughout 2019 to evaluate existing shoreline challenges and emerging threats due to climate change, such as at-risk road infrastructure, flooded communities, threatened buildings due to shoreline erosion, and beach erosion and sedimentation at the navigation channel to Rondeau Bay. Together we will co-create solutions to these challenges and long-term climate change adaptations for the hazards impacting our shoreline.

How can I participate?

You can follow the progress of the study from this webpage: <https://www.letstalkchatham-kent.ca/chatham-kent-lake-erie-shoreline-study> We will post reports and meeting notifications.

Next Steps

Join us at upcoming meetings where we will discuss our emerging results. Bring your community knowledge and work with technical experts to learn about coastal hazards and climate change adaptation planning. Identify our most vulnerable infrastructure, coastal areas, and ecosystems, and work to co-create solutions that increase the resilience of our community to coastal storms.

Vulnerability Assessment Meeting

Second Meeting: June 2019 (date and location to be confirmed)

Study Resources

Chatham-Kent Lake Erie Shoreline Study, Study Overview, January 21, 2019

https://www.letstalkchatham-kent.ca/chatham-kent-lake-erie-shoreline-study/survey_tools/2019-budget-survey1

9.2.2) Secondary Plan for Lighthouse Cove, Town of Lakeshore

Lighthouse Cove has a history of flooding during severe ice jam events at the mouth of the Thames River. Approximately every 25 years a major flood event will occur where spring flows move ice to the mouth of the river forming an ice dam. Less severe flood events occur approximately every 10 years. During these events, water backs up from the ice dam and flows through the community. The depth of this water at times has exceeded the depth that is needed to safely access homes in the community creating unsafe ingress and egress. The Province of Ontario requires communities to have safe ingress and egress in order to enable continued development.

In order to properly scope work to mitigate future flooding of the community and provide safe ingress and egress, a Natural Hazards Study is required to be undertaken.

The National Disaster Mitigation Program (NDMP) is a federal program that provides funding for flood mitigation projects. Projects can address any type of flood risk, such as riverine or urban flooding. Under this program, Public Safety Canada can fund up to 50% of project costs, to a maximum of \$1.5 million in federal funding per project.

The administration of the Town of Lakeshore has been working with the Lower Thames Valley Conservation Authority on this initiative and recommended that Council support pursuing the NDMP grant and submit a proposal to undertake a Natural Hazards Study for Lighthouse Cove. The Study's objective would be to investigate and develop alternatives to provide safe ingress and egress, review possible infrastructure solutions to convey flood waters around the community, and provide emergency response recommendations that would be included in an Emergency Management and Response Plan for Lighthouse Cove.

Administration sought Council approval to consider supporting the advancement of a Secondary Plan for Lighthouse Cove to address a number of emergent issues i.e. community access under flood conditions, servicing, transportation, etc., as a result of change to the law. The opportunity provided by the NDMP grant is aligned to strongly support the technical background work of the Secondary Plan and represents a prime external funding source for the Town in undertaking this work.

The Town of Lakeshores grant submission was successful and the Secondary Plan will move forward. Authority staff have met on several occasions with staff from the Town of Lakeshore on the secondary planning for Lighthouse Cove that is subject to lake related hazards along the Lake St. Clair shoreline.

9.2.3) Planning and Regulations

Planning

From the first of January through to the end of March, there have been 69 planning submissions reviewed by staff with respect to Section 28 of the Conservation Authorities Act and Ontario Regulation 152/06. There have also been 192 responses to telephone inquiries and a further 98 inquiries through email that staff have responded to.

Planning Numbers	2017 totals	2018 totals	2019 Jan-Mar totals
Chatham-Kent	227	185	30
Elgin	86	94	12
Essex	29	58	5
Middlesex	57	55	12
Total Numbers	399	328	69

Shrewsbury Open House Meeting

On April 3, 2019, regulations staff participated in an open house put on by the Shrewsbury Community Association. The open house was specific to clarifying regulations in and around Rondeau Bay and included communities such as Shrewsbury, Eriau, Rondeau, and Rondeau Bay Estates. Fisheries and Oceans Canada and the LTVCA provided information on each of our mandates and regulations in the area which was followed by a question and answer period. Unfortunately, the provincial agencies and municipal staff were not able to attend and participate. It was standing room only in the community hall with an estimated 50 to 100 people in attendance. Our vice chair, Trevor Thompson, was in attendance as well as two other Chatham-Kent councilors from that ward.

Permitting

Since the last board update on 21 February 2019 and up to and including 31 March 2019, staff had received an additional 60 permit applications with respect to Section 28 of the Conservation Authorities Act and Ontario Regulation 152/06. Of the 141 permit applications received in the first three months of 2019, all but 18 had been approved by staff. Two of those 18 applications will require Hearings in front of the Executive Committee and the remaining 16 had yet to be processed. Of the 60 additional permit applications received, 17 of the properties required surveying services from the LTVCA for flood proofing requirements.

The table below summarizes the municipality of origin for Section 28 permit applications over the last four years and what we have received in the first three months of 2019. It is almost assuredly going to be the fourth year in a row that records are broken for number of permit applications received, reviewed, and processed.

Municipality	Year				2019 (Up to March 31 st)
	2015	2016	2017	2018	
Chatham-Kent	128	160	179	190	111
Dutton Dunwich	15	27	8	16	3
Lakeshore	16	40	45	32	13
Leamington	3	3	6	6	1
London	0	0	0	0	0
Middlesex Centre	0	4	7	2	0
Southwest Middlesex	10	7	6	14	4
Southwold	10	6	5	7	1
Strathroy-Caradoc	3	3	3	2	0
West Elgin	9	18	12	18	8
Totals	194	268	271	287	141

Below are some Section 28 Permitting statistics for 2019:

- One habitat/stewardship project in a LTVCA regulated area has been received and approved with its fee waived;
- 78 properties were surveyed for permit and official plan flood proofing requirements;
- 79% of all applications were within Chatham-Kent and 9% were within Lakeshore;
- 65% of the applications were for private property owners for projects such as construction or modification of structures, shoreline protection repairs, and/or bank alterations;
- 29% of applications were for municipal projects (drainage or infrastructure); and,
- Total of permit application fees = \$29,900.00 (average of \$212.06 per permit).

Permit Processing Timelines

From the date of written confirmation of a complete application, conservation authorities are to make a decision (i.e. recommendation to approve or referred to a Hearing) with respect to a permit application and pursuant to the Conservation Authorities Act within 30 days for a minor application and 90 days for a major application. If a decision has not been rendered by the conservation authority within the appropriate timeframe, the applicant can submit a request for administrative review by the CAO and then, if not satisfied, by the LTVCA's Board of Directors. The below table documents the average number of days it takes staff to issue a permit to the applicant from the day the application is first received and from the day a "complete" application is received. Data is from 2015 and up to 31 March 2019.

	Year				2019 (Up to March 31 st)
	2015	2016	2017	2018	
Average # of Days to Review Since a Partial Application is Received	26	11	7	13	26
Average # of Days to Review Since a Complete Application is Received	17	5	5	9	20

The above table indicates that application review and processing times between 2015 and 2016 have decreased which is generally attributed to the changing roles and responsibilities of the Regulations Technician, a change in personnel, and the hiring of a Water Quality Specialist. Since 2016, the # of days to process a permit has been increasing which is generally attributed to the fact that the number of permit applications received by this office has continually been increasing year after year (more volume to review and process). Thus far in 2019, the turnaround time for permits ranges between 0 days and 38 days from receipt of a complete application with the average being 20 days.

Property Inquiries

During the first three months of 2019, 296 property inquiries have been received and responded to by the Regulations Technician. Some of the reasons that staff receive property inquiries include:

- Realtors looking to sell a property and wanting to know any potential restrictions for future buyers.
- People purchasing property who want to know more about the site-specific hazards and regulations.
- Landowners wanting to learn about best management practices specific to their property.
- Landowners wanting specific information on what is permitted in regulated areas.
- Insurance companies looking for floodplain information.
- Municipal staff or utility companies planning future projects.

9.2.4) Section 28 Enforcement

In the first three months of 2019, 5 new complaints / tips were received from the public about possible Section 28 enforcement issues. Four of the issues are violations of the Conservation Authorities Act and Ontario Regulation 152/06 with one of those issues being resolved through a Violation Clearance Permit. On-going enforcement issues from 2016, 2017, and 2018 were also monitored and continue to be dealt with. LTVCA staff continue to work towards the rehabilitation of the wetland involved in the 2016 court case with meetings with the defendant's lawyer, agent, and consultants.

9.2.5) O.Reg. 152/06 Permit Applications

Staff Report

O.Reg. 152/06 Permit Applications
(Up to 31 March 2019)

B.D. 04/18/19

APP#	LOCATION	COMMUNITY/ TOWNSHIP	MUNICIPALITY	APP'N TYPE	DECISION
001-2019	515 Markham Drive	Lighthouse Cove	Lakeshore	Construction	Granted: Jan 07, 2019
002-2019	11974 Rose Beach Line	Howard	Chatham-Kent	Construction	Granted: Jan 08, 2019
003-2019	32 Hart Place	Chatham	Chatham-Kent	Construction	Granted: Jan 08, 2019
004-2019	34 Tuscany Trail	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
005-2019	42 Tuscany Trail	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
006-2019	46 Tuscany Trail	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
007-2019	50 Tuscany Trail	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
008-2019	54 Tuscany Trail	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
009-2019	25 Renaissance Place	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
010-2019	30 Renaissance Place	Chatham	Chatham-Kent	Construction	Granted: Jan 07, 2019
011-2019	1 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
012-2019	2 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
013-2019	5 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
014-2019	6 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
015-2019	9 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
016-2019	10 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
017-2019	13 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
018-2019	14 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
019-2019	17 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
020-2019	18 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
021-2019	21 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
022-2019	22 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
023-2019	25 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
024-2019	26 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
025-2019	29 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
026-2019	30 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 17, 2019
027-2019	33 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
028-2019	34 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
029-2019	37 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
030-2019	38 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
031-2019	41 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
032-2019	42 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
033-2019	45 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
034-2019	46 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
035-2019	49 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
036-2019	50 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
037-2019	53 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
038-2019	54 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
039-2019	57 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
040-2019	58 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
041-2019	61 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
042-2019	62 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
043-2019	65 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
044-2019	66 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019

APP#	LOCATION	COMMUNITY/ TOWNSHIP	MUNICIPALITY	APP'N TYPE	DECISION
045-2019	69 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
046-2019	70 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
047-2019	73 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
048-2019	74 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
049-2019	77 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
050-2019	78 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
051-2019	81 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
052-2019	82 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
053-2019	85 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
054-2019	86 Bordeaux Place	Chatham	Chatham-Kent	Construction	Granted: Jan 18, 2019
055-2019	4391 Tecumseh Line	Jeannettes Creek	Chatham-Kent	Construction	Granted: Jan 07, 2019
056-2019	5555 Tecumseh Line	Raleigh	Chatham-Kent	Construction	Granted: Jan 08, 2019
057-2019	Bachand Drain	Dover	Chatham-Kent	Alteration	Granted: Jan 03, 2019
058-2019	Buchanan Fenner - Fenner Branch	Tilbury West	Lakeshore	Alteration	Granted: Jan 03, 2019
059-2019	19242 Lakeside Drive (Lighthouse Inn)	Lighthouse Cove	Lakeshore	Construction	Granted: Jan 09, 2019
060-2019	Wheatley Road and Campbell Sideroad Drain	Romney	Chatham-Kent	Alteration	Granted: Jan 31, 2019
061-2019	Locke Drain	Harwich	Chatham-Kent	Alteration	Granted: Jan 10, 2019
062-2019	20854 Cemetery Road	Romney	Chatham-Kent	Alteration	Granted: Jan 10, 2019
063-2019	300 Grand Avenue West	Chatham	Chatham-Kent	Construction	Granted: Jan 11, 2019
064-2019	17982 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: Jan 17, 2019
065-2019	17992 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: Jan 17, 2019
066-2019	McGeachy Pond Conservation Area	Erie Shore Drive	Chatham-Kent	Alteration	Granted: Jan 17, 2019
067-2019	27941 Park Drive	Duttona Beach	Dutton Dunwich	Construction	Granted: Jan 18, 2019
068-2019	20860 Cemetery Road	Romney	Chatham-Kent	Alteration	Granted: Jan 18, 2019
069-2019	19155 Lightcove Avenue	Lighthouse Cove	Lakeshore	Construction	Granted: Jan 18, 2019
070-2019	Government No. 2 Drain	Ekfrid	Southwest Middlesex	Alteration	Granted: Jan 18, 2019
071-2019	Carter Drain	Raleigh	Chatham-Kent	Alteration	Granted: Jan 21, 2019
072-2019	Symon Drain	Raleigh	Chatham-Kent	Alteration	Granted: Jan 21, 2019
073-2019	Fischer Drain	Aldborough	West Elgin	Alteration	Granted: Jan 25, 2019
074-2019	18268 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: Jan 25, 2019
075-2019	87 Wellington Street	Shrewsbury	Chatham-Kent	Alteration	Granted: Jan 29, 2019
076-2019	17560 Melody Drive	Lighthouse Cove	Lakeshore	Construction	Granted: Jan 29, 2019
077-2019	Horton Drain, South of Shedden	Shedden	Southwold	Construction	Granted: Jan 30, 2019
078-2019	6 Indian Creek Road West	Chatham	Chatham-Kent	Construction	Granted: Jan 30, 2019
079-2019	Brush-Sandison Drain	Raleigh	Chatham-Kent	Alteration	Granted: Jan 30, 2019
080-2019	Blackburn Drain	Chatham	Chatham-Kent	Alteration	Granted: Jan 30, 2019
081-2019	17400 Melody Drive	Lighthouse Cove	Lakeshore	Construction	Granted: Jan 31, 2019
082-2019	Leibner Drain	Aldborough	West Elgin	Alteration	Granted: Feb 20, 2019
083-2019	Redinger Drain	Aldborough	West Elgin	Alteration	Granted: Feb 20, 2019
084-2019	Bonn Drain	Aldborough	West Elgin	Alteration	Granted: Feb 20, 2019
085-2019	Nichol Drain	Harwich	Chatham-Kent	Alteration	Granted: Feb 12, 2019
086-2019	Lucas Drain	Harwich	Chatham-Kent	Alteration	Granted: Feb 12, 2019
087-2019	Sample Drain	Harwich	Chatham-Kent	Alteration	Granted: Feb 12, 2019
088-2019	19250 Lakeside Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: Feb 20, 2019
089-2019	6694 Grande River Line	Dover	Chatham-Kent	Construction	Granted: Feb 20, 2019

APP#	LOCATION	COMMUNITY/ TOWNSHIP	MUNICIPALITY	APP'N TYPE	DECISION
090-2019	Damphouse Drain and Branches	Tilbury West	Lakeshore	Alteration	Granted: Feb 12, 2019
091-2019	19015 Light Cove Avenue	Lighthouse Cove	Lakeshore	Construction	Granted: Feb 20, 2019
092-2019	45 Michener Road	Chatham	Chatham-Kent	Construction	Granted: Mar 26, 2019
093-2019	Ferguson Drain	Harwich	Chatham-Kent	Alteration	Granted: Feb 15, 2019
094-2019	Kauffman Drain	Harwich	Chatham-Kent	Alteration	Granted: Feb 15, 2019
095-2019	50 Adelaide Street	Shrewsbury	Chatham-Kent	Construction	Granted: Mar 11, 2019
096-2019	861 Queen Street	Chatham	Chatham-Kent	Construction	Granted: Feb 22, 2019
097-2019	680 Ross Lane	Erieau	Chatham-Kent	Alteration	Granted: Feb 22, 2019
098-2019	6881 Riverview Line	Raleigh	Chatham-Kent	Construction	Granted: Mar 26, 2019
099-2019	5632 Balmoral Line	Dover	Chatham-Kent	Alteration	Granted: Mar 11, 2019
100-2019	4939-4977 Bradley Line	Dover	Chatham-Kent	Alteration	Granted: Mar 11, 2019
101-2019	27984 Lakeview Line	Dunwich	Dutton Dunwich	Alteration	Granted: Mar 11, 2019
102-2019	10318 School Line	Shrewsbury	Chatham-Kent	Construction	Granted: Mar 11, 2019
103-2019	Talbot Street / Kent Street	Shrewsbury	Chatham-Kent	Construction	Granted: Mar 20, 2019
105-2019	Thames Grove - 34 Kingsway Drive	Chatham	Chatham-Kent	Alteration	Granted: Feb 27, 2019
106-2019	Delore Drain	Dover	Chatham-Kent	Alteration	Granted: Mar 20, 2019
107-2019	21022 Admiral Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: Mar 20, 2019
108-2019	4720 - 4793 Bruce Drive	Dover	Chatham-Kent	Alteration	Granted: Mar 20, 2019
109-2019	Hampton Drain	Aldborough	West Elgin	Alteration	Granted: Mar 20, 2019
110-2019	Weekes Drain	Aldborough	West Elgin	Alteration	Granted: Mar 20, 2019
111-2019	McColl Drain	Aldborough	West Elgin	Alteration	Granted: Mar 20, 2019
112-2019	Moody Drain	Aldborough	West Elgin	Alteration	Granted: Mar 20, 2019
113-2019	Miller Drain	Ekfrid	Southwest Middlesex	Alteration	Granted: Mar 28, 2019
114-2019	Morris Line over Government Drain No. 1	Tilbury East	Chatham-Kent	Alteration	Granted: Mar 28, 2019
115-2019	Port Road over Mancell Drain	Tilbury East	Chatham-Kent	Alteration	Granted: Mar 29, 2019
116-2019	30 Lansdowne Avenue	Chatham	Chatham-Kent	Construction	Granted: Mar 20, 2019
117-2019	12983 Longwoods Road	Thamesville	Chatham-Kent	Construction	Granted: Mar 20, 2019
118-2019	22676 Scane Road	Howard	Chatham-Kent	Construction	Granted: Mar 20, 2019
119-2019	10697 Longwoods Road	Louisville	Chatham-Kent	Construction	Granted: Mar 29, 2019
120-2019	6547 Krista Lane	Ekfrid	Southwest Middlesex	Construction	Granted: Mar 21, 2019
121-2019	19030 Haven Avenue	Lighthouse Cove	Lakeshore	Alteration	Granted: Mar 29, 2019
123-2019	Pollard Line over Government Drain No. 1	Tilbury East	Chatham-Kent	Alteration	Granted: Mar 29, 2019
124-2019	Cooper Road over Government Drain No. 1	Tilbury East	Chatham-Kent	Alteration	Granted: Mar 29, 2019
131-2019	8831 Prince Street	Dunwich	Dutton Dunwich	Construction	Granted: Mar 28, 2019

9.3) Conservation Areas

9.3.1) January 1 – March 31 Visitation / Camping Stats

Longwoods Road Conservation Area – 1,371 people (1,955 in 2018) (Includes 2 people per pay & display permit (transaction) Pay and Display Permits - 295 vehicles (331 in 2018)

E.M. Warwick Conservation Area – 155 people (70 in 2018)

Big Bend Conservation Area – 0 people (0 in 2018)

C.M. Wilson Conservation Area – 178 people (142 in 2018) (Includes 2 people per pay & display permit (transaction) Pay and Display Permits – 89 vehicles (71 in 2018)

Sharon Creek Conservation Area – 20 transactions

Season's Day Use Permits sold so far: 58

9.3.2) Conservation Areas

CM Wilson Conservation Area- staff are repurposing existing gatehouse to accommodate 2 washer and dryers, and a vending machine. This will provide seasonal and regular campers will facilities to do laundry.

Two Creeks Conservation Area- although this property is managed by the Two Creeks Association, there are several projects which are handled by LTVCA staff. For instance this year two new road signs have been installed to direct traffic into the CA. The property is also under the Managed Forest Tax Incentive Program (MFTIP) and therefore some selective cutting has been undertaken by staff to provide more sunlight into the canopy.

McGeachy Pond Conservation Area- in 2017 two animal proof containers where installed with the understanding that Municipal staff were to empty them as needed. The situation has changed in Erieau, therefore we found it best to remove the containers entirely and not offer this service at this location. The containers have been repurposed and have found a new home at CM Wilson CA.

Big Bend Conservation Area- staff have included this property on the Let's Camp software and camping reservations will be available online through our website. To go along with this, new numbered posts, hazard tree removal and drainage improvements have all been conducted. We are still looking for a Park Host to assist with management of the area.

EM Warwick Conservation Area- staff have installed a new stone firewall behind the woodstove, replacing a few windows and installing steel rooves on the 5 buildings at this property.

Longwoods Road Conservation Area- Millstream Trail to reopen this spring, two bridges were removed and replaced with new handrails, signage and mulch.

Water System Training- several staff took part in a free Water Systems training course in Glencoe, as this is a requirement for us wherever we have public using our drinking water systems.

ECO Canada- a \$5000 grant has been approved for the hiring of a 4 month COOP position. This student will assist the CA Lands dept. with application to the various tax programs that we are eligible for, as well as Master Plans and CA Lands promotions.

Enforcement- several charges were laid by Municipal Enforcement Unit (MEU) at Sharon Creek Conservation Area. Dog off leash, open alcohol, and unlawful access into a Day Use area were among the charges.

Grant Opportunity- in partnership with Carolinian Canada Coalition, Thames Talbot Land Trust and other southern region CA's application was made to the Canada Nature Fund Challenge. This multi-million dollar grant is available for ecologically significant land acquisitions.

New staff- Vance Stark has been rehired as the Seasonal Labourer at Longwoods Road Conservation Area. Vance worked with LTVCA a few years back on a summer position rebuilding the Ska-Nah Doht Village. We are happy to have him back with us.

American Friends of Canadian Conservation Land Trusts- application has been made to this USA organization that will assist with the legal transfer and donation of a property of interest in our watershed.

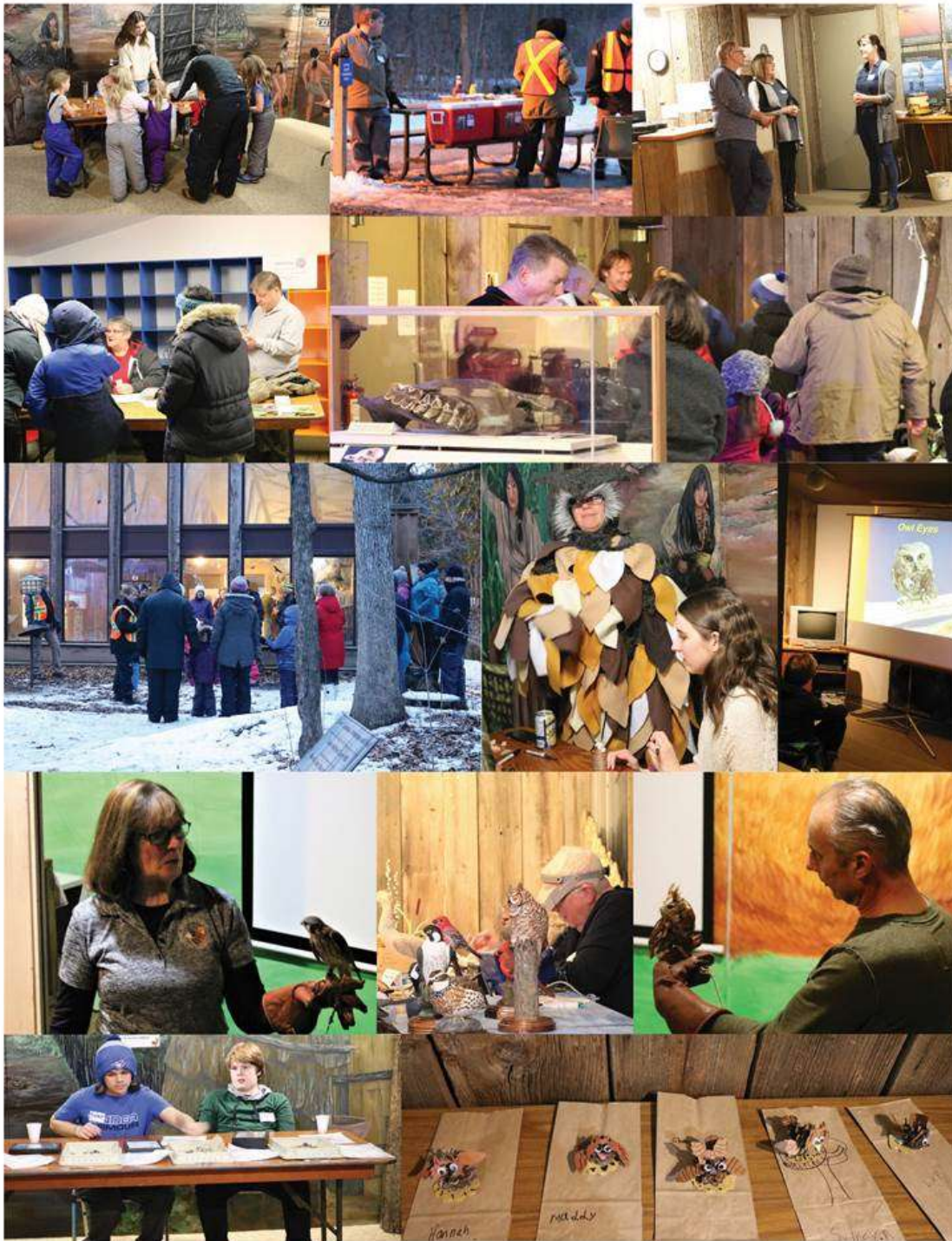
9.3.3) Conservation Area Events

“Family Day” at Longwoods Road Conservation Area – February 18

We were open, and the conservation area was busy with nearly 40 vehicles onsite. Staff were available with hot chocolate and the museum was open with crafts and for viewing.

“Moonlight Winter Family Hike – February 23” at Longwoods Road Conservation Area

It was a perfect evening! 96 visitors attended 4 moonlight owl hikes. And on most walks, we did call in an Eastern Screech Owl and actually got to see it in the wild! We couldn't run the event without the 14 fabulous community volunteers that helped us out! Wayne Kristoff and his wife are recognized for bringing Wayne's carved birds and demonstrating his talent at bird carving. And Lynn Eves and partner Mark from the Bluewater Centre for Raptor Rehabilitation who shared their live education birds of prey with a totally captive audience! Homemade chilli and hotdogs roasted over the bonfire hit the spot and visitors enjoyed viewing our own cool owl video. Wandering through the crowd and welcoming our visitors was our own 'special' owl, and owl crafts kept the little ones occupied in the Resource Centre! Looking forward to next year already!



"March Break" at Longwoods Road Conservation Area

There were many visitors that enjoyed the LTVCA's guided hikes and tours along our trails and through the Ska-Nah-Doht Village and Museum March 11-15.



Running concurrently for the first 4 days in one of the heritage cabins was a new partnership event with Indigenous Sport and Wellness Ontario (ISWO) initiated by our new Community Educator Carlyn Johnston. It was called the “Standing Bear Youth Camp”.



This is an article written by Carlyn Johnston for the Elgin Life online news about the “Standing Bear Youth Camp”:

For many Indigenous people, young and old, culture is the key to self-identity. It’s our culture that reminds us of who we are, where we come from, and how to move forward. Understanding how ancestors before us navigated the waters and land of mother earth can guide us in making good life decisions in the present. The Standing Bear Youth Leadership Program was developed by Indigenous Sport and Wellness Ontario (ISWO) in consultation with 550 Indigenous youth across Turtle Island. For Indigenous people from many nations, Turtle Island is the name for North America. The Standing Bear represents showing strength in the face of adversity. It provides us with a guide in how we can be resilient as Indigenous youth to move forward with our Indigenous values to address the issues that we face. During the recent March break, ISWO partnered with the Lower Thames Valley Conservation Authority (LTVCA) and hosted a Standing Bear camp at the Longwoods Road Conservation Area and Ska Nah Doht Village near Delaware, ON. Youth from

neighbouring First Nations of Chippewas of the Thames First Nation (COTT FN), Oneida Nation of the Thames and Muncee-Delaware Nation attended the camp. There were also participants from Aamjiwnaang First Nation, Walpole Island First Nation and Kettle and Stony Point First Nation in attendance. There are many community programs across Turtle Island working to connect youth with cultural education. The Standing Bear program was created by Indigenous youth, for Indigenous youth. For Cora Fisher-Abram, a youth from COTT FN, who worked with and participated in the Standing Bear Youth Leadership March Break Camp, the program not only helped her “to grow and develop as a leader,” but strengthened her identity as an Indigenous person “through cultural teachings and teachings about the natural environment.” Tahlanna Miskokomon, of COTT FN and Walpole Island, “learned many valuable lessons throughout the week.” She would “like to see more Standing Bear camps happen in the future for the benefit of the youth.” Participating in what might seem like small cultural activities can actually have very big impact. Simply being surrounded by your culture can change the way you think, learn and do. A critical piece to Indigenous culture is learning from the land. Throughout the March Break Indigenous Youth Standing Bear Leadership camp at Longwoods Road Conservation Area, there were a variety of teachings of culture, with a focus on Traditional Ecological Knowledge. The Standing Bear youth made their own hand drums, bird houses, paintings, pottery and corn husk dolls to name a few. Lower Thames Valley Conservation Authority Community Educator from COTT FN, Carlyn Johnston, led the youth through the nature trails, teaching about medicinal plants and First Nation’s history. “Our history and ways of knowing as Indigenous people comes from the land. Environmental stewardship is taught to us through our creation story, through our language and our culture.” Many knowledge holders, teachers and elders joined the youth throughout the week, passing on their knowledge and wisdom on a variety of subjects. Wisdom and knowledge of community elders and ancestors, culture and traditions, are important in creating a toolbox of resources to guide, inspire and give strength to Indigenous youth as they grow to become leaders in their communities and across Turtle Island. To learn more about the Standing Bear Youth Leadership Program and future Standing Bear Youth events, visit www.iswo.ca or contact Carlyn Johnston at Carlyn.Johnston@ltvca.ca.

7th Annual Shrewsbury Maple Syrup Festival

This event took place in Shrewsbury with woodland tours hosted by the LTVCA.

Upcoming Conservation Area events include:

April 28 – Native Plants Workshop - Longwoods

May 5 – Big ‘O’ Birding – Big ‘O’

May 4-5 – Longwoods Heritage Weekend

June 9 – McKinlay Memorial Forest Dedication Service - Merlin

For All Upcoming Events please see the last page of this agenda.

9.4) Conservation Services

9.4.1) Conservation Services

Tree Planting

- Trees will be arriving at the end of April from Somerville Nursery and Pine Needle Nursery.
- Over 65,000 trees were sold this year through over the counter sales and large scale plantings.

Tallgrass Prairie

- 10 projects totalling 20 acres are planned for spring 2019.

Wetland

- Three wetland projects have been completed so far this year. Partners include Ducks Unlimited Canada, Wildlife Habitat Canada, ALUS Canada.

Recent Grant Opportunities

- We attained the Forest Recovery Grant for failed ash plantations to replant Brent Curran's ash plantation near Thamesville (Curran Wetland site).
- Tree Canada has awarded the Project Learning funds to support two seasonal staff for tree planting. 50% of wages will be covered by Tree Canada.
- Scott's Gro for Good Grant: In February, the stewardship department applied for the Scotts Gro for Good grant in hopes of securing funds to implement The Seed to Tree project. The proposed project involve the Delaware Nation's from Moraviantown and consist of a workshop that will engage community members in growing trees from seed. The objectives of this workshop will be to provide education and awareness around how to grow trees from seed and also the importance of seed collection and growing. These trees will be used around the community to enhance and create greenspaces for the residents to enjoy.
- Peavey Industries Community Agricultural Grant: Applying for \$100,000 over three years for the implementation of buffer strips along watercourses.
- Chatham Kent Community Partnership Fund: This project looks to commission the creation of art sculptures of a native, aquatic species at risk, which can be installed in public areas within the downtown core. The art installations will be created by local artisans, helping to showcase local talent, increase tourism, and help with community education on the Thames River.
- Tree Canada ReLeaf Program: We have submitted an application to this grant and hope to receive TreeAzin in an effort to save a number of prominent ash trees in our conservation areas.

Alternative Land Use Service (ALUS)

- The ALUS Chatham-Kent Launch event was held at Countryview Golf Course on February 28, 2019. Breakfast was served to over 50 people including farmers, media and interest groups. Also, two information nights were held in the East and West of Chatham-Kent speaking to farmers about the ALUS program and phosphorus reduction targets.
- Mike Buis, ALUS Chatham-Kent PAC Chair attended the Taste of ALUS at Queen's Park the Ontario Legislative Assembly in Toronto on March 19. This was an event where local ALUS participants, coordinators and PAC members could showcase the great work in their communities.

- 16 projects were approved to proceed for the 2019 year which includes 4 in McGregor Creek watershed through the GLPI federal grant. All projects will receive 25%-50% funding for establishment cost and annual payments for 5 years.
- The next ALUS Chatham-Kent PAC meeting will be held on June 13, 2019 at the LTVCA office.
- Lower Thames has partnered with ALUS Middlesex, with a new coordinator being hired this winter and projects beginning to be implemented again.

Educational events

- Shrewsbury Maple Syrup Festival: Tours well held at Sinclair's Bush about the native flora and fauna and about maple syrup.
- A presentation was given at the annual Palmyra Chili Dinner to educate citizens on the LTVCA and what we do, various programs and services we offer.
- Stewardship Night at Arrowwood Farm: Over 20 farmers and landowners attended this information night about stewardship opportunities in the Lower Thames watershed. Partner organizations were also in attendance offering expertise including: Forests Ontario, St. Clair Conservation and ALUS Middlesex.
- Go Wild Grow Wild Exposition: Land stewardship will be at the Go Wild Grow Wild expo again this year, held in London Ontario. With a strong social media presence, there are expected to be two thousand people in attendance, giving a good audience for us to advertise our programs and provide information and education on the environment and what we have to offer.

First Nations Partnerships - Middlesex Habitat Pilot Project

- Since February, Lower Thames Valley CA has been an active participatory organization in the establishment of a new initiative lead by Carolinian Canada. Carolinian Canada and partners are developing a pilot project to increase habitat quality and quantity through strong collaboration, vision, investment and community action on a private landscape within Middlesex County. At the heart of the initiative is an exciting new collaboration of First Nations, conservation finance and habitat partners to protect, steward and enhance 1,000+ hectares for Ontario wildlife.

9.4.2) OMAFRA

Phosphorus Reduction Updates

AAC and ECCC: McGregor and Jeannette's Creek Phosphorus Reduction Program

The purpose of the McGregor and Jeannette's Creek Phosphorus Reduction Program is to improve soil health and reduce the amount of agriculturally sourced phosphorus entering the Thames River, Lake St. Clair and ultimately the Western Basin of Lake Erie. Agricultural Best Management Practice (BMP) incentives and technical support will be available to farmers to implement a targeted suite of BMPs within each subwatershed from 2019-2021. Reductions achieved through the implementation of BMPs will be quantified through subwatershed monitoring and modeling activities to assist Ontario and Canada with meeting the Thames River 40% reduction target for total and soluble reactive phosphorus loads entering Lake St. Clair and Lake Erie. The goal of the target is to reduce the severity and development of green and blue algae blooms in the Lake Erie Basin.



Over the last two months, the LTVCA has finalized the BMP incentive program structure, participant eligibility criteria, and the application and claim process. The program will be officially launched to the public during the month of April, at

which time the LTVCA will begin reviewing farmer BMP project funding applications. The LTVCA Agricultural Program Coordinator began promoting the program with local agricultural stakeholders during March. Presentations were conducted at the three ALUS Chatham Kent events, to provide farmers with some preliminary information on the program and the incentives that will be available to support BMP adoption in the McGregor and Jeannette's Creek subwatersheds.

Furthermore, the new LTVCA Soil & Water Quality Technician and Agricultural Program Coordinator have been busy in the field managing the subwatershed monitoring stations and collecting water samples during precipitation and flow events. Multiple significant flow events have been observed at the subwatershed and edge of field monitoring sites during this time period. The LTVCA anticipates that sampling demand will remain high, until the flow season concludes later this spring. Project staff have also met with the Water Resource Engineering team from the University of Guelph to begin planning for the configuration and calibration of the subwatershed Soil and Water Assessment Tool (SWAT) models.

Thames River Phosphorus Reduction Collaborative (TRPRC)

During 2019, the LTVCA continued to perform water quality monitoring services for the TRPRC at the phosphorus filter tank pilot site, located southwest of Chatham. The LTVCA is monitoring the technology to determine its efficacy at reducing phosphorus loads sourced from agricultural subsurface tile drainage systems. The LTVCA has agreed to conduct water quality monitoring services at the site throughout the period of 2018 to 2022. The TRPRC has agreed to provide the LTVCA with \$60,000.00 over the duration for these monitoring services. The TRPRC strategy is aimed at raising awareness and providing extension services to reduce the surface and subsurface transportation of phosphorus off agricultural land, either directly into waterways or via municipal drainage systems. The TRPRC steering committee has representation from a variety of local stakeholders, including: farm organizations, municipalities, ENGOS, the LTVCA, Chatham-Kent Drainage, various academics, and First Nations.



Merlin BMP Verification Sites – Preliminary Results Report

With the support of the LTVCA, Dr. Merrin MacRae and Dr. Janina Plach from the University of Waterloo have completed the preliminary results report entitled "Comparison of Phosphorus Leaching in Tile Drainage between two Cropping Systems in a Clay Soil". The report includes a summary of water quality results from the first 18 months of monitoring at the Merlin BMP verification sites. The report concluded the following:

In Conclusion, concentrations and loads of Soluble Reactive Phosphorus (SRP) in tile drains were not significantly different between fields under two different management systems during the study period (2017-2018). In contrast, chemical concentrations of tile Total Phosphorus (TP) and Total Suspended Sediments (TSS) in the collected water samples were significantly different between sites, where TP and TSS were elevated at the MA (tilled site) relative to the MB (no till with cover crops site). The ratio of SRP:TP in the tiles were also significantly different between farms, with SRP:TP ratios lower at the MA (tilled site) (i.e., indicator of greater particulate P). However, despite these differences in concentrations, the differences in overall tile flow, and loads of SRP, TP, and TSS were all insignificant between farms at the annual scale. This largely reflects the low number for annual comparison (n = 4), and indicates a need for longer-term comparison of water quantity and water quality at these sites. It is also recommended that future research at these sites should include measurements of overland flow as well as characterization of subsurface soil properties to advance understanding of the timing and the controls of edge-of-field runoff and phosphorus loss in these clay loam sites.



The full report is available on the LTVCA website or contact the LTVCA Agricultural Program Coordinator for more information. The LTVCA will continue to conduct monitoring activities at the site until November 30th, of

9.4.3) *Aquatic Species at Risk (SAR)*

SAR and GIS staff worked on a threat assessment of the watershed as it relates to aquatic SAR. The report summarizes subwatershed characteristics, land cover, surface water quality and quantity, spills, water extraction, groundwater quality and restoration efforts.

Funding proposals were submitted to the Habitat Stewardship Program and the Canada Nature Fund for Aquatic Species at Risk to support future threat assessment, monitoring and habitat stewardship activities (habitat restoration and salt mitigation) to benefit aquatic species at risk in the watershed.

“Fish Friday” Facebook postings continued to introduce readers to the fish species at risk in the Lower Thames Valley Conservation Authority. The posts identified threats to the species and encouraged readers to take specific steps to help conserve and recover species at risk in our area.

9.5) Community Relations

9.5.1) Media releases

Media releases are written as needed to focus attention on Conservation Authority programs and services. They are emailed to local print and radio media, watershed politicians, LTVCA and LTVCF Directors, member municipalities of the LTVCA (Clerks, Councils, CAO's), Ska-Nah-Doht Village Advisory Committee, LTVCA staff, neighbouring Conservation Authorities, watershed First Nations communities and Conservation Ontario. They are also emailed to over 200 individuals (day use permit holders, people requesting LTVCA information).

Three media releases were written/distributed January - March, 2019.

1. (February 5) "Do You Give a Hoot? Longwoods' Moonlight Winter Family Hike"
2. (February 22) "Conservation Authority Budget Approved for 2019 – LTVCA Holds Annual General Meeting."
3. (March 1) "Guided Hikes Offered – Come on out to Longwoods this March Break!"

All Directors are emailed a copy of the above media releases and as well, they are posted on our website, Facebook and Twitter accounts. Local watershed media contacts (daily and weekly print, television and radio stations) database update is ongoing.

9.5.2) Displays and Exhibits

Displays and Exhibits are created to update programs and information for the public. The LTVCA had a table and presence at several community events in the new year.

- January 2-4 we had a booth at the Southwest Agricultural Conference at U of Guelph – Ridgetown Campus.
- January 23-24 we attended the Chatham-Kent Farm Show in Chatham.
- February 2 we attended the Chatham-Kent Wedding Show where we promoted E.M. Warwick, C.M. Wilson and Longwoods Road Conservation Areas as outdoor wedding venues.
- March 6- 8 we were at the London Farm Show
- April 6 we had a booth at London's Go Wild Grow Wild Expo hosted by Carolinian Canada.

Go Wild Grow Wild Expo booth



9.5.3) Advertisements and Marketing

Paid Advertisements are taken out in the local tourist guides for Chatham-Kent, Middlesex and Elgin for C.M. Wilson and Longwoods Road Conservation Area for 2019. Staff also take out advertisements in the local print media to inform the public about workshops and seminars.

A new **Visual Identity Branding Manual** for the LTVCA is being developed. A Visual Identity Branding Policy is nearing completion.

9.5.4) Presentations

Presentations are provided to community groups upon request across the watershed. Support is offered to staff for official openings, funder recognition ceremonies and community events. Just give us a call!

From January – March, staff hosted and/or presented at Stewardship Information Events, launches of Alus Chatham-Kent, local VON hosted presentations, Wetland and Species at Risk Workshops, Chatham-Kent Library Speakers Series, and Lake Erie shoreline public consultation sessions.

9.5.5) Committees and Meetings

Staff sit on many committees and attend numerous meetings as required for their departments on an ongoing basis.

9.5.6) LTVCA Website and Social Media (YouTube, Twitter and Facebook)

The LTVCA's website and social media (YouTube, Twitter and Facebook) are updated several times daily with current/relevant Conservation Authority information and events. The website address is www.ltvca.ca. We encourage you to check in with us daily and share with your friends! Updates highlighting LTVCA projects, events and current conservation activities and news relating to the watershed are posted. Photos and video clips of programs and projects are taken regularly.

The LTVCA's Twitter account currently has 901 followers. LTVCA's Facebook page has 1,621 followers and the Ska-Nah-Doht Village Facebook page has 1,175 followers. All continue to grow in numbers of followers!

A social media policy and procedures is almost completed. Our website will post when completed.

9.5.7) Lower Thames Valley Conservation Foundation

Mark Peacock, Sheila Simpson and Bonnie Carey met on March 25. With regards to the **Trillium Steering Committee** (comprised of Foundation Directors, LTVCA Directors and LTVCA staff), a meeting was held on April 8th to review the 2 RFP's received for the Feasibility Study. (The deadline to receive the RFP's was March 22). April 10th is the date that the successful RFP submission will be announced. An update will be available at this meeting.

Reminder of Roles and Responsibilities:

LTVCA Authority

Support the project

Lower Thames Valley Conservation Foundation

Administer and account for funds

Meet grant requirements

Report to funder

Trillium Grant Steering Committee

Hold meetings with minutes

Approve payments

Appoint the consultant

Appoint project manager

The Lower Thames Valley Conservation Foundation has received \$64,800 of the \$72,000 Trillium grant to be used for the Longwoods Feasibility Study in 2018-2019. Sheila Simpson has been contracted as Project Manager for the Study on a short term contract through the Conservation Authority (funded through the Trillium grant budget). She has produced a work plan for 2019.

The next meeting of the Foundation Directors is the AGM scheduled for April 24 at 7 pm at the Resource Centre.

9.5.8) Publications

Community Relations staff assist Conservation Authority staff with publications as needed. Publications are posted on our website for downloading. Staff assisted with the new McGregor & Jeanettes Creek Phosphorus Reduction Program booklet and webpage. As well, work has begun on a new LTVCA Directors' Handbook.

9.5.9) Applications

Community Relations staff apply for project funding as grants become available.

9.5.10) Volunteers

Our volunteers continue to play a huge role with the LTVCA. From helping with special events to trail work, we are very grateful for their support.

December 14 was the deadline to receive nominations for the LTVCA's Volunteer Heroes Award. 4 LTVCA watershed individuals were nominated. Successful nominees received a pin and certificate and special recognition at the LTVCA's Annual General Meeting in February 2019.

Information about this award and nomination form may be found on the LTVCA website at this link or under the About Us tab: <https://www.lowerthames-conservation.on.ca/wp-content/uploads/2018/10/About-and-Nomination-Form-LTVCA-Awards-for-Volunteer-Heroes-final.pdf>

2018 Awards for Volunteer Heroes Recipients



LTVCA Awards for Volunteer Heroes

John Cofell



10+ years dedicated service to tree planting and reforestation



LTVCA Awards for Volunteer Heroes

John Lawrence



20+ years dedicated service educating about clean water



LTVCA Awards for Volunteer Heroes

● Rick Taves



25+ years dedicated service at Two Creeks Conservation Area



LTVCA Awards for Volunteer Heroes

● Ron Watts *(posthumously)*



40+ years dedicated service as a Founding Member of the Ska-Nah-Doht Village Advisory Committee

A Big thanks to our many volunteers that helped out at the “Moonlight Family Winter Hike aka Owl Hike” event at Longwoods in February, highlighted in pictures under our Events section of the agenda. A record is kept of all volunteers, their number of hours, projects in which they were involved over the year. In 2018, the 370 dedicated volunteers gave 950 hours of their time towards LTVCA projects and services.

9.6) Conservation Authority Education

9.6.1) Conservation Youth Group Workshops

Workshops are held at Longwoods Road Conservation Area and LTVCA outreach locations to youth and their leaders. Youth groups work towards badges for various outdoor activities. There were 15 participants from Sept 1 – November 30. (0 in 2018)

9.6.2) Conservation Field Trips for Students

School program statistics for January – March 0 students in 2019. (236 in 2018)

January was moving month. Conservation Education moved upstairs to join the Ska-Nah-Doht team and now occupies a spot in the “Education Office”. In between shuffling boxes and desks a bit of snowshoeing was accomplished and Ska-Nah-Doht programs delivered. A group of stalwart London Girl Guides came out for a cold and snowy owl prowling evening and enjoyed hearing some screech owls and dissecting owl pellets. It’s fun, seriously!

February was a month of changes as we welcomed a new member to our education team. Carlyn Johnston joined us and has been learning programs and contributing her great experience with teaching children. Our annual Moonlight Family Owl Hike took place February 23, and it was a wonderful night with 96 participants enjoying the eastern screech owls that showed up for 3 of our 4 hikes that night. Lots of action and feathers flying.

The month of March consisted of visits to area schools to deliver the River and Creek Safety Program to grade 2’s. This year’s program had 229 students and 20 teachers and EA’s participating. The value of this program was brought home to me when one of the teachers told me her grand-daughters (twins) ran into trouble while on the lake-ice, and having received the program a couple of years ago, remembered my self-rescue techniques when one of them fell through the ice and was able to get herself out. A reminder that all the effort we put into things may seem thankless at times, but really does count for a lot.

March also had us giving educational nature and culture tours for parents and grandparents looking to keep kids out of their hair during March Break. There were 112 visitors taking a hike that week.

9.6.3) Chatham-Kent & Lambton Children’s Water Festival

Volunteer Coordinator Don Hector is busy with outreach and education and hosting committee meetings for the water festival and fundraising, gearing up for its 10th Anniversary in the fall of 2019.

9.6.4) Ska-Nah-Doht Village and Museum Field Trips for Students

School program statistics for January - March – 567 students . (1,014 in 2018)

On the road, we took our gift shop to the Fanshawe College Pow Wow. It was excellent. We made many new contacts and sales were our best one day ever.

At home, we had a well-attended March Break. Tours were offered at 10:00 and at 1:00. Despite the icy conditions which transitioned into mud by week’s end of the week, it did not deter visitors. We saw some old friends from previous events and we made a lot of new ones. This event appeals to all ages and we had 3 generations attending.

We welcome Carlyn Johnston as Community Educator to full honours as she passed the initiation period with flying colours! Her “Standing Bear Camp” for local First Nations youth during March Break was a great success. This program will be offered again with open public registration later this year.

School bookings are picking up for year-end field trips. We are working with both London District School Boards on many projects, hoping to host at Longwoods. This will bring a lot of awareness of the park, our programs and events.

With a heavy heart we are sad to announce the passing of our friend and colleague, Rose Nicholas. Rose spent over 30 years sharing her culture and knowledge with staff and the public. Her presence is missed.

9.6.5) Ska-Nah-Doht Village and Museum Group Workshops and Group Self-guided Tours

Workshops are performed at Ska-Nah-Doht and LTVCA outreach locations for youth and their leaders. Youth groups work towards badges for various outdoor activities.

A total of 23 participants and their leaders took part in Ska-Nah-Doht Village tours and snowshoe workshops January to March. (71 in 2018)

9.7) Wheatley Two Creeks Association Minutes

WHEATLEY TWO CREEKS ASSOCIATION

Minutes of regular meeting held on **February 7th 2019** at the Wheatley Legion

Attendance: Rick & Forest Taves, Gerry & Muggs Soulliere, Lorna Bell, Pauline Sample, Linda Humphries, Joe & Ginette Pinsonneault, Bruce & Marj Jackson, Lee Pearce.

Minutes: With the amendment that Joe motioned to spend up to \$500.00 to buy the auger and not just to repair it the minutes were accepted as read. I motioned and Lorna sec. (Carried)

Agenda: Moved by Lorna, sec. by Joe agenda be accepted as outlined (Carried)

Memorial Groves: Even though Derek Parry will no longer conduct the Memorial Service we will continue to hold it on Sept. 15th. People will be able to adopt an existing tree.

Prop. & Equip.: We will look into installing cameras in sheds and getting a price on installation, Joe motioned, I seconded. We will also look into installing motion sensing lights on outbuildings. We are waiting to hear from Mark at L.T.V.C.A. to let us know whether our group will be a line item on their budget. We will check the new Stage roof panels being stored in the South shed to make sure they are dry. Randall from L.T.V.C.A. will meet us tomorrow at Two Creeks to decide how to thin out some of the pine groves. We agreed to spend up to \$150.00 on 2 heavy duty flags- 1- 5'x 10' and 1- 3'x5' I motioned, Lee sec.. Gerry was asked by Jeff Bowman if having a campfire near the base of the hill when kids are tobogganing would be possible. We agreed that it would be only if he supplied the wood.

Concerts: Joe will try to get a warmup act every week of the Concert season, they would start at 6:00 with the main acts starting at 6:30pm.

Financial Report: We will look into hiring a bookkeeper who would report to the Treasurer who would also be a member of the executive when Ron relinquishes his duties. The Account Balance as of November 30 2018 was \$31,639.35. The Account Balance as of December 31 2018 was \$35,211.48. Moved by Lee sec. by Rick.

Correspondence: None

Old Business: None.

New Business: Our Annual meeting will be held on March 7th 2019, the Terms of 4 people on the Executive are coming to an end. A sympathy card will be sent to Mike Diesbourg due to the passing of his mother.

Adjournment: Lorna motioned for adjournment at 8:16pm.

WHEATLEY TWO CREEKS ASSOCIATION

Minutes of Regular meeting held **March 7th 2019** at Wheatley Legion

(Immediately following the Annual meeting)

Attendance: Rick & Forest Taves, Bruce & Marj Jackson, Gerry Soulliere, Ron Haley, Joe & Ginette Pinsonneault, David Light, Mike Diesbourg, Pauline Sample, Lorna Bell, Lee & Linda Pearce, Mark Peacock.

Minutes: With the amendment that we are waiting to hear from the Municipality of Chatham-Kent on whether we will become a Line Item on their budget the minutes were accepted as printed. Moved by Phil, sec. by Marj. (Carried)

Agenda: Moved by Lorna, sec. by Joe agenda be accepted as outlined (Carried)

Nominations for Executive: David Light chaired nominations

President: Gerry Soulliere nominated by Joe, Joe nominated by Lorna

With no other nominations David moved nominations be closed for President. Joe declined the position of President.

Gerry accepted the position of President

Vice- President: Joe Pinsonneault nominated by Gerry, Rick Taves nominated by Lorna

With no other nominations David moved nominations be closed for Vice-President. Rick declined the position of Vice-President.

Joe accepted the position of Vice-President

Secretary: Phil Humphries nominated by Mike, Lorna Bell nominated by Linda, Marjory Jackson nominated by Gerry.

With no other nominations David moved nominations be closed for Secretary

Lorna and Marj declined the position of Secretary.

Phil accepted the position of Secretary

Treasurer: Ron Haley nominated by Lorna, Phil Humphries nominated by Mike.

With no other nominations David moved nominations be closed for the position of Treasurer.

Phil declined the position of Treasurer, Ron accepted the position of Treasurer

3 year Executive Terms: Mike Diesbourg nom. by Joe, Phil Humphries nom. by Marj, Rick Taves nom. by Ron, Bruce Jackson nom. by Gerry, Marj Jackson nom. by Lorna, Ron Haley nom. by Rick, Forest Taves nom. by Marj, Ginette Pinsonneault nom. by Gerry.

With no other nominations David moved nominations be closed for 3 year terms.

Mike, Rick and Phil accepted 3 year terms.

1 year Term: Marj Jackson nom. Roger Dundas. With no other nominations David moved nom. be closed for 1 year term. Roger accepted the 1 year Executive position.

REPORTS: Memorial Gardens: Some of the trees that have died in the Groves will be replaced with trees that Randall will be ordering for us. It was agreed that anyone can buy a native tree from a list we will supply. We will plant it just off of any trail along with a post and marker which would cost \$30.00. Derek Parry has said he may continue to do the Memorial service in Sept. since he is staying in the area.

Prop. & Equip.: Adam Stein will install the new roof on the stage when weather permits, the panels are stored in the shed and are dry. A rope will be attached to the posts leading to the dance pad. Joe installed a motion sensor light on the shed. Rick stated that we should continue encouraging kids to use the park in positive ways to discourage vandalism.

We will try to remove more invasive trees. Gerry stated that anyone working on a roof should be harnessed due to liability. Mark said that the L.T.V.C.A. may have some to loan us. The tractor is on a battery tender and the ruts caused by vandalism will need to be filled. David Light said that he will take care of the garbage again this year.

Concerts: All concerts have been booked for the year. Pamphlets have been printed. 6 opening acts have been booked so far, it was agreed to pay them \$20.00. The dance pad was well used last year.

Financial Report: The Account Balance as of January 31 2019 was \$35,089.26. The Account Balance as of February 28 2019 was \$ 34,346.76. Moved by Rick sec. by Lorna.

Correspondence: None

Old Business: None

New Business: The Tilbury Scouts will supply the hotdogs again this year and the Ice Cream vendor may return. Mark commented that he was impressed with what we do for the park and the community and thanked us for what we do.

Adjournment: Rick motioned for adjournment at 8:30 pm

Phil Humphries, secretary

9.8) CAO's Report

Date: April 18, 2019

Memo to: LTVCA Board of Directors

Subject: C.A.O. / Secretary Treasurer's Report

From: Mark Peacock, P. Eng., C.A.O. / Secretary Treasurer

Modernizing Conservation Authorities

Under the Conservation Authorities Act (CAA) Ontario's 36 Conservation Authorities were created at the request of municipalities and are governed by a board appointed by member municipalities. Conservation Authorities are tasked with delivery of local resource management programs at a watershed scale.

The mandate of Conservation Authorities is defined in section 20 of the act (CAA) as the "objects" of an Authority:

20 (1) The objects of an authority are to provide, in the area over which it has jurisdiction, programs and services designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals. R.S.O. 1990, c. C.27, s. 20; 2017, c. 23, Sched. 4, s. 18.

Over the last few years, a number of changes and updates have been undertaken to modernize Conservation Authorities. Many changes were brought forward with the passing of Bill 139, which made changes to the Conservation Authorities Act. These changes were supported by all parties of the legislature. A number of changes in Bill 139 were not implemented by the end of the last government. The current government is moving forward with these changes.

The updates to the act and CA programs were due to a number of concerns expressed by Ontarians including:

- Some municipalities are concerned about the cost to fund Conservation Authorities
- Developers and landowners are concerned about the complexity and burden of regulations in the development industry and how the Conservation Authorities regulations can be simplified
- Not all programs are being delivered consistently across the province
- All parties wish to increase customer service and accountability
- The Provincial Auditor's report on the Niagara Peninsula Conservation Authority brought to light a number of issues around governance and board accountability

As extreme weather, particularly heavy rains and flooding become more frequent due to climate change, a concern that hits home in the LTVCA watershed, Conservation Authority work in flood plain management is increasingly important. Conservation Authorities play an important role in Ontario's land use planning and environmental protection process. CAs not only help protect people and property from extreme weather such as flooding and other natural hazards, but they also protect drinking water sources and work to conserve natural resources.

The Province of Ontario has defined a number of core programs and services for Conservation Authorities to deliver consistently across the province. This does not mean that local municipalities and CA boards cannot also deliver programs to meet local needs. The province is consulting with stakeholders and the public to determine how CAs can improve delivery of provincially defined core programs and services. In doing this, the province has a number of proposals:

Proposed Legislative Amendments

- Define the provincially required core mandatory programs and services to be offered by all CAs regarding natural hazard protection and management, conservation and management of CA lands, and source water protection
- Increase transparency in how CAs levy municipalities for mandatory and non-mandatory programs and services
- Update the CAA to conform with modern transparency standards

- Provide a transitional period for CAs to sign long term MOUs with municipalities to define levy for provincially non-mandatory programs and services
- Enable the minister to appoint auditors to review CAs
- Clarify that the duty of CA board members is to act in the best interest of the CA, similar to not-for-profit organizations

Proposals regarding Development permitting

Ontario is proposing to:

- Update definitions in the act and regulations to align with natural hazard management intent of the regulation
- Clarify restrictions around wetlands that do not help mitigate risks of flooding
- Exempt low risk development activities from requiring a permit
- Allow CAs to exempt other low risk activities from requiring a permit
- Require CAs to consult when making development policies and have these available to the public
- Require CAs to notify the public when regulated areas change i.e. flood plains and erosion areas
- Require CAs to establish, monitor and report on service deliver standards

To proceed with these proposals, two new postings have been made to the Environmental Registry of Ontario that will implement the changes: (links with provincial statements regarding each posting)

[Modernizing conservation authority operations - Conservation Authorities Act](#)

Proposes to introduce amendments to the *Conservation Authorities Act*, which if passed, would help conservation authorities focus and deliver on their core mandate, and to improve governance.

Deadline for Comments: May 20, 2019

[Focusing conservation authority development permits on the protection of people and property](#)

Proposes a regulation that outlines how conservation authorities permit development and other activities for impacts to natural hazards and public safety. The proposed regulation will make rules for development in hazardous areas more consistent to support faster, more predictable and less costly approvals.

Deadline for Comments: May 20, 2019

In Summary

Many of the proposed changes will benefit the CAs and a number of elements have already been or are being addressed at the LTVCA. We look forward to working with Conservation Ontario and the provincial government to continue the modernization and updating of Conservation Authorities that was begun in 2017.

Recommendation: The C.A.O. / Secretary Treasurer Report be received for information.

Respectfully Submitted
Mark Peacock, P. Eng.
C.A.O. / Secretary Treasurer

Recommendation: That the above reports be received for information.

10. Correspondence

10.1) Improving Ontario's Conservation Authorities, MOECP



NEWS

Ministry of the Environment, Conservation and Parks

Improving Ontario's Conservation Authorities

Consultation to Focus on Increasing Transparency, Improving Delivery of Core Mandate
April 5, 2019 5:05 P.M.

Ontario's government is working for the people to ensure conservation authorities focus and deliver on their core mandate of protecting people, property and natural resources from the threats and impacts of extreme weather and flooding.

"Conservation authorities help protect our people and their property from extreme weather, preserving sources of drinking water and conserving our province's natural resources," said Rod Phillips, Minister of the Environment, Conservation and Parks. "The people of Ontario need our conservation authorities to be focused on dealing with the impacts of climate change and we must be certain that resources are being directed to programs and services that have the greatest impact on our communities while ensuring effective use of public funding."

As committed to in its [Made-in-Ontario Environment Plan](#), the province is [consulting stakeholders and the public](#) to ensure taxpayer dollars are being used effectively, and as extreme weather, particularly flooding, becomes more frequent due to climate change, that conservation authorities remain focused on their core mandate.

"Our government is putting people first to help communities and families prepare and respond to climate change," said John Yakabuski, Minister of Natural Resources and Forestry. "Improving the efficiency and effectiveness of our regulations is a critical component of our government's strategy for strengthening Ontario's resiliency to extreme weather events."

Ontario is also looking at updates to the Conservation Authorities Act, an act introduced in 1946, to improve public transparency and consistency:

- update how conservation authorities use municipal levies to pay for programs and services;
- streamline and standardize the role conservation authorities play in permitting and municipal planning, reducing overlap and making approvals faster and less costly; and
- improve conservation authorities' governance and accountability.

These recommended changes are part of Ontario's commitment to support conservation and environmental planning and improve Ontario's resilience to climate change.

QUICK FACTS

- Ontario has 36 conservation authorities – 31 in Southern Ontario and five in populated areas in Northern Ontario. Over 90 per cent of Ontarians live within the jurisdiction of a conservation authority.
- Conservation authorities undertake a wide range of local resource management programs and services, with significant programming diversity amongst conservation authorities. They have a legal mandate to take action to protect sources of drinking water.
- Losses associated with flooding and other natural hazards in Ontario are lower than those experienced in other jurisdictions due to Ontario's prevention-first approach, achieved in part through the planning and regulatory approaches delivered by conservation authorities.

LEARN MORE

- [Learn how a carbon tax is not the only way to fight climate change](#)
- Read the [Made-in-Ontario Environment Plan](#)

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[Disponible en Français](#)

Canada helps protect Chatham-Kent from flooding

News release

Chatham-Kent, Ontario, March 28, 2019—Now more than ever, communities need help adapting to the frequent and intensifying weather events caused by climate change. Reducing the impact of natural disasters such as flooding is critical to keeping Canadian families safe, protecting local businesses and supporting a strong economy.

Marco Mendicino, Parliamentary Secretary to the Honourable François-Philippe Champagne, Minister of Infrastructure and Communities and His Worship Darrin Canniff, Mayor of Chatham-Kent, today announced funding for a major flooding mitigation project in the Municipality of Chatham-Kent that will make communities in the surrounding area more protected to natural disasters.

The project involves reinforcing shorelines on the Thames River, Sydenham River and McGregor Creek, and ensuring that local essential services have the increased capacity needed to manage extreme weather events. The 6th Street Dam will also be replaced in order to reduce potential flooding and ice jams from the nearby rivers. Increasing the capacity to handle storms will reduce property damage and provide over 56,000 residents with a safer and healthier community for years to come.

The Government of Canada is investing over \$16.5 million to this project through the Disaster Mitigation and Adaptation Fund, with the Municipality of Chatham-Kent providing the remainder.

Quotes

“Preparing our communities by taking important steps to adapt to climate change is essential in reducing the devastating impacts of natural disasters on Ontario families and businesses. By investing today in flood and storm mitigation projects in Chatham-Kent, we are minimizing the costly effects of future weather hazards from bodies of water like Thames River. This helps protect homes and businesses, maintain safe drinking water, and enable families and their children to prosper for generations to come.”

Marco Mendicino, Parliamentary Secretary to the Minister of Infrastructure and Communities

“Extreme weather is becoming more severe, more frequent, more damaging and more expensive because of climate change. By investing in the infrastructure that protects our neighbourhoods, businesses, and families, we are building communities that can withstand future natural disasters and thrive for generations to come.”

The Honourable Ralph Goodale, Minister of Public Safety

“High water levels during the last two years have tested our flood control measures to their capacity and beyond. The extensive work needed to protect residents and property along the Thames and Sydenham rivers would present an enormous burden on local taxpayers. We are extremely grateful that the federal government is aware of the issue and, more importantly, has stepped forward in partnership to help.”

His Worship Darrin Canniff, Mayor of Chatham-Kent

Quick facts

- The Disaster Mitigation and Adaptation Fund (DMAF) is a \$2-billion, 10-year program to help communities build the infrastructure they need to better withstand natural hazards such as floods, wildfires, earthquakes and droughts.

- Announcements in Budget 2019 build on the Government's *Investing in Canada Plan*, under which the Government is investing more than \$180 billion over 12 years to build infrastructure in communities across the country.
- Investing in green infrastructure that helps communities cope with the intensifying effects of climate change is an integral part of Canada's transition to a more resilient, low-carbon economy, which is among the commitments made under the Pan-Canadian Framework on Clean Growth and Climate Change.
- Budget 2019, *Investing in the Middle Class*, is the government's plan to create more good well-paying jobs, put homeownership within reach of more Canadians, help working people get the training they need to succeed, support seniors, and lay the foundation for national pharmacare.
- With many municipalities across Canada facing serious infrastructure deficits, Budget 2019 proposes a one-time transfer of \$2.2 billion through the federal Gas Tax Fund to address short-term priorities in municipalities and First Nations communities.

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10.3) RHODES: Chatham flood swept away bridge

By John Rhodes

Thursday, March 8, 2018 5:36:06 EST AM



The recent flood waters that rolled through Chatham via the Thames was a stark reminder of how devastating this river can become.

Though serious, this was not the worst flooding in city history. I can think of three floods that were worse.

One of the earliest took place in March 1867 when a torrent of water swept through the town with such force that it lifted Fifth Street bridge off its piers and carried it away.

The structure was mostly comprised of wood and no doubt became the frame of a barn somewhere down river once it passed through an opened Third Street bridge.

The recipient, whoever he was, must have been very grateful for the free addition to his outbuildings.

This person, in order to complete the project, probably retrieved sufficient in the way of barn boards to complete the walls and roof. This lumber being provided by a lumber yard located immediately to the east of the point where third Street bridge connected to the north river bank. The wood need only rise with the water and join the current. This site is now the location of Municipal Parking Lot No. 3.

The late William McKenzie Ross (III) once explained to me why these floods became so intense.

He told me that, previous to settlement, the water was largely held back by bogs and natural flood plains, but with the clearing of the land and the establishment of drainage schemes, the water would get to the river much quicker thus creating favourable conditions for flooding.

Bill lived to be 100 and certainly saw his share of high water.

Two subsequent floods, reaching their peaks on April 29, 1937 and April 9, 1947, both reached a point of 594.5 feet above sea level. Normal height being 574 to 579 feet.

The picture I have included is from the 1937 flood and I would like to tell you what is in the photo.

The picture looks southwest, down Thames Street from the intersection of Thames, Dover and Victoria. This would be in front of what is now Dennings.

As you will see from the automobiles, the water has covered the street surface.

In the right foreground is a large sign that says "Thayers". Thayers was a popular gasoline distribution company which commenced operations in 1928 with retail outlets in Hamilton, London and Chatham. Local stations were at 99-105 Thames St. (to the right of the sign, not shown), 61 Wellington St. West, north side, opposite and slightly west of Harvey Street. A third Chatham Thayers was located at 280 Richmond St. where Waddick Fuels is now located. Thayers was absorbed by Supertest in 1947.

Behind the Thayers sign is a huge three-floor edifice at the top of which is a mural advertising the Bluebird Restaurant which was located in the building. This was the ancient Idlewild Hotel which had fallen victim to the Ontario Temperance Act of 1916 and had been converted to an apartment building with street level storefronts. The Idlewild was destroyed by an arsonist in 1972.

If you look slightly to the left of the hotel, behind the telephone pole, you'll see a two-floor brick building at the southwest junction of Thames and Fifth Street north. That building still stands.

Fifth Street North, that portion of the street surface which connects Fifth Street bridge to Thames Street, was once known as The Lacroix Slip. The name was changed to Fifth Street North in the 1920s. The title was derived from that of Peter Paul Lacroix who owned a dock on the north river bank previous to the construction of the first Fifth Street bridge.

In the distant background, at centre, you can see a huge cottage-style roof. This would be the fifth-floor covering of the Chatham Music Hall, also known as the Grand Opera House. The opera house was reduced to three floors in 1939 by Charlie Edelstein, who converted the building to an apartment house in which function it continues.

At the left side of the photo there is a sign for the Imperial Esso station. When I was a youngster, this was known as Hanson's Esso. The property is now home to the Lower Thames Valley Conservation Authority.

10.4) Ohio: Western Lake Erie ‘impaired’ by toxic algae

John Seewer, Associated PressPublished 1:33 p.m. ET March 22, 2018 | Updated 11:58 p.m. ET March 22, 2018



(Photo: AP)

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Toledo, Ohio – Ohio for the first time is designating the entire western end of Lake Erie as an impaired waterway because of the toxic algae that has fouled drinking water and closed beaches in recent years, officials said Thursday.

The shallowest of the Great Lakes has seen its largest algae blooms on record during the past decade, fueled mainly by farm fertilizers washing into the lake.

Until now, Ohio has resisted calls by environmental groups and some political leaders to issue an impairment declaration, saying federal regulators didn't have standards to trigger such a decision for the lake's open waters.

Officials within Ohio Gov. John Kasich's administration also have been worried that calling the lake impaired would wrongly give the impression that it's no longer safe as a drinking water source or for boaters and swimmers.

Determining that a body of water is impaired can lead to a federal order for stricter pollution regulations. But whether that will happen isn't clear.

Ohio's Environmental Protection Agency worked with university researchers to come up with a measurement standard and determined that water samples show the western part of Lake Erie aren't meeting water quality standards, state EPA Director Craig Butler said.

The move comes as a federal judge is considering a lawsuit filed by environmental groups who want the lake classified impaired, hoping it would pave the way for increased pollution controls.

Butler said he doesn't expect the EPA to order any new regulations because Ohio already has a federally approved plan in place to combat the algae that now turns the lake's blue waters into unsightly shades of green most summers.

An algae bloom in 2014 left more than 400,000 people around Toledo unable to drink their tap water for two days. The following year's outbreak was the largest yet.

Blooms also have been blamed for fish kills and can sicken swimmers.

Two weeks ago, the U.S. EPA called for increased efforts to reduce the phosphorus that feeds the algae but didn't recommend any new regulations.

Instead, the federal strategy relies on existing state and local programs and voluntary actions by farmers to prevent fertilizers, manure and sewage from flowing into waterways. It said some tougher rules might be needed but leaves those decisions to the states.

Environmental groups that have become frustrated by the pace and depth of those efforts applauded Ohio's move, but they said tougher and enforceable regulations throughout the western Lake Erie region are still needed.

"Voluntary efforts haven't been enough," said Howard Learner, of the Environmental Law & Policy Center, which brought the lawsuit seeking the impairment designation. "To be clear, this is a first step and not the ending."

Peter Bucher, of the Ohio Environmental Council, said that without a plan to reduce the pollutants, Lake Erie will be "inundated by yearly large-scale algal blooms for the foreseeable future."

Ohio officials say the impairment designation doesn't mean that the western end of the lake isn't safe or that it should be avoided when there are no algae blooms in the water.

The worry, though, is that it will cause people to think twice about visiting the lake, Butler said.

"I'm very concerned about the negative consequences this could bring for our tourism and fishing industries for very little environmental gain," he said.

Ohio's impairment designation covers an area of the lake that stretches roughly 60 miles – from Toledo to Marblehead – and is popular with boaters and anglers.

Until now, the state had designated only shoreline waters and a small area near Toledo's water intake pipe as impaired.

The impairment designation is part of a two-year evaluation of all state waterways that's mandated by the Clean Water Act.

Governments of Canada and Ontario release action plan to reduce harmful algal blooms in Lake Erie

Français

NEWS PROVIDED BY

Environment and Climate Change Canada

Feb 22, 2018, 16:48 ET

OTTAWA, Feb. 22, 2018 /CNW/ - Protecting and managing water quality in our lakes and rivers is essential for the well-being of Canadians, our environment and economic prosperity. Safeguarding our environment and growing our economy go hand in hand.

This is why today, the Governments of Canada and Ontario have released the final Lake Erie Action Plan.

Logo: Ontario Ministry of the Environment and Climate Change (CNW Group/Environment and Climate Change Canada)

The plan identifies more than 120 federal, provincial and partner actions, using mandatory and voluntary approaches, to help achieve the goal of reducing phosphorus entering Lake Erie by 40 per cent. The plan will be reviewed and revised as needed over time to ensure continued progress towards achievement of targets.

Phosphorus enters Lake Erie from many sources, including runoff from agricultural lands, urban centres, sewage treatment plants and septic systems. Actions included in the plan to reduce phosphorus loads include upgrading municipal wastewater treatment and collection systems, encouraging effective techniques to keep phosphorus on farmland and out of the watershed, and improving wetland conservation.

Phosphorus is a primary cause of harmful algal blooms that can have a wide range of impacts on the environment, human health and the economy: water quality, fish and wildlife populations and habitats are degraded; beaches are fouled; water intakes are clogged, commercial fisheries are at risk, and toxins can also pose a risk to humans.

The action plan was developed following extensive public engagement and close collaboration with Indigenous communities, municipalities, agricultural organizations, conservation authorities, interest groups, and others.

Indigenous peoples, as stewards of the land, have been valued partners in the development of this action plan. Canada and Ontario will continue to work in partnership with Indigenous communities within the Lake Erie basin to help implement the plan.

The agricultural sector also continues to be a leading partner in efforts to reduce phosphorus entering Lake Erie from agricultural land, and adopting ways to reduce their overall environmental impact.

The Canada-Ontario Lake Erie Action Plan is an important milestone to protect the shared waters of the Great Lakes, and meets commitments under the Canada-U.S. Great Lakes Water Quality Agreement and the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health. The plan also meets commitments under the Ontario Great Lakes Protection Act and Ontario's agreements with U.S. states.

Quotes

"The Great Lakes are a treasured resource for all Canadians. Through the Lake Erie Action Plan, we are working with our partners and delivering on a key commitment under the Great Lakes Water Quality Agreement. Together, we are protecting our environment and strengthening our economy, and in doing so, improving freshwater resources so Canadians can swim, drink, and fish."

– Catherine McKenna, Minister of Environment and Climate Change

"Protecting and restoring the health of Lake Erie is vitally important to everyone in Ontario. Building on our Great Lakes Protection Act and working collaboratively with Canada and our partners, we are creating cleaner, more sustainable waters, healthier and stronger communities, and a better future for generations to come."

– *Chris Ballard, Ontario Minister of the Environment and Climate Change*

"Canadian farmers know the value of protecting our land and water through the use of sustainable practices. The Government of Canada is committed to working with Ontario and the agriculture sector to protect and restore water resources through support for on-farm environment action and scientific research related to the management of phosphorus in the Lake Erie basin."

– *Lawrence MacAulay, Minister of Agriculture and Agri-Food*

"I am pleased that Ontario's agriculture sector continues to be a leader in identifying and implementing ways to reduce phosphorus entering our Great Lakes. By working together with our partners, Ontario will continue to address this vital environmental matter."

– *Jeff Leal, Ontario Minister of Agriculture, Food and Rural Affairs*

"The Great Lakes are vitally important to the quality of life, economic prosperity and overall wellbeing of Ontarians. It is imperative that we make every effort to respond to issues that threaten the health of the Great Lakes, and the Lake Erie Action Plan is a significant step towards ensuring that the ecosystem health of Lake Erie recovers and continues to provide all of the opportunities we've come to enjoy."

– *Nathalie Des Rosiers, Ontario Minister of Natural Resources and Forestry*

Quick Facts

- Lake Erie is the shallowest and most biologically productive of the Great Lakes, and it receives high loads of phosphorus, making it highly susceptible to harmful blue-green and nuisance algal blooms.
- Estimates indicate that these blooms could cost the Canadian Lake Erie basin economy \$272M annually.
- Research shows we can expect an economic return of up to \$2 for every dollar we invest to improve the health of the Great Lakes.
- Ontario's Great Lakes Basin is home to about 40 per cent of Canada's economic activity.

SOURCE Environment and Climate Change Canada

For further information: Marie-Pascale Des Rosiers, Press Secretary, Office of the Minister of Environment and Climate Change, 613-462-5473, marie-pascale.desrosiers@canada.ca; Media Relations, Environment and Climate Change Canada, 819-938-3338 or 1-844-836-7799 (toll free), ec.media.ec@canada.ca; Anna Milner, Press Secretary, Minister's Office, Ontario Ministry of the Environment and Climate Change, 416-314-6736, Anna.Milner@ontario.ca; Gary Wheeler, Communications Branch, Ontario Ministry of the Environment and Climate Change, 416-314-6666, Gary.S.Wheeler@ontario.ca

10.6) Government of Canada Invests in Fishing and Recreational Harbours in southwestern Ontario – News Release

News Release

February 14, 2019

For Immediate Release

The Government of Canada Invests in Fishing and Recreational Harbours in southwestern Ontario

Erieau, Ontario - Communities across Canada are supported by small craft harbours that provide the commercial fishing industry with safe and accessible facilities. With approximately 44,000 Canadians employed in this sector, the Government of Canada is making investments to renew its network of small craft harbours and work with municipalities and other stakeholders to enhance local communities.

Member of Parliament for York South – Weston and Minister of Immigration, Refugees and Citizenship, the Honourable Ahmed Hussen, on behalf of the Minister of Fisheries, Oceans and the Canadian Coast Guard, the Honourable Jonathan Wilkinson, announced that the Government of Canada is investing over \$2.76 million for infrastructure improvements at three Ontario small craft harbours in the communities of Rondeau (Erieau), Wheatley, and the Town of Lakeshore.

We are investing \$1.66 million in the Rondeau (Erieau) Harbour, a large commercial fishing harbour on Lake Erie that is the homeport to dozens of local and transient commercial fishing vessels. The project will replace the existing timber piles with steel pipe piles of four jetties and replace the concrete decking on six jetties. The project was awarded to East Elgin Concrete Forming. Work started in the fall of 2018 and will be completed by March 2019.

Wheatley Harbour, the largest freshwater fishing harbour in the world and largest commercial fishing harbour in the Central and Arctic Region, will receive \$244,000 in funding. This investment will rehabilitate a timber pile wall and a new asphalt deck, further preventing erosion damage to the newly rehabilitated east wall. The project was awarded to Goodreau Excavating and construction is expected to start in February 2019.

Another significant investment under Budget 2018 valued at \$860,000 is directed towards the reconstruction project at the Small Craft Harbour Thames River facility. East Elgin Concrete Forming Limited will use the funding to rehabilitate sections of timber crib wall structures with new steel sheet piles walls, concrete capping, boat launch ramp repairs and a new asphalt parking lot. Construction is underway and will be completed by the end of May 2019. Once the repair work has been completed Small Craft Harbours will transfer ownership of the Thames River facility to the Town of Lakeshore.

Quotes

“We have listened to the people of Rondeau (Erieau), Wheatley, and the Town of Lakeshore, and we are investing in these three harbours to help the commercial fishing industry and local recreation and tourism industries. We are investing in people, promoting inclusive growth and building stronger and

safer communities. The work carried out will not only renew and maintain the infrastructure that is essential to the region, but also stimulate job opportunities and development that will benefit fishermen and their families, residents and visitors alike, all in support of our local communities.”

The Honourable Ahmed Hussen, Member of Parliament for York South – Weston and Minister of Immigration, Refugees and Citizenship

“Our government is making unprecedented investments to build communities in the 21st century. Today, we are announcing investments in three Ontario Small Craft Harbours. These investments are supporting the fishing industry—a key economic sector that helps support coastal communities across the country. Investments that help improve communities are a priority for our Government. When we invest in the community, Canadians and the Canadian economy benefit.”

The Honourable Jonathan Wilkinson, Minister of Fisheries, Oceans and the Canadian Coast Guard

Quick Facts

- The mandate of the Small Craft Harbours Program is to keep harbours critical to the commercial fishing industry open and in good repair. The program also seeks to transfer ownership of recreational or low activity harbours across Canada to interested third parties who are in the best position to operate them effectively and respond to the needs of the local residents and economy.
- Small craft harbours provide critical support to the commercial fishing industry, which had landings valued at almost \$3.4 billion in 2017.
- Wheatley is a large class “A” core commercial fishing harbour on Lake Erie that is leased and managed by the Wheatley Harbour Authority (HA). It is the largest freshwater fishing harbour in the world and the largest commercial fishing harbour in Central and Arctic Region. Wheatley harbour is homeport to 30-35 commercial fishing vessels and 18-24 transient vessels. Annual landings for Wheatley are approximately 6,963 tonnes and have a value of about \$9.7 million.
- Rondeau is also a large class “A” commercial fishing harbour on Lake Erie that is managed by the Eriean Harbour Authority. This harbour is homeport to approximately 13 to 17 commercial fishing vessels and 8 to 12 transient commercial fishing vessels. Annual landings for Rondeau are approximately 3,995 tonnes and have a value of approximately \$5.9 million.
- The Thames River SCH facility (known locally as the Lighthouse Cove Pier) is a recreational harbour located at the mouth of the Thames River, directly adjacent to Lake St. Clair, in the Town of Lakeshore, Ontario. The work at Thames River harbour will include the rehabilitation of sections of timber crib wall structures with new steel sheet piles walls, concrete capping, boat launch ramp repairs and a new asphalt parking lot.

Associated Links

For more information on Fisheries and Oceans Canada’s Small Craft Harbours Program:

<http://www.dfo-mpo.gc.ca/sch-ppb/home-accueil-eng.htm>

For more information:

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10.7) Get Smart on Stormwater to Save Billions



Get Smart on Stormwater to Save Billions

By Dianne Saxe - April 1, 2019

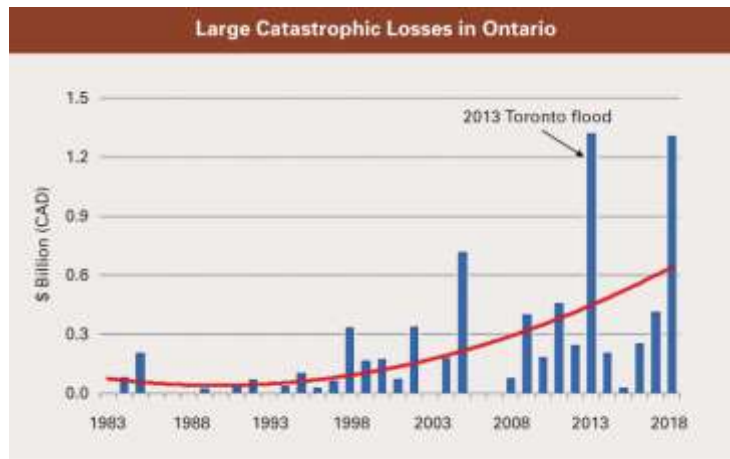
As climate change begins to gather speed, its impacts become more visible each year. It is not just about polar bears anymore. It isn't even just about how difficult we are making the future lives of our children and grandchildren.

Now climate change is affecting us.

Extreme weather did not start with climate change, but in Ontario and around the world, climate change increases the risk of storms and floods, extreme heat, and forest fires. In Ontario, insured losses from extreme weather are climbing fast. Even after adjusting for inflation and GDP, Ontario had an extraordinary \$1.3 billion in insured losses from catastrophic weather in 2018. Families and organizations probably suffered at least as much in uninsured financial losses, as well as impacts on mental health.

That's partly because Ontario is warming faster than the world average, and can expect to warm much more as each decade passes. Warmer average temperatures bring wilder, less predictable weather, including more frequent and severe floods, wind damage, droughts, heatwaves and forest fires, and occasionally extreme cold. Much of Ontario is already getting wetter, especially in winter, and some of what used to fall as snow now comes as rain.

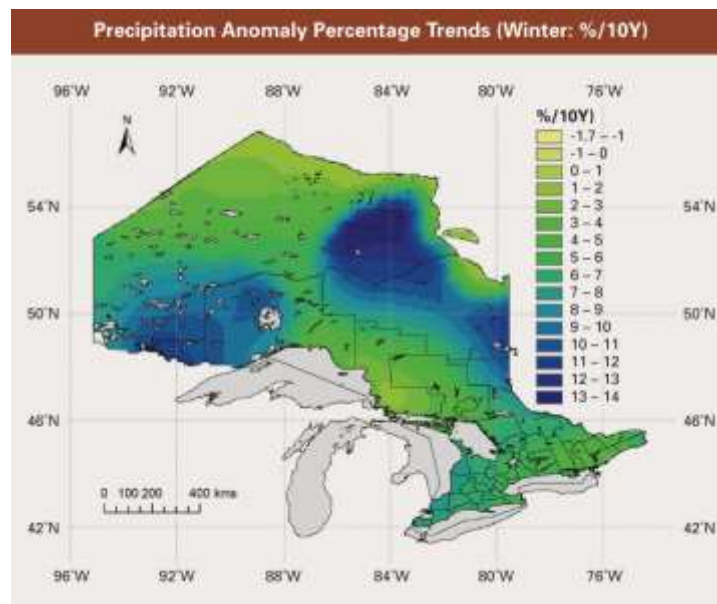
According to the Insurance Bureau of Canada, up to 10 per cent of Canadian properties may soon be too high-risk for private sector flood insurance. Perhaps half of those could continue to be insurable if protective measures are taken, but premiums will presumably have to climb.



Shelter from the storm(water)

For people in cities like Toronto, one of the most urgent and immediate threats will come from stormwater. The engineered stormwater management systems underlying many urban areas—the pipes that drain rainwater and melted snow away from city streets—cannot always accept the increased volumes of water that we are already experiencing, much less what is ahead due to population growth, urban sprawl, and climate change. The continuing destruction of wetlands and woodlands exacerbates this problem through the loss of natural reservoirs that hold stormwater (see Volume 4 of our 2018 Environmental Protection Report, Back to Basics).

Torrential downpours already overwhelm Toronto’s aging stormwater infrastructure and wastewater treatment plants, especially in the 23 per cent of the city serviced by combined sewers. For example, in July 2013, a billion litres of a filthy mix of stormwater and sewage—including garbage, debris, and human bodily wastes—flooded streets and basements, and washed into Toronto’s rivers and Lake Ontario.



Practical solutions

Municipalities are obliged by law to do everything reasonable to keep pollution out of lakes and rivers. Their options to reduce flooding and pollution caused by stormwater and combined sewer overflows include:

1. Reducing the amount of stormwater that flows into storm sewers and combined sewers with:

- Downspout and weeping tile disconnection programs;
 - Green infrastructure to reduce surface runoff towards streams and sewers; and
 - Stormwater fees, to give property owners a financial incentive to keep stormwater out of sewers, and to provide the funds needed for stormwater infrastructure.
2. Reducing sanitary flows that mix with stormwater in combined sewers with water conservation programs
 3. Keeping stormwater and groundwater from mixing with sanitary sewage by:
 - Replacing combined sewers with separate pipes for stormwater and sanitary waste; and
 - Improving leak detection and repair to reduce groundwater infiltration of combined sewers.

Toronto is taking some, but not all, of these steps. For example, Toronto has refused to charge stormwater fees, even in areas serviced by combined sewers. Such charges allow municipalities to collect the true cost of providing each piece of land with stormwater and sewage service, and use the money for this purpose. Kitchener and Mississauga are two of many successful examples. Instead, Toronto's current funding system allows nearly a free ride to parking lots, warehouses, and other impervious land uses that dump large stormwater costs onto the public purse.

The big picture

Climate change presents all cities with enormous challenges and opportunities. We must simultaneously slash our dependence on fossil fuels that cause climate pollution (mitigation), and get ready for what's ahead (adaptation). Fortunately, there is a lot that cities can do. Getting smarter about stormwater by using proven tools and technologies can save millions for cities and the people who live there.

Read the full article in the March/April edition of [Water Canada magazine](#).

10.8) As climate changes, the way we build homes must change too

THE CANADIAN PRESS 

As climate changes, the way we build homes must change too



© Getty A

file photo of flood waters in Nova Scotia.

Editor's note: The opinions in this article are the author's, as published by our content partner, and do not necessarily represent the views of MSN or Microsoft.

The impacts of floods, wildfires and other catastrophic events are on the rise in Canada. They're already costing the country billions of dollars in losses, which only stand to grow in the coming years.

The Canadian insurance industry defines a catastrophic event as one that exceeds a threshold of \$25 million in insured losses — the portion covered by private insurance. Insurance claims due to extreme weather reached \$1.9 billion in 2018, including the late December wind storm on British Columbia's south coast that downed trees and powerlines, and damaged more than 3,000 homes.

These costs have come close to, or exceeded, \$1 billion in most years since 2009. They surpassed \$1.5 billion in 2011, \$3 billion in 2013 and \$4.9 billion in 2016. In the past decade, the sum of all severe weather-related catastrophic events in Canada topped \$17 billion.

These numbers, however, are only the tip of the iceberg.

Who pays for disaster damage?

In many western industrialized countries, only about 40 per cent of disaster damages are insured. This means that citizens absorb the lion's share of damage costs in the form of insurance deductibles, costs not covered by insurance such as lost work days and higher prices passed on by businesses.

Taxpayers also fund government disaster assistance, which topped \$1.02 billion in 2013-2014. Between 2009 and 2015, the federal government provided \$3.3 billion in recovery funding, more in those six years than in the first 39 fiscal years of the program combined.

As people place more assets in harm's way, existing public infrastructure ages and climate change impacts increase in the decades ahead, these large losses will only worsen.

Modern building codes key to resilience

The solution to the challenge of building societal resilience involves fostering a "whole of society" approach that includes academia, private industry, all levels of government and property owners to mitigate the impacts of natural disasters on society.

One of the weakest links in the chain is the lack of resiliency built into homes. Building codes represent the minimum legal requirements for house construction and do not take extremes into consideration.

Surprisingly, academics have paid scant attention to the home building industry and the building codes that guide the construction of thousands of houses per year. A new collaboration between researchers at Carleton University and Western University's Institute for Catastrophic Loss Reduction aims to promote the construction of disaster resilient homes that can weather the changing climate.

Since their origins in the 1940s, Canadian building codes have existed primarily to keep people healthy and safe. Building codes have since grown into large, complex technical documents that govern numerous aspects of house construction. In light of the recent impacts of severe weather and wildfire, both insurance companies and the federal government agree that building codes could better incorporate disaster risk.

But what is a "resilient home?" Resilient homes are built to withstand extremes, such as heavy rainstorms, wildfires and severe wind. They are better than those "built to code."

The combination of strong building codes that reflect current knowledge and rigorous inspection regimes leads to far less injury, loss of life and property damage from severe weather (and earthquakes).

The seeds have been planted

There is more interest in reducing disaster risk now than ever before. Several federally funded projects are now looking at different types of floods, wildland fires and future climate data, in part so that builders construct homes to be more resilient.

But change is slow due to the rigorous code development process. Code officials are planning to include resilience upgrades in the National Building Code in 2025. According to our research, change is also slow due to resistance from the building industry that, in many instances, remains sceptical that construction practices need to change. Many builders and building trade associations believe that the current code is adequate to address the threat of severe weather.

But the costs and disruption from severe weather events speak for themselves. Current and future damages are unacceptable when weighed against small changes in construction practices such as extra fasteners that secure roofs in high winds, \$150 backwater valves that keep sewage out of basements during extreme rainfall events and fire resilient siding that is often close to the same price as more flammable options.

The home building industry knows how to innovate. In response to public and political demands for carbon-cutting measures, new housing is dramatically more energy efficient than it was even just a decade ago.

Builders now face another challenge: adding resiliency to homes so that they withstand severe weather. In many cases, we know what needs to be done to make homes more resilient, but face objections from some groups who need to be onside to make this happen.

The challenge is amplified by homeowners and voters who don't seem aware of risk and who are not giving clear direction on climate change to politicians and builders.

All of society must acknowledge growing risk and act to protect our homes — and those who live in them — now and in the future by recognising the science behind changing weather and by accepting responsibility for making new homes safer.

This article was originally published on The Conversation, an independent and nonprofit source of news, analysis and commentary from academic experts. Disclosure information is available on the original site.

This is a corrected version of a story originally published on Mar. 12, 2019. The earlier story said the federal government had provided \$3.3 billion in recovery funding between 1999 and 2015, instead of 2009 and 2015.

This article is republished from The Conversation under a Creative Commons license. Disclosure information is available on the original site. Read the original article:

<https://theconversation.com/as-climate-changes-the-way-we-build-homes-must-change-too-110969>

Gary Martin, Postdoctoral Research Fellow, Sprott School of Business, Carleton University and Glenn McGillivray, Managing Director, Institute for Catastrophic Loss Reduction, Western University, The Canadian Press

11. Events Calendar

April 25th, 2019 – 7:00 pm	Sydenham Field Naturalist Speaker Series at the Chatham Kent Library – Greg speaking
April 26th, 2019 – 5:00 pm	NFU Chatham Kent Tour of Walter Devereux Conservation Area BMP Demonstration Trail – Led by Colin Little and Donald Craig
April 28th, 2019 – noon	Native Plant Workshop – Longwoods
May 5th, 2019 – 10:00 am	Big ‘O’ Birding – Big ‘O’ Conservation Area
May 4-5, 2019 – 10:00 am – 4:00 pm	Longwoods Heritage Weekend – Longwoods Road Conservation Area
June 9th, 2019 – 1:30 pm	Merlin Memorial Forest Dedication Service – Merlin Conservation Area

Ongoing Events

First Thursday of month 7:30 pm	Wheatley Two Creeks Association Meetings Royal Canadian Legion, Erie Street N., Wheatley
7 days a week 9:00 am – 4:30 pm	Ska-Nah-Doht Village & Museum Longwoods Road Conservation Area

For more information contact:
LTVCA Administration Office: 519-354-7310
Longwoods Road Conservation Area: 519-264-2420
C.M. Wilson Conservation Area: 519-354-8184
www.ltvca.ca

12. Other Business

13. Adjournment
