

Board of Directors Meeting

AGENDA

Annual General Meeting 2017 February 16th, 2017 2:00 p.m. Willson Hall, University of Guelph Ridgetown Campus

1.	Call to Order	
2.	Adoption of Agenda	
3.	Disclosure of Conflicts of Interest	
4.	Chair's Remarks	
5.	Introduction of Guests	
6.	Approval of Previous Meeting Minutes (Previously circulated)	2
7.	Business Arising from the Minutes	
	7.1) Harwich Tract update – verbal	
8.	Business for Approval	6
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	9.4) Conservation Services	32
	9.5) Community Relations	34
	9.6) Conservation Authority Education	38
	9.7) Conservation Ontario 2017 Provincial Pre-Budget Submission	40
10.	. Correspondence	
	10.1) Snapping Turtle Harvest in Ontario – UTRCA submission to the EBR	49
11.	. Other Business	
12.	. Adjournment	

6. Approval of Previous Minutes



Board of Directors Meeting

MINUTES

A meeting of the Lower Thames Valley Conservation Authority's Board of Directors was held at the Administration Building of the Lower Thames Valley Conservation Authority commencing at 2:00 P.M. on Thursday, December 15, 2016. The following directors were in attendance: J. Kavelaar's, L. McKinlay, H. MacDonald, R. Doane, D. McKillop, M. Smibert, S. Caveney, J. Wolf, G. Bogart, T. Thompson and L. Leclair.

1. Call to Order

The Chair Mr. Kavelaar's, called the meeting to order and welcomed the members, staff and guests in attendance.

2. Adoption of Agenda

Prior to adopting the agenda the Chair asked if there were any additions. There being none,

1. T. Thompson - D. McKillop

Moved that the agenda be adopted as circulated.

CARRIED

3. Disclosures of Conflict of Interest

There were no disclosures noted.

4. Approval of Minutes of Previous Meeting

2. L. Leclair - L. McKinlay
Moved that the minutes of the Board of Directors Meeting on October 20, 2016 be approved.

CARRIED

5. Business Arising From the Minutes

None.

- 6. Presentations
 - 6.1) Mr. Jason Wintermute provided the Board of Directors with a Power Point Presentation on the Ice Management conditions expected for the 2017 season.

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7. Business for Approval

7.1) Budget vs Revenue and Expenditures for the period ended November 30, 2016

3. S. Caveney - M. Smibert

Moved that the Board of Directors receive the Budget vs Revenue and Expenditures report for the period ended November 30, 2016.

CARRIED

7.2) Boundary Adjustment

4. L. McKinlay - R. Doane

Moved that the LTVCA Board supports the expansion of the UTRCA into the Municipality of Strathroy-Caradoc, and further supports the location of the Authority Boundary division within Middlesex Centre as being Longwoods Road from the Thames River Bridge, easterly to the watershed divide between Dingman and Sharon Creeks.

CARRIED

7.3) Joint Health and Safety Committee Minutes - November 3, 2016

5. L. Leclair - G. Bogart

Moved that the Joint Health & Safety Committee Minutes and recommendations from November 3, 2016 be noted.

CARRIED

7.4) Ska-Nah-Doht Advisory Committee Minutes - November 24, 2016

6. D. McKillop - G. Bogart

Moved that the Board of Directors approve the recommendations of the Ska-Nah-Doht Advisory Committee Minutes of November 24, 2016.

CARRIED

8. Business for Information

- 8-1) Water Management
- 8.2) Regulations and Planning
- 8.3) Conservation Areas
- 8.4) Conservation Services
- 8.5) Community Relations
- 8.6) Conservation Authority Education
- 8.7) Wheatley Two Creeks Association meeting minutes
- 8.8) GM's Report

7. R. Doane - G. Bogart

Moved staffs recommended proposal to send a letter of recognition and appreciation to the Two Creeks Association volunteer members to thank them for their on-going efforts to improve this area and make it a safe and enjoyable destination point for people in the community and surrounding areas.

CARRIED

8. L. Leclair – L. McKinlay

Moved that the Board of Directors receive the Business for Information reports.

CARRIED

9. Correspondence

- 9.1) Carolinian Canada Recognizes Conservation Heroes
- 9.2) National River Conservation Award Winner
- 9.3) Canadian Cancer Society, This Muds for You Race Event, thank you letter
- 9.4) Message from the Honourable Kathryn McGarry, MNRF-Passing of the Invasive Species Act
- 9.5) Elgin Phragmites Working Group, Request for Support
- 9.6) CO's comments on "A Wetland Conservation Strategy for Ontario 2016-2030"
- 9.7) CO's comments on Phosphorus Reduction

9. H. MacDonald - M. Smibert

Moved that the Board of Directors support the request made by the Elgin Phragmites Working Group, item 9.5) to provide assistance and technical expertise when needed by the group; and that the remaining correspondence items be received for information.

CARRIED

10. Other Business

Trevor Thompson raised as issue regarding a constituent's concerns about on-going hunting violations occurring on the Ministry of Natural Resources and Forestry property on Pinehurst Line in the Municipality of Chatham-Kent.

10. T. Thompson - L. McKinlay

Moved that the Board of Directors direct staff to facilitate a dialogue among the interested parties toward the goal of achieving a resolution of this ongoing issue.

CARRIED

Dan McKillop inquired as to whether LTVCA staff were going to be involved in the upcoming 2018 International Plowing Match to be held in the Community of Dover, Municipality of Chatham-Kent and whether other surrounding CA's would be involved in a committee for Conservation Authority projects and programs.

Mr. McKillop was informed that a CA committee had been formed and are working on ideas for a program display for the Plowing Match.

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11. Adjournment

11. L. McKinlay – H. McDonald Moved that the meeting be adjourned.

CARRIED

Al

John Kavelaars Chair

Don Pearson General Manager/Secretary-Treasurer

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8. Business for Approval

8.1) Presentations

8.1.1) 2016 Annual Report

Recommendation: That the LTVCA's 2016 Annual Report be approved as presented.

8.1.2) 2016 Audited Financial Statements

Recommendation: That the LTVCA's 2016 Audited Financial Statements be approved as presented.

8.2) Election of Officers

Recommendation: That D. Pearson be appointed to chair the elections.

a) Chair

Recommendation: That the nominations be closed.

b) Vice-Chair

Recommendation: That the nominations be closed.

c) Personnel & Finance/Executive Committee (3 members to be elected + Chair & Vice-Chair)

Recommendation: That the nominations be closed.

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

Recommendation: That the nominations be closed.

e) Ice Management Committee (2 members from Chatham-Kent, member from Lakeshore + Chair & Vice-Chair)

Recommendation: That the nominations be closed.

8.3) 2017 Budget and Levy

Background

The LTVCA Board adopted the Preliminary 2017 Budget and levy at its meeting on October 20, 2016, in accordance with the following resolution:

"That the 2017 preliminary budget totaling \$3,097,028 be adopted, and that the member municipalities be advised of the budget and their share of the proposed levy as calculated; it being noted that the Authority is required to provide 30 days' notice of its intention to adopt a final budget and levy."

Current Situation

The Preliminary Budget was circulated to all member municipalities on October 31, 2016, and to date, no responses or requests for further information have been received. Several minor adjustments have since been incorporated into the Final Draft Budget, with no additional impact on total expenditures or municipal levy.

Discussion

The 2017 Final Draft Budget of \$3,097,028 represents an increase of \$71,006 or 2.35% in overall spending in comparison to the 2016 approved budget of \$3,026,022. The greatest variances from 2016 to 2017 include:

- shifts within Water Management from Flood Forecasting and Warning to Flood Control Structures;
- Conservation Areas reflecting increased security and enforcement;
- Ska-Nah-Doht Village and Museum reflecting significant redevelopment activities;
- Conservation Services and Stewardship reflecting increased watershed wide activity (funded largely from external sources); and
- reduction in capital expenditures associated with the completion of the administration building and parking lot project.

The corresponding increase in the municipal levy is \$32,874 or 2.14%. As in previous years, annual adjustments to each municipality's assessment within the watershed vary, ranging from 1.69% for Chatham-Kent to 3.9% for Dutton-Dunwich, as shown in the last column of the table accompanying the budget on page 13 of the agenda package.

In accordance with Ontario Regulation 139/96, whereby the "non-matching levy" must be approved by a recorded, "weighted" vote of the Authority, the levy is shown under five columns:

- Special benefiting (C-K Flood Control, Greening/Natural Heritage, totaling \$205,000);
- Non-matching, totaling \$1,209,545;
- Matching, totaling \$157,807 which is equal to the provincial grant provided under Section 39 of the Conservation Authorities Act;
- Total General Levy, \$1,367,352;
- Total Municipal Levy, \$1,572,353.

For the non-matching levy, votes are weighted in proportion to each municipality's share of the total Current Value Assessment (CVA), and approval requires that votes equal to or greater than 51% of the CVA be cast in favour of the levy. The "Non-Matching" levy for 2017 is \$1,209,545 as shown in column 6 on page 8 of the attached budget. The remaining levy is voted on as one member, one vote, and consists of \$157,807 matching and \$205,000 direct special benefit levy, as shown in columns 4 and 5 on page 8.

Recommendation: That the 2017 proposed budget totalling \$3,097,028 be adopted as presented, and that the matching levy of \$157,807 and the Chatham-Kent Greening, Natural Heritage and Flood Control Levy of \$205,000 be approved and apportioned in accordance with the table accompanying the budget.

Recommendation: That the non-matching levy of \$1,209,545 be approved and apportioned in accordance with the levy apportionment table. (weighted vote)

			20	17 Final	Draft Budg	get				
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						0.00.				
						DIRECT	NON			
PG.					MATCHING	SPECIAL	MATCHING		FOUNDATION	
NO.		2016	2017	2017	GENERAL	BENEFIT	GENERAL	GENERAL	GRANTS &	
		BUDGET	BUDGET	GRANTS	LEVY	LEVY	LEVY	REVENUES	REVENUES	RESERVES
	WATER MANAGEMENT									
2	FLOOD CONTROL STRUCTURES	152,044	254,889	64,945	64,945	125,000				
2	EROSION CONTROL STRUCTURES	31,438	13,268	6,634	6,634		0			
2	FLOOD FORECASTING AND WARNING	267,026	201,666	86,229	86,229		29,209			
3	TECHNICAL STUDIES	37,689	28,970	0	0		3,970			25,000
3	PLANNING & REGULATIONS	207,139	196,865	0	0		146,865	50,000		
3	WATERSHED MONITORING	64,162	76,860	40,000			36,860			
3	SOURCE PROTECTION	24,900	22,768	22,768			0			
3	THAMES MOUTH DEBRIS REMOVAL	20,000	1,602			0				1,602
	Water Management Subtotal	804,398	796,888	220,575	157,807	125,000	216,904	50,000	0	26,602
	CONSERVATION & RECREATION PROPERTIES									
3	CONSERVATION AREAS	488,532	562,961	0			390,961	165,000	7,000	
	COMMUNITY RELATIONS AND EDUCATION									
4	COMMUNITY RELATIONS	166,047	154,337	0			154,337			
4	CONSERVATION EDUCATION	90,578	95,766	0			80,766	15,000	0	
4	SKA-NAH-DOHT VILLAGE	172,223	239,394	22,992			146,402	60,000		
	Community Relations & Education Subtotal	428,848	489,497	22,992	0	0	381,505	75,000	10,000	(
	CONSERVATION SERVICES/STEWARDSHIP									
5	CONSERVATION SERVICES (FORESTRY)	39,268	133,849	0			95,247	38,602	0	
5	CHATHAM-KENT GREENING/NATURAL HERITAGE	849,124	837,225	18,900	0	80,000	132,753	605,572	0	0
5	PHOSPHORUS REDUCTION	315,852	276,608	255,633	0	0	20,975	0	0	0
5	COMMUNITY TREES INITIATIVE	0								
	Conservation Services/Stewardship Subtotal	1,204,244	1,247,682	274,533	0	80,000	248,975	644,174	0	(
	CAPITAL/MISCELLANEOUS									
5	ADMINISTRATION BUILDING REPAIRS/UPGRADES	100,000	0	0	0	0	0	0	0	(
5	UNION GAS CENTENNIAL PROJECT	0								
	EMPLOYMENT PROGRAMS (FED/PROV)	0	0	28,800			-28,800			
	Capital/Miscellaneous Subtotal	100,000	0	28,800	0	0	-28,800	0	0	(
		3.026.022	3.097.028	546,900	157,807	205.000	1,209,545	934,174	17,000	26,602

		20	017 Final	Draft Budg	get				
								0	
				F	UNDI	NG SC	DURCE	8	
					DIRECT	NON			
				MATCHING	SPECIAL	MATCHING		FOUNDATION	
	2016	2017	2017	GENERAL	BENEFIT	GENERAL	GENERAL	GRANTS &	
	BUDGET	BUDGET	GRANTS	LEVY	LEVY	LEVY	REVENUES	REVENUES	RESERVE
WATER MANAGEMENT									
FLOOD CONTROL STRUCTURES									
WAGES AND BENEFITS	80,732	155,243							
ADMINISTRATION OVERHEAD	17,312	34,646							
OPERATIONS	19,000	19,000							
ROUTINE MAINTENANCE	23,000	36,000							
PREVENTATIVE MAINTENANCE	12,000	10,000							
TOTAL FLOOD CONTROL STRUCTURES	152,044	254,889	64,945	64,945	125,000				
				(CF	ATHAM-KENT)				
EROSION CONTROL STRUCTURES									
WAGES AND BENEFITS	25,064	10,030							
ADMINISTRATION OVERHEAD	5,374	2,238							
ROUTINE MAINTENANCE	1,000	1,000							
TOTAL EROSION CONTROL STRUCTURES	31,438	13,268	6,634	6,634		0			
FLOOD FORECASTING AND WARNING									
WAGES AND BENEFITS	191,883	137,075							
ADMINISTRATION OVERHEAD	41,143	30,591							
DATA COLLECTIONS	12,000	10,000							
FLOOD FORECASTING	4,000	2,000							
COMMUNICATIONS	6,000	4,000							
OPERATIONS CENTRE (RENT)	7,000	10,000							
FLOOD RESPONSE AND MONITORING	5,000	8,000							
TOTAL FLOOD FORECASTING & WARNING	267.026	201,666	86.229	86,229		29,209			

_	OWER THAI		017 Final I						
					FUNDI	NG SC	URCE	S	
					DIDEOT	NON			
				MATCHING	DIRECT	NON MATCHING		FOUNDATION	
	2016	2017	2017	GENERAL	BENEFIT	GENERAL	GENERAL	GRANTS &	
	BUDGET	BUDGET	GRANTS	LEVY	LEVY	LEVY	REVENUES	REVENUES	RESERVES
TECHNICAL STUDIES									
ADMINISTRATION OVERHEAD	563	724				724			
AERIAL PHOTOGRAPHY	5,000	5,000							5,0
MAPPING	27,000	20,000							20,0
GEOGRAPHICAL INFORMATION SYSTEMS (GIS)-									
DATA MANAGEMENT	5,126	3,246				3,246			
TOTAL TECHNICAL STUDIES	37,689	28,970		0		3,970			25,0
REGULATIONS AND PLAN REVIEW									
WAGES AND BENEFITS	158,215	140,508							
ADMINISTRATION OVERHEAD	33,924	31,357							
OPERATING-MATERIALS, SUPPLIES,									
AND EXPENSES	15,000	25,000							
TOTAL REGS. & PLAN REVIEW	207,139	196,865				146,865	50,000		
WATERSHED MONITORING									
WAGES AND BENEFITS	30,952	46,486							
ADMINISTRATION OVERHEAD	6,637	10,374							
OPERATING-MATERIALS, SUPPLIES,									
AND EXPENSES	26,573	20,000							
TOTAL REGS. & PLAN REVIEW	64,162	76,860	40,000			36,860			
SOURCE PROTECTION	24,900	22,768	22,768						
THAMES MOUTH DEBRIS REMOVAL	20,000	1,602	-						1,6
CONSERVATION & RECREATION PROPERTIES									
WAGES AND BENEFITS	254,057	313,089							
ADMINISTRATION OVERHEAD	54,475	69,872							
OPERATING- MATERIALS & SUPPLIES,	-	-							
STORAGE, RENTALS, INSURANCE, ETC.	180,000	180,000							
TOTAL CONS. & RECREATION PROPERTIES	488,532	562,961				390.961	165,000	7.000	

	LOWER THAI			ISERVATI Draft Bud		IORITY			
			JITTIMA	Brait Baa	get				
				F	FUNDI	NG SC	URCE	S	
					DIRECT	NON			
				MATCHING	SPECIAL	MATCHING		FOUNDATION	
	2016	2017	2017	GENERAL	BENEFIT	GENERAL	GENERAL	GRANTS &	
	BUDGET	BUDGET	GRANTS	LEVY	LEVY	LEVY	REVENUES	REVENUES	RESERVES
COMMUNITY RELATIONS AND EDUCATION									
COMMUNITY RELATIONS									
WAGES AND BENEFITS	117,791	107,374							
ADMINISTRATION OVERHEAD	25,256	23,963							
OPERATING- MATERIALS & SUPPLIES,									
SERVICES, RENTALS, INSURANCE, ETC.	23,000	23,000							
TOTAL COMMUNITY RELATIONS	166,047	154,337				154,337			
CONSERVATION EDUCATION									
WAGES AND BENEFITS	70,468	73,388							
ADMINISTRATION OVERHEAD	15,110	16,378							
OPERATING- MATERIALS & SUPPLIES,									
SERVICES, RENTALS, INSURANCE, ETC.	5,000	6,000							
TOTAL CONSERVATION EDUCATION	90,578	95,766				80,766	15,000		
SKA-NAH-DOHT VILLAGE									
WAGES AND BENEFITS	126,170	183,453							
ADMINISTRATION OVERHEAD	27,053	40,941							
OPERATING- MATERIALS & SUPPLIES,									
SERVICES, RENTALS, INSURANCE, ETC.	19,000	15,000							
TOTAL IROQUOIAN VILLAGE	172,223	239,394	22,992			146,402	60,000	10000	

	WER THAI		017 Final						
					FUNDI	NG SC	URCE	S	
					DIRECT	NON			
				MATCHING	SPECIAL	MATCHING		FOUNDATION	
	2016	2017	2017	GENERAL	BENEFIT	GENERAL	GENERAL	GRANTS &	
	BUDGET	BUDGET	GRANTS	LEVY	LEVY	LEVY	REVENUES	REVENUES	RESERVE
CONSERVATION SERVICES									
FORESTRY									
WAGES AND BENEFITS	28,218	27,673							
ADMINISTRATION OVERHEAD	6,050	6,176							
OPERATING- MATERIALS & SUPPLIES,									
STORAGE, RENTALS, INSURANCE, ETC.	5,000	100,000							
TOTAL CONS. SERVICES	39,268	133,849				95,247	38,602		
PHOSPHORUS									
WAGES AND BENEFITS	126,978	93,986							
ADMINISTRATION OVERHEAD	27,227	20,975							
OPERATING- MATERIALS & SUPPLIES,									
STORAGE, RENTALS, INSURANCE, ETC.	161,647	161,647							
TOTAL CONS. SERVICES	315,852	276,608	255,633			20,975			
CHATHAM-KENT GREENING/NATURAL HERITAGE									
WAGES AND BENEFITS	369,826	353,365							
ADMINISTRATION OVERHEAD	79,298	78,860							
OPERATING- MATERIALS & SUPPLIES,									
STORAGE, RENTALS, INSURANCE, ETC.	400,000	405,000							
TOTAL C-K GREENING/NATURAL HERITAGE	849,124	837,225	18,900		80,000	132,753	605,572		
COMMUNITY TREES INITIATIVE	0								
CAPITAL/MISCELLANEOUS									
UNION GAS CENTENNIAL PROJECT	0								
ADMINISTRATION BUILDING REPAIRS/UPGRADES	100,000	0							
EMPLOYMENT PROGRAMS (FED/PROV)	0		28,800			-28,800			

				(L/	evy for 2017 using	a Modified CV/	Α			
			1							
	Current Value Assessment (Modified CVA)	% of Levy	C-K Flood Control, Greening/Natu ral Heritage Levy 2017		Matching Levy 2017	Total General Levy 2017	Total Municipal Levy 2017	Total Municipal Levy 2016	\$ Change from 2016 Levy	% Change from 2016
Chatham-Kent	7,140,137,149	58.0225%	205,000	701,808	91,564	793,372	998,372	981,808	16,564	1.69%
City of London	1,420,065,389	11.5398%	0	139,579	18,211	157,790	157,790	153,497	4,293	2.80%
Dutton\Dunwich	418,559,655	3.4013%	0	41,140	5,368	46,508	46,508	44,764	1,744	3.90%
West Elgin	532,724,255	4.3290%	0	52,362	6,832	59,193	59,193	57,677	1,516	2.63%
Strathroy-Caradoc	710,530,785	5.7739%	0	69,839	9,112	78,950	78,950	76,758	2,192	2.86%
Middlesex Centre	194,877,306	1.5836%	0	19,155	2,499	21,654	21,654	20,994	659	3.14%
Southwest-Middlesex	357,626,720	2.9062%	o 0	35,151	4,586	39,737	39,737	38,810	928	2.39%
Town of Leamington	288,894,492	2.3476%	0	28,396	3,705	32,100	32,100	31,398	703	2.24%
Southwold	151,028,999	1.2273%	· 0	14,845	1,937	16,781	16,781	16,346	436	2.67%
Town of Lakeshore	1,091,359,887	8.8687%	(0	107,270	13,995	121,266	121,266	117,427	3,839	3.27%
TOTAL	12,305,804,636	100%	\$205,000	\$1,209,545	\$157,807	\$1,367,352	\$1,572,352	\$1,539,478	\$32,874	2.14%

8.4) Appointment of Auditor

Recommendation: That the firm of Johnson, Feduk, King Chartered Accountants be appointed as the Lower Thames Valley Conservation Authority's auditor until the next Annual Meeting in February 2018.

8.5) Appointment of Bank

Recommendation: That the Canadian Imperial Bank of Commerce be appointed the Lower Thames Valley Conservation Authority's bank until the next Annual Meeting in February 2018.

8.6) Appointment of Solicitor

Recommendation: That the firm of Mr. James D. Wickett be appointed the Lower Thames Valley Conservation Authority's solicitor until the next Annual Meeting in February 2018.

8.7) Authorization to Borrow

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

8.8) Appointments to Conservation Ontario

Voting representative; 1st alternative; 2nd alternative.

Recommendation: That the "Chair" be appointed as Voting Representative; General Manager as 1st Alternative.

8.9) 2017 Board of Directors Meeting Schedule

Thursday, April 20, 2017 – 2:00-4:00 pm, Administration Board Room
Thursday, June 15 or 29, 2017 – 2:00-4:00 pm, Administration Board Room
Thursday, August 24, 2017 – 2:00-4:00 pm, Administration Board Room
Thursday, October 19, 2017 – 2:00-4:00 pm, Administration Board Room
Thursday, December 14, 2017 – 2:00-4:00 pm, Administration Board Room
Thursday, February 15, 2018 – 2:00-4:00 pm, Willson Hall, University of Guelph Ridgetown Campus

Recommendation: That the meeting schedule for 2017 and the Annual General Meeting be endorsed.

8.10) Provincial Ground Monitoring Network Well Acquisition

Since 2003, the LTVCA has monitored a piezometer/well owned by the Chatham-Kent PUC on Shewburg Road, just outside of Ridgetown, as part of the Provincial Groundwater Monitoring Network (PGMN). The well is known by various names; the Weaver well by the PUC, the Ridgetown well by the LTVCA and Well 249 by the province. It was drilled as an exploratory well and never used for production or monitoring of the primary well fields. Studies performed as part of Source Water Protection indicate that the well is not within the capture zone of the existing drinking water well fields. However, as the well is owned by the PUC, the MOECC Drinking Water Unit occasionally has questions about the well.

In mid-December, the LTVCA was contacted by Chatham-Kent PUC regarding its intention to decommission the well. However, before it does so, it has provided the opportunity to the LTVCA to acquire the well property so that the PGMN program can continue using the well. The MOECC is unable to acquire the well as part of their program, so it would be up to the LTVCA to acquire the property to maintain the well. The PUC would sell the well property for a nominal cost and the 2016 taxes were \$73.88 per year. Other matters such as land transfer taxes and legal fees have not been discussed. LTVCA staff have contacted the MOECC PGMN group to obtain their comments regarding the value of the well to the overall program, but as of the drafting of this report have not responded. The PUC has given the LTVCA until the end of February to decide whether it wishes to acquire the well.

Recommendation: That the LTVCA Board authorize staff to pursue the acquisition of Well 249, subject to confirmation by the MOECC that the well is deemed valuable for the purposes of the PGMN program, and that the transfer costs are nominal.

8.11) Canada 150 Project

The Ska-Nah-Doht Village Advisory Board and the LTVCA staff have been working on securing funding for the *Heritage Build Project* for the village since 2015. The team has been successful in their applications and presentations to the GreenLane Community Fund for \$20,000 (\$10,000 in 2015 and 2016) as well as with the Lower Thames Valley Conservation Foundation for \$20,000 (\$10,000 in 2016 and 2017). This community support was no doubt the key to our success in receiving a Canada 150 Community Infrastructure Program grant. Phase 1 for the village rebuild was completed in 2016 and Phase 2 will continue into 2017, featuring a new longhouse built to assist in our education and public programs in the Ska-Nah-Doht village. As well as attending local Canada 150 celebrations on July 1 and throughout the year, an event to mark this milestone will take place in the Fall of 2017.

Recommendation: That the LTVCA Board endorses the project: *Improvement of the Ska-Nah-Doht Village,* and authorizes staff to execute the amended agreement for funding under the Canada 150 Community Infrastructure Program with Fed Dev Ontario, for a non-repayable contribution of \$10,948.

8.12) Longwoods / Ska-Nah-Doht Visioning Project Proposal

Background:

The Ska-Nah-Doht Advisory Committee, the Lower Thames Valley Conservation Foundation and Conservation Authority staff have developed a "concept paper" to guide an overhaul and redevelopment of the programs and facilities within the Longwoods Road Conservation Area including the Resource Centre and Ska-Nah-Doht Village and Museum. The concept for redevelopment is envisioned as a more extensive undertaking than the Heritage Rebuild Project, and will require significant effort and capital resources to be realized. Prior to embarking on any redevelopment process, a crucial first step is to undertake a "visioning" exercise, fully engaging the community of stakeholders who currently utilize or otherwise support the education and visitor programs offered at Longwoods Road Conservation Area.

Current Situation:

A first draft of a "Concept Paper" has been developed as a basis for engaging potential funders of a visioning exercise, which will provide a foundation for subsequent phases including a feasibility study. The visioning process will examine a number of potential options for the program and facilities; determine a level of community interest in and support for the project, and identify potential champions who will be key to its ultimate success. The second phase will involve a feasibility study, expected to begin during the first part of 2018, subject to a successful application to the Ontario Trillium Foundation.

Prior to seeking potential funders, an indication of support from the Board of the Lower Thames Valley Conservation Authority is being sought.

The Narrative:

About the Lower Thames Valley Conservation Authority



The Lower Thames Valley Conservation Authority (LTVCA) is one of thirty-six watershed-based Conservation Authorities in Ontario. Incorporated under The Conservation Authorities Act of Ontario in 1961, the LTVCA owns and manages some twenty-five properties totalling more than 700 hectares including 18 publicly accessible "Conservation Areas". The LTVCA is governed by a twelve member Board comprised of representatives appointed by ten participating municipalities within its 3,275 km² area of jurisdiction. The Conservation Authority's annual budget of just over \$3 million is funded from a municipal levy, government grants, and self-generated revenues such as user fees.

With more than fifty years of experience in protecting species, habitats and green spaces, while providing flood protection for more than 100,000 residents, the **vision** of the LTVCA is "...for a balanced and healthy watershed". Its **mission**, supported by a team of 23 professional and administrative staff is, "Leading by example in environmental protection in partnership with the community".

In addition to managing Conservation Authority-owned lands, the LTVCA undertakes a comprehensive program of watershed management. The components include flood control; protection of people and property from the natural hazards of flooding and erosion; monitoring water quality and quantity; promotion of environmental stewardship practices on private and public land (reforestation, wetland and prairie establishment); and education programs

focussing on natural heritage and First Nations studies. The education programs are offered mainly at the Longwoods Road Conservation Area near Mount Brydges, Ontario.

The Conservation Authority's administrative headquarters are located at 100 Thames Street in Chatham, Ontario.

About Longwoods Road Conservation Area (see Attachment 1 Pictures)

Longwoods Road Conservation Area is situated at 8348 Longwoods Road, Mount Brydges, Ontario, in the Municipality of Strathroy-Caradoc, approximately 25 kilometers southwest of the City of London. This 62 ha Conservation Area is an important rest stop for migratory bird species and is home to unique and rare Carolinian plants and animals. Longwoods features a Resource Centre for conducting education programs, museum displays, gift shop as well as the .9 ha (2 acre) longhouse village onsite. Ska-Nah-Doht was recreated to bring the past of the area's First Nations community to life. Situated on the Caradoc Sand Plain, **Longwoods** has two excavated archaeological sites – Kelly (AfHi-20) and Yaworski (AfHi-21). The artifacts form the majority of the museum's collection.

Other built amenities include three heritage log cabins, each more than 200 years old, donated in the early 1970's by three local First Nation communities which are used for educational and public programming. Ten kilometres of trails meander through the Carolinian Forest, a Carolinian Arboretum and Interpretive Trail, Class One Wetlands and ravine systems, with wheelchair access facilitated by boardwalks and bridges. The Conservation Area also features-three group camping areas, a large picnic pavilion and a workshop compound servicing the Conservation Authority's eastern region within Middlesex and Elgin Counties.

The features and facilities at Longwoods Road Conservation Area support a variety of educational and public programming, operating year-round. In 2016, Longwoods welcomed over 17,000 visitors from 24 different countries; including nearly 10,000 school children *(see Attachment 2 Target Audience and Geographic Area Served)*. Visitors to the Ska-Nah-Doht Village experience a glimpse of Haudenosaunee life in a unique facility within a beautiful and natural backdrop. Family oriented and interactive programs provide fun learning experiences in the outdoors, with both kids and adults developing and enhancing a sense of worth of themselves, nature, history and cultural aspects of their surroundings. The result is a greater respect for and stewardship of the natural world.

About the Ska-Nah-Doht Village and Museum



Ska-Nah-Doht is from the Oneida language, which means "a village stands again". Officially opened on September 17, 1973, it was the culmination of an idea put forward by W. Graham MacDonald, an area Superintendent of the Middlesex County Board of Education. A "collaborative" including Dr. Wilfred Jury, an archaeologist affiliated with the University of Western Ontario, several Middlesex County teachers and many others including Dr. E.G. Pleva, a Professor of Geography at the University of Western Ontario, approached the LTVCA who made the Longwoods location available.

The first pole was raised on the 17th of November 1970 with the actual construction of Ska-Nah-Doht Village starting the following spring. Today, the Village is based on data collected by archaeologists and the Traditional Aboriginal

Knowledge passed on by the First Nations people. It has 18 full-scale outdoor structures including a traditional Three Sisters garden, palisade with maze and three longhouses.

Standing as an educational facility for more than 40 years, Ska-Nah-Doht is the only reconstructed Haudenosaunee village from the Glen Meyer archaeological time period (800 - 1200 A.D.) in Ontario. The contemporary **Vision** for the Ska-Nah-Doht Village and Museum is to be "a community leader in collecting and preserving local history, while faithfully interpreting the Haudenosaunee - People of the Longhouse". This vision guides the **Mission**, "to function as an interactive museum that engages the public in the preservation and presentation of local First Nation history, through experiences both on-site and in the community."

About the Resource Centre, Conservation Education and Native Studies Programs

Conservation Education Programs began at Longwoods Road Conservation Area in the early 1970's when Andy Chisholm, a teacher from the London Separate School Board initiated environmental/ outdoor education programs based out of an onsite trailer. This novel program led to development of a state of the art **Resource Centre** in 1974 with the LTVCA offering its native studies and conservation education programming beginning in the late 1970's. Today, the Resource Centre houses interactive displays about conservation and the environment and features in-house theatre productions on environmental topics. The conservation program includes 30 Ontario curriculum-based workshops for both elementary and secondary school students, ranging from soil ecology, river and creek safety, habitats and snowshoeing, utilizing the trails, boardwalks, forests and wetlands of Longwoods. Offered at Longwoods Road and C.M. Wilson Conservation Areas or in area school classrooms, there were 1,899 students and 296 adults participating in these natural heritage focussed programs in 2016. The facility is considered the "western" outdoor education facility for the Thames Valley District School Board. While Conservation programs also outreach into the watershed community through children's water festivals, farm shows, fairs and expos, the focus is on activities within the Longwoods Road Conservation Area.

Ska-Nah-Doht Village and Museum and the **Native Studies** school programs are also integrally linked to the Longwoods Road Conservation Area's Resource Centre, with displays of the artifact collection, a model of the Village, and a theatre showing Native Studies audio-visual productions. An activity room designed for children features interactive displays on Haudenosaunee culture. The Museum Collection includes more than 300,000 archaeological artifacts (Source catalogued entries) from the local area including the two excavated sites (Kelly and Yaworski) within the Longwoods property. The Native Studies school programs engaged 3,555 students and 775 parents and teachers in 2016 and provided organized group and specialty bus tours to an additional 780 people. The 'Ska-Nah-Doht Experience' is a walking tour that involves finding your way through the palisade maze, exploring a longhouse and taking time to think about the life of the Haudenosaunee people. Self-guided brochures are available in English, French, Spanish, German, Dutch and Italian. The Village is not "dressed", allowing visitors and students to use their imagination to finish the longhouse, and to think about the hard life led by these early Haudenosaunee people. A wheelchair accessible trail leads to the Village and all longhouses are accessible. Staff also outreach into the watershed community through special events such as Pow Wows, festivals, farm shows, fairs and expos. Ska-Nah-Doht is registered with the Canadian film industry as a site location and has hosted many productions. Both the Native Studies and Conservation Education programs offered at Longwoods Road showcase workshops that complete Scout and Guide badge requirements.

Value Proposition

The combined Conservation Education and Village/Museum operating budget for 2016 was \$262,801, with the main revenue sources being user fees (\$75,000), municipal levy (\$164,809) and a grant of \$22,933 from the Community Museum Operating Grant (CMOG) program of the Ministry of Tourism, Culture and Recreation. The Ska-Nah-Doht

portion of this budget is \$172,233 with revenues (excluding the CMOG) of \$60,000. Ska-Nah-Doht has qualified for and received the Community Museums Operating Grant since 1973.

From these figures, it is obvious that the Village/Museum and Conservation Education programs do not generate sufficient revenues from visitors and students, rather are heavily dependent on public funding (municipal levy and government grants). In spite of this financial dependence, the Board of the LTVCA and its municipal partners accept that the continued operation of these programs and facilities is warranted, based on their usage, popularity and authenticity. A number of factors listed in the following paragraphs support this conclusion.

Longwoods Road Conservation Area and the Ska-Nah-Doht Village, as part of the Thames River watershed, contributed to the designation of the Thames River as a Canadian Heritage River in the year 2000 when the Thames joined an elite group of the most historically and culturally significant rivers in Canada. The area has 43 years of protecting local environmental and cultural heritage for its community, as well as providing the setting for the Conservation Education programs and Ska-Nah-Doht Village and Museum. Year round school programs attract classes from all over southern Ontario - London, Middlesex, Sarnia, Chatham, and Windsor - a very competitive market as there are currently five other villages in Ontario. Longwoods and Ska-Nah-Doht Village and Museum were also the proud recipients of the "Best Developed Outdoor Site" award in 2002 sponsored by Attractions Canada.

Ska-Nah-Doht Village and Museum offers programming and unique site location not duplicated by the Ontario Museum of Archaeology in London, offering a unique blending of cultural and environmental programming in a natural, rural setting.

In addition to cultural, natural heritage and educational merits of the facilities at Longwoods Road Conservation Area, there are significant social and economic dimensions to its operation. These include:

- Preserving local First Nations heritage archaeological sites, artifacts, and log cabins where the Haudenosaunee people actually walked 1,000 years ago,
- Preserving green space while providing a unique facility for community events, company picnics, weddings and other social gatherings,
- Raising environmental awareness with public events, clean-up days with local schools and community groups,
- Providing facilities and setting supporting the film industry, as well as local amateur and professional photographers,
- Coordinating projects and fundraisers with local community groups such as Lions and Rotary Clubs, Scouts and Guides,
- Providing opportunities for Secondary school volunteer placement and co-op education, as well as other volunteer driven events, committees and operations, supported by many community, corporate and private organizations as well as private individuals,
- Creating job opportunities through federal and provincial employment programs, including summer positions for local and First Nations students in the fields of museum studies, eco-tourism and areas of conservation and environmental studies, and
- Purchasing goods from local Native and non-Native craftspeople, local small businesses, transportation and film industries.

Annual events cover watershed aspects linked to water, land use, stewardship, heritage and healthy hikes:

- Snowshoe Sundays (January February)
- Moonlight Winter Family Owl Hike (February)
- March Break Guided Hikes & Tours (March)
- Native Plants Workshop (April)
- Longwoods Heritage Weekend/Battle of Longwoods 1814 (May)

- Twilight Tuesdays evening hikes (July-August)
- Archaeology Day (July)
- Tastes of Fall (October)
- Season's Greetings at Longwoods (November)

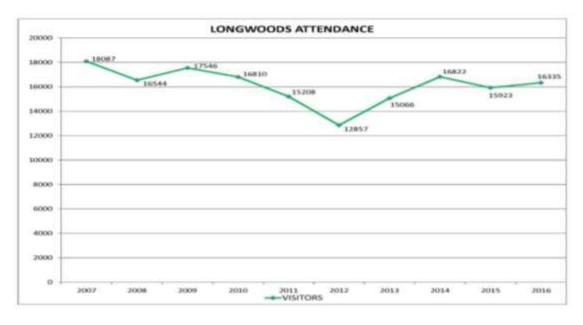
The venue also enjoys a number of important volunteer affiliations including:

- Ontario Archaeological Society London Chapter
- Forest City Checkers (London)
- Upper Thames Military Re-enactment Society
- Lower Thames Valley Conservation Foundation
- Thames Valley Trail Association

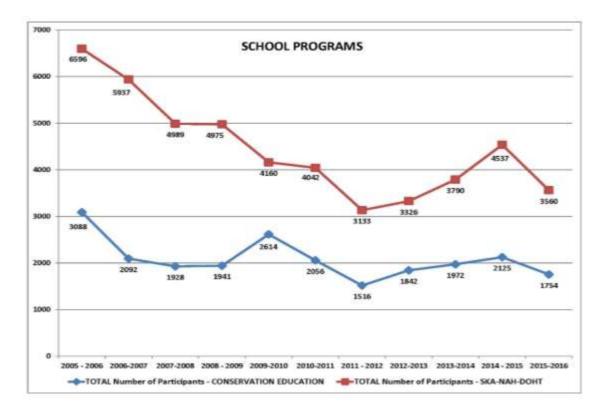
The Challenge

The challenge facing the Longwoods Road Conservation Area is one facing many organizations and businesses alike. Simply stated, is the operation in its current form sustainable from the perspective of its continuing relevance as a community asset, and its financial base? Does the program continue to offer value to both users and funders, or does it require substantial modification to meet its goals? In short, what should the future look like?

While there is no question that the facility continues to offer quality programming and is supported by schools, community organizations, volunteers and the public, user statistics and trends, coupled with rising operational costs and aging infrastructure, present some challenges. While total visitor attendance at Longwoods Road Conservation Area shows a modest decline over the decade, the trend lines on the accompanying chart for Ska-Nah-Doht and Conservation Education programs clearly show stable attendance well below the attendance enjoyed a decade ago. This trend has implications for future decisions regarding programming, staffing and infrastructure.



The above graph depicts the trend of the last 9 years of annual **total visitor attendance** to Longwoods Road Conservation Area and the Ska-Nah-Doht Village and Museum, including educational programming, group camping, and day use visitation.



The above graph illustrates the attendance of each education program as per **school year** going back to 2005. The 2016-2017 school year statistics is not available until the end of June 2017.

For instance, the Ontario Museum of Archaeology located in London, Ontario has recently developed a "virtual reality" program to enable visitors to "experience" life within a longhouse without the need to physically create and maintain one. This kind of experience may be more in keeping with contemporary expectations and the technological literacy that new generations are growing up with and consider normal.

Aside from the limitations of offering a visitor experience in an outdoor, recreated facility, which requires a significant investment in time, travel costs, and cooperative weather conditions, there are other significant challenges in a forty-odd year old facility that must be addressed. Foremost among these are the significant costs in maintaining a safe and authentic longhouse Village recreation. In recent years, some modest success in fundraising through foundation and government grants have enabled substantial upgrades to Ska-Nah-Doht itself, **(see Attachment 3 SND Build Funding)** and replacing the elm bark exterior covering on one of the three longhouses. At more than \$10,000 just to purchase these rare, natural materials, which have a life expectancy of approximately 10 to 15 years, maintaining this kind of infrastructure requires significant and renewable financial resources.

Considered state of the art and envied by many at the time of its construction in 1974, the Resource Centre is not only showing its age but now features some serious shortcomings as well. Among these are:

- Limited accessibility for staff and public needs only the main floor is accessible, a lower level and mezzanine being only accessed by stairways,
- Inadequate accommodation for five program staff,
- Inadequate space for collection storage, curation, exhibition and gift shop which would accommodate and attract higher levels of visitation and interest by students and public alike,
- Three theatres originally sized for elementary aged students, uncomfortable for adults, limited accessibility and one of three accommodating two staff as office space,
- Considerations of energy efficiency such as new windows, solar power, insulation, heating.

Beyond the physical limitations previously described, there are other areas for opportunity as yet untapped that could see greater potential for this facility. Currently the educational programming for the First Nations studies is focussed on the Ontario curriculum grades 3 and 5 as well as Secondary levels. It is also reflective of the policies governing the Ska-Nah-Doht Village and Museum based on archaeological evidence and Traditional Aboriginal Knowledge. Programs are not offered directly addressing some current issues and dialogue such as Truth and Reconciliation but we are in a unique position to contribute, thereby expanding the audience. This reality demands a thoughtful review of all the programs and facilities at the Longwoods Road Conservation Area, and requires a respectful public dialogue. Therefore, prior to planning or undertaking any substantial renewal or renovation of the Resource Centre and Ska-Nah-Doht itself, the feasibility of which is unknown, **it is proposed that a thorough Visioning Process be undertaken to engage with the widest possible range of stakeholders.**

The Visioning Process

A visioning exercise is as a critical first step toward an eventual renewal of the programs and supporting infrastructure that are the essence of the Longwoods Road Conservation Area. There is ample evidence that the existing facilities require upgrades to continue to meet current needs – yet visitation levels and trends do not support minimum operational costs, much less the cost of a major upgrade to the facilities. Such an upgrade would only be feasible with substantial revenues from external sources, such as senior government grants, foundation grants, and public and corporate donations. The likelihood of the necessary capital campaign being successful is greatly enhanced if there is already strong community buy-in to the redevelopment plan. Hence, the visioning exercise must establish a sound foundation for subsequent stages in the redevelopment process. Provided a renewed vision is well-founded, the logical next step in the process is the completion of a feasibility analysis, which would look at the viability of the redevelopment from an operational as well as a capital fundraising perspective. It is anticipated that the feasibility study may qualify for a grant under one of the Ontario Trillium Foundation's Investment Streams.

Following is an outline of a conceptual visioning process that may be relevant to the Longwoods/ Ska-Nah-Doht situation. The elements of this process are subject to refinement once the scope and scale of the exercise is determined. Including the broadest possible participation will ensure that all options are identified for consideration (see Attachment 4 Draft Workplan for Project and Attachment 5 Draft Budget for Project).

A project manager, or consultant, will be contracted to ensure the process is managed as a priority undertaking, remaining on schedule and on budget;

- The timeline for the process will run from April 2017 for completion in late fall; enabling sufficient time for the preparation and submission of an application to the Trillium Foundation by the February 2018 deadline;
- Audiences will be targeted to ensure important stakeholder groups are identified and are able to participate in a way that meets their needs as well as the needs of the proponent;
- Complementing the targeted approaches will be a series of public workshops, to exchange information and ensure that parties not targeted have the opportunity to contribute;
- Communications will utilize traditional tools such as posters, print media, websites and social media, and will provide an opportunity for commentary and input for the public;
- Background resources including power point presentations will be utilized to ensure the public has the broadest possible information on the programs, challenges, and options;
- A user survey will be developed and utilized to capture the ideas, comments, criticisms and observations of the most frequent users or user groups, particularly school groups who are or have attended in the past;
- Results from the Workshops and surveys will be tabulated and presented in a meaningful form to benefit participants not directly involved;

• Key Areas of Public Interest/Concern from the results of the workshops and survey establish common themes and ideas, specific changes or improvements (things like about trails, natural features, administration, programming, amenities etc.)

Following the conclusion of the Visioning Process, a subsequent phase involves the development of an application to the Ontario Trillium Foundation for a Seed Grant to undertake a feasibility study based on the results of the visioning exercise. It is anticipated that this application will coincide with the February 2018 application window. The results of the feasibility study will culminate in the development of a 5-10 year implementation plan. This phase will be undertaken in cooperation with the Lower Thames Valley Conservation Foundation, the Ska-Nah-Doht Advisory Committee, and the Lower Thames Valley Conservation Authority.

Recommendation:

Recommendation: That the LTVCA Board endorse the Longwoods/Ska-Nah-Doht Visioning Project, and that it work cooperatively with the Ska-Nah-Doht Advisory Committee and the Lower Thames Valley Conservation Foundation in a process to determine the needs; scale and scope; and community support for a redevelopment of the Resource Centre, Ska-Nah-Doht Village and Museum and related facilities within the Longwoods Road Conservation Area.

9. Business for Information

9.1) Water Management

Flood Forecasting and Operations

Since the last Board of Directors meeting, four flood forecasting advisories have been issued. The first, on December 27th, was associated with a melt event that required operation of the Indian-McGregor Creek Diversion Channel for three days. The event melted most of the snow out of the Lower Thames watershed and flushed out most of the ice from the Thames River. The second and third advisories, on January 11th and 12th, were associated with another melt event. This was the beginning of a long warm spell that melted all the ice out of the Thames River again. Due to melting in the Upper Thames, water levels rose enough to inundate the low lying flood flats from Delaware down to Chatham, including the sidewalk along the river in downtown Chatham. The fourth advisory, issued on February 6th, was issued due to a large predicted rainfall that could have required the operation of the Diversion Channel again. In the end, the Diversion was not operated.

Vandalism at the Chatham gauge over the holidays put the gauge out of commission from December 30th to January 18th. The Chatham gauge is used for operations of the 6th Street Dam and it was fortunate that water levels on the Thames River did not reach the point where it would have been required.

Flood Control Structures

There are no updates.

Ice Management

Considering the recent melt events where almost all of the Thames River ice melted and flushed away, and considering the long term weather forecasts, it does not appear that the Thames River can accumulate enough ice before spring to present a risk of ice jam related flooding. It would appear that the risk of ice jam related flooding has passed for this year.

Low Water Response Program

The LTVCA participates in the Provincial Low Water Response Program as part of a team made up of local stakeholders and agency staff charged with managing the local response to drought conditions. Low Water Conditions are determined based on several indicators including; 3 month rainfall, 18 month rainfall and monthly flows in the watercourses. From October 2015 until March 2016, July 2016 to August 2016, and September 2016 until now, the region has been in a Low Water Level One Condition. As the province is no longer paying for staff time dedicated to the program, the LTVCA is no longer doing watershed condition reports in the winter. The socio-economic impacts of a Low Water Condition are lessened at this time of the year as the primary water users in the region are agricultural producers who aren't using significant amounts of water. However, automated screening tools indicate that the Lower Thames watershed is still at a Level One Condition based on a precipitation deficit.

Water Quality Monitoring

There are no updates.

Thames River Clear Water Revival

There are no updates.

Source Water Protection

There are no updates.

Information Technology

During January, the LTVCA moved its in-house Microsoft Exchange email system to Microsoft's Office 365 Cloudbased email service. The migration was done with the assistance of Superior Computers of London. As a registered non-profit organization, the LTVCA receives the service for free from Microsoft. Utilizing the Office 365 service should decrease the amount of time staff needed to manage the email service and should free up resources on the LTVCA's computer server and internet connection.

9.2) Regulations and Planning

Planning and Regulations Policy Update-timeline

Edits to the draft policy from comments received by individuals attending the open houses as well as housekeeping errors that were noted by staff are ongoing and hope to be finished by late February early March. At that time, the link to the website for the Draft Planning and Regulations Policy will be sent out to the member municipalities, ministry agencies, surrounding CA's, NGO's and business contacts such as the construction and consultant industries that we deal with on a regular basis for input and feedback. The commenting period will be the month of March, with edits being made as comments are submitted. It is hoped that a final draft will be available for the April meeting, with full approval of the document being undertaken in June.

Section 28 - Enforcement

No enforcement / complaint related occurrences have arisen since the last board meeting held on December 15, 2016 related to Section 28 of the Conservation Authorities Act.

An infraction that occurred in the spring of 2016, where both MNRF and CA regulations were involved, was proceeding through the courts under charges laid by the Ministry of Natural Resources and Forestry and was scheduled to be heard in March. CA and MEU staff received a call from the Conservation Officer from the Ministry that was heading up the case to inform them that the case was settled out of court on Wednesday, February 1st. CA and MEU staff would have been called as witnesses on behalf of the Crown on this case. The landowner was fined \$2,000.00 under the LRIA/PLA for work in water without a permit along the Lake Erie shoreline.





Ministry of Natural Resources and Forestry

Fined \$2,000 for Dredging Lake Erie Shore Land

NEWS

February 6, 2017

A Rodney man has been fined for an offence under the Public Lands Act.

David Bowman pleaded guilty and was fined \$2,000 for unlawfully dredging shore lands without a permit.

Court heard that on April 15, 2016, Bowman used a large excavator to clear gravel at the mouth of a small creek leading into Lake Erie. A member of the public advised the ministry of the dredging and found a satellite image of the excavation. Ministry conservation officers and officials with the Lower Thames Valley Conservation Authority then investigated further and determined that Bowman had conducted the work without a work permit.

Justice of the Peace Anna Hampson heard the case in the Ontario Court of Justice, St. Thomas, on February 1, 2017. The ministry reminds the public that work permits are required for any work on shore lands.

To report a natural resources violation, call the MNRF TIPS line at 1-877-847-7667 toll-free any time or contact your local ministry office during regular business hours. You can also call Crime Stoppers anonymously at 1-800-222-TIPS (8477).

Section 28 – CA Applications

Staff Report

LTVCA Regulation Log Book 2017

B.D. 02/16/17

APP#	LOCATION	COMMUNITY/ TOWNSHIP	MUNICIPALITY	APP'N TYPE	DECISION
2016 Permits					
254-2016	Forbes Drain 1979 Upper Portion	Dunwich	Dutton Dunwich	Alteration	Granted: Dec 07, 2016
256-2016	Annesser Drain	Tilbury East	Chatham-Kent	Alteration	Granted: Nov 30, 2016
257-2016	Hunter Drain	Howard	Chatham-Kent	Alteration	Granted: Dec 02, 2016
258-2016	18214 Erie Shore Drive	Harwich	Chatham-Kent	Alteration	Granted: Dec 09, 2016
259-2016	18082 Erie Shore Drive	Harwich	Chatham-Kent	Alteration	Granted: Dec 12, 2016
260-2016	Gray Line over Sixteen Mile Creek	Aldborough	West Elgin	Alteration	Granted: Dec 12, 2016
261-2016	Fisher Drain	Chatham	Chatham-Kent	Alteration	Granted: Dec 06, 2016
262-2016	McKay Drain	Howard	Chatham-Kent	Alteration	Granted: Dec 06, 2016
263-2016	10845 River Line	Harwich	Chatham-Kent	Construction	Granted: Dec 12, 2016
264-2016	Xury Robinson Drain	Romney	Chatham-Kent	Alteration	Granted: Dec 09, 2016
265-2016	Goulet Drain	Tilbury East	Chatham-Kent	Alteration	Granted: Dec 09, 2016
266-2016	Albert E. Metcalfe Drain	Romney	Chatham-Kent	Alteration	Granted: Dec 09, 2016
267-2016	Travis Drain	Romney	Chatham-Kent	Alteration	Granted: Dec 09, 2016
268-2016	90 Wellington Street	Shrewsbury	Chatham-Kent	Construction	Granted: Dec 12, 2016
269-2016	850 Rivait Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: Dec 14, 2016
270-2016	872 Rivait Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: Dec 14, 2016
271-2016	Faubert Drain outlet Rivard PWs	Dover	Chatham-Kent	Alteration	Granted: Dec 15, 2016
2017 Permits					
001-2017	Thamesville to Ridgetown	Howard	Chatham-Kent	Construction	Granted: Jan 09, 2017
002-2017	55 Marsh Street	Ridgetown	Chatham-Kent	Construction	Granted: Jan 09, 2017
003-2017	Rivard Drain outlet Rivard PWs	Dover	Chatham-Kent	Alteration	Granted: Jan 03, 2016
004-2017	Graham Drain	Raleigh	Chatham-Kent	Alteration	Granted: Jan 03, 2016
005-2017	75 Maple Leaf Drive	Chatham	Chatham-Kent	Alteration	Granted: Jan 09, 2017
006-2017	16660 Couture Beach Road	Tilbury North	Lakeshore	Construction	Granted: Jan 10, 2017
007-2017	18558 McKinlay Road	Howard	Chatham-Kent	Alteration	Granted: Jan 09, 2017
008-2017	14437 Eberle Line	Orford	Chatham-Kent	Construction	Granted: Jan 10, 2017
009-2017	McLean Drain	Howard	Chatham-Kent	Alteration	Granted: Jan 05, 2017
010-2017	Anderson Wootton Gillespie Drain	Howard	Chatham-Kent	Alteration	Granted: Jan 10, 2017
011-2017	Leitch Drain	Howard	Chatham-Kent	Alteration	Granted: Jan 13, 2017
012-2017	16660 Couture Beach Road	Tilbury North	Lakeshore	Construction	Granted: Jan 16, 2017
013-2017	Seventh Concession Road Drain	Tilbury East	Chatham-Kent	Alteration	Granted: Jan 16, 2017
014-2017	Thamesville Bridge over the Thames River	Howard	Chatham-Kent	Alteration	Granted: Jan 17, 2017
015-2017	18076 Erie Shore Drive	Harwich	Chatham-Kent	Alteration	Granted: Jan 20, 2017
016-2017	54 William Street	Shrewsbury	Chatham-Kent	Construction	Granted: Jan 24, 2017
017-2017	19030 Light Cove Drive	Lighthouse Cove	Lakeshore	Alteration	Granted: Jan 25, 2017
018-2017	26 & 32 London Road	Thamesville	Chatham-Kent	Construction	Granted: Jan 25, 2017
019-2017	Thames Grove - 34 Kingsway Drive	Chatham	Chatham-Kent	Alteration	Granted: Jan 25, 2017
021-2017	19140 Light Cove Avenue	Lighthouse Cove	Lakeshore	Construction	Granted: Feb 01, 2017
022-2017	Hooper King Drain	Raleigh	Chatham-Kent	Alteration	Granted: Feb 01, 2017
D.	commondation	That applications	254 2016 256 2	016 to 271	

Recommendation: That applications 254-2016, 256-2016 to 271-2016, 001-2017 to 019-2017, 021-2017 and 022-2017 be ratified.

9.3) Conservation Areas

2016 December 1 -- December 31 Visitation / Camping Stats

Longwoods Road Conservation Area – 348 people (263 in 2015) (Includes 2 people per pay & display permit (transaction) Pay and Display Permits - 41 vehicles (61 in 2015)

E.M. Warwick Conservation Area – 0 people (0 in 2015) Big Bend Conservation Area – 105 people (48 in 2015) C.M. Wilson Conservation Area – 28 people (44 in 2015) (Includes 2 people per pay & display permit (transaction) Pay and Display Permits – 14 vehicles (22 in 2015)

Season's Passes Sold in 2016

Operations

<u>CM Wilson</u> - renovations to the Barn are underway with, new table top, lighting, painting of washrooms, and installation of barn quilt.

<u>Big "O" CA</u> - plans are underway to have our 3nd annual Birding Event, which will guide participants around the property, release a wild rehabilitated bird and finish up at the Iron Kettle Bed and Breakfast for lunch.

<u>Devereux CA -</u> lease agreement to University of Guelph – Ridgetown College to rent the 25 acre parcel has been received. \$20,000 from OMAFRA is being utilized to develop educational signage demonstrating best management practices.

<u>EM Warwick CA</u> - staff to remove stairs that go down ravine to Lake Erie in the next couple weeks. This will eliminate liability and future maintenance costs. Access will still be available when completed via regular earthen trail.

<u>Skunk's Misery</u> - Katie Clow, a student from the University of Guelph's veterinary college, has been undertaking Tick surveys for Lyme disease throughout the area. Skunk's Misery was one of the study areas. No positive results were obtained, but that does not mean that ticks carrying the Lyme disease are not present in Skunk's Misery. Her 2016 Field Research Report for Skunk's Misery is attached for information.

Section 29 – Enforcement

MEU have been conducting patrols throughout LTVCA properties, mainly stressing on Skunks Misery and Rowsom as of late due to ATV activity. Just this past weekend we had several run-ins with ATV's in the Rowsom area and the OPP were advised and did attend to assist. We managed to make several good contacts with locals and users of the property, and gained some valuable intelligence, which will help us develop a plan for future enforcement blitzes at Rowsom.

Also should be mentioned that a local farmer in the area has been of assistance and has facilitated the use of his property for two reasons, so MEU has access to areas of the conservation authority property and the other he wants us to assist him in dealing with stopping the access through his property.

Now that we have several confirmations of activity and detailed Intelligence in this area at Rowsom we can now plan out ways to deal with the problem, but with winter and current weather conditions it may be difficult at this time but spring is approaching.

Skunks Misery there has been no further damage to the area of the gate, there has been some sign of ATV and Dirt Bike activity but not as much since we have started patrols, some small game hunters in the area but they are listening and obeying the guidelines. Again the spring will be the time we have several enforcement initiatives that we are looking to implement.

All other locations as of our last patrols have been found to be secure and 10-4.

Fall 2016 Field Research Report

Katie Clow, DVM, PhD Candidate Ontario Veterinary College, University of Guelph

Background:

Lyme disease is the most common vector-borne disease in North America and is an emerging disease in Canada. This disease is caused by the bacteria *Borrelia burgdorferi*. In eastern North America, the bacteria are transmitted by blacklegged ticks (*Ixodes scapularis*).

An area is considered to have an established population of blacklegged ticks when all life stages are present for two consecutive years. The area is endemic for the bacteria when there is laboratory evidence of the bacteria either in the tick or small mammal population.¹ In the early 1990's, the only known established population of blacklegged ticks in the province was at Long Point, Ontario. Within the last two decades, the tick population has expanded in Ontario. There are now a number of recognized sites that have established populations of blacklegged ticks and endemic cycles of the bacteria, and blacklegged ticks have been found in increasing numbers in other areas in Ontario. Concurrently, the incidence of human Lyme disease has been on the rise.⁸

We have conducted field sampling for the blacklegged tick across southern, central and eastern Ontario over the past three years. In 2014 and 2015, we visited 150 sites to drag for the blacklegged tick and collect ecological site data. In 2016, we focused on specific areas to reassess the population of *I. scapularis* and presence of *B. burgdorferi*.

Objective:

Our current research aims to understand the spread of the blacklegged tick and B. burgdorferi in areas of emergence in Ontario, Canada.

Methods:

30 sites were visited in southern, central and eastern Ontario. These sites fit the basic selection criteria, which were forested, a minimum size of 0.25 km², and accessible. Numerous conservation authorities and parks granted us permission to conduct research on their lands.

Each research site was surveyed for ticks by dragging a 1 m² flannel blanket in parallel transects over the forest floor and vegetation for the equivalent of 3 person-hours. The blanket was examined every 3 minutes and all adults, nymphs and larvae were removed and counted. Adults and nymphs were collected and submitted to the National Microbiology Laboratory for testing for *B. burgdorferi* and four other tick-borne pathogens (*B. miyamotoi, Anaplasma phagocytophilum, Babesia microti* and Powassan Virus).

Results:

Site	Date of Visit	Results of tick dragging	Laboratory analysis
Mosa Forest & Fennel Property	October 5, 2016	1 female I. scapularis	Negative for all pathogens

Table 1: Results from active tick surveillance conducted in the Lower Thames Valley Conservation Authority.

Discussion:

Active surveillance conducted in the Lower Thames Valley Conservation Authority indicated the presence of blacklegged ticks. Of the ticks collected, none were carrying the causative agent of Lyme disease, *B. burgdorferi*.

It is important to note that although blacklegged ticks were discovered within the Conservation Authority, these results do not necessarily indicate that the blacklegged tick has become established in the area, or that there is a high risk of Lyme disease. Further active surveillance, as well as additional field research such as small mammal trapping and sampling is pertinent to understand the status of the blacklegged tick population and the risk of Lyme disease.

As a precaution, consideration should be given to proactively providing information about tick bite prevention to staff and park visitors. More information on tick bite prevention and Lyme disease can be found at:

- Public Health Agency of Canada http://www.phac-aspc.gc.ca/id-mi/lyme-eng.php
- Ontario Ministry of Health and Long-term Care http://www.health.gov.on.ca/en/public/publications/disease/lyme.aspx
- Centers for Disease Control and Prevention http://www.cdc.gov/lyme/

Your local public health unit is also a valuable source of information, especially for preventative education for the public.

Acknowledgements:

This research would not have been possible without the cooperation of Ontario Parks, Conservation Authorities and Health Units. We are very grateful to the Lower Thames Valley Conservation Authority for providing us access to your land to conduct the field research. We also want to thank Dr. Robbin Lindsay at the National Microbiology Laboratory for his assistance with identifying and testing collected ticks.

Contact:

If you have any questions about our research and this report, please contact Katie Clow at kclow@uoguelph.ca.

Consensus conference on Lyme disease. 1991. Can J Infect Dis 2(2):49-54.

^{II} Ogden NH, Lindsay LR, Morshed M, Sockett PN, Artsob H. 2008. The rising challenge of Lyme borreliosis in Canada. Con Comm Dis Rep 34(1).

9.4) Conservation Services

STEWARDSHIP

Preparing for tree planting season:

- Coordinating projects
- developing plans
- receiving tree orders
- ordering stock demands

Refining stewardship Database

• correcting glitches and proofing calculations

Coordinating stewardship promotional events/outreach

- Feb 22, Middlesex Federation of Agriculture Hall 7-9 pm
- Feb 28, Country View Golf Course 7-10 pm
- Free tree program coordination

Attending various organizational meetings and conferences for promotion

- Southwestern Agricultural Conference
- Chatham-Kent Farm Show
- Grain Farmers of Ontario AGM

Liaising and reporting with financial and community partners

Environment Canada Wildlife Habitat Canada Chatham Rotary Forests Ontario Ontario Power Generation Tallgrass Ontario Ministry of Natural Resources and Forestry

Species at Risk Drainage Biologist

Environment and Climate Change Canada (ECCC) has approved funding for the "Species at Risk Conservation Agreement Development for the Lower Thames Region Conservation Authority" project. This funding has been approved for a total value of \$49,836.00, payable up until March 31, 2018.

ECCC seeks the highest level of environmental quality in order to enhance the well-being of Canadians. In this regard, one of their priorities is to encourage and support organizations engaged in activities to maintain or restore wildlife populations, in particular species at risk, to target levels. ECCC is administering funding for this initiative; however, the LTVCA and Department of Fisheries and Oceans will develop the Section 11 Conservation Agreement. Meetings are currently being organized to keep this project moving forward and on schedule.

The LTVCA is entering its final year of Eco Action funding which has assisted with funding native vegetated buffers within the Rondeau Bay Subwatershed. Program targets will be exceeded in its final year with 55 acres currently restored through this funding opportunity.

The SAR Drainage Biologist is representing the LTVCA as a member of the Elgin Phragmites Working Group. Phragmites is a growing concern throughout the watershed and the LTVCA is positioned well to support control projects and education initiatives.

Goodwill Career Centre

Through this program the LTVCA will receive \$5,200 towards wages for Resource Technician Katie Gillespie, who will be assisting Chatham staff with various tasks. Program runs for a minimum of 6 weeks, providing the applicant with valuable work experience.

OMAFRA - Rondeau Bay Wetland Monitoring

A Canada Ontario Agreement (COA) in the amount of \$135,000 has been earmarked for the monitoring of 9 wetlands in the Rondeau Bay area. Funds will cover equipment, lab analysis and staff time to take water samples at the inlets and outlets of these wetlands. Data collected will provide partners with useful data in regards to excess nutrients entering Rondeau Bay and ultimately Lake Erie. Staff hosted a workshop Feb. 3 at the OMAFRA office in Woodstock to bring all partners on board with the project.

GLASI Jeannette's Creek Priority Subwatershed Project (PSP)

39 agricultural best management practices (BMPs) were implemented and received funding through the GLASI Jeannette's Creek Priority Subwatershed Project during the 2016 growing season. The vast majority of the BMPs that were implemented with local farmers in the study area were focused around the concept of 4R nutrient stewardship. 35 4R nutrient stewardship BMPs were implemented within the study watershed. 4R nutrient stewardship BMPs include practices such as; grid soil sampling, variable rate fertilizer prescriptions, fertility equipment modifications, and alternative phosphorus application practices. Eligible study area farmers received approximately \$70,833.38 in 2016 for implementing agricultural BMPs through the GLASI Jeannette's Creek PSP.

During 2016, 120 water samples were taken from the three pump houses that are being monitored within the Jeannette's Creek study area. The samples were analyzed for the following parameters: TSS, Nitrates (N), Total Ammonia (N), Total Kjeldahl Nitrogen, Organic Nitrogen, Ortho-Phosphate (SRP), Organic Phosphorus, and Total Phosphorus. We anticipate that the quantity of samples collected and analyzed in 2017 will increase significantly due to the addition of 4 new edge of field water sampling units. Additionally, by the beginning of 2017 the majority of the Jeannette's Creek monitoring network will be fully operational and collecting samples from melt, rain, and flow events for the entire 12 month duration of the year.

In the future, the water quality and quantity information collected from the Jeannette's Creek monitoring stations will be used to calculate flow weighted nutrient loads for the Jeannette's Creek study area. Additionally, they will be incorporated into a model that is being created to determine the effectiveness of the implemented BMPs at reducing total phosphorus loads from the Jeannette's Creek study area. The modeling for the study is being conducted by researchers from McGill University and the University of Guelph.

Water sampling and BMP implementation will continue in 2017 for the GLASI Jeannette's Creek Priority Subwatershed Project. Under the current agreement with OSCIA, the project will conclude on March 31st, of 2018.

9.5) Community Relations

 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 and Conservation Ontario.

Two media releases have been written and distributed since the last meeting.

- Weekend Snowshoe Rental December 19
- Moonlight Winter Family Hike January 10

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



• Displays and Exhibits are created to update programs and information for the public.

The LTVCA had an information booth at the Southwest Agricultural Conference at the University of Guelph – Ridgetown Campus on January 4 and 5. Then later on January 25 and 26, staff also attended the Chatham-Kent Farm Show with an exhibit. Stewardship programs and services were highlighted. The London Farm Show is coming up on March 8-10 and the LTVCA will be there along with other neighbouring Conservation Authorities and stewardship organizations.



The 2018 International Plowing Match will be held September 18-22, in Pain Court, Chatham-Kent. Conservation Authorities have a stand-alone tent exhibit at the IPM site if the watershed lies within the county. A meeting with the St. Clair Region and Essex Region Conservation Authorities has been planned for March 3rd to discuss display messaging and concepts for a 2018 tent display. This is an opportunity to showcase the LTVCA's programs and services, especially stewardship opportunities to the thousands of plowing match visitors – both landowners and school children - great way to connect with landowners. Conservation Ontario also offers some financial support to Conservation Authorities when IPM's are held in their watersheds. The budget for the display tent will be shared between the 3 Conservation Authorities and any other partners under the tent. The LTVCA has participated in 5 large Conservation Authorities and other stewardship partners.

- **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 2016. Staff also take out advertisements in the local print media to inform the public about workshops and seminars.
- **Presentations** are given to community groups upon request. Support is provided to staff for official openings, funder recognition ceremonies and community events upon request. A presentation of the LTVCA's 2016 Year in Review will be given at this meeting.
- Committees and Meetings: Staff attend meetings as necessary for their programs and departments.
- The LTVCA's website and social media (YouTube, Twitter and Facebook) are updated 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 relating to the watershed are posted. Photos and video clips of programs and projects are taken regularly. New conservation area events and fee schedules for 2017 are being updated on the website.
- Lower Thames Valley Conservation Foundation Directors meeting scheduled for March 7, 2017.

• Events in conservation areas:

Weekend Snowshoe Rental at Longwoods Road Conservation Area

We haven't had much luck with the weather! Hopefully February will provide us with enough snow for the public to enjoy an afternoon of Sunday Snowshoeing soon!

Open Water Swim at Sharon Creek 2017

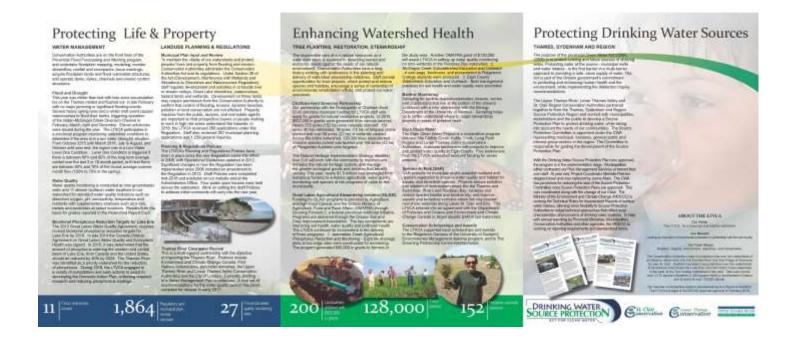
Staff have been approached by Rob Tranter, a Sharon Creek paddler and member of the London Canoe Club to discuss the possibility of hosting an open water swim at Sharon Creek Conservation Area in 2017. Canaqua Sports (<u>www.canaquasports.com</u>) is a small OWS (open water swim) series looking to expand participation. Rob will meet with staff again on February to discuss MOU/Agreement, logistics and any other issues in order to help develop this event. The event has been tentatively scheduled for Sunday, July 9th. Through Raceroster, the LTVCA will receive donations from the public and these funds will help to offset costs of the event.

2017 Longwoods/Ska-Nah-Doht Events

Annual events have been set for the new year at Longwoods/Ska-Nah-Doht and are posted on the LTVCA website. The next event is the Annual Moonlight Winter Family Hike scheduled for Saturday, February 11. We will have a verbal report at the AGM on how it turned out!

 Publications: Community Relations staff assist Conservation Authority staff with publications as needed. Publications are posted on our website for downloading. The 2016 Annual Report for the LTVCA will be available at the meeting.





- **Applications:** Staff apply for project funding as grants become available.
- **Courses/Certification:** Staff keep current by attending appropriate courses as needed.
- 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! Over 10 volunteers will be helping out at the Moonlight Winter Family Hike. In 2016, an estimated 710 volunteers gave over 5,500 hours of their time to conservation projects and services with the LTVCA!

9.6) Conservation Authority Education

Conservation Youth Group Workshops

Workshops are performed at Longwoods Road Conservation Area and LTVCA outreach locations to youth and their leaders. Youth groups work towards badges for various outdoor activities. Total number from December 1 – December 31, 2016 - 0 (0 in 2015)

Conservation Field Trips for Students

Total number from December 1 – December 31, 2016, 75 students and 15 adult supervisors participated in field trips to Longwoods Road Conservation Area. (0 students and 0 adults in 2015)

Conservation Classroom Programs and Outreach

From December 1 – December 31, 2016 –0 students

St. Thomas Elgin Children's Water Festival – May 16-19, 2017

LTVCA Education staff will be helping out next spring's festival in St. Thomas. The Kettle Creek Conservation Authority takes the lead on this one but we assist with manpower for the setup, running activity centres and take down as part of Elgin is in our watershed.

Lake Erie Student Conference – Fall 2017

The Upper Thames River, St. Clair Region and LTVCA staff will be meeting on March 9th to discuss a Lake Erie Student Conference in the Chatham area to be held in 2017. Here is an outline of what is in mind.

BACKGROUND

Low public awareness of the Great Lakes has been cited as a barrier to citizens, organizations and communities, such as Ontario's education community, in becoming more engaged in Great Lakes protection and restoration initiatives. Ontario's Great Lakes Strategy, enshrined in the Great Lakes Protection Act 2015, and the Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health have goals of engaging and empowering communities in the protection and restoration of the Great Lakes.

This Project (a Lake Erie Student conference) supports the implementation of Ontario's commitments to engage and empower communities by connecting teachers and school boards with opportunities to use the Great Lakes and their watersheds as a context for teaching and learning. It builds on the Great Lakes student conference engagement and experiential model that has been used by Great Lakes partners and school boards basin-wide since 2014.

The project will result in xxx school board leads and teachers being able to identify rich learning opportunities for students of all pathways by using the Great Lakes as a context for teaching and learning. It will enable conference participants to improve their understanding of First Nations culture and worldview as well as deepen their appreciation of the role of traditional knowledge in understanding changes to the Great Lakes Basin ecosystem.

The LTVCA will have an overall responsibility to plan, organize and deliver the Lake Erie SHSM Student Conference, working collaboratively with the xx school boards. It is a one day conference with 100 to 120 students in attendance.

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

Total number from December 1 to December 31, 2016 – 169 students and 35 adult supervisors participated in field trips to Ska-Nah-Doht. (111 students and 30 adults in 2015).

Ska-Nah-Doht Village and Museum Group Workshops

Workshops are performed at Ska-Nah-Doht and LTVCA outreach locations for youth and their leaders. Youth groups work towards badges for various outdoor activities. Total number from December 1 – December 31, 2016 – 0 (0 in 2015)

Ska-Nah-Doht Village and Museum Activities

The Turtle Trail Gift Shop was a success at the December Antler River Christmas Bazaar (Chippewa). Sales were supported by an increased audience; an Elders Conference was taking place next door. Sales of the lunchtime were brisk and certainly helped the year end numbers. The Village saw many schools right up to December 16th before holidays. As much as they all wanted to snowshoe, only one lucky class from Emeryville got the timing right! The day after 'Snow-megaton' gave us enough for one great afternoon of snowshoeing.

Weekend bookings are up in January. Again we are looking for snow but with lots of alternate programming there have been no cancellations. The Museum displays are getting much needed attention as well. Some artifacts on display have never been out of storage. The *Community Collections* exhibit will be on display at least until spring.

9.7) Conservation Ontario 2017 Provincial Pre-Budget Submission

Attached is Conservation Ontario's 2017 Pre-Budget Submission to the provincial Committee on Finance and Economic Affairs (January 20, 2017). Also included are Kim Gavine's speaking notes. She and Jo-Anne Rzadki appeared before the committee last Friday, January 20th.



Pre-Budget Submission to the Standing Committee on Finance and Economic Affairs

January 20, 2017

The costs of doing nothing to address increased flood risk in Ontario today only creates the need for even greater investments down the road and puts Ontario residents and property at risk.

Ontario's municipalities, residents and businesses more frequently face the extremes of climate change and often at the same time. Either there's too much water from extreme weather causing flooding, or not enough water as a result of prolonged drought with both conditions threatening the safety of drinking water quality and quantity.

There is a growing consensus that climate change, if not addressed, will create increasingly significant ecological and economic damages and costs. In its Hazard Identification Risk Assessment, Emergency Management Ontario identifies flooding as the leading cause of emergencies in Ontario¹.

In early January 2017 Canada's insurance industry called on all levels of government to improve climate change preparedness after a 'record-breaking year' of damage caused by natural disasters². They estimate that '\$4.9 billion in insurable damage was caused by natural disasters such as wildfires, floods and ice storms across the country'. In Ontario, damages were mainly from flooding and ice storms.

Insurance Bureau of Canada (IBC) lists notable 2016 floods in Ontario to include July storms in Bradford, Markdale, London and Toronto as well as a September storm after which the city of Windsor declared a state of emergency as a result of 190 mm of rain falling in less than 24 hours.

IBC predicts these incidents - and associated costs - will continue to climb as climate change progresses.

Conservation authorities are important, cost efficient and experienced partners with many programs that already help the Province to reduce and/or adapt to the impacts of climate change and reduce or prevent the cost of flooding, drought and other natural disasters. Some of these programs include:

- flood management operations reduce the impacts of flooding,
- implementation of development regulations identify flood prone areas and restrict building in these areas preventing significant damages,
- watershed planning, protection of green spaces and delivery of stewardship initiatives, such as tree planting and natural green infrastructure, build natural resiliency, and

¹ Emergency Management Ontario (Ontario Ministry of Community Safety and Correctional Services) <u>https://www.emergencymanagementontario.ca/english/emcommunity/ProvincialPrograms/hira/hira_2012.html#</u> <u>P6_1</u>

² Insurance Bureau of Canada <u>http://www.ibc.ca/on/resources/media-centre/media-releases/severe-weather-natural-disasters-cause-record-year-for-insurable-damage-in-canada</u>

 low impact development and urban and rural stormwater management technologies also help to reduce runoff, soil erosion and protect water quality of streams and lakes including drinking water.

Conservation Authorities also play a significant role in the delivery of what is currently called the Province's Low Water Response (OLWR) program. In 2016, six Eastern Ontario watersheds experienced Level 3 Low water conditions. This has never occurred before and is the most serious low water designation, requiring immediate actions to be taken in order to ensure sustainable water supplies.

Conservation Ontario and the conservation authorities are aware of the fiscal constraints needed to address many provincial priorities, however, mitigating and reducing flooding needs to immediately be added to the list of these priorities. The cost of doing nothing today will significantly increase costs down the road.

Required Actions

In order for conservation authorities to continue to support the province to address a changing climate, particular attention needs to be focused on three areas:

- 1. Flood Management additional investments are immediately needed for 2017/18
- 2. Low Water continued investments
- 3. Source Water Protection continued investment for source protection plan implementation
- Integrated Flood Management Program Imperative to address the need for updated floodplain mapping, flood management operations, and maintenance of conservation authority flood infrastructure

An essential conservation authority program area which supports the Province is flood management. Immediate investment in three priority areas is needed in order to continue to properly support the goals and objectives of Ontario's Climate Change Action Plan.

The table below outlines our total financial request as part of the Province's pre-budget consultation process. Strategic investment can build off current successful approaches.

Activity	2016/17 Provincial Investments	Requested Additional Funding 2017/2018	Total Provincial Investment for 2017/2018
Floodplain Mapping updates, technology and Tech Transfer	\$ 400,000	\$ 11.6 Million (short term)	\$ 12 Million (short term)
CA Flood Management Operations	\$ 7.4 million/yr	\$ 15.1 million	\$ 22.5 million/yr
Flood Infrastructure (major maintenance)	\$ 5 million/yr	\$ 2.5 Million	\$ 7.5 million/yr
Total Cost	\$12.8 million / yr	\$29.2million	\$42 million

 a) Floodplain Mapping: Immediate one time investment of \$12 million is needed to support the update of floodplain mapping.

A current inventory of conservation authority floodplain mapping was completed in 2015 and reveals that it will cost approximately \$136 million to update all Conservation Authority Floodplain mapping. We believe that a short-term investment of \$12 million would support the work of Conservation Authorities, the MNRF and other provincial and municipal partners to undertake the following:

- Development of a Provincial Flood Risk Assessment tool to help prioritize flood mapping
 projects in addition to flood and other infrastructure projects, including roads and bridges at
 flood risk
- Update the 2002 MNRF Technical Guidelines for Flood Hazard Limits to include climate change considerations. Conservation Authorities with other stakeholders would collaboratively support the MNRF in the development of the Guidelines, undertaking a process similar to the current guidance being developed by the MOECC for Low Impact Development/Stormwater management
- Support an initial acquisition to update base data and the large-scale elevation model which would be updated on a 5-year cycle through ongoing flood management operations
- Develop a strategy to update mapping on an ongoing basis as information from climate monitoring and modelling is provided.
- Support floodplain mapping updates, including for small rural and northern municipalities to match the Federal national Disaster Mitigation Program funding.
- b) Flood Management Operations In order to continue to protect people and property from flooding, Conservation Ontario requests that \$15.1 million be invested in 2017/18 into conservation authority flood operations for a total contribution of \$22.5 million.

Provincial investments in conservation authority flood operations has not kept pace with needs which are quickly escalating and becoming more complex as a result of climate change impacts. Flooding is the leading cost of disasters in Ontario affecting personal property and lives as well as disrupting businesses and requiring the Province to provide disaster relief funding.

Conservation Ontario is requesting \$22.5 million in the next fiscal year but estimates that fully functioning conservation authority flood management operations across all conservation authorities requires a total investment of \$63.5 million/year, of which the Province's share should be 50% or \$31.75 million. Currently the province is paying less than a quarter of the total costs through an annual contribution of \$7.4 million to conservation authorities for their flood management operations. Municipalities are carrying an unfair burden for this provincially delegated responsibility.

Today, municipalities currently pay the bulk of the costs and these are rising as a result of more frequent and stronger storms and other extreme weather. This is particularly difficult for rural and smaller municipalities who do not have the municipal tax base to support the work needed to protect against flooding hazards. The Association of Municipalities of Ontario in their comments to the Province on the *Conservation Authorities Act* Review identified that "Municipal governments for some years have raised concerns about unstable funding to conservation authorities."

c) Maintenance of Flood Infrastructure - Conservation Ontario is requesting that the Province invest an additional \$2.5 million in the MNRF Water Erosion and Control Infrastructure (WECI) Funding program for a total contribution of 7.5 million.

Conservation authorities collectively own and operate a total of \$2.7 billion in flood infrastructure including over 900 dams, dykes, channels and erosion control structures. This aging infrastructure is critical in adapting to the impacts of climate change and reducing flood risk and requires major maintenance.

Currently, conservation authorities address the most critical problems with funding from the MNRF Water and Erosion Control Infrastructure Funding program. This annual provincial fund of \$5M requires matching municipal funding and this program is regularly oversubscribed by \$4M/year in total project costs. The additional \$2.5 million in funding from the Province would address this shortfall and some of this funding would be allocated to a small, rural and northern fund for water and erosion control infrastructure.

 Low Water – Conservation authorities need continued investments in what is currently called the Ontario Low Water Response Program in order to support Provincial goals in this area

Sustained low levels of precipitation impact drinking water quality and quantity, food production through agricultural operations, recreational opportunities and economic activities. Drought also reduces the resilience of important ecosystems such as groundwater, wetlands, streams and lakes ultimately affecting the overall economic and human wellbeing of our communities.

Since 2000, Ontario's 36 conservation authorities have been partners with the Ministry of Natural Resources and Forestry (MNRF) and municipalities in what is currently called the Ontario Low Water Response program (OLWR).

Conservation authorities provide an important suite of activities which are crucial to address low water conditions. These include: collecting and analyzing monitoring data; providing recommendations for moving between low water levels; maintaining and scheduling local multi-stakeholder low water response team meetings; developing low water reports; and developing public/media messaging and education regarding changing low water conditions within local watersheds.

Long-term funding for this work has yet to be confirmed by the Province. Continued and/or enhanced funding support for Conservation Authorities in this program area is required.

Source Water Protection – Conservation authorities need continued funding to support the implementation of source protection plans under the Clean Water Act

This collaborative initiative funded by the Province will ensure that Ontarians have access to clean and safe drinking water. Conservation authorities have played a key role in developing science based assessment reports and 22 local source protection plans which have been approved by the Province.

As the focus of the source water protection work transitions from planning to implementation, it requires conservation authorities to continue to play a critical role in assisting the Province to ensure the plans are implemented effectively so that drinking water sources are safe and sustainable. Long-term funding for this work has yet to be confirmed by the Province. Sustainable funding to conservation authorities for this work needs to continue in order to support the Province in safeguarding Ontario's drinking water.



Speaking Notes

Pre-Budget Submission to the Standing Committee on Finance and Economic Affairs January 20, 2017

Hello, my name is Kim Gavine and I am the General Manager for Conservation Ontario. I have with me Jo-Anne Rzadki, Business Development and Partnerships Co-ordinator. Our organization represents Ontario's 36 Conservation Authorities who are watershed management agencies working across the province. Conservation Authority programs and services provide many added value benefits for the Province, helping to protect the Great Lakes, drinking water sources and natural areas as well as protecting people and property from costly flooding and erosion damages.

There are three messages *I hope* you remember after hearing me today and reading our submission to the committee:

Number one: The costs of addressing flood damages in Ontario are significant and growing. This includes damages to property and flood infrastructure, as well as the cost of business disruption and ecological damages.

Number two: Conservation Authorities are cost effective and very experienced partners. They have worked since the 1940s with the Province to reduce and mitigate the damages of flooding and erosion.

¹ Conservation Ontario 2017 Pre-Budget Submission to Standing Committee on Finance and Economic Affairs January 20, 2017

And number three: Conservation Authority flood programs cannot keep up with the growing number of flood incidents and damages and need immediate short term and long term investments. Funding is needed to address aging infrastructure, updates to floodplain mapping, and flood operations.

Climate change impacts and their costs are increasing.

Two reliable sources – the Insurance Bureau of Canada and the Federal Auditor General - urgently warned us that weather-related incidents *and the costs required to address the resulting damages* <u>will continue to grow</u>. These costs are felt by all levels of government, businesses and residents in Ontario.

Earlier this month, IBC called on all levels of government across Canada to improve climate change preparedness after a 'record-breaking year' of damage caused by natural disasters such as wildfires, ice storms and flooding. They flagged a number of notable flood incidents in Ontario which included July storms impacting Bradford, Markdale, London and Toronto. They also highlighted a September storm in the Windsor area which prompted the city of Windsor to declare a state of emergency.

In addition, a Spring 2016 report released by the Federal Auditor General stated that severe weather will have a great impact on Canadians. "Physical, social, and economic impacts are significant, often resulting in long-term costs and disrupting everyday life".

² Conservation Ontario 2017 Pre-Budget Submission to Standing Committee on Finance and Economic Affairs January 20, 2017

What's most interesting about this report is that according to the Auditor General's office, Public Safety Canada estimates that every dollar invested in mitigation saves \$3 to \$5 in recovery costs.

Spending money on keeping conservation authority flood operations up to date will save money.

This leads me into my second message which is that Ontario's 36 Conservation Authorities are very cost effective and experienced partners for the Province in reducing and mitigating the impacts of flooding in Ontario.

Reviews of flood programs across Canada have shown that Ontario is a leader in flood operations compared to other provinces. We feel that this is due, in large part, to a long standing flood management partnership between the Province, municipalities and conservation authorities which dates back to the 1940s.

In addition to flood management programs within conservation authorities, there are many other CA programs and services which also help to manage the impacts of flooding and build resilient watersheds. These programs include watershed planning and regulations, source water protection, low water programs, agricultural and other stewardship, green infrastructure, stormwater management and many others. Together, with the flood management programs, they provide a solid package.

My last message is around the need for more provincial investments. As we've shown in our Flood Business Case, provincial funding has not kept pace with the

³ Conservation Ontario 2017 Pre-Budget Submission to Standing Committee on Finance and Economic Affairs January 20, 2017

needs of conservation authority flood programs – programs which the Province itself relies on heavily. We struggle with outdated floodplain mapping, aging infrastructure, and, particularly, reduced flood operations.

Today, conservation authorities share a total of \$7.4 million per year in flood operation funding and a matching contribution of \$5 million a year in infrastructure funding. This funding falls well short of what is needed.

Many municipalities have had to step in and address immediate flooding concerns on a local basis. Their ability to do so varies, however, with many smaller municipalities struggling to contribute.

Through incremental investing starting immediately – the Province could begin to bring the conservation authority flood operations up to where they need to be. A high level review of these numbers is provided in our submission to the committee.

These investments will help to reduce future growing damage costs which will – if not prevented now – will be much greater and need to be paid for by the Province and others.

I apologize to the committee that our messages today are not new for you – but I must stress that each year we delay in addressing the lack of funding in Ontario's flood programs, the greater the need becomes.

I hope I have been able to effectively communicate those three key messages that I started with so that you have them for your discussions with your colleagues.

⁴ Conservation Ontario 2017 Pre-Budget Submission to Standing Committee on Finance and Economic Affairs January 20, 2017

Thank you very much for your time today and I welcome any questions you may

have.

Kim Gavine; kgavine@conservationontario.ca; 905-895-0716 ext 231

5 Conservation Ontario 2017 Pre-Budget Submission to Standing Committee on Finance and Economic Affairs January 20, 2017

Recommendation: That agenda items 9.1 through 9.7 be received for information.

10. Correspondence

10.1) Snapping Turtle Harvest in Ontario – UTRCA submission to the EBR

2/7/2017	Snapping Turtle harvest – EBR submission UTRCA: Inspiring A Healthy Environment						
UPPER THAMES RIVER			Home	Programs	About Us	Contact Us	
Upper Thames River Conservation Authority	Watershed Health	Aquatic Species at Risk	Snapping Turtle harvest - EBR submission				

UTRCA Submission to the Ontario EBR regarding Snapping Turtle & American Bullfrog Harvest (January 24, 2017)



RE: Comment on EBR Registry Numbers: 012-9170 and 012-9169

Snapping Turtle

The Ontario government has proposed changes to the Snapping Turtle harvest in Ontario under the Fish and Wildlife Conservation Act. The changes are being sought under "guidance provided by the draft Small Game and Furbearer Management Framework, in consideration of the biology of the species, and consistent with recommendations in the Proposed Management Plan for the Snapping Turtle (*Chelydra serpentina*) in Canada.⁴ Unfortunately, the proposed changes do not go far enough to stabilize and protect this Species At Risk. Therefore, the Upper Thames River Conservation Authority, along with a number of other organizations and biologists across Canada, is calling for an end to the harvest of Snapping Turtles in Ontario.

In 2009, the Snapping Turtle was listed as a Species At Risk (Special Concern) in Ontario by the MNRF and federally under the Species At Risk Act, due to multiple threats to the population and an inability to withstand increasing adult losses. By continuing to allow a legal harvest, despite ongoing population declines and contrary to available science, the provincial government is supporting a very real threat to the continued existence of Snapping Turtles in Ontario.

The government is also sending a confusing message to Ontario residents about efforts to protect declining species. The cost of recovering species at risk can be high, and tremendous efforts are put forward by dedicated people



Globally, turtles are the most threatened group of animals, with a life-history strategy that makes them exceptionally vulnerable to declines. Snapping Turtles may take 17 to 20 years to reach maturity and, even then, most of their eggs and young will be lost to predators, human activity or environmental conditions. Adult Snapping Turtles are being lost before they are able to replace themselves in the population. The presence of older animals in a population is the key to the species' survival, since turtles that are many decades old can have higher reproductive potential than young adults.

Snapping Turtles are an Important component of our local ecosystems, creating habitat and acting as predator, scavenger and prey within a complex network of countless species. There is no way to halt all losses on roads, from poaching or from habitat loss. A multi-pronged conservation approach is needed, one that will not only decrease the loss of adult turtles wherever these losses occur, but also will educate the public about this declining turtle.

There is an opportunity to work together to make effective and appropriate changes based on the best available information. We need to adjust current legislation to align with what we now know about these animals. They are unlike any other game species in Canada, and their life history characteristics, combined with large scale threats, make them an inappropriate candidate for harvest. We ask that the Snapping Turtle harvest be ended immediately.

American Bullfrog

http://thamesriver.on.ca/watershed-health/aquatic-species-al-risk/snapping-turtle-harvest-ebr-submission/

Snapping Turtle harvest - EBR submission | UTRCA: Inspiring A Healthy Environment

in communities throughout Ontario. We want to ensure these significant contributions are not in vain.

The Upper Thames River Conservation Authority (UTRCA) leads one of the largest and longest running reptile research and recovery programs in Canada. Since the mid-1990s, UTRCA staff has conducted extensive reptile surveys and research throughout many areas of southwestern Ontario, including multiple river watersheds and reptile hotspots along Lakes Erie, Huron and St. Clair. Turtles have been at the forefront of these efforts. Over nearly 25 years of surveys, research, community education, landowner contacts and partnerships, we have observed first-hand the suite of obstacles threatening the long-term persistence of Snapping Turtle populations in this region. In 2016 alone, we received multiple reports from the public about wetlands being targeted to remove multiple adult Snapping Turtles. While these removals were done legally, they have likely resulted in the loss or limited viability of the local populations affected.

Although the Snapping Turtle is still found in many areas of Ontario, the species is declining, with populations unable to counter growing anthropogenic stressors. Snapping Turtles face many threats including road and boat mortality, by-catch from commercial fisheries and recreational angling, mortality from dredging, dewatering and other construction practices, invasive species, persecution, illegal collection for pets/ medicine/ food, increasing rates of egg and hatchling mortality from subsidized predators, exposure to toxic contaminants, and habitat loss and fragmentation. Scientific studies on turtles clearly illustrate the inability of turtle populations to sustain increased adult losses, even losses as low as 1-3%. Snapping Turtle studies in Ontario have shown that, even after 25 years, a population that had lost multiple adults previously, has still not recovered despite being in an area with otherwise limited threats.

Available information on the American Bullfrog, from both biologists and harvesters, has shown that declines have occurred over many parts of their range in Ontario. The current harvest is not based on science and there is an increasing number of threats affecting this species: continuing loss of habitat, increasing road development, increasing amphibian diseases worldwide, climate change, and habitat changes due to invasive plant species. Based on these factors, and until appropriate scientific information becomes available to suggest a harvest would be sustainable, the UTRCA recommends an immediate halt to the harvest of Bullfrogs in Ontario.



Literature Used in Drafting this Submission

Berrill, M., Bertram, S., Tosswill, P. and Campbell, V., 1992. Is there a bullfrog decline in Ontario?. Pages 32-36 In: Bishop, C.A., Pettit, K.E. (eds) Declines in Canadian amphibian populations: designing a national monitoring strategy. *Canadian Wildlife Service, Occasional paper.* 76. Ottawa ON. 1992.

Blaustein, A.R. and J. Kiesecker, 2002. Complexity in conservation: Lessons from the global decline of amphibian populations. Ecol. Lett. 5: 597-608.

Brooks R.L., D.A. Galbraith, E.G. Nancekivell, and C.A. Bishop. 1988. Developing management guidelines for Snapping Turtles. Pp. 174-179, In R.C. Szaro, K. E. Severson, and D.R. Patton (eds.). Symposium on Management of Amphibians, Reptiles, and Small Mammals in North America (July 19-21, 1988), Flagstaff, Arizona. USDA Forest Service General Technical Report RM-166.

Brooks, RJ, G.P. Brown, and D.A. Galbraith. 1991. Effects of sudden increase in natural mortality of adults on a population of the common snapping turtle (*Chelydra serpentina*). Canadian Journal of Zoology 69: 1214–1320.

Compton, B. 1999. Ecology and conservation of the Wood Turtle (Clemmys Insculpta) In Maine. M.Sc. Thesis, University of Maine.

Congdon, J.D., R.D. Nagle, O.M. Kinney, R.C. van Loben Sels, T. Quinter, D.W. Tinkle. 2003. Testing hypotheses of aging in long-lived painted turtles (*Chrysemys picta*). Experimental Gerontology 38: 765-772.

Congdon, J.D., R.D. Nagle, O.M. Kinney, and R.C. van Loben Seis. 2001. Hypotheses of aging in a long-tived vertebrate (Blanding's turtle, *Emydoldea* blandingil). Experimental Gerontology 36: 813-827. Hayes, T.B., P. Falso, S. Gallipeau, and M. Stice. 2010. The cause of global amphibian declines: a developmental endocrinologist's perspective. Journal of Experimental. Biology 213: 921–933.

Harding, J. 1997. Amphibians and Reptiles of the Great Lakes Region. MI: The University of Michigan Press.

Hecnar, SJ., and R.T. M'Closkey. 1997. Changes in the composition of a ranid frog community following builfrog extinction. American Midland Naturalist 137:145-150.

Herman, T.B., J.A. McNeil, and D.D. Hurlburt. 2004. Blanding's turtle population viability analysis: Development and application of a stageclassified transition matrix. Final Report to Parks Canada SARRAEF 03-KEJ03-004.

International Union for Conservation of Nature (IUCN), 2007, IUCN Red List of Threatened Species, <</www.iucnredlist.org>.

Keevil, M.G., R.J. Brooks, and J.D. Litzgus. Post-catastrophe patterns of longterm abundance and survival reveal no evidence of population recovery in a long-lived animal. In prep (Ecology).

Livaitis, J.A., and J.P. Tash. 2008. An approach toward understanding wildlifevehicle collisions. Environmental Management, 42: 688-697.

May, R. M. (2010). Ecological science and tomorrow's world. Philos. Trans. R Soc. B Biol. Sci. 365 , 41–47.

http://thamesriver.on.ca/watershed-health/aquatic-species-at-risk/snapping-turtle-harvest-ebr-submission/

2/7/2017

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Congdon, J.D., A.E. Dunham, and R.C. van Loben Sets. 1993. Delayed sexual maturity and demographics of Blanding's turtles (*Emydoldea blandingii*): implications for conservation and management of long-lived organisms. Conservation Biology 7: 826-833.

Congdon, J.D., A.E. Dunham, and R.C. van Loben Sels. 1994. Demographics of common snapping turtles: Implications for conservation and management of long-lived organisms. American Zoologist 34: 397-408.

Doroff, A.M., and L.B. Keith. 1990. Demography and ecology of an ornate box turtle (7. omata) population in southcentral Wisconsin. Copeia 1990: 387-399.

Galbraith, D.A., R.J. Brooks and G.P. Brown. 1997. Can management intervention achieve sustainable exploitation of turtles? In Proceedings: Conservation. Restoration and Management of Tortoises and Turtles – an International Conference, edited by Van Abbema, J. New York Turtle and Tortoise Society, New York. Pp. 186-194.

Gibbs, J.P., and W.G. Shriver. 2002. Estimating the effects of road mortality on turtle populations. Conservation Biology 16: 1647-1652. Midwood, J.D., N.A. Cairns, L.J. Stoot, S.J. Cooke, and G. Biouin-Demers. 2015. Bycatch mortality can cause extirpation in four freshwater turtle species. Aquatic Conservation: Marine and Freshwater Ecosystems 25: 71-80.

Pauly, D. 1995. Anecdotes and the shifting baseline syndrome of fisheries. Trends in Ecology and Evolution, 10: 430.

Raby, G.D., A.H. Colotelo, G. Blouin-Demers, and S.J. Cooke. 2011. Freshwater commercial bycatch: An understood conservation problem. BioScience 61: 271- 280.

Reed, R.N., J. Congdon and J.W. Gibbons. 2002. The alligator snapping turtle [Macroclemys (Macrochelys) temminckii]: A review of ecology, life history, and conservation, with demographic analyses of the sustainability of take from wild populations. Report to: Division of Scientific Authority, United States Fish and Wildlife Service.

Roberts, C. 2007. The Unnatural History of the Sea. Island Press, Washington, D.C. 435 pp.





Other Information

Media Releases

Events

Publications

Employment Opportunities

Watershed Conservation Centre

Drinking Water Source Protection

Thames River Clear Water Revival

Environmental Targets

Accessibility

Board of Directors

Kelly Mohring Memodal Golf Tournament

Latest News

Brief Thaw & Rain Expected to cause Minor Runoff (media release, February 6, 2017)

Brief Thaw and Rain Expected to Produce Minor Runoff (flood bulletin, February 6-10, 2017)

Snapping Turtle harvest in Ontario – UTRCA submission to the EBR

City of London Boating Ban Cancelled (special flood bulletin, Jan 14, 2017)

Tweets by @UTRCAmarketing



This short video shows how the UTRCA and local schools are partnering with GM Canada for the GM GREEN project. youtu.be/IR_80e.JwT9Q



Embed View on Twitter

The Upper Thames River Conservation Authority is one of 36 Conservation Authorities in the Province of Ontario, Canada. Our area of jurisdiction, the upper watershelf of the Thames River, covers 3,432 square kilometres in southwestern Ontario and is home to approximately 485,000 people. The Thames is a Canadian Heritage River.

http://thamesriver.on.ca/watershed-health/aquatic-species-at-risk/snapping-turtle-harvest-ebr-submission/

