

# **Board of Directors Meeting**

# $A \ G \ E \ N \ D \ A$

## August 22, 2019 2:00 p.m. LTVCA Administration Building

1.	First Nations Acknowledgement	
2.	Call to Order	
3.	Adoption of Agenda	
4.	Disclosure of Conflicts of Interest	
5.	Approval of Previous Meeting Minutes	. 3
	5.1) Board of Directors Meeting Minutes – June 27, 2019 (Previously circulated)	3
6.	Business Arising from the Minutes	
7.	Presentations	. 8
	7.1) Section 28 Regulation – Training Session No. 3	. 8
	7.2) Client Services Improvement Plan	. 8
8.	Business for Approval	. 9
	8.1) Budget vs Revenue and Expenditures for the period ending June 30, 2019	9
	8.2) 2020 Preliminary Budget Assumptions	12
	8.3) Proposed LTVCA Policies for Lake Erie Shoreline in CK	. 13
	8.4) Client Services Improvement Plan for Plan Review and Regulations	26
9.	Business for Information	. 31
	9.1) Water Management	. 31
	9.2) Regulations and Planning	. 34
	9.3) Conservation Areas	40
	9.4) Conservation Services	. 43
	9.5) Communications, Outreach and Education	48
	9.6) Wheatley Two Creeks Association Minutes – April 4, 2019 & May 2, 2019	56
	9.7) CAO's Report	58
10.	Correspondence	60
	10.1) Briefing to MPP on Canada Ontario Agreement	60
	10.2) Briefing to MPP on Lake Levels and Flood Management	62
	10.3) Briefing to MPP on Watershed Management – Bill 108	64
	10.4) Surging Great Lakes water levels threatening shorelines across Southwestern Ontario	66
	10.5) Federal Funding Supporting 61 Flood Mitigation Projects in Ontario	70
	10.6) Lake Erie Harmful Algal Bloom Bulletin	74
11.	Events Calendar	76
12.	Other Business	. 76
13.	Adjournment	. 76

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 – June 27, 2019



# **Board of Directors Meeting**

#### MINUTES

The meeting of the Lower Thames Valley Conservation Authority's Board of Directors was held at the E.M. Warwick Conservation Area at 2:00 P.M. on Thursday, June 27, 2019. The following directors were in attendance: L. McKinlay, T. Thompson, J. Wright, M. Hentz, K. Ainslie, J. Frawley, C. Cowell, and S. Emons. S. Hipple, R. Leatham, P. Tiessen, and A. Finn sent their regrets.

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

BD-2019-24 M. Hentz – C. Cowell

Moved that the agenda be adopted as presented with a noted addition of two items: 8.6) Ska-Nah-Doht Village and Museum Village Advisory Board Constitution; and 10.11) Action Plan 2030 to Protect the Great Lakes.

CARRIED

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

BD-2019-25 S. Emons – J. Wright Moved that the Board of Directors minutes of the meeting held on April 18, 2019 be approved as circulated.

CARRIED

 Business Arising From the Minutes None declared.

7. Presentations

7.1) Conservation Area Lands and Communications and Outreach Presentation, present by Mr. Randall Van Wagner and Mrs. Bonnie Carey

BD-2019-26 C. Cowell – J. Frawlie

Move that the Manager of Conservation Lands and Services bring back a report for what would be included in a Conservation Area Committee role and how it would operate.

CARRIED

1 | Page

BD-2019-27 M. Hentz - C. Cowell

Moved that the presentations for the Conservation Area Lands, and Communications and Outreach be received for information.

#### CARRIED

#### 7.2) Trillium Feasibility Update

Members from Fred Galloway Associates (Tracey Galloway rep. and Jim, architect) held a briefing session at the Longwood's Road Conservation Area during the bus tour to provide updated information in the process of the Feasibility Study and to seek input from the Board members on direction. Sheila Simpson also provided the Board of Directors with a status update at the meeting on grants being sought for this project. Some of the ideas that were brought up in the various visioning sessions with the community are already being implemented by Longwood's staff. Preliminary report and architect drawings, with costs will be available in early September.

#### BD-2019-28 S. Emons – T. Thompson

Moved that the presentation on the Longwood's Visioning and the Trillium Feasibility Study be received for information as presented.

CARRIED

#### 8. Business for Approval

8.1) Budget vs Revenue and Expenditures for the period ending April 30, 2019

Additionally, Mark Peacock, C.A.O. / Secretary Treasurer (as per April CAO presentation to Board) noted that the Province has cut approximately 50% of its base Section 39 grant to the LTVCA (approximately \$76,000.00 (\$157,807.00 (2018) down to \$81,467.23 (2019)) and that this cut had occurred after the approval and implementation of the 2019 budget. Staff are working to address the deficit that this cut will create but he noted that a deficit may be recorded for the 2019 fiscal year.

#### BD-2019-29 J. Wrights - S. Emons

Moved that the Board of Directors receives the Budget vs Revenue and Expenditures report for the period ended April 30, 2019.

CARRIED

8.2) Window Well Openings - Policy

#### BD-2019-30 C. Cowell – T. Thompson

Moved that the Board of Directors approve wording (noted below) to be incorporated into the LTVCA's Operational Guidelines;

#### Wording for Guideline:

There are five options to consider when openings (ex: basement windows/crawl space vents) into the structure are requested below the minimum flood proofing datum:

The sill elevation of the basement windows are raised to the required minimum flood proofing datum;
 A basement window sill can be below the regulatory flood datum provided that there is a permanent

poured concrete window well set to the elevation of the required minimum flood proofing datum;

Grouted-in glass blocks (water sealed) are used instead of the window if no window well is provided;

The below flood datum windows are removed from the design; or,

2 Page

A combination of any of the above four noted options.

Please note, the use of metal window wells is a temporary flood proofing measure and is not usually approved unless the existing grade is well above the required minimum regulatory flood proofing elevation.

CARRIED

#### 8.3) Camper Rules - Policy

#### BD-2019-31 M. Hentz – S. Emons

Moved that the Board of Directors approve the implementation of the Camper Rules for the 2019 camping season (as appended to minutes – Appendix 1).

CARRIED

#### 8.4) Cannabis Use - Policy

#### BD-2019-32 C. Cowell – T. Thompson

Moved that the Board of Directors approve the Cannabis Use in Conservation Areas Policy for implementation in the 2019 camping season, and further that a revised policy be developed to address designated smoking and vaping areas to be brought back before the Executive Committee for consideration (as appended to minutes – Appendix 2).

CARRIED

#### 8.5) Bill 108 Comments

#### BD-2019-33 C. Cowell – M. Hentz

Moved that the Board of Directors endorse the submission and response table regarding EBR Postings 013-5018 - Modernization of Conservation Authority Operations and to Schedule 2 Bill 108, and 013-4992 -Amendment to Conservation Authorities Regulations for Development Permits (as appended to minutes – Appendix 3 and 4 respectively).

#### CARRIED

#### 8.6) Ska-Nah-Doht Village and Museum Village Advisory Board Constitution

#### BD-2019-34 M. Hentz – C. Cowell

Moved that the Board of Directors approve the recommendations of the Ska-Nah-Doht Advisory Committee to update the Ska-Nah-Doht Constitution and that the constitution be amended to add 4 community positions to include representation of the First Nations Communities present in the watershed, the total to be 13 members.

#### CARRIED

#### 8. Business for Information

- 9.1) Executive Committee Minutes a) April 26, 2019 and b) May 24, 2019
- 9.2) Water Management
- 9.3) Regulations and Planning
- 9.4) Conservation Areas
- 9.5) Conservation Services
- 9.6) Community Relations
- 9.7) Conservation Authority Education

3 Page

9.8) Ska-Nah-Doht Advisory Committee Minutes - November 22, 2018 and April 11, 2019

9.9) Wheatley Two Creeks Association Minutes - April 4, 2019 and May 2, 2019

9.10) CAO's Report

#### BD-2019-35 J. Wright – S. Emons

Moved that Business for Information 9.1 through to 9.9 be received for information.

#### CARRIED

M. Peacock provided further information on Bill 108 to the Board of Directors and how this Bill may impact the Authority's overall projects and programs.

BD-2019-36 M. Hentz – A. Kimble

Moved that report 9.10) be received for information.

CARRIED

#### 9. Correspondence

- 10.1) CO Comments: "Bill 108 Schedule 12, proposed More Homes, More Choice Act: Amendments to the Planning Act
- 10.2) CO Comments: Modernizing Ontario's environmental assessment program Environmental Assessment Act (ERO#013-5102), Discussion paper: Modernizing Ontario's environmental assessment program (ERO#013-5101), and Schedule 6 of Bill 108, More Homes, More Choice Act, 2019
- 10-3) Canadian Cancer Society Mudmoiselle 2019 Event
- 10.4) Climate change, now Doug Ford cuts, raise flood fears
- 10.5) Government of Ontario Commits to Increasing Province Flood Resilience
- 10.6) Conservation Authorities: On the front lines reducing flood risk in Ontario
- 10.7) Updated flood plain maps will send the housing market underwater
- 10.8) Tax levies, subsidies could pay for high-risk flood insurance, report says
- 10.9) Preventing Contamination and Depletion of Our Drinking Water Sources
- 10.10) MECP Harmful Algal Blooms
- 10.11) Action Plan 2030 to Protect the Great Lakes

BD-2019-37 S. Emons – M. Hentz

Moved that correspondence items 10.1) through to 10.11) be received for information.

CARRIED

#### 11. Events Calendar

BD-2019-38 S. Emons – T. Thompson Move that the Events Calendar be received for information.

CARRIED

 Other Business None declared.

4 | Page

#### 13. Adjournment

#### BD-2019-39 S. Emons

Moved that the meeting be adjourned.

CARRIED

earoch ma

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

Linda McKinlay Chair

5 | Page

# 7. Presentations

# 7.1) Section 28 Regulations – Training Session No. 3

Jason Homewood will be providing a power point presentation on the LTVCA's Section 28 Regulation program.

## 7.2) Client Services Improvement Plan

Mark Peacock will be providing a power point presentation on the LTVCA's Client Services Improvement Plan.

## 8.1) Budget vs Revenue and Expenditures for the period ending June 30, 2019

Date:	August 22, 2019
Memo to:	LTVCA Board of Directors
Subject:	Income and Expenditure vs Budget to June 30 <sup>th</sup> , 2019
From:	Todd Casier, CPA, CA, Manager, Financial and Administrative Services

#### Background:

Review the 2019 Budget to the Revenue and Expenditures for the 6 months ended June 30<sup>th</sup>, 2019.

TOTAL FUNDING	3,205,524	2,422,152		2,707,097	284,945
OTHER	0	0		0	0
CASH FUNDING	3,205,524	2,422,152		2,707,097	284,945
RESERVES	0	0	*	0	0
FOUNDATION GRANTS & REVENUES	0	0	*	0	0
GENERAL REVENUES	627,490	313,745	*	299,797	(13,948)
DIRECT SPECIAL BENEFIT	205,000	205,000	^	205,000	0
GENERAL LEVY	1,433,781	1,433,781	^	1,433,781	0
GRANTS	939,253	469,626	*	768,519	298,893
	BUDGET	JUNE PROJECTED		TO JUNE 30	TO PROJECTED
REVENUE	2019	2019 BUDGET		2019 ACTUAL	\$ VARIANCE

\*-based on a 6 of 12 month proration of the budget

^-based on cash received to date

Grant income is greater than budgeted due to the reversal of deferred revenue for ongoing 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. All municipalities are paid in full.

General Revenue is below budget due to the following factors:

• Conservation Services and Chatham Kent Greening are lower than expected due to decrease in trees sales compared to budget and prior year and not receiving Ontario Power Generation funding. This is partially offset by Planning & Regulations, Conservation Area revenues, Conservation Education and SKA-NAH-DOHT Village revenues 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	2019 BUDGET	2019 ACTUAL	\$ VARIANCE
	BUDGET	JUNE PROJECTED	TO JUNE 30	TO PROJECTED
WATER MANAGEMENT				
FLOOD CONTROL STRUCTURES	212,371	106,185	89,007	(17,178)
EROSION CONTROL STRUCTURES	11	6	4	(2)
FLOOD FORECASTING AND WARNING	162,935	81,468	112,255	30,787
TECHNICAL STUDIES	76,535	38,267	12,882	(25,385)
PLANNING & REGULATIONS	238,056	119,028	113,714	(5,314)
WATERSHED MONITORING (PGMN)	137,336	68,668	22,488	(46,180)
SOURCE PROTECTION	26,892	13,446	21,632	8,186
THAMES MOUTH DEBRIS REMOVAL	0	0	0	0
Water Management Subtotal	854,136	213,534	165,213	(48,321)
CONSERVATION & RECREATION PROPERTIES				
CONSERVATION AREAS	745,144	372,572	332,418	(40,154)
COMMUNITY RELATIONS AND EDUCATION				
COMMUNITY RELATIONS	176,815	88,407	87,477	(930)
CONSERVATION EDUCATION	100,066	50,033	71,468	21,435
SKA-NAH-DOHT VILLAGE	206,843	103,422	88,170	(15,252)
Community Relations & Education Subtotal	483,724	241,862	247,115	5,253
CONSERVATION SERVICES/STEWARDSHIP				
CONSERVATION SERVICES (FORESTRY)	102,892	51,446	34,965	(16,481)
CHATHAM-KENT GREENING PROJECT	628,839	314,420	236,107	(78,313)
PHOSPHORUS REDUCTION	334,509	167,255	350,835	183,580
SPECIES AT RISK	56,278	28,139	70,009	41,870
Conservation Services/Stewardship Subtotal	1,122,518	561,260	691,916	130,656
CAPITAL/MISCELLANEOUS				
ADMINISTRATION BUILDING	0	Ο	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	1,389,228	1,436,662	47,434

#### Water Management

Flood Control Structures and Erosion Control Structures are below budget due to the February flood event and staff time spent responding to the flood and most large projects have not been completed as of June 30<sup>th</sup> but slightly offset due to the expenses incurred from the February flood and some damn repairs.

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 to 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 is above budget due to expenditures for the Longwoods feasibility study not included in the 2019 budget. SKA-NAH-DOHT Museum and Village is below budget due to the seasonal nature of large activities in this program. Community Relations is comparable to budget. The feasibility study expenses are covered by additional revenues to be received at year's end from the foundation.

#### **Conservation Services/Stewardship**

Conservation Services (Forestry) and Chatham-Kent Greening expenses are below budget due to a decrease in trees sold and funding received and therefore a decrease in related expenses. Additionally, a large number of activities and related expenses are completed during the summer months.

Phosphorous Reduction is above budget due mostly to one transfer payment of \$45k to the University of Waterloo, one transfer payment to \$60k to University of Guelph for research services performed, wages and expenses related to an Environment Canada and Canadian Adaptation Council grant and ALUS Middlesex agreement received after the budget was created and not reflected in the budget. These expenses are covered by additional revenues.

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, only 6 months of the program being budgeted and new funding to continue the Species at Risk program for the remainder of the year not included in the budget.

#### Capital/Miscellaneous

No Capital/Miscellaneous expenses to date.

#### Summary:

	2019	2019 BUDGET	2019 ACTUAL	\$ VARIANCE
	BUDGET	JUNE PROJECTED	TO JUNE 30	TO PROJECTED
TOTAL CASH FUNDING	3,205,524	2,422,152	2,707,097	284,945
TOTAL EXPENDITURES	3,205,522	1,389,228	1,436,662	47,434
OPERATING SURPLUS (DEFICIT)	2	1,032,924	1,270,435	237,511
LESS: ACQUISITION OF CAPITAL ASSET	0	0	0	0
NET CASH FUNDING SURPLUS (DEFICIT)	2	1,032,924	1,270,435	237,511

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 June 30<sup>th</sup>, 2019, LTVCA's operating surplus is slightly more favourable than the projected budget as more grants have been received than budgeted and partially offset by increased expenses related to these grants.

#### **Recommendation:**

That the Board of Directors receives the Budget vs Revenue and Expenditures report for the period ended June 30<sup>th</sup>, 2019.

# 8.2) 2020 Preliminary Budget Assumptions

Date:	August 22, 2019
Memo to:	LTVCA Board of Directors
Subject:	2020 Preliminary Budget Preparation Report
From:	Todd Casier, CPA, CA, Manager, Financial and Administrative Services

## Background:

As part of the current Lower Thames Valley Conservation Authority Strategic Plan (2016-2021) the Conservation Authority developed 12 objectives in 4 General Areas. The Financial Objectives were as follows:

- 4. Improve Transparency and Understanding of Financial Statements
- 5. Improve Capital Asset Review
- 6. Strengthen Staff Stability (financial stability, attraction & retention)

In order to achieve objective 4, a number of initiatives were defined. Year 1 of these initiatives have been achieved including preparation of financial statement for each board meeting that improves the boards understanding of the financial position of the LTVCA. One of the other initiatives involves having managers better involved and informed regarding the financial decision of the authority (years 3 and 5).

Objective	Ownership	Measurement	Candidate Initiatives	<b>Budget Implications</b>
4. Improve Transparency and Understanding of Financial Statements	Financial Services Specialist & Management Team	Quarterly statements for each program reviewed with program managers	Year 1- Quarterly statements reflecting reality Year 3- Managers have adequate information and capacity for financial decisions Year 5- Managers manage budgets in collaboration with Todd	Budget neutral Budget neutral Budget neutral

To address this requirement, in 2018 the budgeting process was revised, allowing managers more say in budget development and more responsibility in financial management of their departments. In order to provide additional time for this to happen, a preliminary budget report is being presented at the August 2019 Board meeting.

## Approved 2018 Budget Preparation Process:

- 1) August spreadsheets prepared showing each account with current to date results, the past two years of actuals and initial proposed budget assuming:
  - a) Salaries carried forward with increase based on various economic adjustments and merit increases
  - b) Payroll allocated based on past experience and current expectations
  - c) Projects being carried forward will be based on known expectations
  - d) General Expenses based on past trends modified by current expectations
- 2) August Managers review staff work plans with staff to determine changes and new projects/priorities/requirements for 2019 budget
- 3) End of August Todd provide spreadsheets to managers for their areas of budget

- 4) August Budget Preparation Report to Board providing general assumptions and process to develop 2020 preliminary budget
- 5) September Mark and Todd meet with individual Managers to review and prepare preliminary budget (more than one meeting per manager may be required)
- 6) September Mark and Todd meet to review overall budget and challenges and compile complete preliminary budget
- 7) End of September meeting with managers to review preliminary budget prior to finalization
- 8) October Board Meeting Preliminary Budget and levy presented to the Board of Directors for review and approval
- 9) October budget and levy circulation and notification (min 30 days as per Act)
- 10) January final review of budget with management team
- 11) February final review and approval by board at annual meeting

## **Budget Preparation Assumptions:**

The budget will be prepared based on a 2% total general levy increase. This is not in an effort to compensate for the \$76,430 (equivalent to 5.3% of levy) that was cut from the LTVCA's S.39 grant in 2019. This will allow the LTVCA to maintain our current service levels less the funding cut and to meet the expected Municipality of Chatham Kent 2.0% and City of London preliminary budget increase requirements assuming the current trend in CVA apportionment will continue in 2019.

## **Recommendations:**

That the Board direct staff to prepare the 2020 budget based on a 2% general levy increase and bring the preliminary 2020 budget back to the October meeting for review and approval.

## 8.3) Proposed LTVCA Policies for Lake Erie Shoreline in CK

## 8.3.1) LTVCA Policy Changes for Development on the Chatham-Kent Shoreline

There have been discussions recently with staff at the Municipality of Chatham-Kent regarding the LTVCA's regulations and policies around development on the shoreline. CK had passed an interim control by-law restricting development along the shoreline. However, that by-law is due to expire in November before the CK shoreline study is completed. Since current LTVCA regulations and policies largely restrict development along the shoreline, a request was made to see if the LTVCA could tighten their policies to a level equivalent to the interim control by-law until such a time as the shoreline study is completed and new policies are developed by the municipality.

The proposed Policies outline the types of development activities for which the LTVCA will grant permissions along the Chatham-Kent shoreline until the larger Chatham-Kent shoreline planning study is completed, at which time the policies will be re-examined.

Generally speaking, the Policies are intended to:

- 1) Disallow new primary buildings, building additions, or accessory structures (e.g., garages, large sheds, pools, etc.) along the erosion prone shoreline areas, such as the high bluffs or Erie Shore Drive;
- Only allow new buildings, building additions, and accessory buildings in flood prone areas, such as Shrewsbury and Erieau, if the buildings can be flood-proofed (which includes safe access provisions);
- 3) Allow for structural repairs to existing buildings to improve safety and resiliency.

These policies do not significantly diverge from the current policies of the LTVCA. The significant differences include:

1) Within the erosion hazard, additions and accessory structures were previously permitted if they were further away from the hazard than the primary residence, but would no longer be permitted.

- 2) In the 15 m allowance adjacent to the erosion hazard, development was previously permitted. Given that preliminary work for the CK shoreline study suggests that the previous erosion allowance will need to be increased substantially, this 15 m adjacent allowance will be subject to the same policies as for the erosion allowance.
- 3) Within the dynamic beach hazard, infill development was previously permitted, but would no longer be permitted.

Included with the policies are a series of maps. These maps are 'screening maps' showing an estimate of the LTVCA's regulated area as they existed in 2015 when the last provincial aerial photography project was undertaken. It must be noted that Conservation Authority regulated areas are not governed by mapping. The regulations specify that it is the written description of the regulated areas that govern. For flood prone areas, the mapping will accurately show the extent of regulated areas. However, in areas of active erosion such as along the high bluffs, these maps can only be used as a guide to help determine what properties may be affected by the policies. In these areas, the actual regulated area needs to be re-calculated at the time a permit application is submitted. Given the amount of erosion that has recently been occurring along the shoreline, this screening mapping is almost certainly outdated throughout the high bluff areas.

At this time, staff are seeking Board approval to post the following policies for public comment. Any revisions and all comments received will then be brought back to the Board at the next meeting in October for final approval. Staff at Chatham-Kent have already reviewed these policies and LTVCA staff have requested that during the comment period the policies be brought before Chatham-Kent Council for their comments and endorsement. This will allow the policies to receive Board approval before the interim control bylaw expires in November.

Date	Objective
July 26 <sup>th</sup>	Draft Policy wording done by July 26th to be sent out to CK for legal/planning review
July 29 <sup>th</sup> to August 7 <sup>th</sup>	LTVCA staff to meet with LTVCA CK Directors (Trevor Thompson, Amy Finn, and John Wright), Ward 2 councillors (Anthony Ceccacci and Mary Claire Latimer), and municipal staff.
August 7 <sup>th</sup>	Comments / edits back prior to August 7 <sup>th</sup> for amendments and inclusion into the LTVCA's Board of Directors Agenda package
August 22 <sup>nd</sup>	Draft Policy reviewed by the LTVCA's Board of Directors at the August 22 <sup>nd</sup> meeting
September 23rd or October 7th	With preliminary draft approval, the draft final Policy will be provided back to CK for inclusion in CK's council agenda package for either their September 23 <sup>rd</sup> or October 7 <sup>th</sup> meeting for endorsement
from August 22 <sup>nd</sup> to October 3 <sup>rd</sup>	Concurrently the draft Policy will be placed on the LTVCA's website (and also linked to CK's site / Let's Talk site) for public review / comments (~6 week timeline from August 22 <sup>nd</sup> through to October 3 <sup>rd</sup> )
October 9 <sup>th</sup>	The draft Policy will be reviewed in conjunction with any public / agency input for October 9 <sup>th</sup> for inclusion into the LTVCA's Board of Directors Agenda package
October 17 <sup>th</sup>	The final draft Policy will go back before the LTVCA's Board of Directors at the October 17 <sup>th</sup> meeting for endorsement and final approval.

Timeline for Shoreline Policy review

#### 8.3.2) LTVCA Development Policy

## Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent

The following sections describe the general policies to be applied in areas regulated by the Lower Thames Valley Conservation Authority (LTVCA) along the Lake Erie Shoreline within the Municipality of Chatham-Kent (including along Rondeau Bay). LTVCA staff will incorporate the most recent board approved technical information (e.g. 100 year erosion values) and studies in delineation of the hazard. These policies will apply to both municipal plan review commenting and O.Reg. 152/06 permissions.

It should be noted that Erie Beach and Erie Shore Drive as well as areas along the shoreline of Rondeau Bay are subject to both the flood hazard and the erosion hazard polices and that Rose Beach Line and the Lake Erie side of Erieau are subject to dynamic beach hazard policies.

#### 1.0 General Policies

Within defined natural hazards: including river or stream valleys and an allowance; wetlands or other areas where development could interfere with the hydrologic function of a wetland (areas of interference); lands adjacent or close to the shoreline of Lake Erie and inland lakes and an allowance; watercourses, or hazardous lands, the following general policies will also apply to all sections of the policy (2.0 through 7.0):

- 1.0.1 Development, interference or alteration will not be permitted within a hazard and its adjacent allowance, except in accordance with the policies outlined within this document.
- 1.0.2 Development, interference or alteration within a hazard may be permitted where it can be demonstrated through appropriate technical studies and/or assessments, site plans and/or other plans as required by the LTVCA that:
  - a) There is no feasible alternative location for the development outside of the hazard;
  - b) The risk to public safety is not increased;
  - c) Susceptibility to natural hazards is not increased or new hazards created;
  - d) There are no adverse hydraulic or fluvial impacts on rivers, lakes, creeks, streams, or watercourses;
  - e) That adverse impacts on the natural shoreline processes of Lake Erie and Rondeau Bay are avoided and mitigated to the extent possible;
  - f) Site grading (e.g., placing and removing fill) and alteration is minimized;
  - g) Negative or adverse hydrologic and ecological impacts on natural features and functions are avoided and mitigated to the fullest extent possible;
  - Pollution, sedimentation and erosion during construction and post construction is minimized using best management practices including site, landscape, infrastructure and/or facility design (whichever is applicable based on the scale and scope of the project), construction controls, and appropriate remedial measures;
  - i) Intrusions within and encroachment on significant natural features are, to the extent possible, avoided;
  - j) Groundwater discharge areas which support significant natural features or hydrologic or ecological functions on-site and adjacent to the site are, to the extent possible, avoided;
  - k) Groundwater recharge areas which support significant natural features or hydrologic or ecological functions on-site and adjacent to the site will be maintained or enhanced;
  - I) Access for emergency works and maintenance of flood or erosion control works is available;

- m) Works are constructed, repaired and/or maintained according to accepted engineering principles and approved engineering standards or to the satisfactions of the LTVCA, whichever is applicable based on the scale and scope of the project;
- n) All new buildings must have safe ingress/egress to emergency services and be located outside of the hazard;
- o) The control of flooding, erosion, dynamic beaches, pollution or the conservation of land is not adversely affected during and post development, interference or alteration; and,
- p) Development may be permitted within a natural hazard if that development is associated with a use that by its nature must be located in or on the natural hazard.
- 1.0.3 Non-habitable accessory structures with a footprint less than 10 square meters (~108 square feet) in size do not require a permit from the LTVCA provided they are not located on a dock over water and/or are not located on an unstable slope.
- 1.0.4 Hardship rebuilds, as a result of fire or similar calamity not related to the natural hazard, must not be abandoned or derelict for a period of more than one year or the relevant new construction policies will apply.
- 1.0.5 Structures destroyed by the hazard will not be permitted to be reconstructed within the hazard nor the additional allowance adjacent to the hazard.
- 1.0.6 The LTVCA generally discourages fencing in the hazard (e.g. flood prone areas, unstable slopes, dynamic beaches and coastal wetlands). Where necessary, fencing should be constructed in such a manner that it does not impede the flow of water and does not require the use of fill.
- 1.0.7 In regards to site grading and the placing or removal of fill in a hazard, the following policies apply:
  - a) Fill placed shall only be comprised of clean soil, topsoil, filter fabric, rock, or, in the case of the replacement of a concrete or steel break-wall or groyne, concrete (free of exposed rebar) and steel.
  - b) Fill placement / removal and/or site grading must not result in a more unstable slope.
  - c) Fill placement / removal and/or site grading will not result in its movement off-site by natural processes (erosion / slumping).
  - d) Fill placement / removal and/or site grading will not negatively impact adjacent properties / lands.
  - e) Fill placement / removal and/or site grading must not impact erosion up-drift or down-drift of its location.
  - f) Any fill placement must be nominal in the sense that the LTVCA will not approve projects where a significant amount of fill is proposed due to the likelihood that the fill will subside and future land use could be affected by potential subsidence and/or the placement of materials.
  - g) Sign-off / approval from Fisheries and Oceans Canada, the Ontario Ministry of Environment, Conservation and Parks and the Ontario Ministry of Natural Resources and Forestry may be required as part of the application package.

## **1.2** Technical Studies Requirements

Applications for permission to undertake development, interference or alteration in the hazard must be accompanied by appropriate technical studies and/or assessments, site plans and/or other plans as required by the LTVCA. These studies/plans must demonstrate to the satisfaction of the LTVCA, how the applicable policies in this document have been met.

## 1.3 Qualified Professional Requirements

Technical studies and/or assessments, site plans and/or other plans submitted as part of an application for permit to undertake development, interference or alteration in a hazard must be completed by a qualified professional to the satisfaction of the LTVCA in conformance with the most current technical guidelines acceptable to the LTVCA.

#### 2.0 Development within the Shoreline Flood Hazard

For the purposes of the following policies, the shoreline flood hazard is the limit of the landward extent of flooding accounting for the 100 year flood elevation, plus an allowance for wave uprush and other water related hazards.



For clarification of the general policy 1.0.1, the following shall not be permitted within the shoreline flood hazard except in accordance with the policies of 2.2 to 2.12 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Flood hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Basements; and,
- Underground parking.
- 2.1 Development shall be prohibited in the shoreline flood hazard where the use is:
  - a) an institutional use associated with hospitals, nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick the elderly, persons with disabilities or the young during an emergency as a result of flooding and/or failure of flood-proofing measures or protection works; or,
  - an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of erosion, the failure of flood-proofing measures and/or protection works; or
  - c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.
- 2.2 Public and private infrastructure (e.g. roads, sewers, flood and erosion control works) and public utilities (e.g. pipelines) may be permitted within the shoreline flood hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 2.3 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the shoreline flood hazard;

- 2.4 Shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the shoreline flood hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 2.5 A new dwelling/structure on an existing lot of record or a major addition (over 25% of the existing footprint of the habitable ground floor space of the structure) to an existing dwelling/structure or reconstruction associated with existing uses may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed development;
  - b) the proposed development does not result in an increase of flooding risk (i.e., flood-proofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water);
  - c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
  - d) the development is protected from the shoreline flood hazard in accordance with established flood-proofing and protection techniques. Habitable buildings must be dry flood-proofed such that the elevation of the building including the ground elevation around the building for a minimum of two meters is at or above the regulatory flood-proofing datum. Non-habitable structures must at a minimum be wet flood-proofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
  - e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
  - f) potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);
- 2.6 Development associated with existing uses located within the shoreline flood hazard such as minor additions (up to 25% of the existing ground floor footprint of the habitable space of the structure), non-habitable accessory buildings (e.g. sheds, detached garages, etc.), pools, landscaping retaining walls, grading, unenclosed decks, etc. as well as accessory structures under 10 square meters, may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed development;
  - b) the proposed development does not result in an increase of flooding risk (i.e., flood-proofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water);
  - c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
  - d) the development is protected from the shoreline flood hazard in accordance with established floodproofing and protection techniques. Structures must at a minimum be wet flood-proofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
  - e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

- f) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);
- 2.7 Development may be permitted for the relocation or reconstruction of a building within the shoreline flood hazard, provided that it has not been damaged or destroyed by flooding or other water related hazards if it has been demonstrated to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed reconstruction or relocation;
  - b) the proposed reconstruction or relocation does not result in an increase of flooding risk (i.e., floodproofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water feature);
  - c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
  - d) the development is protected from the shoreline flood hazard in accordance with established flood-proofing and protection techniques. Habitable buildings must be dry flood-proofed such that the elevation of the building including the ground elevation around the building for a minimum of two meters is at or above the regulatory flood-proofing datum. Non-habitable structures must at a minimum be wet flood-proofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
  - e) will not exceed original habitable floor area nor the original footprint area of the previous structure.
  - f) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
  - g) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - h) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);
- 2.8 Development associated with the construction of a driveway or access way through the shoreline flood hazard in order to provide access to lands outside of the flood hazard may be permitted subject to demonstrating that safe pedestrian and vehicular access is achieved;
- 2.9 Minor (less than or equal to 40 cubic metres) placement and removal of fill and site grading within the shoreline flood hazard may be permitted if the proposed works do not create new or aggravate flooding on the subject, adjacent, or other properties;
- 2.10 The replacement of sewage disposal systems may be permitted within the shoreline flood hazard. The replacement system should be located outside of the shoreline flood hazard where possible and only permitted within the shoreline flood hazard in the area of lowest risk;
- 2.11 Above ground parking lots may be permitted within the shoreline flood hazard if it has been demonstrated that safe pedestrian and vehicular access is achieved.
- 2.12 Raising of existing structures will be permitted for the purpose of meeting flood-proofing requirements provided that the structure is located outside of the wave uprush zone and the structure is flood-proofed to the regulatory flood datum. If the structure is located within the wave uprush zone, the footings/foundations must be engineered to the satisfaction of the Conservation Authority.
- 2.13 Structural modifications to an existing residential structure may be allowed where:

- a) the nature of the construction or alteration is for flood protection of existing buildings or structures; or,
- b) such construction or alteration is necessary to address safety or structural faults in any existing building or structure.

## 3.0 Development within the Allowance Adjacent to the Shoreline Flood Hazard

- 3.1 Development may be permitted within the 15 m allowance adjacent to the shoreline flood hazard if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the allowance adjacent to the shoreline flood hazard for the proposed development;
  - b) the proposed development does not result in an increase of flooding risk (i.e., flood-proofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water);
  - c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
  - d) the development is protected from the shoreline flood hazard in accordance with established flood-proofing and protection techniques. Habitable buildings must be dry flood-proofed such that the elevation of the building including the ground elevation around the building for a minimum of two meters is at or above the regulatory flood-proofing datum. Non-habitable structures must at a minimum be wet flood-proofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
  - e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
  - f) potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);

## 4.0 Development within the Shoreline Erosion Hazard

For the purpose of the following policy, the shoreline erosion hazard is the limit of the landward extent of the stable slope (stable slope allowance) measured from the existing protected or unprotected toe of slope, plus the limit of the 100 year erosion allowance.



For clarification of the general policy 1.0.1, the following shall not be permitted within the shoreline erosion hazard except in accordance with the policies of 4.2 to 4.7 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Erosion hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Pools, covered decks, sunrooms, additions, boat houses, accessory structures, etc.;
- Basements; and,
- Underground parking.
- 4.1 Development shall be prohibited in the shoreline erosion hazard where the use is:
  - a) an institutional use associated with hospitals nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion and/or failure of protection works/measures; or,
  - b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as a result of erosion, or protection works/measures; or,
  - c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.
- 4.2 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and public utilities (e.g. pipelines) may be permitted within the shoreline erosion hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 4.3 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the shoreline erosion hazard;
- 4.4 Shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the shoreline erosion hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 4.5 Development associated with existing uses located within the shoreline erosion hazard such as landscaping retaining walls, grading, uncovered detached decks, stairs, etc. may be permitted. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the shoreline erosion hazard or in the event that there is no feasible alternative site, that the proposed development is located in an area of least (and acceptable) risk;
  - b) development will not prevent access into and through the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;
  - c) there is no impact on existing and future slope stability and bank stabilization;
  - d) development will have no negative impacts on natural shoreline processes;
  - e) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - f) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);
- 4.6 Development may be permitted for the reconstruction or relocation as a result of a hardship within the shoreline erosion hazard, provided that the building has not been damaged or destroyed by erosion. The

submitted plans should demonstrate to the satisfaction of the Conservation Authority that the reconstructed or relocated building:

- a) there is no feasible alternative site outside of the shoreline erosion hazard for the proposed reconstruction or relocation;
- b) as a minimum, the reconstruction or relocation shall be located outside of the stable slope allowance;
- c) the proposed reconstruction or relocation does not result in an increase of erosion risk and is located in an area of least risk (i.e., located furthest possible distance from the hazard);
- d) the proposed works do not create new or aggravate erosion on the subject, adjacent or other properties;
- e) will not exceed the original habitable floor area nor the original footprint area of the previous structure;
- f) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- g) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- h) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable).
- 4.7 Structural modifications to an existing residential structure may be allowed where:
  - a) the nature of the construction or alteration is for flood or erosion protection of existing buildings or structures; or,
  - b) such construction or alteration is necessary to address safety or structural faults in any existing building or structure.

#### 5.0 Development within the Allowance Adjacent to the Shoreline Erosion Hazard

For clarification of the general policy 1.0.1, the following shall not be permitted within the 15 m allowance adjacent to the shoreline erosion hazard except in accordance with the policies of 5.1 to 5.4 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Erosion hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Pools, covered decks, sunrooms, additions, boat houses, accessory structures, etc.;
- Basements; and,
- Underground parking.
- 5.1 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and public utilities (e.g. pipelines) may be permitted within the allowance adjacent to the shoreline erosion hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected;
- 5.2 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the allowance adjacent to the shoreline erosion hazard;

- 5.3 Development associated with existing uses located within the shoreline erosion hazard such as landscaping retaining walls, grading, uncovered detached decks, stairs, etc. may be permitted. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the allowance adjacent to the shoreline erosion hazard or in the event that there is no feasible alternative site, that the proposed development is located in an area of least risk;
  - b) development will not prevent access into and through the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;
  - c) there is no impact on existing and future slope stability and bank stabilization;
  - d) development will have no negative impacts on natural shoreline processes;
  - e) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - f) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);
- 5.4 Development may be permitted for the reconstruction or relocation as a result of a hardship within the allowance adjacent to the shoreline erosion hazard, provided that the building has not been damaged or destroyed by erosion. The submitted plans should demonstrate to the satisfaction of the Conservation Authority that the reconstructed or relocated building:
  - a) there is no feasible alternative site outside of the additional allowance of the shoreline erosion hazard for the proposed reconstruction or relocation;
  - b) the proposed reconstruction or relocation does not result in an increase of erosion risk and is located in an area of least risk (i.e., located furthest possible distance from the hazard);
  - c) the proposed works do not create new or aggravate erosion on the subject, adjacent or other properties;
  - d) will not exceed original habitable floor area nor the original footprint area of the previous structure;
  - e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
  - f) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable).

## 6.0 Development within the Dynamic Beach Hazard

For the purpose of the following policies, the Dynamic Beach Hazard is the limit of the landward extent of the 100 year flood elevation limit, plus the allowance for wave uprush and other water-related hazards, plus the dynamic beach allowance. The dynamic beach allowance is 30 metres and the wave uprush allowance is 15 metres. Therefore, they dynamic beach hazard is 45 metres measured from the 100 year flood elevation limit.



For clarification of the general policy 1.0.1, the following shall not be permitted in the dynamic beach hazard except in accordance with the policies of 6.2 to 6.7 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Erosion hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Pools, covered decks, sunrooms, additions, boat houses, accessory structures, etc.;
- Basements; and,
- Underground parking.
- 6.1 Development shall be prohibited in the dynamic beach hazard where the use is:
  - a) An institutional use associated with hospitals, nursing homes, pre-school, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion or any other hazard associated with dynamic beaches or as a result of failure of protection works/measures; or,
  - An essential emergency service such that provided by fire, police and ambulance stations and electrical substations, which would be impaired during an emergency as a result of erosion or any other hazard associated with dynamic beaches and/or as a result of failure of protection works/measures; or,
  - c) Associated with the disposal, manufacture, treatment or storage of hazardous substances.
- 6.2 Underground public infrastructure (i.e. sewers) and public utilities (e.g. pipelines) may be permitted within the dynamic beach hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 6.3 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the dynamic beach hazard;
- 6.4 Shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the dynamic beach hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;

- 6.5 Site grading within the dynamic beach hazard may be permitted if the proposed works do not create new or aggravate flooding on the subject, adjacent, or other properties. Grading of sand dunes may be permitted if it is demonstrated to the satisfaction of the Conservation Authority that erosion (e.g. wind and water erosion) and flooding impacts will not be increased on adjacent properties. Notification of adjacent neighbours of site grading will be required as part of the permit application process. Grading of sand dunes adjacent to the waterbody shall not be permitted for a distance equal to 1/3 of the subject dynamic beach depth.
- 6.6 Development associated with existing uses located within the dynamic beach hazard such as minor additions (up to 25% of the existing footprint of the habitable space of the structure), non-habitable accessory buildings (e.g. sheds, detached garages, etc.), pools, landscaping retaining walls, grading, unenclosed decks, etc., may be permitted provided that they are no closer to the hazard than the existing residential structure. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the dynamic beach hazard for the proposed development or in the event that there is no feasible alternative site, that the proposed development is located in an area of least (and acceptable) risk and is no closer to the hazard than the main residential structure;
  - b) the proposed works do not impede dynamic beach processes on the subject, adjacent, or nearby properties;
  - c) the footings/foundations must be engineered sufficiently to address dynamic beach processes;
  - d) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
  - e) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - f) the natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and dynamic beach hazards have been adequately addressed (if applicable).
- 6.7 Development may be permitted for the reconstruction or relocation of a building within the dynamic beach hazard, provided that it has not been damaged or destroyed by dynamic beach processes, flooding, or erosion. The submitted plans should demonstrate to the satisfaction of Conservation Authority that the structure:
  - a) cannot be relocated to an area outside the dynamic beach hazard and if there is no feasible alternative site, that it is located in an area of least (and acceptable) risk;
  - b) will be protected from the dynamic beach hazard through incorporation of appropriate building design parameters; and,
  - c) will not exceed original habitable floor area nor the original footprint of the previous structure.

## 7.0 Development within the Allowance Adjacent to the Dynamic Beach Hazard

- 7.1 Development may be permitted within the 15 m allowance adjacent to the dynamic beach hazard if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beach or the conservation of land will not be affected. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
  - a) the development does not create or aggravate the dynamic beach hazard;
  - b) the development does not prevent access to and along the dynamic beach;
  - c) the potential for surficial erosion has been addressed through acceptable drainage, erosion and sediment control and site stabilization/ restoration plans (if applicable); and,
  - the natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented and flooding and erosion hazards have been adequately addressed (if applicable).

#### **Recommendation:**

That the Board receive this report for information, direct staff to make this report available on the website for public comment ending on October 7, 2019, and that staff bring the final policy, with public comments, for review and approval to the October 2019 Board meeting.

*Recommended:* Jason Wintermute Manager, Watershed and Information Services

*Reviewed:*Mark Peacock, P. Eng.
C.A.O. / Secretary-Treasurer
8.3) Client Services Improvement Plan for Plan Review and Regulations

#### Lower Thames Valley Conservation Authority 2019 Client Services Improvement Plan for Plan Review and Permitting

#### 1.0 Background

A Conservation Ontario working group has been evaluating ways that Conservation Authorities ("CAs") can streamline approval activities and "reduce red tape" in order to help the province address the lack of housing supply. It is recognized that CAs need to identify the outcomes that the province and our municipalities need and review and modify our processes to ensure the best solutions. Consultation with the Association of Municipalities of Ontario ("AMO"), municipalities, building and development industry and others have stressed that Conservation Authorities need to improve client service and accountability, increase speed of approvals and, reduce "red tape" and regulatory burden. A Lower Thames Valley Conservation Client Services Improvement Plan has been prepared to meet these objectives. The plan is based on three Conservation Ontario developed documents to support the initiative:

- CA-Municipality Memorandum of Understanding ("MOU") Template for Planning and Development Reviews;
- Guideline for Client Service Standards for Conservation Authority Plan and Permit Review; and,
- Guideline for CA Fee Administration Policies for Plan Review and Permitting.

During the last meeting of the Board of Directors, the Board passed the following resolution:

WHEREAS the provincial government intends to increase the supply of housing and streamline the land use planning and development approval process to achieve this goal; and

WHEREAS the Conservation Authorities play an important role in the planning and development review process with respect to watershed protection and hazard lands; and

WHEREAS Conservation Authorities support and can help deliver the Government's objective not to jeopardize public health and safety or the environment;

THEREFORE BE IT RESOLVED THAT the Board of Directors endorse the three key solutions developed by the Conservation Ontario working group: to improve client service and accountability; increase speed of approvals; and, reduce "red tape" and regulatory burden; and

THAT staff be directed to work with Conservation Ontario and our clients to identify additional improvements; and further

THAT staff be directed to implement these solutions as soon as possible.

LTVCA staff have been working on a Client Services Improvement Plan to co-ordinate addressing the direction provided in this resolution.

### 2.0 Lower Thames Valley Conservation Authority Client Services Improvement Plan

Two steps have been formulated to provide improved client services and accountability to the municipalities and residents of the Lower Thames Valley Conservation Authority. They are as follows:

Step One: Having the Training and Resources to Improve Client Service and Accountability

Step Two: Develop Plan to Support Clients

#### 2.1 Step One: Having the Training and Resources to Improve Client Service and Accountability

As a result of a significant increase in work load in 2019, due to flooding and erosion emergencies as well as significant increases in the volume of permit applications and property inquiries, response and approval times for a number of applications and property inquiries has been increasing. LTVCA staff are addressing this increase. In order to address this issue staff have undertaken the following:

- Provided client service training to staff engaging the public in Planning and Regulations roles: Two LTVCA staff
  have undertaken Client-centric Customer Service Training which was provided by Conservation Ontario through
  a third party in London.
- Provided additional resources to address additional workloads: An additional staff person (paid for by increased permit fee revenue due to the increased number of permits) has been hired and approval timing is improving.

#### 2.2 Step Two: Develop Plan to Support Clients

Staff have also developed a Client Service Improvement Plan with the following elements:

- 1. Having a) clear Policies and Guidelines, b) Planning Agreements with Municipalities (roles) and c) clear applications and fee schedules
- 2. Providing Online Support Tools
- 3. Application Management and Review
- 4. Level of Service Improvement
- 5. Performance Evaluation and Reporting

# 2.2.1 Having clear Policies and Guidelines, Planning Agreements with Municipalities (roles), and Applications and Fee Schedules

#### 1a) Clear Policies and Guidelines

LTVCA staff have been working on updating and consolidating our Policies and Guidelines for a number of years with provincial regulation amendments and court decisions affecting delivery. Updated policies specific to the Chatham-Kent Lake Erie Shoreline have been developed and a draft of these policies is being presented at this meeting. Revision of the remainder of policies are underway based on changes known to date and impact of the final decision of the Gilmour v. Nottawasaga Valley Conservation Authority court case.

#### 1(b) Planning Agreements with Municipalities (roles)

A draft planning agreement for CAs and municipalities, prepared by a working group including CAs, the development community, and AMO, will be used as a basis for Planning Agreements between LTVCA and

member municipalities. Three of our member municipalities have already approached the LTVCA regarding planning agreements. The LTVCA will be first working with these municipalities to get agreements in place, then move on to the rest of our member municipalities. The LTVCA will target to have all agreements in place within two years of approval of this plan.

## 1(c) Applications and Fee Schedules

Many CAs in Ontario provide the means for clients to submit permit applications electronically. Staff are reviewing the ability to submit applications through the LTVCA's website in a digital form to simplify application processing. Permit application fee schedules are already posted on the LTVCA website and will be available as part of the online application process. Additionally, staff will post level of service commitments (timelines) and report on performance on the LTVCA website.

## 2.2.2 Providing Online Support Tools

It has been the intent of the LTVCA to provide flood plain and regulations mapping online to members of the public, consultants, private utilities, and municipalities so that they can determine if their intended work site is in a LTVCA regulated area. Up until 2019, no staffing was available to create digital mapping for this purpose. By redirecting staff resources, LTVCA has acquired staff to complete this work (GIS Technician, Neil Pothier). Work is ongoing to complete mapping and have it accessible through the LTVCA website. The online mapping tool is targeted to be completed within two years. Additionally, completed examples of permit application forms, site plans, drawings, and other application support documents will also be posted on our website to provide guidance to future applicants regarding what is expected for a complete application.

## 2.2.3 Application Management and Review

The LTVCA currently has an application tracking program that allows staff to report on application review timing. This system will be augmented to ensure all information regarding performance review is recorded. Additionally, Jason Wintermute (Manager, Watershed Management Services) has been designated as the LTVCA Client Services Facilitator, giving applicants a fast response on client service concerns or complaints. Checklists are being prepared and/or updated to ensure thorough and timely review of applications and staff board reports are being updated to provide statistics related to the new objectives and reporting standards.

## 2.2.4 Level of Service

As part of the Client Services Plan, the LTVCA will be working to reduce the time required to receive permits. Presently, the LTVCA is meeting almost all planning time requirements and will continue to do so as part of this plan. The flowing tables show the old and new time frames being targeted for permit and planning review. The time as noted in the tables do not include statutory holidays. Timeline targets are significantly reduced from previous ones defined in provincial guidance documents.

## Level of Service Improvement Tables

## Notice of Complete Application with Pre-Consultation - Timelines

Process Step: Confirmation of Complete Application	
Applications with Pre-Consultation	

(Timing starts at	pre-consultati	on)		
	Applicati	on Type (New	Timeframe)	Old Timeframe
	Major	Minor	Routine	
	14 days	7 days	7 days	21 days

## **Complete Application without Pre-Consultation – Timelines**

Process Step: Cor				
Applications with				
(Timing starts at				
	Applicatio	on Type (New Tir	meframe)	Old Timeframe
	Major	Minor	Routine	
	21 days	14 days	10 days	21 days

## **Decision – Section 28 Permit – Timelines**

Process Step: Fina	al Decision on P			
(Timing Starts at r				
	Application Type (New Timeframe)			Old Timeframe
	Major	Major Minor		
	21 days	14 days	10 days	30 days (minor)
				90 days (major)
Re-submission	30 days	15 days	7 days	30 days

## **Planning Review**

Information Requests	within 14 days
Legal Inquiries	by closing day (varies)
Property Clearances	Within 14 days
Planning Act Applications Severances, Minor Variances	all based on municipal requirements Target: meet municipal timelines

## 2.2.5 Performance Evaluation and Reporting

Performance Evaluation and Reporting will be based on two reporting cycles. Update reports on performance will be prepared for each board meeting (every two months) and an annual summary will be prepared as part of the LTVCA Annual Report.

Reporting every two months on timelines achieved for each application (without naming specific applications) is already being done but more details will be provided, as detailed in the August 2019 Planning and Regulations report.

All reports will be posted on the LTVCA website, circulated to member municipalities and made available to the general public. The Summary Annual Report on Performance will be part of LTCVA Annual Report and will have the wider circulation of the Annual Report.

#### 3.0 Conclusions

Proposed changes will benefit the LTVCA and all elements have already been or will be addressed within two years. We believe the Client Services Improvement Plan will provide improved services and accountability to our residents and municipalities.

#### **Recommendation:**

That the Lower Thames Valley Conservation Authority 2019 Client Services Improvement Plan for Plan Review and Permitting be approved and that staff report on performance as outline in this report.

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

*Recommended:* Mark Peacock, P. Eng. C.A.O. / Secretary-Treasurer

## 9.1) Water Management

## 9.1.2) Flood Forecasting and Operations

There have been 13 flood messages issued since the last Board of Directors agenda was drafted. These messages covered a broad range of water related hazards. Two of these were standing Flood Outlooks for the Great Lakes shoreline areas. An additional two were Flood Watches for the McGregor Creek and Rondeau Bay watersheds. The remaining nine messages were Flood Watches for the Great Lakes shorelines, eight being Watches and one being a Flood Outlook.

Standing Flood Outlooks are a new type of message that was introduced at the beginning of July, which are currently being used by other Conservation Authorities for communication of Flood notifications. The LTVCA had considered using a standing message for flood outlooks, however we received negative feedback from the community regarding this change in communication. Many shoreline properties are seasonal residents whom wanted to ensure that new and frequent messages were continuously being released so they may be prepared in case of an emergency while residing at their properties on the lake. However, due to the severity and frequency of recent flooding in Lighthouse Cove, a standing message for Flood Outlook has been the practical method of communication at this time.

The community of Lighthouse Cove has seen two very significant floods occur since the last Board meeting. Both of these were caused by thunderstorms and the effect was very similar. The first was in the evening of Friday June 28<sup>th</sup> and the second in the evening of July 20<sup>th</sup>. Small, localized, pop up thundershowers passed through the region hitting the community. The high winds caused lake levels to rise in the area and water was blown onshore along with a very large amount of rain fell. (The LTVCA has no record of how much rain fell.) With lake levels so high, there was nowhere for the water to drain. Significant flooding occurred in the community on both occasions. Unfortunately with pop-up thundershowers, details as to where they may appear and how severe they may be are very difficult to predict. Flooding related to them is not really something that can be messaged in advance. For this reason, a standing Flood Outlook has been issued.

On July 28<sup>th</sup>, severe thunderstorms passed though the region. Most of the Chatham-Kent area received well over 25 mm of rain. Radar suggested some areas of the Rondeau Bay and McGregor Creek watersheds between Ridgetown and Blenheim may have received over 100 mm in total accumulated rainfall over the course of the day. Areas in Middlesex County from London through Strathroy-Caradaoc also received well over 25 mm of rain and radar suggested that the First Nation communities (Oneida Nation of the Thames, Chippewas of the Thames First Nation, and Munsee-Delaware Nation) just west of London may also have received over 100 mm of rain. Generally speaking in the summer the watershed can easily absorb 25 mm of rain, however in this instance, the very large amount of rain received on the McGregor Creek watershed caused flooding in the McGregor Creek floodplain. Water levels on McGregor Creek rose beyond the point at which the Diversion Channel Dam should have been operated following standard operating procedures. LTVCA staff determined that Indian Creek did not receive the same amount of rain and was not rising substantially on its own, therefore, in this particular case there was little risk of flooding the city of Chatham by letting more water though the city. This provided some relief to the farmers being flooded upstream, allowing water to drain from their fields faster. It should be noted, however, that this is not standard operating procedure and the situation required continuous monitoring by LTVCA staff, and was only made possible in the particular case as Indian Creek received substantially less rain than McGregor Creek (a very rare situation).

Water levels on both Lake Erie and Lake St. Clair have broken records for the last several months. Daily average water levels on Lake Erie peaked on June 22nd at an elevation of 175.19 m (I.G.L.D.) and have since fallen by about 10 cm. The all-time monthly average record for Lake Erie set in June of 1986 of 175.04 m was broken in both May and in June, reaching an elevation of 175.14 m in June. Daily average water levels on Lake St. Clair peaked on July 7/8th at an elevation of 176.08 m (I.G.L.D.) and have since fallen by about 8 cm. The all-time monthly average record for Lake St.

Clair set in October of 1986 of 175.96 m was broken in both June and July, reaching an elevation of 176.04 m in July. Water level forecasts suggest that by the end of August water levels on both lakes will have fallen, probably back down to somewhere around the record highs set in 1986.



## 9.1.3) Flood Control Structures

Regular seasonal maintenance continues on all the Authority's flood control structures.

In addition to seasonal maintenance, it has been brought to the attention of LTVCA staff that Wild Parsnip (<u>https://www.ontario.ca/page/wild-parsnip</u>) is growing in the McGregor Creek Diversion Channel. Although not as hazardous as Giant Hogweed, it does present some similar risks for those that come in contact with it. Relevant LTVCA staff were made aware of the issue. The Diversion Channel also continues to have issues with trespassing and, in particular, illegal A.T.V. usage. The Wild Parsnip presents a risk to those illegally accessing the property. Some of the Wild Parsnip has already been treated by LTVCA staff using a backpack sprayer and it is expected that the rest will have been treated before the third week in August.

#### 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. Due to the extremely wet conditions earlier this year, these reports had not been created in 2019 thus far. A report was generated in early August, and using the criteria outlined in the provincial program guidance, the Lower Thames watershed was not in any type of low water condition.

#### 9.1.5) Watershed Monitoring

Watershed wide surface water quality monitoring continues on a monthly basis at 22 sites throughout the watershed.

Recommended: Jason Wintermute Manager, Watershed and Information Services

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

# 9.2) Regulations and Planning

## 9.2.1) Planning and Regulations

#### Planning

From the first of June through to the end of July, there have been 49 planning submissions reviewed by staff with respect to Section 28 of the Conservation Authorities Act and Ontario Regulation 152/06. On average it takes roughly 5 days to respond to submissions, ranging from same day response to 11 days for more involved planning submissions. There have also been 108 responses to telephone inquiries that staff have responded to as well as numerous email responses to inquiries. Municipal time lines were met for 100% of all applications received.

Planning Numbers	2017 totals	2018		2019 Jan-	Apr-May	Jun-Jul totals
		totals		Mar totals	totals	
Chatham-Kent	227	185		30	23	31
Elgin	86	94		12	16	10
Essex	29	58		5	1	1
Middlesex	57	55		12	9	7
Total Numbers	399	328		69	49	49
Response Times:	Minimum: same	/linimum: same day Ma		ximum: 11 day Ave		erage: 5 days
Percentage of applications reviewed within municipal time lines						100%

\*OP, ZBL, OPA, ZBLA, Consents, Minor Variances, Plans of Subdivision, Legal Inquiries

#### Erieau Community Association – Regulations Presentation

At the request of the Harbour Master for Erieau, the regulations technician provided the Erieau Community Association with a presentation on 10 July 2019 about the Conservation Authority and specifics about shoreline permitting and the process. The presentation was followed by a good question and answer period. The meeting was well attended with an estimation of approximately 30-50 people in attendance. Unfortunately, representatives from provincial ministries such as the Ministry of Environment, Conservation and Parks and the Ministry of Natural Resources & Forestry as well as from Fisheries and Oceans Canada were not there to participate.

#### Permitting and Property Inquiries

Since the last board update on 27 June 2019 and up to 31 July 2019, staff had received an additional 64 applications to permit development within LTVCA regulated areas (with respect to Section 28 of the Conservation Authorities Act and Ontario Regulation 152/06). Of the 279 permit applications received in the first seven months of 2019, all but eight have been approved by staff. Six of those eight applications were still open and being reviewed by staff or were awaiting further information to be supplied by the applicant. The remaining two of those eight applications required Hearings in front of the Executive Committee as the application proposals were not compliant with board-approved policies. The Hearings were conducted in April with one application being approved with conditions and the other application being denied.

The graph below illustrates how the number of permit applications has been increasing over the years. The orange bar indicates the number of permits received in the first seven months of 2019. With five months left in the year, it will become the fourth year in a row that records are broken for the number of permit applications received, reviewed, and processed.



Below are some Section 28 Permitting statistics for 2019:

- Six habitat/stewardship projects in a LTVCA regulated area have been received and approved with their application fees waived;
- > 118 properties were surveyed for permit and official plan flood proofing requirements;
- > 78% of all applications were within Chatham-Kent and 12% were within Lakeshore;
- 66% of the applications were for private property owners for projects such as construction or modification of structures, shoreline protection repairs, and/or bank alterations;
- > 27% of applications were for municipal projects (drainage or infrastructure); and,
- ➤ Total of permit application fees = \$61,925.00 (average of \$221.95 per permit).

The below table provides a summary of the number of permit applications, landowner inquiries, and hearings annually between 2015 and the first seven months of 2019.

Applications / Inquiries	2015	2016	2017	2018	2019	
					(Up to July 31 <sup>st</sup> )	
# of Permit Applications	193	268	271	287	279	
# of Landowner Inquiries	516	688	879	1267	804	
(Regulations Technician only)						
# of Hearings	1	0	1	0	2	

## Permit Processing Timelines

Service standards for Section 28 permit applications are specified by the Ministry of Natural Resources and Forestry (MNRF) in the "Policies and Procedures for Conservation Authority Plan Review and Permitting Activities (2010)". From the date of written confirmation of a complete application, conservation authorities are to make a decision (i.e.

recommendation to approve or refer 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.

Conservation Ontario staff recently developed a document entitled "Client Service Standards for Conservation Authority Plan and Permit Review" with input from Conservation Ontario Timely Reviews and Approvals Taskforce as well as stakeholders. Conservation Ontario Council endorsed the document on 24 June 2019. One of the suggestions in the document is to break down permit applications into a minimum of three categories: major applications, minor applications, and routine applications. The differences between each category are based on complexity of the application. Major applications require significant review and staff time, minor applications do not require as much staff time, and routine applications are generally quick and fairly standard (such as municipal drain maintenance). The document offers the following 'best practices' timelines for making a decision on a complete application:

Application Category	Old Timeline	New Timeline
Routine	30 Days	14 Days
Minor	30 Days	21 Days
Major	90 Days	28 Days

If a decision has not been rendered by the conservation authority within the appropriate timeframe, the applicant may contact the Water Management Supervisor who serves as the "client service facilitator". If the applicant is not satisfied with the response from the client service facilitator, 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 utilizes the three application categories as suggested in the new Client Services Standards document but compares the number of days to review a complete permit application to the old standards (30 days for routine and minor applications, 90 days for major applications). 100% of routine applications were reviewed within 30 days, 78% of minor applications were reviewed within 30 days, and 86% of major applications were reviewed within 90 days.

Complexity of	Number of Days to Review Permit Applications in 2019 (Up to July 31 <sup>st</sup> )				
Application	0 - 30 Days	31 - 90 Days	> 90 Days		
Routine	33	0	0		
Minor	182	51	0		
Major	4	2	1		

Using the new service standards for comparison, the below table indicates that 91% of routine applications were reviewed within 14 days of receipt of a complete application, 70% of minor applications were reviewed within 21 days of receipt of a complete application, and 57% of major applications were reviewed within 28 days of receipt of a complete application.

Complexity of	Number of Days to Review Permit Applications in 2019 (Up to July 31 <sup>st</sup> )				
Application	0 - 14 Days	15 - 21 Days	21 - 28 Days	29 - 90 Days	> 90 Days
Routine	30	2	1	0	0
Minor	123	41	14	55	0
Major	3	0	1	2	1

Given the significant increases in the number of permit applications, property inquiries, and flood events this year, the LTVCA has hired a temporary Natural Hazards Program Assistant to aid with the workload and reduce the wait times on returning inquiries and processing permits. With the increased number of permits this year, there has been a corresponding increase in the revenue of permit application fees (already over the total amount collected in 2018). The temporary position is being funded from this revenue surplus.
#### 9.2.2) Section 28 Enforcement

In the first seven months of 2019, 15 new complaints / tips were received from the public about possible Section 28 enforcement issues. Eleven of the issues are violations of the Conservation Authorities Act and Ontario Regulation 152/06 with two of those issues being resolved through a Violation Clearance Permit and a third being resolved voluntarily. 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 as well as on-site inspections.

# Staff Report

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

B.D. 08/22/19

APP#	LOCATION	COMMUNITY/	MUNICIPALITY	APP'N TYPE	DECISION
209-2019	10942 New Scotland Line	Harwich	Chatham-Kent	Alteration	Granted: June 05, 2019
216-2019	11698 Bates Drive	Rondeau	Chatham-Kent	Construction	Granted: June 05, 2019
217-2019	13478 Norton Line	Howard	Chatham-Kent	Construction	Granted: June 05, 2019
218-2019	18208 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: June 05, 2019
219-2019	18218 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: June 05, 2019
220-2019	19 Madera Crescent	Chatham	Chatham-Kent	Construction	Granted: June 05, 2019
221-2019	7302 Riverview Line	Raleigh	Chatham-Kent	Construction	Granted: June 11, 2019
222-2019	9340 Sharon Road	Delaware	Middlesex Centre	Construction	Granted: June 05, 2019
223-2019	Pain Court Line over McFarlane Relief Drain	Dover	Chatham-Kent	Alteration	Granted: June 05, 2019
224-2019	11526 Rondeau Drive	Rondeau Bay Estates	Chatham-Kent	Alteration	Granted: June 05, 2019
225-2019	Chinnick Drain	Raleigh	Chatham-Kent	Alteration	Granted: June 06, 2019
226-2019	38 Wilcox Street	Chatham	Chatham-Kent	Construction	Granted: June 11, 2019
227-2019	18590 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: June 13, 2019
228-2019	18200 Erie Shore Drive	Erie Shore Drive	Chatham-Kent	Alteration	Granted: June 12, 2019
229-2019	12060 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
230-2019	12062 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
231-2019	12064 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
232-2019	12070 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
233-2019	12074 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
234-2019	12078 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
235-2019	12084 Rose Beach Line	Howard	Chatham-Kent	Alteration	Granted: June 13, 2019
236-2019	11566 Bates Line	Rondeau	Chatham-Kent	Alteration	Granted: June 13, 2019
237-2019	21 Sienna Court	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
238-2019	272 Moonstone Crescent	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
239-2019	268 Moonstone Crescent	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
240-2019	264 Moonstone Crescent	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
241-2019	260 Moonstone Crescent	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
242-2019	256 Moonstone Crescent	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
243-2019	252 Moonstone Crescent	Chatham	Chatham-Kent	Construction	Granted: June 13, 2019
244-2019	Jeannettes Creek	Tilbury East	Chatham-Kent	Alteration	Granted: June 24, 2019
245-2019	Lakeshore Drain	Harwich	Chatham-Kent	Alteration	Granted: July 09, 2019
246-2019	Pinder Drain	Harwich	Chatham-Kent	Alteration	Granted: July 09, 2019
247-2019	Daugherty Drain	Delaware	Middlesex Centre	Alteration	Granted: July 09, 2019
248-2019	27 Wolfe Street	Shrewsbury	Chatham-Kent	Construction	Granted: July 18, 2019
249-2019	70 Wellington Street	Shrewsbury	Chatham-Kent	Construction	Granted: July 17, 2019
250-2019	Boulley Drain	er Township of Tilbury	Town of Lakeshore	Alteration	Granted: July 09, 2019
251-2019	Carswell Drain	Harwich	Chatham-Kent	Alteration	Granted: July 09, 2019
252-2019	17670 Melody Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: July 11, 2019
253-2019	Tisdelle Extension	Lighthouse Cove	Lakeshore	Alteration	Granted: July 22, 2019
254-2019	17930 Melody Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: July 12, 2019
255-2019	17940 Melody Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: July 12, 2019
256-2019	Indian Creek Drain	Chatham	Chatham-Kent	Alteration	Granted: July 12, 2019
257-2019	17378 Melody Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: July 12, 2019
258-2019	88 Kent Street	Shrewsbury	Chatham-Kent	Construction	Granted: July 25, 2019

# Staff Report

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

APP#	LOCATION	COMMUNITY/ TOWNSHIP	MUNICIPALITY	APP'N TYPE	DECISION
259-2019	98 Lemuel Street	Thamesville	Chatham-Kent	Construction	Granted: July 25, 2019
260-2019	17950 Melody Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: July 25, 2019
261-2019	63 Murray Street	Chatham	Chatham-Kent	Construction	Granted: July 12, 2019
262-2019	12 Birmingham Lane	Chatham	Chatham-Kent	Construction	Granted: July 15, 2019
263-2019	8846 Oneida Road	Southwold	Southwold	Alteration	Granted: July 25, 2019
264-2019	10221 Talbot Trail	Harwich	Chatham-Kent	Alteration	Granted: July 25, 2019
266-2019	6515 Riverview Line	Raleigh	Chatham-Kent	Construction	Granted: July 19, 2019
269-2019	Tedford Drain	Chatham	Chatham-Kent	Alteration	Granted: July 22, 2019
270-2019	6515 Talbot Trail	Chatham	Chatham-Kent	Alteration	Granted: July 25, 2019
271-2019	914 Charing Cross Road	Chatham	Chatham-Kent	Construction	Granted: July 24, 2019
272-2019	22959 Zone Road 4	Zone	Chatham-Kent	Construction	Granted: July 26, 2019
273-2019	9092 McDowell Line	Chatham	Chatham-Kent	Construction	Granted: July 31, 2019
275-2019	82 Legacy Lane	Chatham	Chatham-Kent	Construction	Granted: July 31, 2019
277-2019	18356 Lagonda Way	Rondeau Bay Estates	Chatham-Kent	Alteration	Granted: July 31, 2019
278-2019	9 Tecumseh Street	Shrewsbury	Chatham-Kent	Construction	Granted: July 30, 2019
279-2019	835 Tisdelle Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: July 31, 2019

*Recommended:* Jason Wintermute Manager, Watershed and Information Services

*Reviewed:* Mark Peacock, P. Eng. C.A.O. / Secretary-Treasurer

# 9.3) Conservation Areas

#### 9.3.1) January 1 – March 31 Visitation / Camping Stats

#### June 1 – June 30 Visitation / Camping Stats

**Longwoods Road Conservation Area** – 1,683 people (1,412 in 2018) (Includes 2 people per pay & display permit (transaction) Pay and Display Permits - 165 vehicles (156 in 2018)

E.M. Warwick Conservation Area - 370 people (380 in 2018)

Big Bend Conservation Area - 235 people (140 in 2018)

**C.M. Wilson Conservation Area** – 2,268 people (2,270 in 2018) (Includes 2 people per pay & display permit (transaction) Pay and Display Permits – 103 vehicles (90 in 2018)

Sharon Creek Conservation Area - 132 MacKay Pay Day Use Transactions (98 transactions in 2018)

Season's Day Use Permits sold so far: 128 sold to July 20 (101 in 2018 to end of July)

#### 9.3.2) Conservation Areas

Nothing to report at this time.

#### 9.3.3) Conservation Area Events (stats included in above)

 July 2 – August 20 – Twilight Tuesdays – Longwoods Road Conservation Area / Ska-Nah-Doht Village & Museum – an average of 30 visitors each Tuesday evening.





• July 14 - Artifact Day – Longwoods Road Conservation Area / Ska-Nah-Doht Village & Museum

12 Children and 44 Adults, 12 Ontario Archaeological Society members attended for a total of 68. This was one of our best! Lots of participants and we also looked at over 20 collections. This adds to our knowledge of local First Nations but also enhances our understanding of Ontario's rich past!



July 20 – Discover Species at Risk in the Lower Thames – C.M. Wilson Conservation Area
 14 people attended this event. Another event was held at the Ridgetown Public Library, with approximately 37 youth in attendance on July 23<sup>rd</sup>.



#### **Upcoming Conservation Area events include:**

July 2 – August 20 – Twilight Tuesdays – Longwoods Road Conservation Area August 15 – Learn to Fish Workshop – C.M. Wilson Conservation Area August 16 – Learn to Fish Workshop – Big Bend Conservation Area August 17 – Learn to Fish Workshop – Sharon Creek Conservation Area August 18 – Learn to Fish Workshop – Sharon Creek Conservation Area September 8 – McKinlay Memorial Forest Dedication Service – C.M. Wilson Conservation Area September 15 – Memorial Forest Dedication Service – Big Bend Conservation Area September 22 – Memorial Forest Dedication Service At Tilbury Northside Park September 29 – Spirit of the Harvest and Trillium Grant Recognition Ceremony – Longwoods Road Conservation Area October 2 – 4 - 10<sup>th</sup> Annual Chatham-Kent & Lambton Children's Water Festival – C.M. Wilson Conservation Area November 24 – Season's Greetings – Longwoods Road Conservation Area

For any Upcoming Events not listed here please see the last page of this agenda and check out "Events" on our website and Facebook page.

Recommended: Bonnie Carey Manager, Communications, Outreach and Education

Randall Van Wagner Manager, Conservation Lands and Services

*Reviewed:* Mark Peacock, P. Eng. C.A.O. / Secretary-Treasurer

# 9.4) Conservation Services

#### 9.4.1) Conservation Services

#### Trees

With all the tree planting projects completed and trees leafing out, July has been busy with invoicing and billing landowners and funders for the 70,000 trees planted earlier this spring. During July, we have also been updating our GIS database and mapping with our newest tree planting projects and will soon start the process of conducting tree survival assessments on our 2019 plantings, as well as 3-year and 5-year assessments on our older plantings.

#### Wetlands

July has been a busy month in the stewardship office preparing for August and the fall when much of our wetland projects commence. Through partnership with organizations such as: Elgin Stewardship Council, Ducks Unlimited, Elgin Clean Water Program and ALUS Elgin, the LTVCA has secured funding and is taking the lead on a number of exciting wetland projects throughout the watershed. Many of these projects require permits from the municipalities and the Department of Fisheries and Oceans. August will be an exciting month to see all the planning turn into functioning wetlands that can help improve the health of our watershed.

#### **Outreach and Promotion**

With tree planting having just been completed, we are already on the lookout for new projects! July has included lots of site visits to landowners in our watershed in an effort to recruit projects for next year. Stewardship has also been busy creating new advertisements that include commercial spots in Cineplex theatres, in hope of getting a big reach!

#### Events

This July, LTVCA partnered with Enbridge Gas and their *Helping Hands in Action* program, which focuses on improving the quality of life within their community. The event was held at the mouth of the Thames River at Paternoster Woods, with Enbridge providing financial support and purchasing wetland plants from the Aamjiwnaang First Nation Native Plant Nursery. One thousand wetland plants were planted in this environmentally sensitive area, with Enbridge Gas employees offering their time and effort to get everything planted!

*Figure 1: Environmental Project Coordinator, Greg Van Every, demonstrating proper planting techniques to Enbridge Gas volunteers.* 



The LTVCA attended the Elgin Stewardship Councils annual bus tour in July. The Elgin Stewardship Council is a key financial supporter to stewardship projects. The tour included stops to some of the more prominent sites within Elgin and was a good time to reflect and observe on the good work that has been completed. The event was well attended with Ontario Minister of the Environment, Jeff Yurek attending, and was a great event to network and collaborate.

#### **ALUS Middlesex**

ALUS Middlesex enjoyed a slower month of field work in July, but was busy in the office with a queue of projects waiting for approval at the August committee meeting. Interim reports to ALUS Canada and program funders were due in early July and provided a good summary of how targets were being met. ALUS Middlesex is on a path to meet the targets set

out by the funders and ALUS Canada for this year. Having a waitlist of projects, ALUS Middlesex was successful in securing additional funding from ALUS Canada and a couple more projects will now be able to be implemented this year.

#### **ALUS Chatham Kent**

The ALUS Chatham-Kent program is enjoying a successful first year, with many of the tree planting and grassland projects now showing some growth and wetlands starting to be excavated. With projects being completed, surveying, monitoring and mapping of the projects is beginning. Interim reports to ALUS Canada and program funders were due in early July and provided a good summary of how targets are being met. ALUS Chatham-Kent is on a path to meet the targets set out by the funders and ALUS Canada for this year.



Figure 2: Native grass mix of Big Bluestem and Indian grass to be planted along a new wetland to help bank stabilisation and reduce erosion.

#### **Farmer Liaison Training**

Both ALUS Chatham-Kent and Middlesex programs have hired 2 farmer liaisons each to help deliver the program in their respective counties. The farmer liaisons will help strengthen farmer-to-farmer relationships. Both ALUS Chatham-Kent and Middlesex farmer liaisons attended the day long training session in Elgin County, provided by ALUS Canada. The full day workshop included proper monitoring practices, species identification, maintenance guides and how to communicate the program to landowners. Farmer liaisons will be crucial to helping the program coordinators in delivering the program and will aid in outreach and landowner relationships.

#### 9.4.2) OMAFRA

# <u>Phosphorus Reduction Initiatives</u> AAC and ECCC: McGregor and Jeannette's Creek Phosphorus Reduction Program

Since the launch of the McGregor and Jeannette's Creek Phosphorus Reduction Program on April 17<sup>th</sup>, the LTVCA has been working with subwatershed farmers to assist with planning and accessing funds to implement program supported agricultural Best Management Practices (BMPs). Several applications from local landowners have already been submitted and approved for funding. To date, participation levels have been lower than expected; however the LTVCA anticipates they will increase as farmers begin planning for post-harvest cropping practices from August-November.



## McGregor and Jeannette's Creek Subwatershed Water Quality Sampling and Monitoring

During the months of June – July, LTVCA project staff remained busy in the field collecting water quality samples during precipitation and flow events in the McGregor and Jeannette's Creek subwatersheds. Over 60 subwatershed samples were collected and processed for shipment to Caduceon Environmental Laboratories for chemistry analysis. Furthermore, additional samples were shipped to the University of Waterloo for nutrient concentration analysis from the No-till Cover Crop BMP verification sites located north of Merlin.

Typically during this time of year, few precipitation events cause significant flow throughout the study subwatersheds. This is generally a result of increased temperatures, increased evaporation, and increased plant water demand. However, multiple significant flow events have been observed and sampled in each subwatershed as a result of the high levels of saturation during June and intense rainfall events caused by thunderstorms. For example, on July 28<sup>th</sup>, 90mm of precipitation was recorded in the Ridgetown area of McGregor Creek within a 24 hour period. Of that 90 mm of precipitation, approximately 50 mm accumulated within a 3 hour period. This event caused significant flow and nutrient loading at a level that would typically not be observed in McGregor Creek during the month of July. During 2018, the same area near Ridgetown received approximately 92 mm of precipitation during the entire month of July.

Although water sampling demand has been higher than normal this summer, LTVCA project staff have still successfully completed maintenance and installations at the majority of the monitoring stations in each study subwatershed. Monitoring instrumentation maintenance and installation tasks will continue during the months of August and September.

#### Soil Health and Water Quality in the Thames River Basin – Event – August 22<sup>nd</sup>

The LTVCA and Ontario Soil Network are partnering to host an education and outreach event titled, "Soil Health and Water Quality in the Thames River Basin" (flyer attached). The purpose of the event is to share results from some of the latest water quality and soil health research that is focused on evaluating the performance of agricultural Best Management Practices in Ontario. Furthermore, the LTVCA will be sharing information on the recently launched McGregor and Jeannette's Creek Phosphorus Reduction Program.

The event will be held at the University of Guelph Ridgetown Campus on August 22nd from 8:00 am to 12:00 pm (Registration opens at 7:30 am). The event is free and breakfast will be provided! If you would like to attend the event please RSVP using the below Eventbrite link:

## https://soil-health-water-quality.eventbrite.ca

Below is a brief agenda and list of speakers for the event:

- 1. Colin Little: LTVCA McGregor and Jeannette's Creek Phosphorus Reduction Program
- 2. Dr. Merrin Macrae: Ontario Agricultural BMP Water Quality Research
- 3. **Dr. Dave Hooker and Dr. Laura Van Eerd:** Optional University of Guelph, Ridgetown Campus Plot Tour Cover Crop, Tillage, and Fertility Research Trials

## Thames River Phosphorus Reduction Collaborative (TRPRC)

During the months of June and July, some maintenance occurred at the TRPRC phosphorus filter tank pilot project site. A contractor was hired to excavate around each concrete tank and to seal areas where leaks were occurring around the tank joints. The LTVCA had to remove and reinstall



water quality and quantity instrumentation at the site during this time period to accommodate this maintenance.

Furthermore, the LTVCA removed the Filtrexx Canada Phosphorus Adsorption Material (PSM) from the tanks after it had been tested for 15 months. The tanks were cleaned after the material was removed, weighed, and sampled. A report

will be released in the future by the TRPRC that summarizes the water quality and quantity results from the monitoring that occurred at the site from March of 2018 to June of 2019. The report will evaluate the efficacy of the PSM at capturing phosphorus from the adjacent field's subsurface tile drainage system.

The TRPRC and LTVCA will now test a new PSM in the tanks at the site. With the assistance of the LTVCA and OMAFRA, Silt Sock Environmental has installed a biochar material in the tanks to be tested for the foreseeable future. The LTVCA will continue to provide water quality and quantity monitoring services at the site to support the research objectives of the TRPRC project.



#### 9.4.3) Aquatic Species at Risk (SAR)

Four years' of Canada Nature Fund for Aquatic Species at Risk (SAR) funding has been approved by Fisheries and Oceans Canada (DFO) to support completion of the aquatic SAR threat assessment, public and Indigenous outreach activities, habitat stewardship (riparian corridors and wetland restoration) and SAR monitoring to benefit aquatic SAR. Funding is in the amount of \$175,000 in 2019/20, \$50,000 in 2020/21, \$200, 000 in 2021/22 and \$225,000 in 2022/23.

Stewardship Flyers raising awareness of aquatic (fish and freshwater mussel) SAR and funding available through the above program and DFO's Habitat Stewardship Program to undertake riparian habitat and wetland restoration have been developed and printed for the lower Thames River and Rondeau Bay. Flyers have been delivered to mailboxes in priority areas in the Rondeau Bay watershed (rural properties along the Rondeau Bay shoreline and approximately 1 km upstream of New Scotland Line – i.e. areas within approximately 1 km of critical habitat for SAR in Rondeau Bay). The Thames River flyers will similarly be delivered to rural mailboxes associated with properties within 1 km upstream of the main channel of the Thames River, McGregor Creek and Baptiste Creek that aquatic SAR are known to inhabit. Stewardship activities to reduce the amount of sediment, nutrients and contaminants reaching watercourses in these areas are expected to have the greatest benefit to aquatic SAR. Addressing serious sediment, nutrient and/or contaminant issues in these watersheds through stewardship projects outside of the 1 km priority area may be considered provided there is sufficient justification as to the benefit to aquatic SAR.

Recommended: Randall Van Wagner Manager, Conservation Lands and Services

*Reviewed:* Mark Peacock, P. Eng. C.A.O. / Secretary-Treasurer

# PRESENTED BY:

# SOIL HEALTH & WATER QUALITY Improving the Thames River Basin:

Lower Thames Onservation

Agricultural Practices Performance







Free breakfast, free event, REGISTRATION REQUIRED Guest speaker: Dr. Merrin Macrae- from University of Waterloo Optional trial plot tour: Cover Crop, Fertility, Tillage Research Trials McGregor & Jeannettes Creek Phosphorus Reduction Program

August 22nd 8am-Noon Wilson Hall, U. of Guelph, Ridgetown Campus: 120 Main St. E. Ridgetown

RSVP SOIL-HEALTH-WATER-QUALITY.EVENTBRITE.CA OR CALL: RYAN CARLOW: 519.354.7310 X 228 RYAN.CARLOW@LTVCA.CA

# 9.5) Communications, Outreach and Education

#### 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).

#### 4 media releases were written and distributed in July 2019.

- 1. (June 25) "Experience Longwoods and Ska-Nah-Doht Village at Dusk!" Twilight Tuesdays
- 2. (July 9) "Spend a Day in the Park, Step into the Past" Artifact Day with Ska-Nah-Doht and the OAS
- 3. (July 12) "Our Local Species at Risk!" Learn all about them & how to help!

#### 4. (Aug 7) "Learn to Fish"

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.

#### 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 takes out advertisements in the local print media to inform the public about workshops and seminars.

Listen to the local MYFM Radio Station in Strathroy which will be airing radio advertisements for 'Twilight Tuesdays' 25 spots until August 20 on weekends and Mondays, followed by 'Spirit of the Harvest' 25 spots during the week of Sept.23rd and 'Season's Greetings' 15 spots during the week of Nov. 18. This was an advertising package taken out by the LTVCA at the beginning of 2019 to encourage local community awareness of and participation in Longwoods / Ska-Nah-Doht events.

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

#### 9.5.4) Presentations & Tours

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!

Mark Peacock and Bonnie Carey presented an LTVCA update and answered questions on July 2 to Strathroy-Caradoc Council and to Southwest Middlesex Council on July 10. Mark presented to West Elgin Council on July 18. On August 28, Mark and Bonnie plan to give a presentation to Dutton Dunwich Council and on September 9 to Southwold Council.

On June 27th, a "Watershed East" Bus Tour for our Directors and community partners was well attended. The tour start and finish was E.M. Warwick Conservation Area and we travelled through West Elgin, Southwest Middlesex, Strathroy-Caradoc, Middlesex Centre and Southwold. Highlights included learning about our conservation areas, landowner/LTVCA stewardship projects, tourist attractions, First Nations communities, Source Water Protection, LTVC Foundation's memorial forest program and Heritage River designation. Following the bus tour, a lunch was served at E.M. Warwick Conservation Area catered by Tall Tales Café from Wallacetown. A Directors' meeting was held after the lunch at the conservation area.







#### 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 <u>www.ltvca.ca</u>. 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. We also promote all the Conservation Ontario campaigns such as "Healthy Hikes", "Eco-health" and "Source Water Protection".

The number of followers and subscribers on our various social media platforms continues to grow each month! The LTVCA's Twitter account currently has **931** followers. LTVCA's Facebook page has **1,744** followers and the Ska-Nah-Doht Village Facebook page has **1,253** followers. There are **36** subscribers to our YouTube channel.

Our social media campaign continues to showcase the LTVCA departments daily on Facebook, Twitter and to our Directors and local politicians. A social media policy and procedures is posted on our website.

#### Mondays – focus on water, flooding, regulations and erosion







#### Wednesdays - focus on Conservation Areas, natural heritage



#### Thursdays – focus on education, outreach



#### Fridays – focus on water quality, quantity, agriculture



#### 9.5.7) Lower Thames Valley Conservation Foundation

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. **Fred Galloway Associates** has been hired as the consultant to do the work on the Longwoods Resource Centre feasibility study. There will be a verbal report at the meeting on progress to date.

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

Another Ontario Trillium Foundation capital grant was submitted by the Foundation for \$94,000 of funding (capital and labour costs) to replace the wheelchair accessible boardwalk to the marsh at Longwoods. Fingers are crossed! Thanks to Sheila Simpson and Randall VanWagner for pulling this together.

A meeting of the Foundation Directors was held on June 18. The next meeting of the Foundation Directors is September 24 at 7 pm at the Resource Centre.

#### 9.5.8) Publications



Communications, Outreach and Education staff assist Conservation Authority staff with publications as needed. Publications are posted on our website for downloading. Staff assisted with the new Camp rules brochure which is posted on conservation area webpages. As well, work has begun on a new LTVCA Directors' Handbook. Guidance is being given to contract staff as they create a new LTVCA Conservation Areas booklet.

#### 9.5.9) Applications

Communications, Outreach and Education staff apply for project funding as grants become available. Most recently we applied to the federal Canadian Experiences Fund for \$64,000 to do upgrades to the log cabins at Longwoods Road Conservation Area.

#### 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.

The second Friday of December by noon is the deadline to receive nominations for the LTVCA's Volunteer Heroes Award. LTVCA watershed individuals can be nominated. Successful nominees receive a pin and certificate and special recognition at the LTVCA's Annual General Meeting in February.

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

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.

#### 9.5.11) Group Workshops

Workshops are held at Longwoods Road Conservation Area / Ska-Nah-Doht Village & Museum and LTVCA outreach locations to youth and their leaders. Youth groups work towards badges for various outdoor activities. In June of this year, 2 Village tours for 43 people were conducted (2018 2 tours for 49 people).

Rough estimates for July 2019 are 83 participants.

#### 9.5.12) School Field Trips for Students

School program statistics for June 2019 - 683 students, 155 free chaperones/teachers, 35 classes (same method of counting for 2018 results in - 919 students, 242 free chaperones/teachers, 42 classes). Note that we are now offering a blending of what used to be known as "conservation" education programs with "Native studies" programs. The statistics for June reflects the 2 programs totalled together. There are 3 education staff offering programming in 2019 vs 4 education staff in 2018.

#### 9.5.13) 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 10<sup>th</sup> Anniversary in the fall of 2019.

We promote our new Chatham-Kent and Lambton Children's Water Festival **Family Day** planned for the Saturday, October 5<sup>th</sup>.

#### 9.5.14) Ska-Nah-Doht Village & Museum at Longwoods Road Conservation Area

We are very fortunate to have received Canada Summer Jobs (CSJ) funding for 1 student and acquired 2 student placements from the Chippewas of the Thames community. Students will assist with the summer events, on-site Crafty Cabin for young visitors and research fact sheets for Species at Risk (SAR).

Rachael (CSJ), Alyssa and Jayanna will be gaining experience in the everyday running of a rural museum! They are working on updating displays, creating crafts for SAR, assisting with tours and directing visitors. We also have a new pollinating exhibit including 2 honey bee hives!



Students are helping to monitor progress on the hives. The summer team is going to be off-site; Sunfest – selling gift shop items at London largest music festival and taking the SAR presentation to Ridgetown Library and CM Wilson. Every week is "Twilight Tuesday" where they are fire-keepers, keeping the hikers moving and keeping the fun going!

The education staff are already preparing for the 2019-20 school season. We are testing new programs while conducting the Twilight Tuesday events. All programs are being integrated with both Western Science and Traditional Ecological Knowledge (TEK) whether the subject is Incredible Insects or Traditional Pottery making.

#### 9.5.15) Certification and Courses

In July, Carlyn Johnston, LTVCA's Community Educator offered the "Safe Hiker" course through Hike Ontario to the LTVCA Outreach and Education staff and the summer students at Longwoods Resource Centre. Everyone passed!



Recommended: Bonnie Carey Manager, Communications, Outreach and Education

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

## WHEATLEY TWO CREEKS ASSOCIATION

Minutes of regular meeting held on June 6th 2019 at the Wheatley Legion

Attendance: Rick & Forest Taves, Gerry Soulliere, David & Sharon Light, Pauline Sample , Lorna Bell, Ron Haley, Joe Pinsonneault, Mark Peacock, Bruce & Marj. Jackson.

Minutes: Moved by Phil, sec. by Lorna minutes be accepted as read. ( Carried )

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

**Memorial Groves:** It has been too wet to cut the Groves but they will be cut when conditions improve. Mark stated that the L.T.V.C.A. will supply tick warning signs making people aware of them and how to remove them. Sheila has helped us to update the website.

**Prop. & Equip.:** Rick motioned to install a plaque on the first post leading down to the stage to thank Johnston Net & Twine for the rope they donated. We are still trying to get a logo painted on the stage. Conditions on the trails are too wet to allow heavy equipment in to repair the North bridge. We will use existing used telephone poles with 2' x 12's and cement blocks on the west end. Will finish stage roof when Adam is available. It was suggested that all elec. lines be located for safety, Mark said that the L.T.V.C.A. could survey the area and info. be put on GPS. A new info. sign is ready to be put on the small pavillion. A disability picnic table is ready to be dropped off . The L.T.V.C.A. will pick up the split rails behind the stage when ground is dry. Bruce will service the tractor on Sat., Rick suggested that at least one other person should be there to learn the procedure. Will look into purchasing a U.T.V. for the trails. Some Norway Maples need to be removed near the Hike bridge. Joe has 2 security cameras donated by Lee & Linda that need to be installed.

**Concerts:** David wanted to know if we could extend the season an extra week to accomodate the Wednesdays who were cancelled the first week. Parking for the June 9th concert will be in the parking lot, along road or at the elevator area across the road due to wet conditions. Wood chips will be put down to form a path from the parking lot to the Pavillion. Joe motioned, Lorna sec. to increase Brian Cobby's rate to \$250.00. Rick suggested putting Tiki torches in on concert nights.

**Financial Reports:** The Account Balance as of April 30th was \$38,695.41. The Account Balance as of May 31th was \$38,657.13. Moved by Phil, sec. by Rick.

Correspondence: Will mail a thankyou note to Johnston Net & Twine.

Old Business: None

New Business: A load of gravel will be ordered to fill in holes in the parking lot.

Adjournment: Rick motioned for adjournment at 8:08 pm

Phil Humphries, Secretary.

## WHEATLEY TWO CREEKS ASSOCIATION

Minutes of regular meeting held on July 4th 2019 at the Wheatley Legion

Attendance: Rick Taves, Bruce & Marj Jackson, Lorna Bell, Pauline Sample, Joe Pinsonneault, Lee& Linda Pearce, Mike Diesbourg, Sheila Moore- Spanos, Joseph Clausen.

Minutes: Moved by Phil Humphries, sec. by Lee Pearce minutes be accepted as read. ( Carried )

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

**Memorial Groves:** The grass has been cut once, needs to be trimmed and 1 fallen tree removed. A bench is ready to be installed.

**Prop. & Equip.** : The plywood, paper & drip edge have been installed on the stage roof. Once the metal stored in the shed is installed it will complete the job. Rick Taves has cut all the trails except the McIntosh which was still too wet. There are some fallen trees on the trails that need to be removed. Goudreau Tree Removal will remove any trees in the creek later in the year. Conditions are finally dry enough to repair the North bridge, date to be determined. Joe Pinsonneault suggested putting a permanent trail from the parking lot to the Large Pavillion. Mike Diesbourg motioned , Lee Pearce sec. to get quotes on the job. Joe will contact Larry McDonald about any plans for the Peace Garden. Joe will advise people before the concerts to not sit within 3' of the rope for safety.

**Concerts:** We have received the \$5000.00 Grant from the Municipality of Chatham- Kent. Moved by Lorna Bell, sec. by Linda Pearce to authorize the President or Vice-President and the Treasurer to allow the municipality to forward 50% of the grant. Snakebite will replace Dale Butler on July 14.

**Financial Reports:** The Account Balance as of May 31st was \$38,657.13. The Account Balance as of June 30th was \$39,555.66. Moved by Phil Humphries, sec. by Lee Pearce.

#### Correspondence: None

#### Old Business: None

**New Business:** Sheila Moore-Spanos of the Early On Family Centres which assists family's with young children 0-6 years old and uses Two Creeks for outdoor activities would like to store some of their equipment in our shed. Joe Pinsonneault motioned and Mike Diesbourg sec. to accept her proposal at no charge. Sheila also mentioned that they are government funded and that Two Creeks is the first and only facility in Ontario to hold activities outdoors. Joseph Clausen from Lakepoint Family Church wants to hold a 24hour run through Two Creeks in late August to raise money for a group called Compassion Child. We agreed to his proposal but told him that he would need 3rd party insurance. Gerry asked if it was possible to hold the next meeting a day early on July 31st.Rick Taves motioned , Lee Pearce sec.

Adjournment: Mike Diesbourg motioned for adjournment at 8:03 pm.

Phil Humphries, Secretary.

# 9.7) CAO's Report

Date:	August 22, 2019
Memo to:	LTVCA Board of Directors
Subject:	C.A.O.'s Report
From:	Mark Peacock, P. Eng., C.A.O. / Secretary Treasurer

#### Monthly Staff Meetings and Wellness Committee

Objective 7 of the strategic plan - Improve Internal Communications recommends monthly staff meetings. To this end monthly staff meetings continue to occurred in 2019 and have included a pot luck lunch, business, training and a learning session. Additionally, staff have a wellness committee that is moving forward with a staff wellness event on a weekend in September. The wellness committee addresses Objective 10 - Improve Human Resources recommendations of the strategic plan.

#### **Meeting with Municipalities and Resident Groups**

The last few months have been busy with meetings and presentations to municipalities and landowner groups. Presentations have been made to Councils of Municipality of West Elgin, Municipality of Southwest Middlesex Council, and Municipality of Strathroy-Caradoc. Additionally, I have also attended a number of meetings with landowner groups in Erieau, Shrewsbury, Erie Shore Drive and Lighthouse Cove. As the LTVCA moves forward with working to address flooding and erosion issues along Lake Erie and Lake St. Clair, staff have been meeting with the municipalities most effect. The LTVCA is committed to work with our municipalities in addressing resident's concerns.

#### **Technical Studies**

The LTVCA has been working closely with the Town of Lakeshore, the Municipality of Leamington and the Municipality of Chatham-Kent on a number of Technical studies. Within Lakeshore, staff are working to address technical issues around development at Lighthouse Cove. During the month of August significant resources have been spent completing bathometric surveys of channels and the Thames River in this area. Additionally, work is beginning on a new shoreline management plan for Lakeshore with LTVCA providing technical assistance. In the Municipality of Leamington, staff continue to support the Big River sub-watershed master plan and work to find implementation solutions to protect downstream areas from impacts of development on this small watershed.

#### **Risk Management Planning**

As a standard procedure, Marsh Insurance (our insurer) will be meeting with the Lower Thames Valley Conservation Authority. They will be confirming that the LTVCA is addressing risk and has a plan in place to address this issue. The Lower Thames Valley Conservation Authority Risk Management Plan, prepared in 2018 will help ensure a positive review.

#### **Budget Planning**

Monthly managers meetings continue and a number of initiatives have been work on. This includes undertaking the budgeting process which was developed in 2018 to allow more input from managers and staff as recommended by the Strategic Plan.

#### **Meetings with MPP Rick Nichols**

A number of meetings have been held with MPP Rick Nichols over the last few months. The LTVCA is working to inform Mr. Nichols regarding the extent of flooding and erosion that residents are experiencing due to high water levels in Lake

Erie and Lake St. Clair. The intent has also been to request provincial support for solutions to these issues. On August 1, 2019 Richard Wyma (Essex Region CA) and I took Mr. Nichols on a tour to see the issue first hand. Following the tour, we met with 13 southwestern Ontario municipalities (meeting organized by the Municipality of Chatham-Kent) to provide further information. Three briefings have been prepared and provided on Canada-Ontario funding issues that affect LTVCA, flooding and erosion Issues and Issues resulting from the passing of Bill 108. These briefings are provided in this agenda.

**Recommendation:** That the C.A.O. / Secretary Treasurers Report be received for information.

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

**Recommendation:** That the above reports, 9.1) through to 9.7) be received for information.

# 10. Correspondence

# 10.1) Briefing to MPP on Canada Ontario Agreement





# Canada Ontario Agreement (COA) - Implementation

#### Background

- Since 1971, a series of Canada-Ontario Agreements (COAs) on the Great Lakes have enabled both
  governments, together with conservation authorities and other partners, to address the most
  significant challenges facing the Great Lakes.
- ERCA and LTVCA have partnered with Canada and Ontario in the delivery of many programs and projects funded through the COA which have been designed to further Ontario's commitments under the Great Lakes Water Quality Agreement, the Great Lakes Protection Act (2015), and the Canada Ontario Lake Erie Action Plan for phosphorous reductions.
- Though the current COA expires at end 2019 and a new COA is currently out for consultation, ERCA and LTVCA have long term plans and project commitments in place with various Ministries (MECP, OMAFRA, MNRF) which is then matched with funding from Canada and other partners for project implementation. Despite these commitments, ERCA and LTVCA have not received 2019 funding from Ontario to implement these programs. Together, these programs total \$540,000.
- ERCA and LTVCA recognize the value of these programs and data and have continued to support
  these programs in a reduced capacity through reserves or otherwise. Without funding from current
  COA for program delivery, these programs will end and a gap in program delivery or data collection
  will significantly impact the Province's ability to satisfy its commitments.

#### Unfunded Commitments

- \$95,000 Detroit River Remedial Action Plan (MECP). Since 2003, Environment and Climate Change Canada and MECP have jointly funded the coordination and implementation of the Detroit River Remedial Action Plan (RAP) through ERCA. This program, which includes funding for a fulltime RAP Coordinator (\$70,000 each) to support delisting of the Detroit River as a Area of Concern; and funding to undertake education and outreach projects that promote and contribute to the restoration of beneficial uses (\$25,000). This program fulfills the province's COA commitment to support existing local community RAP implementation groups in the AOC as they work towards delisting. This is then matched by Environment and Climate Change Canada, which has committed \$97,500 for 2019/2020.
- \$75,000 Detroit River Area of Concern Implementation (MNRF). The Detroit River Area of Concern Beneficial Use Impairments (BUIs) include Fish & Wildlife Populations, Fish & Wildlife Habitat loss and the consumption of fish. MNRF was responsible for contributions to projects where Fish and Wildlife habitat and populations are impaired and require action. Loss of wetlands has been identified in the Detroit River Stage 1 report as the leading cause of Loss of Fish and Wildlife BUI. This funding fulfills the province's commitment to restore coastal/nearshore wetlands which is a major priority to reach goals for delisting this AOC.

- \$95,000 Phosphorous Reduction/Wetlands (MNRF/OMAFRA). ERCA has worked with MNRF to
  protect, restore and create habitat (wetland, riparian buffer pollinator), especially coastal/
  nearshore wetlands in western basin of Lake Erie. This project supports the OMARFA Phosphorus
  reduction initiatives ongoing in the Western Basin of Lake Erie and the Provincial Wetland
  Conservation strategy that speaks to prioritization of wetland conservation projects in this region.
- \$100,000 Phosphorous Reduction Projects (OMAFRA). The LTVCA has worked with OMAFRA and the agricultural community to implement Best Management Projects in Lake Erie watersheds (e.g. using monitoring of tile/surface water to guide selection and implementation of BMPs, BMP education and awareness, identification of significant non-point source areas of soil erosion, and increasing knowledge of agricultural BMPs for phosphorous reduction). This project supports OMARFA's commitments to achieve a 40% reduction in phosphorous entering Lake Erie as described in the Lake Erie Action Plan.
- \$60,000 \$100,000 Kingsville-Leamington (Priority Watersheds) Study (MECP). Since 2012, ERCA has conducted a monitoring program in the Kingsville/Leamington area, specifically examining greenhouse influenced and non-greenhouse influenced streams. This is the only monitoring program for the Leamington Tributaries, which were identified as a priority watershed in Annex 4 of the Great Lakes Water Agreement and the commitment to achieve a 40% reduction in phosphorous entering Lake Erie. ERCA has continued sampling, since the data is vital to the Priority watershed, although we have scaled back the program, and are now in deficit. Without funding, ERCA will have to discontinue the program which will impact Ontario's ability to report on its international commitments for phosphorous reductions in the Leamington Tributaries Priority Watershed.
- \$95,000 Surface Water Sampling (MECP). Through COA, the LTVCA has expanded its surface
  water sampling network with an additional 11 locations across the watershed. By expanding the
  network to 22 locations and sampling during the winter months, a better understanding of water
  quality can be achieved. Winter and spring months have demonstrated to be the time period where
  most nutrients / contaminants are transported to the Great Lakes. The data from the expanded
  sampling provides base information needed to plan and evaluate actions needed to achieve the
  target of 40% reduction in phosphorous as defined in the Lake Erie Action Plan. The expanded
  sampling program is currently being undertaken with LTVCA funds and will not be continued
  should COA moneys not be available in the future.

#### Recommendation

That the Province of Ontario continue as a partner in implementation of Great Lakes Water Quality
Agreement, and phosphorus reduction projects as part of the Canada Ontario Agreement within
the Western Basin of Lake Ontario. And further that that the Province of Ontario provide COA funds
to Conservation Authorities continuing to undertake this work.

#### Expected Results

 The goal is to maintain momentum on reaching the agreed upon phosphorus reduction targets for the Western Lake Erie Basin by continuing implementation and monitoring projects crucial to success of this program.





# Lake Levels and Flood Management

#### Background

- The Essex Region and Lower Thames Valley Conservation Authorities are responsible for management of significant stretches of shoreline, and the tributaries and watersheds of Lake St. Clair, Lake Erie, as well as the Detroit River, and the Thames River. These shoreline regions have tremendous ecological, aesthetic, recreational, social and economic value, and support significant private and public infrastructure investments (roads, utilities, drainage systems, services, etc.). The long-term stability of the shoreline areas is vital to many community's economic, social and recreational activities, and the overall health of the environment.
- Current and Monthly Mean Lake levels in Lake Erie and Lake St. Clair Lake levels are at all time record highs, exceeding highs recorded in 1986. Currently:
  - Lake Erie is approximately 84 cm (33") above long-term monthly average lake levels. This is 13 cm (5") above previous highs in 1986, and 35 cm (14") higher than this time last year.
  - Lake St. Clair is approximately 86 cm (34") above long-term monthly average lake levels.
     This is 10 cm (4") above previous 1986 highs, and 35 cm (14") higher than this time last year.
- Lake levels are expected to peak sometime in July; however, any reduction in water levels into the fall will bring us back to levels at or slightly above 1986 record levels. The predicted reduction is on the order of 2.5-5 cm for Lake Erie, which, considering our current level, will not equate to any reduction in the level of flood/erosion risk.
- Residents, businesses, and infrastructure are under significant threat as a result of high water levels, wave action, flooding and erosion, which has included:
  - Closure of two sections of roads along Lake Erie in Chatham-Kent. It is expected that a third section of road will be closed within the year. Similarly, LaSalle and Kingsville have closed sections of road due to high water levels. High water levels have closed marinas in Windsor and Lakeshore, closed waterfront trails in Windsor, and closed sections of Holiday Beach Conservation Area, and Tremblay Beach Conservation Area.
  - Residents along the Lake Erie Shoreline between Point Pelee National Park and the Town of Wheatley have experienced 10 flood events since March 2019. Lakeshore is preparing to move to the initial step of the 'Enhanced Activation' as per the Town of Lakeshore Emergency Response Plan due to flooding within that municipality, including significant flooding in Lighthouse Cove, where numerous homes and properties have suffered and continue to suffer from flooding with limited access into and out of the community. Some of these areas are not municipally serviced, and are sitting in water which results in failing septics, mould, and related health and safety and structural concerns.

- Shoreline erosion on Pelee Island is particularly concerning because it has washed out sections of roadway that provide ingress/egress for residents.
- Because both Essex Region and Lower Thames Valley are low lying, high lake/river levels mean that
  outfalls from stormwater and drainage systems have no place to go. Any measurable rainfall, such
  as those events that happened in 2017 and 2018, will cause significant flooding, especially in our
  urban centres.

#### Climate Change and Shoreline Management

- Chatham-Kent and Lower Thames Valley Conservation Authority have received funding through Canada's Climate Change Adaptation Platform chaired by Natural Resources Canada (NRCan) and are studying the effects of climate change related to Lake Erie. The project is entitled "Adapting to the Future Storm and Ice Regime in the Great Lakes." The output will be the development of a Chatham-Kent Lake Erie Integrated Shoreline Management Plan. To date, there has been seven public engagement sessions focused on providing education, projections and potential solutions.
- Key findings of the study indicate erosion and flooding is anticipated to further increase due to:
  - Lake Erie water levels rising 0.75 meters higher than today's record levels
  - Wave energy escalating by 70 to 120 percent
  - Winter temperatures rising by 6 to 8 degrees, and
  - An ice-free Lake Erie, resulting in year-round erosion and flooding from storms

In Chatham-Kent alone, these outcomes will impact over 500 buildings and homes at an estimated value of over \$100 million. Estimated infrastructure risks are \$500 to \$750 million.

 Learnington and Lakeshore have also initiated shoreline management studies in response to concerns from citizens and results from those studies are not expected to be any less severe than those found in the Chatham-Kent study.

#### Recommendations

That Provincial, federal and municipal governments work with ERCA and LTVCA to undertake a
coordinated short and long term strategy to address the existing and expected impacts to
Chatham-Kent, Leamington and Lakeshore as a result of current and future water levels, flood and
erosion hazards, and climate change on Lake Erie, Lake St. Clair and the Detroit River.

#### Expected Results

- Municipalities are on track to develop integrated shoreline Management Plans for Chatham-Kent, Leamington and Lakeshore that will incorporate provisions for climate change adaptation. These plans will use future water levels, ice conditions and storm extremes to assess coastal hazards such as flooding and erosion, and recommend appropriate adaptation response strategies.
- Based on those strategies, the goal is for municipalities, Conservation Authorities, the province and the federal government to develop sustainable and funded implementation plans to address damages being experienced by western Lake Erie and Lake St. Clair shoreline communities.





# Bill 108: Watershed Management

#### Background

- On June 7th the Province passed Bill 108, the More Homes, More Choice Act, 2019. Bill 108 does not change the overall objects of a Conservation Authority as defined in Section 20 of the Conservation Authorities Act: "to further the conservation, restoration, development and management of natural resources in their watershed". This is also consistent with the Made-In-Ontario Environment Plan which confirms a Conservation Authority's role in managing natural resources on a watershed basis.
- The overall object and main purpose of a Conservation Authority, to manage natural resources on a watershed basis, is not, however, included as a core or mandatory program or service in Section 21 of the Act, which defines how conservation authorities levy municipalities for mandatory levyfunded programs, and other, non-mandatory, programs and services (Section 21):
  - 21.1 (1) An authority shall provide the following programs or services within its area of jurisdiction:
    - A program or service that meets any of the following descriptions and that has been prescribed by the regulations:
      - i. Programs and services related to the risk of natural hazards.
      - ii. Programs and services related to the conservation and management of lands owned or controlled by the authority, including any interests in land registered on title.
      - iii. Programs and services related to the authority's duties, functions and responsibilities as a source protection authority under the Clean Water Act, 2006. iv. Programs and services related to the authority's duties, functions and responsibilities under an Act prescribed by the regulations.
    - A program or service, other than a program or service described in paragraph 1, that has been prescribed by the regulations on or before the first anniversary of the day prescribed under clause 40 (3) (h)
- The legislation now requires that if municipal levy is used to fund other programs and services, a Memorandum of Understanding must be agreed to by the municipality. Though it is intended and desired that these MOUs be developed and agreed to by all member municipalities within the conservation authority's watershed region, municipalities may 'opt in' or 'opt out' of programs, which disrupts a CAs ability to meet its overall object, to manage natural resources on a watershed basis.

- All other programs or services of a Conservation Authority do not work effectively if a watershed approach and participation and funding from all member municipalities in a watershed is not in place.
- Bill 108 will now compel CAs to seek agreement and secure levy funding from each of the municipalities within their watersheds to carry out work like water quality monitoring, restoration and stewardship initiatives, phosphorous reduction programs, education and outreach programs, and other services which would now be defined as non-mandatory, even though many of these programs are designed to address provincial, national and international commitments.
- The prospect of getting everyone in a watershed area to agree to continue to support nonmandatory projects is challenging. In light of major Climate Change impacts and huge programs such as a targeted phosphorus reduction of 40% for tributaries of western Lake Erie, Conservation Authorities need to be supported not limited in their watershed management roles.

# Recommendation

 That the objects of conservation authorities related to management of natural resources on a watershed basis, as defined in Section 20 of the *Conservation Authorities Act* and consistent with Made-In-Ontario Environment Plan, be included as a mandatory program, and described in a regulation made under Section 21.1 (1) ss2.

# Expected Results

 The goal is to include the main driving action of Conservation Authorities – Watershed Management in the mandatory core programs as defined by the Province of Ontario in a regulation under Bill 108. This will support Conservation Authorities in delivering local programs to address major watershed environmental issues in Ontario.

# **10.4)** Surging Great Lakes water levels threatening shorelines across Southwestern Ontario

#### MAX MARTIN

Updated: July 24, 2019



Brenden Fleming fishes for perch off the pier in Bayfield on a bright sunny summer day on Lake Huron. Mike Hensen/The London Free Press/Postmedia Network

Forget your cottage dock under water and your favourite beach vanishing: Record-high Great Lakes water levels are causing much worse grief in Southwestern Ontario, reshaping its shoreline, menacing housing and leaving the future of some landmarks in doubt.

Blocked-off roads, closed parks, endangered houses and chunks of lakeside bluffs crumbling away are among the fallout of the surge in water levels this summer in the region, whose Lake Erie shoreline alone runs hundreds of kilometres and its Lake Huron shore even more.

Even for a region that's endured high lake levels in the past, watching as cottages were washed away in some places, 2019 is shaping up as a destructive stand-out.

"Erosion always occurs, but this year in particular it seems to be having the greatest impact on people," said Jason Wintermute, a water management supervisor with the Chatham-based Lower Thames Valley Conservation Authority (LTVCA).

While shoreline erosion is natural, this year's record-high water levels – combined with bad storms whose winds can turn the water, especially in shallower Erie, into damaging walls of water – has raised the stakes, accelerating damage and heightening safety risks.



High water levels are impacting many areas along the Lake Erie shoreline in southern Ontario, threatening some cottages and summer homes, and resulting in the significant loss of beach areas including here at Long Point. Photographed on Monday July 15, 2019. Brian Thompson/Brantford Expositor

In Elgin County, for example, there have been problems both on high bluffs overlooking Erie and low-lying stretches along the lake.

Some roads in the drainage area overseen by the LTVCA have been closed because of flooding and erosion, and in Rondeau Bay, south of Chatham, parts of another road have been blocked amid safety concerns.

Chatham-Kent's Talbot Trail and Erie Shore Drive are also closed.

"Erie Shore Drive is flooding daily," said Wintermute. "The waves are crashing over the existing breakwalls."

More than 100 homes along the road have been affected by flooding.

The fallout of shoreline erosion has been so strong in the region that Chatham-Kent – a low-lying area with a long Erie shoreline – recently declared a climate emergency.

The erosion could do long-term damage to tourism, agriculture and infrastructure and "worries people to no end," said Trevor Thompson, a Chatham-Kent politician.

Worry is especially great along the local stretch of the Talbot Trail, which runs from Windsor to Fort Erie. Parts of the road were moved 10 years ago in response to erosion, but the fix didn't last long enough.

"You can see the impact with the cracks. The road is falling away there," he said. "We have a 35-kilometre stretch of road that will disappear in the next 50 to 100 years."

Farther down the Erie shore, in Essex County, an area prone to repeated flooding triggered was hit again earlier this year, with a conservation authority official warning someone is eventually going to die if area residents aren't moved.

Erie's Learnington to Chatham-Kent shore looms large in the fight against the water, cited as a top priority for needed fixes in a recent, 10-year action plan released by a coalition of groups involving in preserving and repairing the Great Lakes. Some of the nation's most valuable farmland is at risk in that region.

But there are other fronts in the Southwestern Ontario fight against the forces of high water and erosion, as well:

- Lake St. Clair's high water levels potentially menace thousands of homes in Windsor's Riverside area, where some say a six-kilometre diking system that would cost millions is needed.
- At Long Point, along Erie, stretches of road are under siege from the lake and areas of Long Point Provincial Park, a jewel in the Ontario park system, have been closed because of "public safety concerns" — not expected to re-open until mid-August, parks officials say.
- Point Pelee, mainland Canada's southernmost point, jutting out into Erie, and a prized national park, has also taken a pounding from high water and erosion.

Chatham-Kent is fighting back, partnering with environmental consultants Zuzek Inc. Natural Resources Canada and the area conservation authority to study the impact of climate change on its shoreline.

"People are losing 10 to 20 feet of shoreline a year, which is much, much higher than the average rate," said Peter Zuzek, head of the study. "The approach to developing on eroding shorelines has been a flawed approach. It's one we need to take a serious look at and come up with better ideas."

Things are no better along Lake Huron.

The Maitland Valley Conservation Authority (MVCA) oversees a 50-km stretch of shoreline from Goderich to Amberley. Within its jurisdiction, 760 properties have at least one structure at risk from bluff failure.

Ten landowners have been notified that a primary structure on their property is at imminent risk of sudden bluff collapse, said Jayne Thompson, a spokesperson for the authority.

More than \$360 million worth of land and development in the area the authority oversees is located in areas prone to bluff erosion.

But the solutions to the problems caused by shoreline erosion aren't simple.

Zuzek said he hopes the results of his Erie shoreline study will help communities deal better with the fallout of lakefront erosion.

"We need to look at these parts of the shoreline and look at how we can do better in the future when the risk profile is changing," he said.

# **PROBLEM AREAS**

# CHATHAM-KENT

- Portions of the of Talbot Trail; Erie Shore Drive; areas near Rondeau Bay.

# **ESSEX COUNTY:**

Erie shoreline in Learnington area; Lake St. Clair shoreline in Windsor area
 Point Pelee National Park; Pelee Island

NORFOLK COUNTY Long Point Provincial Park

# HURON COUNTY

Lake Huron shore between Goderich and Amberley mamartin@postmedia.com

# 10.5) Federal Funding Supporting 61 Flood Mitigation Projects in Ontario

# WATERCANADA



By Andrew Macklin July 26, 2019

Minister of Public Safety and Emergency Preparedness Ralph Goodale announced over \$7.75 million in funding to support work on 61 new projects in Ontario under the National Disaster Mitigation Program (NDMP).

Of the 61 projects announced:

- 10 will provide funding for the completion of risk assessments to inform flood risks for a total of \$803,502 in federal funding;
- 18 will help communities identify specific impacts of a flood event on structures and people through the development of flood maps and models for a total of \$1,660,138 in federal funding;
- 13 will help communities plan to mitigate against future flood events for a total of \$2,019,829;
- 7 will fund small-structural mitigation projects for a total of \$2,062,487 in federal funding; and
- 13 will fund non-structural mitigation projects for a total of \$1,212,319 in federal funding.

"This spring, Ontario residents witnessed first-hand how weather-related natural disasters are getting more severe, more frequent, more damaging, and more expensive due to climate change. Through the NDMP, the Government of Canada is committed to working with all of our partners to better identify, plan for, and reduce the impact of weather-related emergencies and natural disasters," Goodale said.

The Government of Canada cost-shares up to 50 per cent of eligible expenses for projects submitted by provinces and 75 per cent of eligible expenses for projects submitted by territories under the NDMP.

"Extreme spring flooding is happening more frequently in Ontario. It's costing Ontarians millions of dollars to repair the damage to their homes and businesses, along with local infrastructure like roads and bridges," said Steve Clark, Ontario's Minister of Municipal Affairs and Housing. "Flood mitigation projects play an important role in protecting communities and reducing the damage caused by extreme weather events. Our government is pleased to help communities access funds through the National Disaster Mitigation Program to help protect Ontarians from future flood damage."

Since the launch of the NDMP in 2015, the Government of Canada has contributed almost \$40 million under the program for 189 projects across the province.

<u>Click here</u> to read the list of projects and how much funding they each received. (See below for projects in and around the LTVCA's watershed, this is not the full list)

# National Disaster Mitigation Program funding to the Province of Ontario: Projects at a glance From: <u>Public Safety Canada</u>

# **Backgrounder**

Projects are categorized by stream.

# Stream 1 – Risk Assessments

## Stormwater Management Master Plan

Total Project Value: \$475,000

Federal funding: \$237,500; Town of Lakeshore funding: \$237,500

Project Start Date: April 1, 2019 (1-year project)

The Town of Lakeshore needs to develop a Stormwater Master Plan to complete a comprehensive review of current municipal storm sewer infrastructure and to analyze storm water capacities. This analysis will identify opportunities for potential enhancements to protect public and private property from flooding, while preserving the natural environment.

# Stream 2 – Flood Mapping

# Southeast Learnington Graduated Risk Floodplain Mapping

Total Project Value: \$215,000

Federal funding: \$107,500; Municipality of Leamington funding: \$107,500

Project Start Date: April 1, 2019 (1-year project)

Coastal floodplain maps will be developed for Southeast Learnington with graduated risk zones that account for the current state of the nearshore, shoreline protection, buildings and the 2017 topographic Light Detection and Radar data. Historical wave height and storm surge conditions will be evaluated, along with the potential influence of climate change on future extremes and ice cover on Lake Erie.

# St. Clair Region Conservation Authority – Flood Mapping Phase 2

Total Project Value: \$310,500

Federal funding: \$155,250; <u>County of Kent</u> funding: \$31,050; County of Lambton funding: \$90,045; <u>County of</u> <u>Middlesex</u> funding: \$34,155

Project Start Date: April 1, 2019 (1-year project)

This project will help St. Clair Region Conservation Authority complete mapping for its entire watershed, building on the floodplain mapping currently being undertaken in City of Sarnia and St. Clair Township. Upgraded mapping will help to more accurately determine floodlines and better identify flood risk and vulnerable areas.

# Stream 3: Mitigation planning

# Lighthouse Cove Flood Mitigation Ingress/Egress Project

Total Project Value: \$85,000 *Federal funding: \$42,500; <u>Town of Lakeshore</u> funding: \$36,957; <u>Lower Thames Valley Conservation Authority</u> <i>funding: \$5,543* 

Project Start Date: April 1, 2019 (1-year project)

This study will develop an understanding of return period water levels resulting from flooding and ice jamming. It will also develop alternative solutions for providing safe ingress/egress for the community of Lighthouse Cove using an overland flow model of the community with different conveyance improvements.

## Stream 4: Investment in non-structural or small-scale structural mitigation

# Flood Forecasting and Warning Hydrometric Network Modernization (Phase 2)

Total Project Value: \$200,000

Federal funding: \$100,000; <u>Upper Thames Conservation Authority</u> funding: \$100,000

Project Start Date: April 1, 2019 (1-year project)

This project aims to develop rating curves for water level gauges in the Thames Watershed, as well as update outdated equipment used in the hydrometric network. An evaluation of the stream/rain gauge network will also be conducted, and an ongoing maintenance program will be developed.

# Focus on Flooding and Reducing the Impacts of Stormwater in the Upper Thames Watershed – Phase 2

Total Project Value: \$162,800
Federal funding: \$81,400; Upper Thames Conservation Authority funding: \$76,900; City of London funding: \$1,300; Conservation Ontario funding: \$700; London District Catholic School Board funding: \$500; Thames Valley District School Board: \$2,000

Project Start Date: April 1, 2019 (1-year project)

This project serves as Phase 2 in flood mitigation work in the Upper Thames Watershed. It will build on the progress and successes of the first phases of both the Focus on Flooding Education and Awareness Program and the Reducing Impacts of Stormwater - Green Infrastructure Promotion Program and allow for the development of additional components and extended delivery of both programs to students and the residents of high risk communities.

### South Western Ontario Flood Forecasting Database Support and Enhancement (Phase 3)

Total Project Value: \$400,000

Federal funding: \$200,000; <u>Upper Thames Conservation Authority</u> funding: \$200,000

Project Start Date: April 1, 2019 (1-year project)

This is the third phase of Southwestern Ontario WISKI Hub project, which will enhance reporting and publication of information, and provide user support for hub members on the shared environmental database for Southwestern Ontario conservation authorities. This hub stores time series data, including water levels, water discharges, rating curves, rain, snow, and air temperature for improving flood forecasting, warning systems, and modeling.

https://www.watercanada.net/federal-funding-supporting-61-flood-mitigation-projects-inontario/?utm\_source=Droplet+E-newsletter&utm\_campaign=d25e662977-EMAIL\_CAMPAIGN\_2019\_07\_08\_COPY\_01&utm\_medium=email&utm\_term=0\_1c508e472e-d25e662977-43121833

https://www.canada.ca/en/public-safety-canada/news/2019/07/national-disaster-mitigation-program-funding-to-the-province-of-ontario-projects-at-a-glance.html

## 10.6) Lake Erie Harmful Aglal Bloom Bulletin



## Lake Erie Harmful Algal Bloom Bulletin

08 August, 2019, Bulletin 12

#### Analysis

The Microcystis cyanobacteria bloom continues in the western basin of Lake Erie. Sentinel imagery (8/7) shows the bloom extending from Maumee Bay north along the Michigan coast to Brest Bay, east along the Ohio coast to the Portage River; and up to 13 miles northeast of West Sister Island, nearing the Ontario coast. Mild winds observed since Monday (8/5-7) promoted scum formation, corresponding to areas of dark red and orange in satellite imagery. Measured toxin concentrations remain above the recreational threshold where the bloom is most dense (appearing green from a boat). Keep pets and yourself out of the water in areas where scum is forming. The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are present in Lake Erie.

#### Forecasts

Winds (7-15 kn) forecast today through Saturday (8/8-10) will promote mixing and southeast transport of surface Microcystis concentrations. Winds (4-7 kn) forecast for Sunday and Monday (8/11-12) will promote scum formation. -Keeney, Davis

#### Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: http://publicapps.odh.ohio.gov/beachguardpublic/ Ohio EPA's site on harmful algal blooms: http://epa.ohio.gov/HAB-Algae NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs\_and\_Hypoxla



#### The images below are "GeoPDF". Please visit https://go.usa.gov/xReTC for instructions on viewing longitude and latitude.

Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 07 August, 2019 at 11:23 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.



Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 07 August, 2019 at 11:23.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html



Figure 3. Nowcast position of bloom for 08 August, 2019 using LEOFS modelled currents to move the bloom from the 07 August, 2019



Figure 4. Forecast position of bloom for 11 August, 2019 using LEOFS modelled currents to move the bloom from the 07 August, 2019



For more information and to subscribe, please visit the NOAA HAB Forecast page: https://tidesandcurrents.noaa.gov/hab/lakeerie.html

# 11. Events Calendar

2019	Learn to Fish Workshops
August 15 - 10 am and 1 pm	o C.M. Wilson Conservation Area
August 16 - 10 am and 1 pm	o Big Bend Conservation Area
August 17 - 10 am and 1 pm	o Sharon Creek Conservation
August 18 - 10 am (only)	o Sharon Creek Conservation Area
August 22 <sup>nd</sup> , 2019	Soil Health and Water Quality in the Thames River Basin
8:00 am to 12:00 pm	Willson Hall, University of Guelph Ridgetown Campus, 120 Main Street E., Ridgetown
Sept. 8 <sup>th</sup> , 2019	McKinlay Memorial Forest Dedication Service – C.M. Wilson Conservation Area
1:30 pm to 3:00 pm	
September 15 <sup>th</sup> , 2019	Big Bend Memorial Forest Dedication Service – Big Bend Conservation Area
1:30 pm to 3:00 pm	
Tilbury,	Tilbury Northside Park Memorial Forest Dedication Service
1:30 pm to 3:00 pm	
September 29 <sup>th</sup> , 2019	Spirit of the Harvest – Longwoods Road Conservation Area and Ska-Nah-Doht Village and
11:00 am to 4:00 pm	Museum
October 2 <sup>nd</sup> to the 4 <sup>th</sup> , 2019	10th Annual Chatham-Kent & Lambton Children's Water Festival
9:30 am – 2:00 pm	
October 5 <sup>th</sup> , 2019	Family Day – CK & L Children's Water Festival – C.M. Wilson Conservation Area
November 24 <sup>th</sup> , 2019	Season's Greetings at Longwoods Road Conservation Area
12:00 pm to 4:00 pm	

#### **Ongoing Events**

First Thursday of month	Wheatley Two Creeks Association Meetings
7:30 pm	Royal Canadian Legion, Erie Street N., Wheatley
<b>7 days a week</b>	Ska-Nah-Doht Village & Museum
9:00 am – 4:30 pm	Longwoods Road Conservation Area
July 2 through to August 20 7:30 pm	Twilight Tuesdays at 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