

# Board of Directors - Notice of Meeting

November 9<sup>th</sup> - 10:00 a.m., Administration Office, Strathroy

# Tentative Agenda

- 1. Chair's Remarks
- 2 Declaration of Pecuniary Interests
- 3. Board of Directors September 21, 2017 Minutes
- 4. General Manager's Report
  - (i) GM's Report
- 5. Chair & Conservation Ontario Report (i) CO September 25, 2017 minutes
- 6. Business Arising from last meeting
- 7. Conservation Area Reports
  - (i) Conservation Areas Update
- 8. Water Resources Reports
  - (i) Current Watershed Conditions and Flood Threat
  - (ii) Water & Erosion Control Infrastructure (WECI) Projects
- 9. Biology Reports
  - (i) Healthy Watershed Program Outreach Update
- 10. Conservation Services Reports
  - (i) Conservation Services Report
- 11. Planning and Regulations Reports
  - (i) Drainage Act and Conservation Authorities Act Protocol (DART)
  - (ii) Report re J. Burbidge Delegation
- 12. Finance Reports
  - (i) Revenue and Expense Summary
  - (ii) September 1 October 24 2017 Disbursements
  - (iii) 2017 General Levy Summary
  - (iv) Investment Reports
  - (v) 2018 Draft Fees
  - (vi) Comments regarding 2018 Draft Budget
  - (vii) Joint Health & Safety Committee June 8, 2017 Minutes
  - (viii) Nominating Committee
  - (ix) 2018 Tentative Schedule of Meetings
- 13. Communications Reports
  - (i) Communications Progress Report
  - (ii) Conservation Education Progress Report

- 14. Hearing
  - (i) Opening Remarks
    - Presentation of Authority Staff Information Presentation of Applicant Information Questions
  - (ii) In Camera
- 15. In Camera
- 16. New Business
- 17. Adjournment

Please contact Ashley (519-245-3710/ 1-866-505-3710 x 200 or e-mail <u>Afletcher@scrca.on.ca</u>) at the Administration Office by November 6, 2017, if you are unable to attend.

#### **Board of Directors Proposed Resolutions**

2. It is requested that each Director declare a conflict of interest at the appropriate time, on any item within this agenda in that a Director may have pecuniary interest.

#### 3. (i) Moved by: Seconded by: That the minutes of the Board of Directors meeting, held September 21,

2017, be approved as distributed.

#### Moved by: Seconded by: 4. (i)

That the Board of Directors acknowledges the General Manager's report, dated October 30, 2017.

#### 5. (i) Move by: Seconded by:

That the Board of Directors acknowledges the September 25, 2017 meeting minutes of Conservation Ontario.

#### 6. (i) Moved by:

That the Board of Directors acknowledges the updates on business arising from the September 21, 2017 Board of Directors meeting.

Seconded by:

#### 7. (i) Moved by: Seconded by:

That the Board of Directors acknowledges the Conservation Lands Update, dated October 24, 2017 on Conservation Areas, Foundation, and McKeough Lands including capital projects, facility improvements and camping trends in 2017.

#### 8. (i) Moved by:

That the Board of Directors acknowledges the report dated October 27, 2017 on the current watershed conditions and Great Lakes water levels.

#### 8. (ii) Moved by:

Seconded by: That the Board of Directors acknowledges the report dated October 25, 2017 on the ongoing Water and Erosion Control Infrastructure projects across the watershed.

#### 9. (i) Moved by:

That the Board of Directors acknowledges the status report dated November 1, 2017, regarding Healthy Watersheds program, including the outreach and education events held throughout the watershed.

#### 10. (i) Moved by: Seconded by:

That the Board of Directors acknowledges the report dated October 26, 2017 on the Conservation Services programs and projects across the watershed.

Seconded by:

#### Seconded by:

#### 11. (i) Moved by:

That the Board of Directors acknowledges and concurs with the June to October 2017 municipal drain activity report associated with the Drainage Act and Conservation Authorities Act Protocol (DART).

Seconded by:

Seconded by:

#### 11. (ii) Moved by: Seconded by:

That the Board of Directors acknowledges the report on J. Burbidge, 4606 Lakeside St., Plympton Wyoming and further recommends the following:

#### 12. (i) Moved by:

That the Board of Directors acknowledges the revenue and expenditure report to September 30, 2017, as it relates to the budget.

#### 12. (ii) Moved by: Seconded by:

That the Board of Directors approves the September to October 24 2017 disbursements as presented in the amount of \$581,547.62.

#### 12. (iii) Moved by:

That the Board of Directors acknowledges the status report on the 2017 general levy receipts to October 31, 2017.

#### 12. (iv) Moved by:

That the Board of Directors acknowledges the Investment Report, for the period ending September 30, 2017.

#### 12. (v) Moved by:

That the Board of Directors acknowledges the reports on Conservation Area and Planning fees and approves the Schedule of Fees dated October 2017, for all programs and services for the year 2018 fees and further approves option for natural heritage fees and further directs staff to circulate the approved fee schedule to all member municipalities.

#### 12. (vi) Moved by: Seconded by:

That the Board of Directors acknowledges the verbal summary of comments received to date on the 2018 Draft Budget.

#### 12. (vii) Moved by:

That the Board of Directors acknowledges the June 8, 2017 meeting minutes of Joint Health and Safety Committee.

Seconded by:

Seconded by:

Seconded by:

#### Seconded by:

#### 12. (viii) Moved by:

That the 2018 Nominating Committee consisting of the following four directors representing the four districts of the Authority being Sarnia, Lambton, Chatham-Kent, and Middlesex be:

and further that the Nominating Committee's recommendation for the 2018 committee membership be presented at the Annual General Meeting.

#### 12. (ix) Moved by:

That the Board of Directors approves the 2018 tentative schedule of meetings for the Board of Directors and Committees, dated October 11, 2017.

#### Moved by: 13. (i)

That the Board of Directors acknowledges the Communications Report dated October 23, 2017 including memorial forests, conservation awards, Conservation Foundation update and conservation education fundraising.

#### 13. (ii) Moved by:

That the Board of Directors acknowledges the Conservation Education Report, dated October 25, 2017 including fall education programs and events.

#### 14. (i) Moved by:

That the Board of Directors sit as a Hearing Board and acknowledge the reports and exhibits regarding Application #11316 Developments, Interference with Wetlands and Alterations to Shorelines and

Watercourses Ontario Regulation 171/06 following the Hearing Procedures set out by the Conservation Authorities Act.

14. (ii) It is requested that each Director declare a conflict of interest on any item within the Hearing agenda in that a Director may have pecuniary interest.

#### 14. (ii) Moved by: Seconded by:

That the Hearing Board move in-camera at to deliberate information provided regarding Application #11316.

#### 14. (iii) Moved by: Seconded by: That the Hearing Board rise and report at \_\_\_\_\_ a.m.

#### 15. (i) Moved by: Seconded by: That the Hearing Board sit as a Board of Directors.

#### 15. (ii) Moved by: Seconded by: That the Board of Directors move in-camera at \_ to discuss personnel issues with the General Manager and the Director of Finance remaining.

#### Seconded by:

Seconded by:

Seconded by:

Seconded by:

#### Seconded by:

15. (iii)	Moved by:	Seconded by:	
	That the Board of Dire	ctors rise and report at	a.m.

#### **Moved by:** That the meeting be adjourned. Seconded by: 16.

#### September 21, 2017

The Board of Directors Meeting of the St. Clair Region Conservation Authority was held on the above date, at the Administrative Office, at the hour of 10:00 a.m.

**Present**: Steve Arnold, Chair; Andy Bruziewicz, Vice Chair; Alan Broad, Tony Bruinink, Joe Faas, Norm Giffen, Larry Gordon, Don McCallum, Dan McMillan, Steve Miller, Frank Nemcek, Gerry Rupke, Cindy Scholten, Jerry Westgate, Muriel Wright

Absent: Mike Kelch, Betty Ann Mackinnon, John McCharles, Jeff Wesley

**Staff Present:** Brian McDougall, General Manager; Laura Biancolin, Agricultural Outreach Technician; Erin Carroll, Manager of Biology; Nicole Drumm, Communication Technician; Chris Durrand, IT/GIS Coordinator; Ashley Fletcher, Administrative Assistant/ Board Coordinator; Patty Hayman, Director of Planning; Erica Ogden, Planner; Tracy Prince, Director of Finance; Girish Sankar, Manager of Water Resources; Kelli Smith, Watershed Biologist; Jessica Van Zwol, Healthy Watershed Specialist.

Guests Present: Jennifer Burbidge, Kathleen Wyatt, Chris Hatt

The Chair welcomed everyone to the meeting and requested that each Director declare a conflict of interest at the appropriate time, on any item within this agenda in that a Director may have pecuniary interest.

#### BD-17-100 Scholten - Bruinink "That the minutes of the Board of Directors meeting, held June 22, 2017, be approved as distributed."

#### CARRIED

The General Manager's Report was presented:

Ontario Bill 139 - the Building Better Communities and Conserving Watersheds Act:

- today, the government brought forward the above Bill as the Order of the Day for second reading
- the Ministers of Municipal Affairs and Housing and Natural Resources and Forestry outlined the 2 new Acts proposed and proposed changes to 17 Acts included under Bill 139, underscored the reasons for the proposed changes and the public consultation that had been completed with regard to these changes
- the presentation of the Bill 139 was followed by more than 3 hours of debate

- notable issues brought forward in debate regarding Conservation Authorities included:
  - Large Bill impacting a great deal of legislation Conservation Authorities Act update should have its own Bill
  - Provincial funding on average, Authorities receive only 10% of their revenue from the province.... approximately 54% from their municipalities, 1% from the federal government, and the remaining 35% is raised through fees and fundraising
    - SCRCA 2017 funding Provincial 6%, Provincial Grant Other 11%, Federal 1%, Municipal 14%, Municipal Special Levy 4%, Reserves 10%, Self-Generated 54%
  - Ministers powers under regulations are too great
  - o Authority Officers powers of entry changed to "without warrant"
  - o appointment of Board Members special requirements
  - local decision making Conservation Authorities more provincial input & oversight / Local Planning Tribunals less provincial input & oversight
  - "Rogue" Conservation Authorities Niagara Peninsula Conservation Authority

Draft Action Plan for Lake Erie Phosphorous:

- subsequent to submitted our comments on the EBR posting we were contacted by the Ministry of Natural Resources and Forestry to discuss all the Conservation Authority submission as a group
- Authority comments were reviewed and streamlined at a meeting in July and a small group was appointed to continue to provide comment and input to the federal and provincial Ministries as they move toward a final draft of the Action Plan
- Jo-Anne Rzadki of Conservation Ontario, Richard Wyma, General Manager of Eseex Region CA and I have continued discussion with the Ministries throughout the summer and into the fall
- Conservation Authorities have been captured in the document as an important delivery partner
- however, many groups are being asked to contribute to the actions in the Action Plan and everyone wants to ensure that they are recognized

Chloride Issues in the Great Lakes:

- understanding that the issue of Phosphorous is paramount with Lake Erie Chlorides are seen as a significant concern across the Great Lakes Basin
- the SCRCA has been invited to attend the Great Lakes Chloride Forum in early October to discuss the issue and available actions

The Forum is being hosted by the Toronto US Consulate General, Lake Simcoe Region CA, World Wildlife Fund and Gowling WLG

### BD-17-101 Scholten-Wright "That the Board of Directors acknowledges the General Manager's report, dated September 11, 2017."

#### CARRIED

Conservation Ontario Council minutes of the June 26, 2017 meeting were reviewed.

#### Miller-Westgate BD-17-102 "That the Board of Directors acknowledges the minutes of the June 26, 2017, Conservation Ontario Council meeting minutes."

### CARRIED

- Further information and explanation regarding draft Conservation Authorities Act 28.2, cancellation of permits was requested.
- Specifically if notice is required to cancel a permit what is the time frame for such a notice
  - Points of question (taken from proposed Bill 139 the Building Better Communities and Conserving Watersheds Act.)
  - Cancellation of permits
  - 28.3 (1) An authority may cancel a permit issued under section 28.1 if it is of the opinion that the conditions of the permit have not been met or that the circumstances that are prescribed by regulation exist.
  - o Notice
  - (2) Before cancelling a permit, an authority shall give a notice of intent to cancel to the permit holder indicating that the permit will be cancelled on a date specified in the notice unless the holder requests a hearing under subsection (3).
  - No time frame has been provided for a notice in the proposed act

 Additional information may be included in the accompanying regulation however, our interpretation is that the notice and the cancellation can be served at the same time

Bruziewicz-Nemcek BD-17-103 "That the Board of Directors acknowledges the updates on business arising from the June 22, 2017, meeting."

### CARRIED

Conservation Areas:

- the Conservation Authority owns 15 conservation areas and manages 17 properties for the Foundation
- of those 15 conservation areas, six are managed by the local municipality and nine are operated by the Conservation Authority
- of these nine, three conservation areas are regional campgrounds which attract campers primarily from Southwestern Ontario
- our three regional campgrounds have over 500 campsites and 416 seasonal campers and are financially self-sufficient
- profits obtained from our campgrounds are used to offset capital improvements
- the 2017 camping season runs from Friday, April 28<sup>th</sup> to Thanksgiving Day

### Marketing/Camping Statistics

Our conservation areas have been marketed in the following publications or events in 2017:

- Sarnia Lambton and Chatham-Kent Tourism Guide
- Camping ad has been placed on MyFm website
- Conservation Ontario "Your Guide to Conservation Areas"
- Central Lambton Travel Guide
- Hayter Publication's Special Editions (4) "Cottage and Campers"
- Sarnia Art Walk (downtown Sarnia, June 3<sup>rd</sup> and 4<sup>th</sup>)
- For 2017, 416 seasonal campers are registered at our three campgrounds, down from 421 in 2016
  - o Warwick: 190 seasonal campers registered (191 in 2016)
  - o L.C. Henderson: 119 seasonal campers registered (123 in 2016)
  - o A.W. Campbell: 107 seasonal campers registered (107 in 2016)

Warwick Conservation Area:

- a 24x32ft pole type storage shed has been constructed
- engineered wood chip playground protective surfacing has been installed under the main day use area play equipment

- the pool washroom hydro panel has been upgraded
- three sections of boardwalk have been installed on the White Pine trail
- hydro and water has been installed to two overflow campsites in the woodlot campground
- woodlot campground laundry shed has been renovated with new appliances, flooring, and plumbing
- 550-meters of new chip and dust trail have been developed around the perimeter of the 5-acre climate change tree growth plantation (Foundation)
- a fishing dock has been constructed on the main reservoir
- LED exterior lighting has been installed on two of the washroom buildings
- a mountain bike obstacle has been constructed along the bike cross trail

L.C. Henderson Conservation Area:

- the campground pool has been renovated with two new ladders and entrance railing
- 10 new picnic tables have been constructed
- one shower area has been upgraded with new shower surround and ceramic tile on the floor and walls
- a new sidewalk has been installed in front of the shower areas
- two new hydro panels have been installed, one in the main washroom building and one in the campground area
- LED lighting has been installed on the main washroom building and on two utility poles
- video surveillance equipment has been installed in and outside the gatehouse

A.W. Campbell Conservation Area:

- a new concrete side walk has been constructed at the pool washroom and visitor center
- permanent hydro (six 30 amp campsites) has been installed at the Campbell house group camp area
- water distribution pump house has been renovated with new internal and external siding and new internal plastic water lines
- 10 new picnic tables have been constructed
- upgrades have been completed at the main campground washroom (new concrete sidewalk) and at the gatehouse and entrance area (new signage and fee box)
- a weather station has also been installed on the property (Water Resources Department)

Keith McLean Conservation Lands (Foundation Property):

- Scott O'Brien was hired as the new Superintendent
- A new floor has been installed in the Kent Bridge Road pump house
- A trail identification sign has been installed at the main parking lot
- Lake Erie water levels are at a 30-year high resulting in one of the agricultural fields being partially flooded
- A tower agreement has been negotiated with Xplornet, the tower will be installed on Kent Bridge Line later this fall

Other Lands Activities:

- A 5-year tower lease has been negotiated with Cogeco Connexion Inc. for the existing tower and building at Peers Wetland CA
- A bench and concrete pad has been installed along the Strathroy North Valley Lands trail
- Property 97 in the McKeough Upstream Lands has undergone a 3-acre habitat restoration project, which involved the construction of two wetlands, the planting of a small tallgrass prairie and 1,000 hardwood trees (funded by Union Gas and Wildlife Habitat Canada)
- Approximately 680 meters of randomized tile drainage has been installed on two McKeough Upstream agricultural properties
- Two benches have been installed along the trail at the Peers Wetland CA (benches donated by Sydenham Field Naturalists)
- Existing tennis courts to be removed and new courts constructed at the Esli Dodge Conservation Area (project of Lambton Shores)

# Gordon-Giffen

# BD-17-104

"That the Board of Directors acknowledges the Conservation Lands Update, dated August 29, 2017 on Conservation Areas, Foundation, and McKeough Lands including capital projects, facility improvements and camping trends in 2016." CARRIED

Highland Glen Conservation Area

- Approximately 40ft of new walkway has been installed along one side of the boat ramp, this will allow for more than one boat to dock at a time
- The existing walkway has been elevated in response to rising lake levels
- Approximately 84ft of existing seawall has been repaired by excavating and installing new tie back supports
- Armour stone has been re-positioned to provide better protection to the steel seawall

- Two LED solar marine beacon lights have been installed to guide boaters to the ramp and harbor area after dark
- Entrance roadway has been maintained with additional gravel and grading (Plympton-Wyoming)
- Beach access points have been re-graded
- Starting in 2017, fees are being charged for the use of the boat ramp and vehicle entry; fees are being collected through the MacKay Pay system, where payments are collected online or by phone
- Revenue collected will be used to offset future repair costs to the ramp, seawalls, and conservation area infrastructure
- To date, we have sold 65 seasonal boat ramp use passes (\$7,800.00); 203 dayuse boat ramp passes (\$2,030.00); 9 seasonal vehicle-only passes (\$540.00); and 60 day-use vehicle passes (\$300.00) for a total revenue of \$10,670.00 before fees

# McMillan-Bruinink

### BD-17-105

"That the Board of Directors acknowledges the report dated August 29, 2017 on the Highland Glen Conservation Area summarizing capital improvements and revenues collected in 2017."

### CARRIED

- Mary Ann Buntrock (Chair) and Colleen Collins (Secretary) of the Board of Directors of the Lambton Childrens Safety Village (LCSV) met with Chair Arnold and I to discuss the potential to locate the LCSV at LC Henderson CA in early August
- The mission of the LCSV Board is to help to reduce child-related injuries in the communities of Lambton by creating a safe setting where young people will learn Safety Awareness and will be motivated to learn how to make smart choices in their daily lives
- The LCSV Board has been actively looking for a location to locate the Safety Village for some time and with Chatham-Kent and London & Area Children's Safety Villages being located on Conservation Authority properties (Chatham-Kent located at CM Wilson CA of Lower Thames Valley Conservation Authority and London & Areas located at Fanshawe Conservation Area of Upper Thames River Conservation Authority) it was only natural for the St. Clair Region CA to be investigated for potential sites for the proposed Village

- LC Henderson CA was seen as the most advantageous site due to its location and the potential to coordinate, cooperate and compliment our existing Education Programs
- Prior to the meeting, staff reviewed the potential for locating the Village at LC Henderson CA and 3 specific issues were brought forward and were shared at the August meeting
  - Hydro we have previously been advised by Hydro One that in order to provide additional Hydro servicing to the site, an additional line from Petrolia will have to be installed and their service will be restricted to the property boundary with the Authority having to purchase the hydro service on Authority property – based on the conceptual plan we propose to obtain two professional opinions – one from an electrician confirming that the proposed development can or cannot be undertaking with the existing system and two from Hydro One to provide confirmation that this is still the case and to prepare a quote for the cost to implement the necessary changes
  - Septic System the existing septic system is at it's maximum capacity with the existing development on site – the most significant issue is whether the Village will increase the intensity of use beyond the capacity of the system – will combined use of campers, existing education program and the proposed Village be too much for the system to handle – if so what would the cost be to expand or replace the system – proposal should be reviewed by a qualified engineer
  - Impacts on Campers Camping revenues are the sole source of income for the operation of the Conservation Area and those revenues also support the works completed at other day use Conservation Areas – as a result any negative impact on Campers is an issue – additional structures are not seen as an issue but the increased intensity of use and the proximity of the village to campsites are concerns
- The conceptual design for the Village had a footprint of more than 2 acres including structures, education areas, parking, etc.
- However, after looking at the existing facilities, and reviewing options for complimentary development, the concept for the design of the Village is seperated into 3 distinct locations

- An addition to the existing Education Centre would provide office space for Safety Village and Authority staff, as well as a classroom and kitchen as well as some renovations to the existing Centre
- The Visitors Centre would be duplicated to create additional education area and special event space
- The Safety Village would be smaller than normal with a limited footpring adjacement the parking with required storage included while maintaining as many trees as possible as and maintaining a significant buffer to the adjacent campsites
- The overall concept appears to be a win-win for both organizations, however, it will be important to understand the responses to the outlined issues
- Therefore staff recommend that opinions be sought with regards to the hydro servicing and septic system at LC Henderson CA to ensure that the suitable services exist in order further the investigation process

#### Westgate-Rupke BD-17-106

"That the Board of Directors acknowledges the report dated September 11, 2017, regarding the potential for the incorporation of the Lambton Children's Safety Village into the LC Henderson CA and further directs staff to obtain required assessments, opinions and quotations to ensure that the existing facilities can accommodate the proposed works and to ensure that any impacts on the Conservation Area, campground and campground activities or the Conservation Education program can and will be successfully mitigated." CARRIED

Much of the province has received significantly higher amounts of precipitation over the summer to the point that all the watersheds are outside the low water levels, other than one watershed in the low water level 1. The calculation of drought conditions is statistically analyzed based on actual precipitation compared to average for the month as well as watershed flows compared to lowest average flows at select gauging stations. Within the SCRCA region precipitation has been close or slightly higher than expected averages although have often occur in a pattern of periods of significant rainfall followed by dry periods.

# Flood Threat:

With current weather patterns causing extensive sudden rainfall the potential for localized flood conditions may be experienced during these events. While seasonal flows remain in the average range, we continue to monitor changes in watershed conditions as they occur. As always we will continue monitor flows and any significant storm events. Advisories will be provided as conditions dictate.

# Weather Forecast (Data: Weather Network, Environment Canada, OFA)

Short Term Outlook

• Seasonal temperature and precipitation across the region over the next 14 days Long Term Outlook

• Environment Canada anticipates that temperatures will be above average and precipitation will be below normal for the fall season.

### Great Lakes Levels (Canadian Hydrometric Service data – July)

The monthly comparison for July 2017 (current available data) indicate that Lake Huron levels have increased by 15cm over July 2016 and continue to remain above the average (period of record) for Lake Huron at 57cm and Lake St. Clair 69cm.

# Faas-Miller

BD-17-107

#### "That the Board of Directors acknowledges the report dated September 5, 2017, on the current watershed conditions, flood risk and Great Lakes water levels." CARRIED

Aamjiwnaang Shoreline Naturalization:

The purpose of this undertaking is to develop concepts that would "soften" and naturalize the shoreline. This project will also include shoreline work that will improve shoreline access, enhance aquatic habitat and provide general improvements to the existing shore along the entire project site.

Project Highlights:

- habitat pod
- finger groynes
- all permits have been obtained
- construction work has started first week of September
- work is expected to be completed by end of September

# Courtright Shoreline Protection:

The site is located in the St. Clair Township along the east shore of the St. Clair River in the community of Courtright. The existing site is protected with concrete rubble and stone and extends approximately 400 meters along the St. Clair River shoreline. A number of sections along the exposed shore have failed. The purpose of the undertaking is to provide shore stabilization, improve shoreline access, enhance aquatic habitat and to provide general improvements to the existing shore along the entire project site.

The proposed preferred shoreline protection structure, include armour stone/rip rap revetment with aquatic planting and gravel beds incorporated along parts of the shoreline.

Draft Design:

- staff reviewing design with the township and consulting engineer
- applications for permits have been completed
- construction work is expected to start this Winter (December, 2017)
- habitat/fish monitoring is underway

#### Scholten-Bruinink BD-17-108 "That the Board of Directors acknowledges the report dated September 5, 2017 on the ongoing shoreline restoration projects across the watershed." CARRIED

National Disaster Mitigation Program:

The National Disaster Mitigation Program (NDMP) was established by the Government of Canada to address the increasing dangers and costs faced by Canadian Communities as a result of flood events The program will receive \$200 million in funding over the course of five years to improve knowledge regarding flood risks and enhance current flood response programs. These improvements will help protect property and public safety by ensuring more efficient mitigation efforts and recovery procedures following flood events.

### Issues/Analysis:

In Ontario, conservation authorities have been delegated the primary responsibility for risk assessments and flood plain mapping from the Ministry of Natural Resources and Forestry. In the 1970's and 1980's floodplain mapping commenced under the, Flood Damage Reduction Program (FDRP). Since that time, there has been no federal or provincial investment towards flood plain analysis.

The existing floodplain mapping of SCRCA is based on older Digital Elevation Models with coarse contour intervals of 5 meters. Floodplain elevation discrepancies are often noticed during review process, often 1 - 2 meters or more. Through the SWOOP program, our office has acquired accurate imagery (2010) that can be used to create an extremely detailed DEM with greater accuracy. A flood study using this DEM will deliver accurate floodplain mapping for the watershed.

Staff at SCRCA propose to apply for funding to complete an updated floodplain mapping study for the watershed. However, considering the resources and funding limitations, the practical approach is to consider a pilot study to be conducted over the next 2 years

(2018 and 2019) focussing on 2 regions in the watershed. Staff have identified a rural watershed (Enniskillen) and an urban (Sarnia) watershed to conduct this mapping exercise.

### Finance:

The total cost of this project is estimated to be \$200,000. If approved for NDMP funding, 50% of the costs have to be matched by the Municipality, of which 15% is the in-kind contribution such as labour, use of facilities and equipment, which can be readily absorbed by SCRCA. The SCRCA is seeking the remainder (\$70,000) from the Municipalities. Staff will continue to look into other funding sources to provide matching funds for this project.

Staff are in the process of finalizing all supporting documentation for this application.

### Scholten-McMillan

#### BD-17-109

"That the Board of Directors acknowledges the report dated September 5, 2017, on the application to National Disaster Mitigation Program to update flood plain mapping as a pilot project in 2 municipalities (City of Sarnia (urban environment) and Township of Enniskillen (rural environment) and further that the Board approves the submission of the application and directs staff to work with the municipalities to obtain the required matching funding."

### ČARRIEĎ

St. Clair Conservation recently partnered with the Lambton Water Centre at Lambton College in Sarnia for an innovative project that will modernize flood forecasting in the watershed. The project, comprised of three components, is anticipated to be operational in early 2018.

**Project Highlights:** 

- Remote monitoring camera installed near the confluence of the Sydenham River in Wallaceburg
  - The camera will provide staff the ability to instantaneously watch flood and ice conditions at the watershed's most vulnerable location while at the office
- Mobile water level logger
  - The logger will be mobile and allow staff to pick up and move anywhere within the watershed
  - Water level data will be collected for streams which are not near a stream gauge and do not have up-to-date water level data
- Mobile precipitation gauge
  - The precipitation gauge will also be mobile and will collect data in areas of the watershed not currently covered by meteorological equipment

• This will allow staff to monitor the movement of precipitation through the watershed and determine changes in patterns attributed to climate change

Financial Contributions:

- St. Clair Conservation is contributing \$8000 the first year for the purchase of equipment, from within the current budget
- an additional \$8000 for the following year for any necessary equipment maintenance or upgrades as budgeted
- St. Clair Conservation will also be providing \$20,100 dollars in in-kind services for the project
- Through the partnership with Lambton Water Centre, the Natural Sciences and Engineering Research Council of Canada (NSERC) will be contributing \$26,280 to the project
- Total project cost is \$62,380

# Gordon-Scholten

### BD-17-110

#### "That the Board of Directors acknowledges the report dated August 31, 2017 on the flood innovation project and the partnership with Lambton College." CARRIED

The St. Clair Region Conservation Authority is concerned with the increasing number of enclosure proposals as the affected subwatershed can experience a number of negative and cumulative impacts, including:

- increased floodplain area
- downstream flooding
- upstream flooding
- overland erosion
- increased sediment loads
- degraded stream health (i.e. water quality/aquatic species)

Conservation Authorities are involved with drainage matters in the following ways:

- Since 1949, drainage petitions for new drains and improvements to existing drains are circulated to CAs for comment as required under the Drainage Act S. 4 and S. 78 respectively. CAs may request an environmental appraisal for new drainage works. Once an engineer's report has been drafted for the proposed drainage works, the Drainage Act provides CAs with a right to appeal the proposed project to the Drainage Tribunal.
- 2) As some drains meet the definition of a 'watercourse' under Section 28 of the CA Act, CA written permissions (permits) may be required for new drainage works

and drain improvements, maintenance and repair activities, as per the Drainage Act and Conservation Authorities Act Protocol (DART)

SCRCA's current process is not to require written permission under O.R. 171/06 for enclosures taking place under the Drainage Act. The SCRCA provides comments and advice, based on our mandate, to the *Drainage Act* process for new engineer's reports created under section 4 and/or 78 of the *Drainage Act*. Under the *Drainage Act*, the Authority is limited in the reports or studies that it can request in support of the proposed enclosure.

For those enclosures of natural watercourses or private drainage systems when not occurring under the *Drainage Act*, the proposals may require written permission under Regulation 171/06.

If municipal drain enclosures are carried out (with or without a CA Act S.28 permit) and impact regulated areas with respect to the CA's regulatory responsibilities under the CA Act the CA could be held liable for not undertaking or enforcing its regulatory responsibilities (flooding and erosion impacts).

Ontario Regulation 171/06 gives SCRCA the right to require written permission for enclosures of open municipal drains since it involves alterations to a watercourse. Drains are defined as watercourses under the Act. Requiring written permission for all drain enclosures would enable the SCRCA to seek information, as deemed appropriate, to reduce the impacts of flooding and erosion. The Authority would be seeking such information as part of an application under O.R. 171/06 and not as part of the *Drainage Act* drain review process.

Supplemental to report, interim guidelines have been developed to be in place until policy for Inference to Watercourses is developed for SCRCA.

Administration of service:

Similar to the DART protocol review process approved by the Board April 18, 2014, Biology Section staff complete the drain enclosure review and reporting with ratification by Planning and Regulations Section/ Regulations Officer. (This administrative process was a natural transition as a result of the former Department of Fisheries and Oceans agreements). As with the DART protocol, SCRCA Ontario Regulation 171/06 "Development, Interference with Wetlands & Alterations to Shorelines & Watercourses" applies to municipal drain enclosures and a proposed Drain Enclosure Policy and guideline would be followed for streamlining purposes. The impacts to flooding and erosion studies, if required, would require review by the SCRCA Engineer. Appropriate peer review fees would apply in these cases. From experience we anticipate only a couple of reports per year.

Financial Implications:

Fees will be recuperated based on current SCRCA Regulation Fee's.

Conservation Strategy: Refer to appropriate Conservation Strategy Supports Goals 1, 2 and 3 of Strategic Plan Other Conservation Authorities:

• Currently the ABCA, LTVCA, ERCA, UTRCA, require written permission (or permits) for drain enclosures.

### Miller-Rupke

BD-17-111

"That the Board of Directors acknowledges this report dated August 30, 2017, on the need for O. Regulation 171/06 written permission for drain enclosures and supplemental guidelines and directs SCRCA staff to require O. Regulation 171/06 permission for Drain Enclosures and further that fees be recuperated based on current SCRCA Regulation Fees."

#### CARRIED

Lake Erie Conservation Authorities Stewardship Meeting – June 15

Through our OMAFRA funding, we are to work in partnership with other Lake Erie CAs (Essex, Lower Thames, Upper Thames, and Kettle) to promote voluntary adoption of BMPs to reduce nutrient loss and improve soil health with the over-arching goal of reducing phosphorus in Lake Erie.

#### Soil Health Workshop – July 26

In partnership with the Compost Council of Canada, St. Clair Conservation hosted a hands-on soil health workshop for local farmers. Topics included soil food web, requirements of healthy soil ecosystems and functions, and soil health principles. Participants were asked to bring in soil from their fields to examine under microscope to see if any micro-organisms could be seen. Hands-on excercises included identifying soil organisms, using a penetrometer, slake tests, and soil infiltration tests.

#### Lambton Soil & Crop Improvement Assocation Twilight Tour – August 9

Almost 200 people attended Lambton Soil and Crop Improvement Association's twilight tour. OMAFRA's Christine Brown, Field Crops Sustainability Specialist, talked about seven different organic amendment products and the importance of calibration procedures. Five different manure spreaders with vertical beaters were onsite for demonstration. Jake Kraayenbrink demonstrated and discussed the uses of a tire deflation kit with heavy farm machinery to reduce soil compaction, which compromises soil health. SCRCA Agriculture Outreach staff had a display and talked with farmers interested in undertaking projects.

#### MOECC Outreach Tour – August 15

Staff highlighted a newly created wetland and shared information regarding the Healthy Watersheds Program on the MOECC Outreach Tour.

#### Ipperwash Beach Day – August 11

St. Clair Conservation staff joined the Ipperwash Phrag Phighters (IPP) and a team of 38 volunteers on their "Phrag Spading Day" the goal was to "spade" and remove invasive *Phragmites australis* from Ipperwash Beach. The team spent 6-hours removing invasive *Phragmites* and White sweet clover from the dunes along a 2.7km stretch of beach.

Middlesex Soil & Crop Improvement Association Twilight Tour – August 22 Staff had a booth at this event and had the opportunity to share with attendees grants available and extend an invitation for the Rotational Grazing & Pasture Tour.

#### Rotational Grazing & Pasture Tour – August 24

SCRCA, Lambton Soil and Crop Improvement Association, and Lambton Cattlemen's Association organized a twilight pasture tour to discuss rotational and alternative cattle grazing systems with local farmers. The event had an excellent turnout; about 100 farmers were in attendance. The tour was hosted at Tim and Tina Lehrbass' farm in Alvinston. The feature speaker, Doug Wray, an Alberta rancher, grazes his cattle 365 days a year and has received many leadership awards from grassland and forage associations. Jack Kyle, former Provincial Grazing Specialist and Tim Prior, Brussels Agri Services lead the pasture walk.

#### Dunes & Gardens Coastal Stewardship Workshop - August 28

This event was co-hosted with Ausable Bayfield Conservation Authority in Port Franks. Nearly 40 people attended the event that focused on protecting dunes and improving soil health in rural gardens. Don Lobb, P. Ag. (Hon), Director-At-Large of the Soil Conservation Council of Canada spoke of the importance of applying lessons from nature in the farm field and the home garden to maintain healthy productive soil. Healthy garden plants require healthy soil. Hannah Cann, Coastal Stewardship Coordinator of Lake Huron Coastal Centre for Conservation, shared dune conservation practices that lakeshore residents could implement on their own to protect and preserve the Lake Huron shoreline.

New Agriculture Outreach Materials and Displays These newsletters and factsheets will help us communicate with landowners in our watershed regarding healthy soils, healthy water quality, and ensuring the best outcome of implemented stewardship projects

We have new displays to highlight at our events!

Staff attended these events for training and outreach as well: June 8 – Compost Council of Canada Soil Health Workshop June 29 – Ducks Unlimited Wetlands Workshop

July 6 – St Clair Soil & Crop Improvement Association Executive Outreach Tour

July 11 – Ausable Bayfield Conservation Authority Strip Tillage Demo Site Tour July 27 – 4R Nutrient Stewardship Tour

August 22-23 – Soil Conservation Council of Canada Soil Summit

Upcoming Events:

September 9 – Great Canadian Shoreline Cleanup – Centre Ipperwash Beach September 15 – The Dirt on Phosphorus (staff attending)

September 15 – Lambton Shores Ag in the Classroom

September 16 – Strathroy #TDTreeDays at Victoria Park and Cuddy Sports Complex September 22-24 – Forest Fall Fair (staff to have booth)

September 27 – Interseeding & Cover Crop Demonstration at Lambton Shores Champion Farm

October 21 - Sarnia #TDTreeDays at Howard Watson Trail

December - GLASI workshop - speaker to be determined

#### February 2018 Conference

The SCRCA's Soil Health Conference is scheduled for February 15, 2018 in Chatham, ON. There will be presentations from international researchers and Certified Crop Advisors (CCAs), as well as farmer panel discussions. Farmer panel discussions will be on various tillage methods that reduce soil loss, cover crops, 4R nutrient stewardship, alternative grazing and stewardship on big acres.

#### **Rupke-Bruziewicz**

BD-17-112

"That the Board of Directors acknowledges the status report dated September 1, 2017, regarding the Healthy Watershed Program Workshop Update, including an OMAFRA Soil Health Workshop, GLASI Pasture Tour, and other upcoming events."

#### CARRIED

Presentation given by Laura Biancolin, Agricultural Outreach Technician regarding Healthy Soils, Healthy Drains, Healthy Lakes.

#### Walk the Watershed 2017:

This year's Walk the Watershed (WTW) focused on the Sloan Russell drain and the Shawana Drain. Agriculture Outreach staff contacted eleven landowners, owning 26 properties. For the most part landowners were open to letting staff walk the drains on their properties. A couple landowners were curious about what services SCRCA provided and were interested in seeing a final report and recommendations for their property. Overall the buffer quality was good along the Sloan Russel and Shawana Drain. The buffer

ranged from 2 m to 8 m, nonetheless there were some erosion-prone areas where the buffer was small and mostly weeds. Despite the fields being worked in preparation for planting, a couple of the areas prone to gullying were still visible. Landowners with erosion prone areas were interested in erosion control structures. At these locations, the installation of a grassed waterway or a low-level berm would be a great solution.

#### GIS Procedure for Locating Agricultural BMPs

SCRCA staff generated maps of the Stream Power Index (SPI, purple), and Total Wetted Index (TWI, orange). Maps were brought along on site visits and shared with landowners. Both models worked well, SPI depicted erosion potential and TWI predicted the location of surface saturated areas. After consulting with landowners it was determined that models were standardized to a level that proved too conservative to predict the full extent of erosion and saturated areas within this target sub-watershed. This project was the first rendition of verifying the model outputs in the field. It is expected that ongoing discussion among landowners and GIS staff will continue till the model outputs fully identify the erosion potential within this target watershed.

#### Nemcek-McMillan

#### BD-17-113

"That the Board of Directors acknowledges the status report dated August 31, 2017, regarding the Healthy Watershed Program - Walk the Watershed, including an update on the Walk the Watershed Program and GIS procedure for locating agricultural BMPs."

#### CARRIED

#### Turtles:

The Sydenham River Corridor within the East Branch of the Sydenham River contains one of the last remaining [inland] connected green corridors in Southwestern Ontario". This imperiled and vulnerable habitat provides refuge for the Eastern Spiny Softshell turtle, a species that was been up listed to Endangered in 2016.

The Spiny Softshell Turtle is an olive coloured flat turtle often referred to as the "pancake turtle". The leathery carapace of the spiny softshell makes it vulnerable to predators. For this reason it is very shy and skittish. These turtles can get almost half the oxygen they require by breathing through their skin while in water, which allows them to hide under water for up to five hours. They are capable of staying under water voluntarily for 20-50 minutes. They can withstand forced submergence in oxygenated water for more than 100 days in experimental conditions. Most anoxia tolerant species in all of North America.

The primary threats are

- habitat and population fragmentation by infrastructure,
- alteration of the water regime (flooding of nests) by dams and changing weather

patterns,

- increased recreational and agricultural use of nesting areas and adjacent aquatic habitats by humans (disturbance during nesting,
- ATV use, horseback riding, watercraft use),
- invasion of nesting areas by non-native plants (e.g., European Common Reed (*Phragmites a. australis*)),
- high populations of mammalian egg predators and egg poachers,
- injury and mortality from fishing and motor boating (collisions, propellers), and illegal capture of juveniles and adults.
- Cyanobacterial blooms (e.g., toxin bioaccumulation, impact on prey) may also impact the species.

Habitat loss is a major contributor to the decline of this species. In the Sydenham, individuals may move up to 30 kilometres between nesting and hibernation sites, and daily movements exceeding 4 kilometres have been observed. This movement is believed to be linked to the lack of critical habitat features. Female softshells prefer to lay eggs in sandy, sunlit areas, which appear to be in limited supply on the Sydenham.

With funding from the Ministry of Natural Resources, Species at Risk Stewardship Fund, St. Clair Region Conservation Authority's recovery efforts focus on the Spiny Softshell turtle as part of our Reptiles at Risk Program. This year a significant achievement was accomplished: the collection, incubation, and release of Spiny Softshell turtles (*Apalone spinifera*) from and into the Sydenham.

Eggs that were in immediate danger were collected as soon as possible after being laid (within 24 hours in order to decrease the chances disturbance) and transported to be incubated with assistance of Salthaven Wildlife & Education Centre. Once hatched the turtles were kept for monitoring to ensure that no difficulties were being had by the newly born hatchlings before being promptly returned to us. Release of the turtles took place in a slow-water, sheltered area near the original nesting site.

So far, in 2017, 388 turtles have been released with 178 Spiny Softshells and 210 Northern Map turtles. More eggs have yet to hatch and will be released in coming days. This is up from 2016, our most successful year to date, in which 76 Spiny Softshells and 35 Northern Map turtles, were incubated and released.

Snakes:

In addition to the turtle program we have also continued our snake monitoring and rehabilitation initiatives with focus on the recovery of the Eastern Foxsnake.

The Eastern Foxsnake, endangered, is the second largest snake found in Ontario. Can

reach a length of up to 1.7 metres. They have a distinct reddish head and a yellowish to light brown body with dark brown blotches running down the back and alternating blotches on either side. When threatened, the eastern foxsnake vibrates its tail and, especially when it comes into contact with dry vegetation, makes a buzzing or "rattling" sound. This behaviour, combined with the snake's blotchy patterning, causes many people to mistake it for a rattlesnake and has led to the inappropriate name "hardwood rattler."

Eastern Foxsnakes have a very restricted global distribution, with about 70 percent of their entire range occurring in Ontario, Canada, where population abundance continues to decline. Causes of the species decline include wetland drainage for agriculture, impacts resulting from housing and cottage development, road mortality, human persecution and collection for the pet trade.

In order to help facilitate the recovery of this species, SCRCA's Reptile at Risk program focuses on:

#### Artificial Nesting Boxes:

Nesting boxes for Eastern Foxsnake are provided to landowner stewards. These structures help to protect eggs from predators. For the 3<sup>rd</sup> consecutive year SCRCA has documented hatchling success in these artificial structures.

### Coverboard and Road Mortality Monitoring:

Coverboards are sheets of plywood laid on the ground in order to provide protection and an insulated heat source for snakes, attracting them to the underside of the board. Monitoring is completed by quickly flipping the coverboard to reveal any snakes hidden underneath, identifying them to species, and getting an estimate on their length. All of these values as well as location, time of day, weather, and a variety of others are recorded and shared with Ontario Ministry of Natural Resources and Forestry for longterm monitoring.

Reptile Program Education and Outreach:

Past

- Turtle Birthday Party at AW Campball CA, August 25: About 50 participants learned out SCRCA's Reptile at Risk Program. A short presentation was followed by a number of activities and refreshments.
- Lambton Wildlife Field Trips, Junior Nats Program, June 30 and July 18: Participants helped with reptile stewardship by assisting with turtle and snake monitoring.
- June 2017 Species at Risk Newsletter, mailed to 65,000 residents.

Upcoming

- Perch Creek Reptile Day with Great Lakes Secondary School, September 26
- Hillside SAR Reptile Education day, October 18
- Lambton Wildlife Talk, November 27

### Scholten-Bruziewicz

### BD-17-114

#### "That the Board of Directors acknowledges the report dated August 31, 2017, on the Reptiles at Risk Program Update, including highlights of recent collection, incubation and release of Spiny Softshell turtles and snake monitoring." CARRIED

Background:

In 2016, a metal corrugated barrier than spanned the full width of Bear Creek at the Bickford Line crossing was removed. The project included completing a mussel relocation protocol, fish exclusion, removal of the barrier, and creating a rock riffle type structure with a low flow passage at the site of the barrier. The 2016 project was funded through Fisheries and Oceans Canada's Recreational Fisheries Conservation Partnership Program (RFCPP) MNRF, HSP Prevention, and Friends of the St. Clair River (using Ontario Trillium Foundation funding).

2016 Barrier Removal on Bear Creek at Bickford Line

Proposed Low Grade Crossing Removal at Moore Wildlife Management Area: Continuing St. Clair Conservation's effort to improve fish habitat in this section of Bear Creek, it is proposed that the existing low level crossing also be removed. This crossing is about 600m upstream of the barrier at Bickford Line that was removed in 2016.

Removing the crossing will restrict foot access to the trail on the north side of the property. It is proposed that the existing trail on the south side of the property would be extended to loop back to the parking lot, to continue to provide a recreational use option. Historically, the crossing provided access to the agricultural property on the north side of the river.

This project fits with the objectives outlined in *St. Clair Region Conservation Authority's Operating Plan for Forested Properties for the period of 2013-2023* which states "The primary objective for these properties is environmental protection and the provision of wildlife habitat."

Grant funding will be sought to complete the proposed project.

McMillan-Gordon BD-17-115 "That the Board of Directors acknowledges the report dated September 5, 2017 regarding the projects to remove low water crossing at Moore Wildlife Management Area and further approves staff to apply for funding for this proposed potential work."

#### CARRIED

#### Aquatic Monitoring and Reporting:

*Fish Monitoring (Supported by Ontario Trillium Foundation and Fisheries and Oceans Canada)* - To date in 2017, biology staff have performed fish sampling at ten sites in the St. Clair River Area of Concern (AOC) and five municipal drain sites. Fish sampling in the AOC is supported by the Ontario Trillium Foundation. Funding to sample unrated municipal drains comes from Fisheries and Oceans Canada. Fish community data collected from unrated drains allows DFO to provide a class rating to the drain. Municipalities can perform works on the drain without the lengthy delays associated with site-specific reviews for unrated drains. SCRCA also had staff join DFO for 2 days of fish sampling at the Sydenham Nature Reserve.

Our biologists caught over 50 fish species totaling almost 6000 fish in 2017. Fish Species at Risk (SAR) including the Blackstripe Topminnow and Spotted Sucker (pictured below) were found at six of the fifteen sampling sites.

*Mussel Monitoring (Supported by Ontario Trillium Foundation and Habitat Stewardship Program)* – By completing mussel surveys on the north branch of the Sydenham River we will gain a better understanding of the distribution of SAR mussels in this system. The north branch currently has less data than the East branch making it difficult to determine optimal locations to complete habitat stewardship projects.

In 2017, 4.5hr intensive timed searches were completed at 28 sites on the North Branch of the Sydenham. Half were on Black Creek and half were on Bear Creek. In addition, a 1yr follow-up survival assessment was completed on Bear Creek at the site of last year's barrier removal project.

This season we have captured and processed 5282 live mussels and 3040 dead (shell only). Twenty-one species were observed including five Species at Risk (Round Pigtoe, Salamander, Mapleleaf, Lilliput, and Rainbow).

Wetland Evaluations – The Ministry of Natural Resources and Forestry evaluates wetlands to help municipalities, conservation authorities and others with land use planning, The wetland evaluation process defines, identifies and measures wetland functions and values. Wetlands are assessed based on their perceived values in maintaining natural processes (ecosystem values). They are also assessed on the benefits provided to society (human utility values).

SCRCA biology staff continue to conduct wetland evaluations within the watershed on behalf of the OMNRF. Fieldwork is nearing completion for the season. Six wetland complexes will be evaluated in the field and one will be completed as a desktop update only. Of the seven wetland complexes, five are updates and two are new evaluations.

*Watershed Report Cards* - Watershed report cards production is underway. A multidepartmental committee is pulling together data, maps, and write-up relating to groundwater, surface water, forest conditions. Release is scheduled for 2018.

*St. Clair River AOC Fish and Wildlife Habitat Conservation Plan* - A Fish and Wildlife Habitat Conservation Plan for the St. Clair River Area of Concern (AOC) is scheduled for completion in December 2017. This report is required for the eventual delisting of the AOC. The draft plan summarizes the current status of aquatic habitat, highlights successful coastal wetland projects, identifies linkages to broader initiates, identify tools for future aquatic conservation, and identifies next steps for aquatic conservation in the St. Clair River AOC.

#### Community Engagement:

*Bioblitzes* – Two bioblitzes were conducted at SCRCA campgrounds with the support of TD Friends of the Environment. Members of the community were invited to participate in aquatic surveys to establish species lists for fish, mussels, and benthic macro-invertebrates. The two events took place July 21<sup>st</sup> at Warwick CA and July 28<sup>th</sup> at A.W. Campbell CA. After volunteers were put to work, staff invited them to join in snacks and refreshments.

*Upcoming Events* – September 17 at Ontario Nature's Sydenham Nature Reserve, SCRCA staff will provide a freshwater mussel demonstration for members of the Sydenham Field Naturalists and Lambton Wildlife. This is in support of our continued partnership with Ontario Nature.

September 27 - Staff will provide a benthic macro-invertebrate demonstration at an agricultural focused cover crop event.

November 8-9 – Staff will participate in the 2nd Biennial Canadian Freshwater Mollusc Research Meeting in Burlington Ontario. Topics will include status and distribution, life history, genetics, species at risk, threats, outreach, and more.

Bruinink-Scholten BD-17-116 "That the Board of Directors acknowledges the report dated August 31 2017 regarding Water Quality Monitoring, Watershed Reporting, and Related Community Engagement."

#### CARRIED

The 2018 Draft fees for natural heritage planning advisory commenting services to municipalities were reviewed.

Broad-Scholten BD-17-117 "That the Board of Directors acknowledges the report dated September 21, 2017 regarding natural heritage planning advisory commenting services provided to member municipalities and further that the 2018 draft fees be adjusted to ensure cost recovery of the program."

#### CARRIED

- staff treated approximately 16,500 catch basins in Sarnia and Lambton towns and villages this summer.
- four staff working from the Strathroy office and 2 staff from the Darcy McKeough Dam treated 1,500 catch basins with a single season long methoprene briquette and approximately 15,000 catch basins were treated with 3 separate applications of methoprene pellets at 21 day intervals between June 26<sup>th</sup> and August 19<sup>th</sup>.
- post treatment efficacy testing was conducted in the last week of August, approximately 20 days after the third and final round of catch basins treated with pellets and approximately 60 days after the catch basins that were treated with season long briquettes. Results showed very good control for the pellets and mixed results for the season long treated catch basins. Testing results were sent to the Lambton Public Health.
- two permits for the mosquito control works were issued by the Ministry of the Environment and Climate Change in June. A report to the Ministry is required before December 1<sup>st</sup>, 2017
  - 1. Sarnia-Lambton 16,500 methoprene pellets and briquettes
  - 2. Sarnia-Lambton Bti for wetlands and emergency situations

Aamjiwnaang First Nation was also treated with methoprene pellets. A pesticide permit was not required under M.O.E.C.C for treatment of these catch basins.

#### McMillan-Miller

#### BD-17-118

# "That the Board of Directors acknowledges the status report dated September 11, 20167, regarding West Nile Virus – Lambton County Mosquito Control Program." CARRIED

Large Stock Tree Program:

- the large stock tree program has been part of the SCRCA tree planting program since the 1980's and was created to make inexpensive trees available to the counties and municipalities for local planting projects as well as for rural landowners wishing to plant smaller areas but with larger trees.
- these larger trees are used mainly for memorial forest tree planting, street tree planting and shelterbelt planting programs and have now attracted certain industries in Lambton County over the past several years
- native evergreen (coniferous) trees come balled and burlapped and up to 1 meter in height.
- native hardwood (deciduous) trees come in either bare root or potted containers and range between 1 m and 2.5 m in height
- prices range between \$10 and \$40 per tree based on species, size and container type
- 800 large stock trees were ordered and planted this year by muncipalites and landowners
- Shell Canada Inc., St. Clair Township is our most recent industrial corporation taking part in our large tree program
- for 2 weeks in both June and July, conservation services planted 125 very large (caliper stock) trees on Shell property along the St. Clair Parkway. More trees to following in October.
- larger stock tree planting at Warwick Landfill (Twin Creeks) screening berms will also take place in October, mostly as refilling some of the trees that have died.

due to recent difficulties in obtaining desired stock we have changed the order deadline to December 15<sup>th</sup> 2017 for spring 2018 tree orders. All municipalities are encouraged to participate in the program in 2018

#### Scholten-Rupke BD-17-119 "That the Board of Directors acknowledges the status report dated September 11, 2017, regarding the Authority's large stock tree programs and opportunities for

municipal involvement."

#### CARRIED

Tree Planting Program:

- Landowner site visits for 2018 tree planting program to start this month along with vegetation control retreatment for landowners under the 3 year program.
- all projects that meet specific program criteria are planned for project review in November for grant approval under one or more of the funding programs that SCRCA has available for financial incentive for 2017-2018 grant year including MNRF species at risk funds, Sydenham Habitat Stewardship, 50 Million Tree Program and the Essex - Kent - Lambton OPG fund.
- Approximately \$120,000 in grants available so far, through multiple tree planting and stewardship programs.
- All of this funding is used as financial incentive and is provided to the landowner to cover more than 50% of the project costs.
- Survival assessments were completed in July for a portion of 2017, 2016, 2015 and 2011 planting projects.
- Tree survival counts showing over <u>90% success rate</u>.
- Survival rates are only attainable at this level with landowner involvement combined with our 3-year herbicide application program.

Managed Forest Tax Incentive Program (MFTIP):

- Two new managed forest tax plans were written and approved for 2018 tax year for 2 private landowners
- Four managed forest tax plan renewals for 4 Authority properties and one renewal for 1 foundation property were completed in July for the 2018 to 2027 tax schedule
- We have one forest management plan approver on staff certified to write and approve forest management plans for tax purposes
- Approved plans are send to MNRF and then updated information is sent to MPAC
- MPAC adjusts property taxes on the forested portion of the property equal to farm tax rates.

Vegetation Management Program:

- Approximately 250,000 trees require herbicide treatment this fall
- Fall herbicide application for vegetation control on 2014 to 2017 tree planting sites are scheduled to start in the 2<sup>nd</sup> week of September will continue into November after the deciduous seedlings go into dormancy and drop their leaves and ends after the first heavy frost.

Seed Collection Program:

• This year's tree seed collection will start the first week of October.

- Enbridge has provided SCRCA conservation services department with a significant donation towards a tree seed collection mentoring/training course (early October) to train local, interested individuals how to forecast, collect, clean and store tree seed. People will earn money doing it as well and provide this area with a much needed service.
- Currently there are no collectors in this area. Without people collecting tree seed to ship to the tree growers/nurseries there will not be any genetically suitable trees available for us purchase trees for the future.
- The province as also recently announced that they will be closing the Angus tree seed plant. It is one of the last remaining provincially run operations.
- Review of article by Roger Klein, CTV News Barrie on August 28, 2017 regarding the Province closing Angus Seed Plant

### Bruziewicz-Nemcek

#### BD-17-120

"That the Board of Directors acknowledges the status report dated September 11, 2017, regarding conservation services programs across the watershed including approved funding from Ministry of Natural Resources and Forests Species at Risk Program, spring tree planting survival & maintenance and other vegetation control programs."

### CARRIED

The fundamental provincial role for all CAs is to focus on water related natural hazard prevention and management. To accomplish this, one of our legislative mandated activity is the CA Regulatory Authority under Section 28 of the CA Act. SCRCA's Regulatory Authority stems from Ontario Regulation 171/06 "Development, Interference with Wetlands & Alterations to Shorelines & Watercourses".

In a review of activity numbers, staff are noting an alarming increase in numbers of noncompliance matters in respect to Regulation 171. Below is a chart indicating activity levels.

In a review of the non-compliance activities for 2016 – 2017 to date, the following is noted:

- > 100% increase in activity from 2015 to date.
- 67% of the activities are on the Lake Huron shoreline
- 41% of the activities are on the L. Huron shoreline in Plympton Wyoming
- 25% of the activities involve dune/beach alteration in Ipperwash, Lambton Shores

An increase in non-compliance is partially due to the high lake levels and landowners undertaking works without permission under Regulation 171. The non-compliance matters listed are significant compliance matters and are not easily remedied. We have not counted the matters that are easily solved via the application and permit process.

# Scholten-Miller

BD-17-121

"That the Board of Directors acknowledges the report dated September 1, 2017 on the activity levels related to the enforcement of St. Clair Region Conservation Authority Ontario Regulation 171 and further that levels continue to be monitored through 2017 for recommended action in 2018."

### CARRIED

A summary of staff activity related to the Conservation Authority's Development, Interference of Wetlands and Alterations to Shorelines and Watercourses Regulation (Ontario Regulation 171/06 under Ontario Regulation 97/04) was presented. This report covers the period from June 1, 2017 to August 31, 2017.

Permit Review Timelines are outlined in the document "Policies and Procedures for Conservation Authority Plan Review and Permitting Activities" Final Version May 2010, completed by the Conservation Authority Liaison Committee (CALC). In this document it states;

• CAs are to make a decision (i.e. recommendation to approve or referred to a Hearing) with respect to a permission (permit) application and pursuant to the CA Act within 30 days for a minor application and 90 days for a major application.

# Scholten-Rupke

#### BD-17-122

"That the Board of Directors acknowledges and concurs with the Regulations Activity Report on "Development, Interference with Wetlands & Alterations to Shorelines & Watercourses" Regulations (Ontario Regulation 171/06), dated August 31, 2017."

### CARRIED

- Planning Activity Summary Reports for June, July and August, 2017 were reviewed
- List of Meetings attended was reviewed

Bruziewicz-Nemcek BD-17-123 "That the Board of Directors acknowledges the St. Clair Region Conservation Authority's monthly Planning Activity Summary Reports for June, July and August, 2017."

#### CARRIED

Presentation by Patty Hayman and Erica Ogden was received.

Recommendations

- 1) That staff be directed to initiate the task of formulating the Planning and Regulations manual.
- 2) The Board of Directors consider appointing a Procedures and Technical Guidelines (Planning and Regulations) Manual Committee for the duration of the project to facilitate the review of the Manual. The Committee would be a sunset committee of the Conservation Authority.

#### Background

Purpose:

The purpose of the Manual is to provide a comprehensive guidelines and procedures document for SCRCA development and site alteration review, which will take guidance from Provincial Policy, Conservation Ontario policies/procedures and SCRCA's existing policies. The procedures and technical guidelines manual is a local guidance document of current procedures and practices.

The Manual is a "living document" that will be updated on a periodic basis to reflect procedural issues related to updated technical practices, technical information or legislative changes (ie. Conservation Authorities Act changes). In addition to being used by SCRCA staff, it is envisioned that the reference document can be utilized by member municipalities, landowners/proponents, the development community, and the general public.

Benefits of a Comprehensive Manual:

- Increased *transparency* to the public
- Improved consistency for application review
- Further *clarity* on the Authority's role in the review of development and site alteration
- Improved *efficiency* in staff time
- Serve as a *central* resource of information
- Assist with successional planning

#### Why now?:

Conservation Ontario has provided guidelines for the development of policy and procedural manuals and highly recommends Conservation Authorities ensure comprehensive guidance documents are developed for their watersheds.

For successional purposes at the SCRCA, it will greatly assist new staff in administering the program. The Lower Thames Valley Conservation Authority, in which the SCRCA shares over half its inland watershed boundary, recently completed public consultation with regard to a comprehensive Regulations and Planning Policy and Procedure Manual 2016. The document is available at LTVCA website <a href="http://www.lowerthames-conservation.on.ca/wp-content/uploads/2016/08/LOWER-THAMES-VALLEY-CONSERVATION-AUTHORITY-draft-policy-doc-edit.pdf">http://www.lowerthames-conservation.on.ca/wp-content/uploads/2016/08/LOWER-THAMES-VALLEY-CONSERVATION-AUTHORITY-draft-policy-doc-edit.pdf</a>. To aid in CA consistency, it is appropriate to utilize LTVCA's document template, in moving forward with this initiative. In the last several years, SCRCA staff have been meeting with LTVCA, ERCA, KCCA and UTRCA planning staff to discuss procedure manuals, content of manual sections, and common issues.

#### Level of Difficulty:

To date, the Board of Directors have approved various policies for the administration of Municipal Plan Review and SCRCA Ontario Regulation 171/06 "Development, Interference with Wetlands & Alterations to Shorelines and Watercourses". The Manual will bring together the technical guidance/policies and procedures into one central resource. The works are largely a housekeeping measure.

Consultation:

- Sections of the draft manual and progress will be brought forward to the Board of Directors.
- There are advantages to having a Board of Directors subcommittee or a sunset committee review the sections of the manual as they are completed. It is requested that the Board consider appointing a Planning and Regulations Manual Committee for this purpose with 3-4 meeting per year (held immediately following Board meetings).
- Following completion of draft Planning and Regulations sections, public consultation will be undertaken with feedback brought back to the Board.
- Final approval by the Board of Directors based on the feedback will be sought for the Planning and Regulations Sections of the manual.

#### Anticipated Timeline:

The anticipated timeline for the completion of the draft Planning and Regulations Manual is 2018; with additional consultation being carried over into 2019.

Draft Table of Contents & Introduction:

Enclosed is a draft Table of Contents outline for the Manual. Support in principle for the Manual is requested of the Board of Directors.

Chapter 1 – Introduction has also been included in draft form. This is good background information.

Financial implications:

No financial implications. To be done in house as time permits but will be given a higher priority.

Conservation Strategy:

This initiative meets Goal 1 and 2 of the 2016 SCRCA Strategic Plan and Mission statement for the SCRCA.

Goal 1 – Develop and maintain programs that will protect life and property from natural hazards such as flooding and erosion

Goal 2 – Protect, manage, and restore our natural systems including woodlands, wetlands, waterways, and lakes

Mission - "The St. Clair Region Conservation Authority has as its mission, to provide leadership through <u>coordination of watershed planning</u>, implementation of resource management programs and promotion of conservation awareness, in cooperation with others."

## Scholten-Faas

## BD-17-124

"That the Board of Directors acknowledges the report on the Planning Department 'Procedural Manual and Technical Guidelines', dated August 30, 2017 and further directs staff to initiate this project and further concurs with the draft Table of Contents and Chapter 1 Introduction section, and further the Board appoint a Planning and Regulations Manual Committee with the following members: Steve Arnold, Chair/ Andy Bruziewicz, Vice Chair; Tony Bruinink; Gerry Rupke; Cindy Scholten; Muriel Wright."

## CARRIED

Beneficial Use Impairment (BUI) Update

Beach Closings BUI:

The status assessment for the "Beach Closings" BUI for the St. Clair River AOC was presented to the Four Agency Managers Work Group at the June 29, 2017 meeting.

Comments have been received from members of the committee as well as the Walpole Island First Nation Heritage Committee. These comments will be considered in the preparation of the final *Status of the Beach Closings Beneficial Use Impairment* report.

Restrictions on Dredging Activities BUI, Bird or Animal Deformities or Reproductive Problems BUI, Beach Closings BUI:

Meetings are being coordinated between Environment and Climate Change Canada and Walpole Island First Nation Council to discuss the re-designation of BUIs: *Restrictions on Dredging Activities, Bird or Animal Deformities or Reproductive Problems, and Beach Closings.* Next steps in the re-designation process will be determined upon the completion of these meetings.

2012 – 2017 Accomplishments Report:

The 2012 - 2017 St. Clair River Area of Concern Work Plan concluded in March 2017. The 2012 - 2017 Accomplishments Reports is currently being developed based on activities completed for the work plan. The Accomplishments Report is scheduled to be finalized in the fall of 2017 and available for public distribution soon after.

Recent and Future Meetings:

Canadian Remedial Action Plan Implementation Committee (CRIC):

• September 20, 2017 – Sarnia, Ontario

Binational Public Advisory Council (BPAC):

- July 20, 2017 Port Huron, Michigan
- September 20, 2017 Sarnia, Ontario

Fish and Wildlife Habitat and Population Subcommittee:

• October 2017 – location to be determined

Presentations and Events:

Presentations were delivered and/or St. Clair River AOC information was displayed at recent meetings and events including:

- St. Clair Region Conservation Authority Bus Tour June 22, 2016
- American BUI Removal Celebration Event, Port Huron, Michigan August 3, 2017
- Ministry of Environment and Climate Change Watershed Tour August 15, 2016
- Envirofest, Aamjiwnanng First Nation August 22, 2016

## Scholten-Faas BD-17-125 "That the Board of Directors acknowledges the report dated September 7, 2017, on the St. Clair River Area of Concern program."

## CARRIED

The revenue and expenditure report to July 31, 2017, as it relates to the budget was reviewed.

## Wright-McMillan BD-17-126 "That the Board of Directors acknowledges the revenue and expenditure report to July 31, 2017, as it relates to the budget."

## CARRIED

The SCRCA Disbursements from June, July and August, 2017 were reviewed.

## Bruziewicz-Faas BD-17-127 "That the Board of Directors approves the June to August 2017 disbursements as presented in the amount of \$1,338,068.84"

## CARRIED

The report on 2017 General Levy Receipts to September 1, 2017 was reviewed.

## Nemcek-Rupke BD-17-128 "That the Board of Directors acknowledges the status report on the 2017 general levy receipts to September 1 2017."

## CARRIED

The report of the 2018 Preliminary draft budget and proposed municipal levy was reviewed.

## Scholten-Bruziewicz

BD-17-129

"That the Board of Directors acknowledges the 2018 preliminary draft budget of \$6,940,600 with a proposed municipal general levy of \$823,855 and further that this preliminary budget circulated to member municipalities for information and input based on our budget review process."

## CARRIED

• SCRCA Investment statements for the period ending August 31, 2017 were reviewed

## Scholten-Gordon BD-17-130 "That the Board of Directors acknowledges the investment statements for the period ending August 31, 2017."

## CARRIED

## Conservation Education:

With the Conservation Education Program about to launch into its season, two promotional flyers were produced highlighting the numerous programs available to students in both elementary and high schools. The flyers were distributed to each teacher in the region highlighting the various programs provided. They have been included in this package.

## Conservation Scholarships:

Four scholarships were presented this June by Steve Arnold. The students and parents were all very proud and appreciative.

*A.W. Campbell Memorial Scholarships – \$1,000 award:* Monique Benedict, Strathroy and District Collegiate Institute Emily Fraser, Great Lakes Secondary School

*Tony Stranak Conservation Scholarship* – \$500 award: Jillian Ball, Lambton Kent Composite School

*Mary Jo Arnold Conservation Scholarship* – *\$500 award:* Nicole Delmage, North Lambton Secondary School

## Aamjiwnaang Envirofest:

SCRCA staff participated in Aamjiwnaang's Envirofest held on August 22, 2017. Information was shared with community members on a number of Conservation Authority programs including the unique and valuable wildlife found within our watershed and our programs to protect species at risk, critical habitat, and vulnerable ecosystems.

## Great Lakes SHSM Student Conference Update:

SCRCA staff worked with Grafiks Marketing & Communications in Sarnia to create a short video on the Great Lakes student conference held this past May. This video was a deliverable for the Ministry of the Environment & Climate Change (MOECC) grant that funded the conference.

https://www.youtube.com/watch?v=Uz7PD4NW5N0

Nature Walk with GO Project Summer Camp:

This August, SCRCA staff organized a morning of educational activities and a nature walk at the Wawanosh Conservation Area for a group of children attending the GO Project summer camp.

## MOECC Watershed Tour:

Upon request from the Ontario Ministry of Environment and Climate Change (MOECC), SCRCA staff organized a watershed tour for representatives from the MOECC and a group of their summer students. The tour involved a presentation in the morning explaining Authority programs followed by a car tour where SCRCA staff were able to highlight current projects.

## SAR Newsletter Contest Winners:

SCRCA staff received 25 submissions for the Annual Sydenham River Species at Risk Newsletter contest. The winners of the SAR newsletter contest were randomly selected:

- 1. Kaelyn Mills First prize: Binoculars and a SCRCA Weekend Camping Pass
- 2. Dave Zinkie Second prize: "A Blanding's Turtle Story" (children's picture book) and a SCRCA Weekend Camping Pass
- 3. Harvey McEwan Third prize: SCRCA Gift Bag

## Union Gas Wetland Restoration Donation Event:

Union Gas donated \$12,000 to the SCRCA to support a wetland restoration project on Authority property 97. To officially recognize the donation, staff organized a cheque presentation event that media were invited to attend. Steve Arnold, Authority Chair, accepted the donation from Union Gas on behalf of the SCRCA. Jessica Van Zwol, Healthy Watershed Specialist, and Steve Shaw, Manager of Conservation Services, toured the representatives from Union Gas, the SCRCA, and a member of the media around the site of the newly completed wetland restoration project. The group also went to the nearby site of a mature wetland restoration project on property 56 to see how the new wetland will transform.

Upcoming Events:

Denning's Memorial Tree Dedication Keith McLean Conservation Lands, Sunday September 17, 2pm – Greetings will be provided by Steve Arnold, Chair, St. Clair Region Conservation Authority

A Geocaching Adventure Lorne C. Henderson Conservation Area, Sunday September 17, 9am-3pm

St. Clair Region Conservation Foundation Memorial Forest Dedication

Lorne C. Henderson Conservation Area, Sunday September 24, 2pm – Speakers: Duncan Skinner, President, St. Clair Region Conservation Foundation; and Steve Arnold, Chair, St. Clair Region Conservation Authority

"Nature Preservation Day" with Andersen Windows Staff from Strathroy's Andersen Windows will be volunteering for a Conservation Area clean-up, Thursday September 28, 1-3pm

Chatham-Kent and Lambton Children's Water Festival C.M. Wilson Conservation Area, Chatham, October 3-5

## McMillan-Bruziewicz

BD-17-131

"That the Board of Directors acknowledges the Communications Report, dated September 6, 2017, including information regarding Conservation Education, Coming Events and Conservation Scholarships."

CARRIED

Presentation by Ms. Burbridge in regards to her property at 4606 Lakeside Street was given and copies of related correspondence and list of questions to SCRCA provided.

## McMillan-Wright

## BD-17-132

"That the Board of Directors acknowledge the correspondence to Ms. Burbidge dated July 26, 2017, staff's verbal introduction and Ms. Burbidge's presentation and that a full report is prepared by SCRCA staff, including an update from Municipality and a written response is formed to Ms. Burbidge's questions and recommendations provided.

## CARRIED

## **Under New Business:**

- (RE: BD-17-105) Summary requested from Kevan Baker, Director of Lands outlining the number of notices issued to unpaid vehicles at Highland Glenn including both paid and outstanding.
- (RE: BD-17-124) Subcommittee for the Planning and Regulations Manual to ensure that the development of the document includes consultation with Municipal Planners as well as feedback sought from Development Community.
- Report requested from Girish Sankar, Manager of Water Resources comparing current water levels to previous years up to and including 1985.

Westgate-Bruinink BD-17-133 "That the meeting be adjourned."

## CARRIED

bugall

Steve Arnold Chair Brian McDougall General Manager

## General Manager's Report 4.(i)



To: Board of Directors

Date: October 30, 2017

From: Brian McDougall, General Manager

Ontario Bill 139 - the Building Better Communities and Conserving Watersheds Act

- After seconding reading, Bill 139 has been referred to the Standing Committee on Social Policy
- On October 17<sup>th</sup>, Conservation Ontario staff and the GM of Halton Conservation presented the following comments for discussion with the Standing Committee
  - PART VII ENFORCEMENT AND OFFENCES
    - 1) Commencement of Part VII Enforcement and Offences Provisions within Three Months
    - 2) Amendment to the Appeal Process for Stop Orders
    - 3) Additional Modernized Provisions
      - i) Order to Comply /Take Remedial Action
      - ii) Court Orders on Title Following Conviction
      - iii) Appointment of peace officers
  - PART IV MEMBERSHIP AND GOVERNANCE
    - Updating requirements for Authority by-laws and improved transparency and effectiveness of Board operations
  - REQUEST NEW CLAUSE
    - Liability Protections for CAs Operating Flood and Erosion Control Infrastructure in Good Faith on Behalf of the Province
      - That a clause be added to the Act with respect to flood and erosion control liability to protect conservation authorities operating in good faith.
  - PART V OBJECTS, POWERS AND DUTIES
    - This request is to provide clarity and avoid possible restrictions on the role of conservation authorities in climate change mitigation concerning energy conservation, emission reductions, etc. around various voluntary programs.
- It is anticipated that the Standing Committee on Social Policy will take approximately 6 days of meetings to review Bill 139
- We have been advised by the Minister that she expects final reading of the Bill prior to the Christmas recess

Conservation Ontario Council Minutes from Meeting #3/17 Monday, September 25, 2017 Black Creek Pioneer Village

**Voting Delegates Present:** Dick Hibma (Grey Sauble), Chair Brian Horner, Ausable Bayfield Alan Revill, Cataraqui Region Geoff Rae, Cataraqui Region Chris Darling, Central Lake Ontario Don Maclver, Credit Valley Deb Martin-Downs, Credit Valley Tim Pidduck, Crowe Valley Richard Wyma, Essex Region Forrest Rowden, Ganaraska Region Linda Laliberte, Ganaraska Region Joe Farwell, Grand River Sonya Skinner, Grey Sauble Lisa Burnside, Hamilton Peter Raymond, Kawartha Region Mark Majchrowski, Kawartha Region Heather Jackson, Kettle Creek Elizabeth VanHooren, Kettle Creek Geoffrey Dawe, Lake Simcoe Region Mike Walters, Lake Simcoe Region Donna Blunt, Lakehead Region Tammy Cook, Lakehead Region Cliff Evanitski, Long Point Region Don Pearson, Lower Thames Jim Alyea, Lower Trent

#### **Members Absent:**

Catfish Creek Halton

**Presenting Guests:** Kathryn McGarry, Minister of Natural Resources and Forestry

#### **Guests:**

Phil Beard, Maitland Valley Duncan Abbot, Mississippi Valley

#### CO Staff:

Kim Gavine, General Manager Jane Dunning Bonnie Fox Jane Lewington Matthew Millar

Glenda Rogers, Lower Trent Jim Campbell, Maitland Valley Mark Burnham, Mississippi Paul Lehman, Mississippi Sandy Annunziata, Niagara Peninsula Mark Bricknell, Niagara Peninsula Lin Gibson, Nickel (Conservation Sudbury) Carl Jorgensen, Nickel (Conservation Sudbury) Brian Taylor (North-Bay Mattawa) Doug Lougheed, Nottawasaga Valley Doug Hevenor, Nottawasaga Valley Dan Marinigh, Otonabee Frank Prevost, Raisin Region Richard Pilon, Raisin Region Lyle Pederson, Rideau Valley Sommer Casgrain-Robertson, Rideau Valley Wayne Brohman, Saugeen Valley Rhonda Bateman, Sault Ste Marie Doug Thompson, South Nation Angela Coleman, South Nation Steve Arnold, St. Clair Region Brian McDougall, St. Clair Region Brian Denney, Toronto and Region Murray Blackie, Upper Thames River Ian Wilcox, Upper Thames River

Mattagami Quinte

Chitra Gowda Nekeisha Mohammed Leslie Rich Jo-Anne Rzadki Rick Wilson

#### 1. Welcome from the Chair

Chair Dick Hibma welcomed Kathryn McGarry, Minister of Natural Resources and Forestry. Minister McGarry's notes are attached to the minutes of the meeting.

Brian Denney, CEO of TRCA was recognized for his many years of service as he plans retirement at the end of 2017.

#### 2. Adoption of the Agenda

	#19/17 Moved by: Forrest Rowden Seconded by: Doug Thompson	
	THAT the agenda be adopted as circulated.	
		CARRIED
3.	Declaration of Conflict of Interest.	
	There was none.	
4.	Approval of the Minutes of the Previous Meeting	
	#20/17 Moved by: Mark Burnham Seconded by: Lin Gibson	
	THAT the minutes from the June 26, 2017 meeting be approved.	
		CARRIED
5.	Business Arising from the Minutes.	
	There was none.	
6.	Motion to move from Full Council to Committee of the Whole	
	#21/17 Moved by: Tim Pidduck Seconded by: Chris Darling	
	THAT the meeting now move from Full Council to Committee of the Whole.	
		CARRIED
7.	Discussion Items	
	a. Proposed 2018 Conservation Ontario Workplan	
	Kim provided an overview of the report provided with the agenda.	
	C.W.#11/17 Moved by: Mark Burnham Seconded by: Joe Farwell	

THAT Conservation Ontario Council adopt the 2018 proposed CO Workplan.

#### b. Proposed 2018 Operating Budget and CA Levy

Members discussed the use of the reserves to balance the budget and recommended that the timing to do so be expedited.

C.W.#12/17 Moved by: Sandy Annunziata Seconded by: Forrest Rowden THAT Council adopt the 2018 Proposed Operating Budget as presented. The recommendation was amended to read: C.W.#13/17 Moved by: Geoffrey Dawe Seconded by: Mark Burnham THAT Council adopt the 2018 Proposed Operating Budget as presented; AND THAT the 2019 and 2020 budgets each reduce the draw on the reserve by \$14,000. CARRIED

C.W.#14/17 Moved by: Don Pearson Seconded by: Lyle Peterson

THAT the general levy of \$1,263,850 be approved and apportioned in accordance with the attached schedule.

CARRIED

#### c. Gilmor Leave to Appeal to the Supreme Court of Canada

Kim Gavine highlighted the report. Nottawasaga Valley legal costs have been significant. Members agreed that NVCA would not be included in the special levy. Their portion will be covered by CO.

C.W.#15/17 Moved by: Lyle Pederson Seconded by: Geoff Dawe

THAT should the Gilmors be successful in their application for leave to appeal in the Supreme Court of Canada that Conservation Ontario seek intervener status in the matter;

AND THAT Conservation Ontario obtain the services of Mr. Tom Curry of the law firm of Lenczner Slaght to prepare both Leave to Intervene Application and the Response to the Appeal itself;

AND THAT Conservation Ontario approve the allocation of up to \$5,000 plus taxes for the cost of disbursements associated with the Gilmor case and that this allocation be supported with a special levy to the members.

CARRIED

d. Proposed amendments to the Conservation Authorities Act (CAA) as part of Bill (139), the Building Better Communities and Conserving Watersheds Act, 2017 (EBR#013-0561) and Moving Forward in a Collaborative Relationship with Ministry of Natural Resources and Forestry (MNRF) and the Province of Ontario

Kim and Bonnie provided a presentation that is attached to the minutes of the meeting. Council members discussed the status of the review. C.W.#16/17 Moved by: Rhonda Bateman Seconded by: Lyle Pederson

THAT Council ratify the Board of Directors approval of the following representatives for the Conservation Authorities Act - Service Delivery Review Committee: Brian Tayler, North-Bay Mattawa (lead) and Tammy Cook, Lakehead Region (alternate); Richard Wyma, Essex Region (lead) and Ian Wilcox, Upper Thames River (alternate); Dan Marinigh, Otonabee Region (lead) and Paul Lehman, Mississippi Valley (alternate); Chris Darling, Central Lake Ontario (lead) and Deb Martin-Downs, Credit Valley (alternate), and, Hassaan Basit, Conservation Halton (lead) and Carolyn Woodland, Toronto and Region (alternate).

CARRIED

## e. International Joint Commission (IJC) Lake Ontario and Upper St. Lawrence River Survey of shoreline Landowners

Matt Millar highlighted the report provided with the agenda. Lake Ontario and St. Lawrence River shoreline CAs will be provided with a communication package to assist in promoting the survey to stakeholders and other associations affected by the high water levels.

C.W.#17/17 Moved by: Doug Thompson Seconded by: Forrest Rowden

THAT Conservation Ontario Council receive this Report.

CARRIED

#### f. Conservation Ontario Training and Professional Development Strategy Update

Bonnie highlighted the report and encouraged members to read the Conservation Ontario Training and Professional Strategy: Phase 1a Analysis Report.

C.W.#18/17 Moved by: Mark Burnham Seconded by: Lin Gibson

THAT the Conservation Ontario Training and Professional Development Strategy: Phase 1a Analysis Report be received.

CARRIED

#### 8. Consent Agenda Items

C.W.#19/17 Moved by: Mark Burnham Seconded by: Brian Tayler

THAT Council approve a consent agenda and endorse the recommendations accompanying Items 8a – 8q.

CARRIED

#### a. General Managers Report

THAT Conservation Ontario Council receives this report as information.

#### b. Budget Status Reports for the period ending August 31, 2017

THAT Conservation Ontario Council receives this report.

 c. Conservation Ontario's Comments on "Bill 139 – (Schedule 3) – the proposed Building Better Communities and Conserving Watersheds Act, 2017: Amendments to the Planning Act" (EBR #013-0590) THAT the comments on "Bill 139 – (Schedule 3) – the proposed Building Better Communities and Conserving Watersheds Act, 2017: Amendments to the Planning Act" (EBR #013-0590) submitted to the Ministry of Municipal Affairs on August 31st, 2017 be endorsed.

d. Conservation Ontario's Comments on the "Proposed amendment to Lakes and Rivers Improvement Act Dam Construction Regulation (Ontario Regulation 454/96) to specify that approval is not required for alterations, improvements and repairs to existing dams in cases where they are governed by an agreement between the Minister and the dam owner"

THAT the comments on the "Proposed amendment to Lakes and Rivers Improvement Act Dam Construction Regulation (Ontario Regulation 454/96) to specify that approval is not required for alterations, improvements and repairs to existing dams in cases where they are governed by an agreement between the Minister and the dam owner" submitted to the Ministry of Natural Resources and Forestry on August 4, 2017 be endorsed.

e. Conservation Ontario's Response to the "Environmental and Regulatory Reviews: Discussion Paper"

THAT the comments submitted to the Government of Canada on the "Environmental and Regulatory Reviews: Discussion Paper" on August 28, 2017 be endorsed.

f. Ministry of Environment and Climate Change (MOECC) Low Impact Development Stormwater Management Guidance Manual EBR#012-9080

THAT Conservation Ontario Council endorse the Conservation Ontario letter on the Environment and Climate Change (MOECC) Low Impact Development Stormwater Management Guidance Manual EBR#012-9080.

g. Proposed Municipal Asset Management Planning Regulation (EBR#013-0551)

THAT the comments on Proposed Municipal Asset Management Planning Regulation (EBR#013-0551) submitted to the Ministry of Economic Development, Employment and Infrastructure on July 24th, 2017 be endorsed.

h. Update on Activities related to the development of Provincial Watershed Planning Guidelines

THAT this report be received as information.

#### i. Conservation Authorities University (CAU) Committee Representatives and Update

THAT Tammy Smith (Quinte Conservation) and Ian Wilcox (Upper Thames River Conservation Authority) be endorsed as members of the Conservation Authorities University Committee

#### j. Southern Ontario Stream Sediment Project

THAT Conservation Ontario Council accept this report for information.

#### k. Forest Gene Conservation Association 2016- 17 Update and Closure of Provincial Tree Seed Facility in Angus, Ontario

THAT Conservation Ontario Council endorse CO staff to remain engaged with the Forest Gene Conservation Association, Forests Ontario and other partners regarding actions required to advocate for the maintenance or application of new models for the Province's Tree Seed Facility in Angus, Ontario.

#### I. CO Representation on the Ontario Climate Advisory Committee

THAT Conservation Ontario endorse Glenn Milner (TRCA) as the Conservation Ontario representative replacing Edmundo Fausto (TRCA) on the Ontario Climate Advisory Committee.

## m. Environment and Climate Change Canada (ECCC) Expert Panel on Climate Change Adaptation and Resilience Results – Conservation Ontario Representation

THAT Conservation Ontario Council endorse Deborah Martin-Downs (CVC) as its representative on the Expert Panel on Climate Change Adaptation and Resilience Results;

AND THAT Jo-Anne Rzadki (CO) coordinate the input of Conservation Authority staff to Deborah Martin –Downs at key points in the Expert Panels' work.

## n. Privatization of Hydro One and the Memorandum of Understanding between Conservation Ontario & Hydro One

THAT this report be received as information.

#### o. Board of Directors Meeting Minutes to be received: March 8, April 3, and April 24, 2017

THAT Conservation Ontario Council receives these minutes.

#### p. Program Update

#### i. Drinking Water Source Protection Program

THAT Conservation Ontario Council receives this report.

#### ii. Marketing & Communications

THAT Conservation Ontario Council receives this report.

#### iii. Business Development and Partnerships

THAT Conservation Ontario Council receives this report.

#### iv. Information Management

THAT Conservation Ontario Council receives this report.

#### q. Project Tracking

#### 9. Regional Presentation: Northern Ontario CAs

Carl Jorgensen (Conservation Sudbury) provided a presentation that is attached to the minutes.

#### 10. Presentation

Jo-Anne Rzadki's Update on Climate Change Initiatives presentation is attached to the minutes.

#### 11. Motion to Move from Committee of the Whole to Full Council

#22/17 Moved by: Lin Gibson	Seconded by: Mark Burnham
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THAT the meeting now move from Full Council to Committee of the Whole

CARRIED

#### 12. Council Adoption of Recommendations

#23/17 Moved by: Forrest Rowden Seconded by: Geoffrey Dawe

THAT Conservation Ontario Council adopt Committee of the Whole (C.W.) Recommendations: C.W. #11/17 to C.W. #19/17.

CARRIED

#### 13. New Business

Deb Martin-Downs (CVC) provideD the following reminders regarding the Latornell Conservation Symposium: Registration Early Bird deadline of October 11<sup>th</sup>, 4 Pre-Latornell workshops, and the need for Auction items to support the Latornell Grant Program. She highlighted a special draw for a Canada 150 Swift Canoe. She also reported that the Province of Ontario is back as a Latornell Conservation Symposium partner. Symposium details can be found at <u>www.latornell.ca</u>.

#### 14. Adjourn

Moved by: Mark Burnham

THAT the meeting be adjourned.

# Staff Report

6. (i)



To: **Board of Directors** 

Date: October 26, 2017 **Ashley Fletcher** From:

Subject: Business Arising from September 21, 2017 meeting

- (RE: BD-17-105) Summary requested from Kevan Baker, Director of Lands outlining the number of notices issued to unpaid vehicles including both paid and outstanding
  - Tickets were provided, however tracking system was not in place. Blue tickets were issued to vehicles who had paid and yellow tickets were issued to vehicles who had not paid. This was consistent with other Conservation Authorities using the McKay Pay system. Staff estimate that 1 in 3 boats and 1 in 10 cars paid. In 2018, we are looking to work with the local municipality to issue parking tickets under their parking by-law to vehicles who do not pay.
- (RE: BD-17-124) Subcommittee for the Planning and Regulations Manual to ensure that the development of the document includes consultation with Municipal Planners as well as feedback sought from Development Community. • To be added to consultation plan
- Report requested from Girish Sankar, Manager of Water Resources comparing current water levels to previous years up to and including 1985.
  - To be handed out at meeting
- Report from Patty Hayman, Director of Planning on Jennifer Burbidge delegation and request of SCRCA under O. Regulation 171/06.
  - o Refer to Item 11 (ii)
- As the SCRCA moves toward reducing our environmental footprint in the workplace, Board Packages have been made available online. For each board package not printed, this saves an average of 64 pieces of paper. The Board of Directors have been asked to sign for their preferred format and current preferences are as follows:

Board of Directors - Preferred format				
Electronic	9			
Printed copy	6			
Not yet signed	5			

 In addition to environmental benefits, moving to an electronic format also leads to cost savings. The chart below shows the average cost for producing and shipping board packages.

		Costs Per Board Package	Costs x 20 Board Packages	Costs x 11 Board Packages (Current)
Average # of pages	64		1280	704
Cost per page (not double sided)	\$0.055	\$7.04	\$140.80	\$77.44
Courier cost per package	\$4.43	\$4.43	\$88.60	\$48.73
	Totals	\$11.47	\$229.40	\$126.17
	\$103.23			

• Should Directors have questions regarding the electronic format or wish to make a change to their preference, please see Ashley Fletcher.





To:Board of DirectorsDate:October 24, 2017From:Kevan Baker, Director of LandsSubject:Conservation Lands Report

## **Conservation Areas:**

- The Conservation Authority owns 15 conservation areas and manages 17 properties for the Foundation
- Of those 15 conservation areas, 6 are managed by the local municipality and 9 are operated by the Conservation Authority
- Of these 9, 3 conservation areas are regional campgrounds which attract campers from primarily Southwestern Ontario
- Our three regional campgrounds have over 500 campsites and 418 seasonal campers and are financial self sufficient
- Profits obtained from our campgrounds are used to offset capital improvements

## Camping Statistics:

- 418 full, half and quarter seasonal campers have registered in our 3 campgrounds, down from 421 in 2016. 190 seasonal campers are registered at Warwick (191 in 2016), 121 at LC Henderson (123 in 2016) and 107 at A.W. Campbell (107 in 2016).
- Our 3 regional campgrounds have been busy this year, gross revenues to the end of September are \$ 1,159,000 (up 3 %), and net revenues are up 19% (seasonal camping up 2 % to \$824,000; overnight camping up 3% to \$218,000; and pump-out up 5% to \$38,000.00)

## Warwick Conservation Area

- A 24 x 32 ft pole type storage shed has been constructed
- Engineered wood chip playground protective surfacing has been installed under the main day use area play equipment
- The hydro panel at the pool washroom was upgraded
- Hydro and water has been installed to two overflow campsites in the woodlot campground
- Woodlot campground laundry shed has been renovated with new appliances, flooring and plumbing
- 550 meters of chip and dust trail has been developed around the perimeter of the 5-acre climate change tree growth plantation (Foundation).
- LED exterior lighting has been installed on two of the washroom buildings



## L.C. Henderson Conservation Area

- One shower area has been upgraded with new shower surround and ceramic tile on the floor and walls
- A new sidewalk has been installed in front of the shower area
- Two new hydro panels have been installed, one in the main washroom building and one in the campground area
- LED lighting have been installed on the main washroom building and on 2 utility poles
- Weir surfacing has been improved with erosion control matting and gravel surfacing (WECI)
- New carpet and 4 x 4 side railings have been installed on the mini put golf course
- 25 trees and shrubs have been planted

## A.W. Campbell Conservation Area

- A new concrete side walk has been constructed at the pool washroom and visitor center
- Permanent hydro (6 30 amp campsites) has been installed at the Campbell house group camp area
- Water distribution pump house has been renovated with new internal and external siding and new internal plastic water lines
- Upgrades have been completed at the main campground washroom (new concrete sidewalk) and at the gatehouse and entrance area (new signage and fee box)
- A weather station has also been installed on the property (Water Resources Department)
- 30 trees and shrubs have been planted (Bingo)

## Keith McLean Conservation Lands (Foundation Property):

- a new floor has been installed in the Kent Bridge Road pump house
- a trail identification sign has been installed at the main parking lot
- A tower agreement has been negotiated with Xplornet, the tower will be installed on Kent Bridge Line this fall
- The first Denning's Memorial Forest dedication was held on the property on Sunday, September 17<sup>th</sup>; over 60 people attended





## Other Lands Activities:

- A 5-year tower lease has been negotiated with Cogeco Connexion Inc. for the existing tower & building (Peers Wetland CA)
- A 3-acre wetland has been constructed at property 97 in the McKeough Upstream Lands; this included a 2 acre pond and 1,000 hardwood trees (funded by Union Gas and Wildlife Habitat Canada)



- Approximately 680 meters of randomized tile drainage has been installed on 2 McKeough Upstream agricultural properties.
- 2 benches have been installed along the trail at the Peers Wetlands (benches donated by Sydenham Field Naturalists)
- 4 tennis courts were constructed with asphalt surfacing and new fencing Esli Dodge Conservation Area (project of Lambton Shores)
- Clark Wright Sun-Canadian Pipeline has completed extensive tree clearing on their easement within the Conservation Area; trails have been re-organized to direct the public away from the easement and the adjacent private property
- Bridgeview 2 oil wells have been decommissioned (MNR funded)
- Staff planted 72 hardwood trees on authority lands as part of the memorial tree planting program (Foundation)

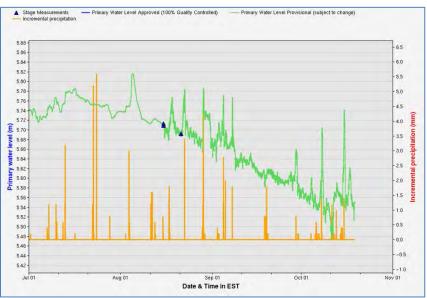




To:SCRCA Board of DirectorsDate:October 27, 2017From:Steve Clark, Water Resources SpecialistSubject:Current Watershed and Lake Conditions

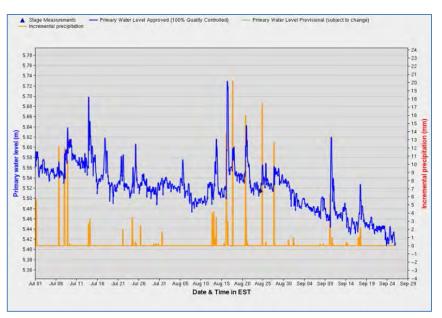
## Watershed Stream Flow

- An overview of precipitation and the associated flow (fig 1) over the summer and into activity indicates a fall larger number of rain events in June, July and August increasing flows slightly during these months above seasonal numbers and higher than 2016 for the same period (fig 2)
- Flows continued to throughout the reduce summer with only two rain having events total accumulations of greater than 75mm (fig 3 red highlighted). There were a number of sporadic smaller events of 25mm to 30mm resulting in the perception of a somewhat unsettled summer.
- There were no significant impact from storm events due to the pattern of the events being distributed and a reduced intensity allowing the watershed to accommodate any short term increases in flow.



## Fig 1.Wallaceburg Flow and Precipitation (July - October 2017)





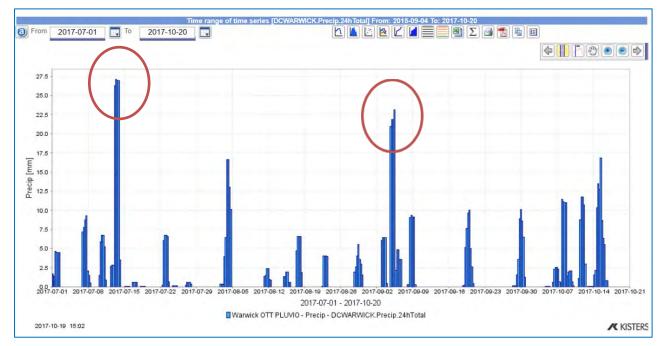


Fig 3. OTT-Pluvio Rain Gauge Data from Warwick CA (Daily Totals, July – October

- With the installation of the high resolution precipitation gauge at Warwick CA and now a second unit at Alvinston (fig 4) we are now able to obtain instantaneous high quality rain data through satellite based communications systems
- Regional precipitation data (fig 5) illustrates a different picture than perceived the rainy summer. While it was damp, cloudy and generally unsettled, the last three months, with the exception Windsor of experienced only 65% of actual rainfall compared to normal across most of the watershed. Six month totals improved to 90% notably due to spring precipitation but annual numbers



Fig 4. OTT-Pluvio Rain Gauge - Alvinston CA

continue to remain slightly below the normal values at 90%

Precipitation (mm)	Sarnia		Strathroy		London		Windsor	
Last Quarter	Actual	Normal	Actual	Normal	Actual	Normal	Actual	Normal
July	46.6	74.1	51.6	71.7	49.6	82.2	69	81.8
August	68.4	77.1	29.2	82.1	42.4	85.3	145.2	79.7
September	44.8	94	42.6	89.8	32	97.7	35.4	96.2
			Averag	es				
last 3 month totals	159.8	245.2	123.4	243.6	124	265.2	249.6	257.7
last 3 month % of norma	65.	2%	50.7% 46.8%			96.9%		
regional average				64.	9%			
last 6 month totals	402.7	476	457.5	476.1	438	517.1	492.2	513.4
last 6 month % of norma	84.	6%	96.	1%	84.7%		95.9%	
regional average				90.	3%			
last 12 month totals	740.9	846.8	838.4	945.1	863.6	987	906	918.4
last 12 month % of norm	87.	87.5% 88.7%			87.5% 98.6%			6%
regional average				90.	6%			

## Fig 5. Regional Precipitation 2016 - 2017)

## Flood Threat

Based on current conditions we continue to monitor any major rain events as they occur. River levels and weather patterns are anticipated to continue to remain seasonal into the winter months and these are expected to prevail with seasonal flows remaining in the average range. <u>Advisories will be provided as conditions dictate.</u>

## Weather Forecast (Weather Network data)

 Short term conditions indicate slightly below normal temperatures and normal precipitation

into November for the remainder of June with near normal precipitation.

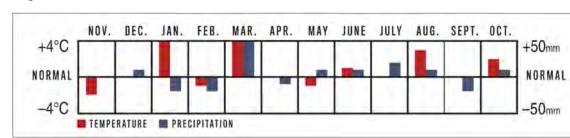
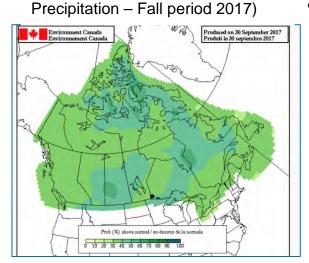
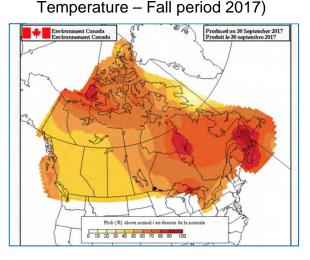


Fig 6. Seasonal Forecast Prediction





• Longer term into the winter season, the probability forecasts from ECCC suggest above average temperatures and above average precipitation (light green) and slightly below average temperature and precipitation (orange)

• With higher temperatures it is anticipated that lake ice cover conditions may be reduced contributing to the potential for increased lake effect snow in the northern areas of the watershed.

• Reduced lake ice conditions may also provide increased evaporation over the winter season may reduce lake levels into 2018 however this difficult to predict considering many other factors influencing level such as overall snow cover in the Lake Superior region

• Trends into the first part of 2018 suggest warmer than normal temperatures in January and March, and slightly below precipitation with the exception into March with significantly higher than average conditions (fig 6)

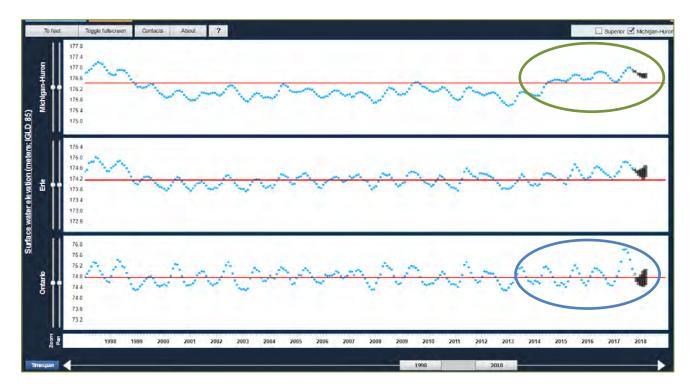
# Great Lakes Levels (Canadian Hydrometric, data – September 2017)

The monthly comparison for September 2017 (current available data) indicates that Lake Huron levels higher again (15cm) compared to September 2016 suggesting a continued increasing trend in local lake levels. Numbers also continue to increase above the 10-year average for Lake Huron by **66cm.** Lake St. Clair levels are higher than last year (17cm) and **50cm** above the 10 year average. Both Lake Huron and Lake St. Clair current values (September) continue to remain above the average for the entire period of record. Ipperwash Beach (October 2017)

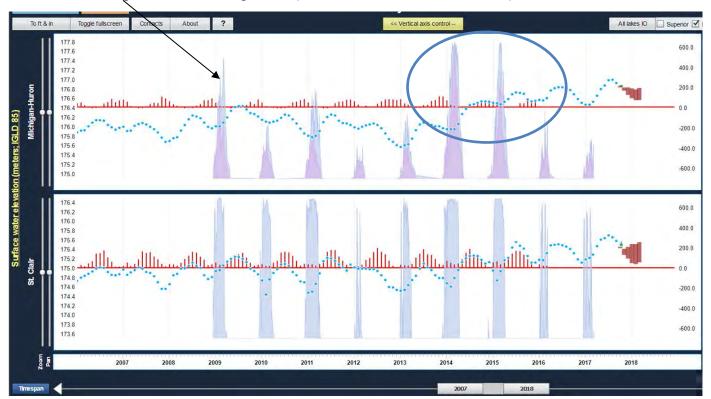


Units	Current Monthly Level	Monthly Level Last	Change 2016 /2017	Current Month Avg for	Change Current compared	Anticipated Next Month	Average for Month for Period of
		Year		Last 10	to 10 year		Record
				Lake St. Clair			
Metric (m)	175.58	175.41	0.17	175.08	0.50	175.43	175.08
Imperial (ft)	576.05	575.49	0.56	574.41	1.64	575.56	574.41
				Lake Huron			
Metric (m)	176.93	176.78	0.15	176.27	0.66	176.85	176.50
Imperial (ft)	580.48	579.99	0.49	578.31	2.17	580.21	579.07

 The 20-year record (below) compared to the mean for the entire period of record (100 years – red line) illustrates the above average trend over the last 4 years (green) for Lake Huron. Note also the significant change in conditions for Lake Ontario.(blue)



 As noted previously, ice cover data for Lake Huron provides some evidence of the relationship between increased levels and ice cover. While the amount of data is limited, years with closer to 100% coverage (blue) may have resulted in less evaporation and an upward trend influencing the following summer levels. While this may not be conclusive, it contributes to the understanding of potential factors.



## Percentage of Ice Coverage % – (Lake Huron and Lake St Clair)





To:Board of DirectorsDate:October 25, 2017From:Girish Sankar, Director of Water ResourcesSubject:Water & Erosion Control Infrastructure (WECI) Projects

- Following 9 projects were approved for **2017-2018**.
- Staff have been working on completing WECI Projects.
- List of projects and the status of their work is provided in the table below

Structure	Project Name	Description of Work	Status
Courtright Park	Courtright Park Shoreline restoration	Shoreline work at Courtright Park along St. Clair River using armourstone and riprap.	Design work complete, reviewing work with the township, draft tender available.
Sarnia Shoreline Protection	Shoreline Repair (Helen and Kenwick St) Phase 1	Carry out construction of Phase 1 from the recommendation of engineering study.	Design work complete, reviewing work with the City, draft tender available. Permit applications underway
Esli Dodge Dam	Esli Dodge Repair Project	Repair of Concrete cable/ retaining wall	Waiting response/direction from the Township of Forest
L.C.Hender son Weir #1	L.C.H. Outfall Repair Project	Spillway Repair	Completed
W. Darcy McKeough Dam	Drop Structure Downstream Erosion Control	Install rip rap at outlet park	Waiting St. Clair Township response on this project
W. Darcy McKeough Dam	Vegetation Management Plan	Develop a vegetation management plan for vegetation control within the floodway channel	Ongoing
W. Darcy McKeough Dam	Watercourse Obstruction Removal	Vegetation and debris jam to be removed	Ongoing
W. Darcy McKeough Dam	McKeough Sill Repair	Crack repair to McKeough Dam sill	Completed
W. Darcy McKeough Dam	Wing wall repair	Repair cracks in the concrete Wing wall	Completed

## **Courtright Shoreline Protection**

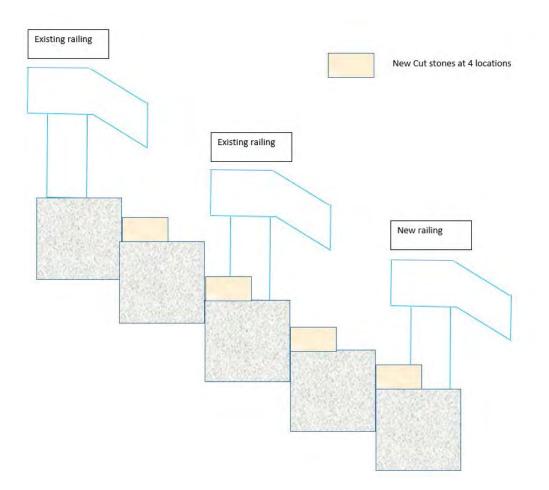
The site is located in the St. Clair Township along the east shore of the St. Clair River in the community of Courtright. The existing site is protected with concrete rubble and stone and extends approximately 400 meters along the St. Clair River shoreline. A number of sections along the exposed shore have failed. The purpose of the undertaking is to provide shore stabilization, improve shoreline access, enhance aquatic habitat and to provide general improvements to the existing shore along the entire project site.

The proposed preferred shoreline protection structure, include armour stone/rip rap revetment with aquatic planting and gravel beds incorporated along parts of the shoreline.

## Draft Design

- Staff reviewing design with the township and consulting engineer
- applications for permits have been completed
- · Permit applications have been submitted to agencies
- construction work is expected to start this Winter (December, 2017)
- habitat/fish monitoring is underway

## Kenwick Park Stairs Upgrade



Staff have inspected the steps by Kenwick Park and met with a local landscaping company to come up with a potential solution.

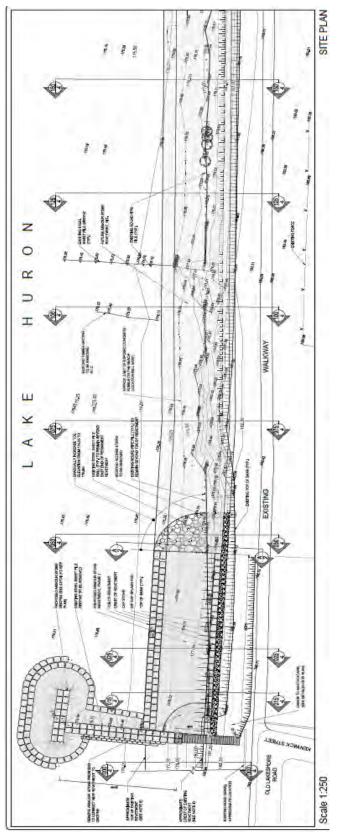
## Scope of Work

- Spilt difference on large step rises
- Form and pour concrete in 4 areas of steps and make them non slip
- Eliminate tripping hazard
- Fabricate new custom railings and powder coat all existing railings
- Reinstall the railings

Cost of work: \$7.980 + H.S.T – Southwest Fence and Deck

## Sarnia Shoreline Work

- Draft design is available for Shoreline work along Brights Grove
- A groyne will be installed along Kenwick road with cut stones providing access to the beach
- Approximately 60 meters of the shoreline will be restored
- Permit applications have been submitted to agencies
- Draft tender documents are available
- Construction work is expected to start in December



# Staff Report 9 (i)



To: Board of Directors

From: Laura Biancolin, Agriculture Outreach Technician Jessica Van Zwol, Healthy Watershed Specialist Report Date: November 1, 2017 Subject: Healthy Watersheds Programs Outreach Update

6<sup>th</sup> Annual Great Canadian Shoreline Cleanup – September 9 Community volunteers collected over 40 pounds of garbage over a 2.5km stretch of Centre Ipperwash Beach as part of Healthy Lake Huron programming.

Lambton Shores "Ag in the Classroom Event" – September 15 Staff led 250 Grade 3 students in a soil conservation and sustainable agriculture discussion with an interactive display that encouraged problem solving to ensure that practices on the farm do not affect nearby watercourses. This event was an effort to promote a Healthy Lake Huron.





**Strathroy TD Tree Day – September 16** Over 70 volunteers planted 150 native trees in Alexandra Park and Cuddy Sports Complex. The volunteers were TD employees, the local Strathroy and Mt Brydges Scouts and Guides, and local community.

Sarnia TD Tree Day – October 21 In just over an hour 35 volunteers (25 adults and 10 children) planted, mulched and watered 150 native trees along the Howard Watson Trail in Sarnia, ON as part of further naturalizing that stretch of trail. A TD Friends of the Environment grant funded both the Sarnia and Strathroy #TDTreeDay events.

**Forest Fall Fair – September 22-24** Staff had a booth at the Forest Fall Fair to promote stewardship efforts towards a Healthy Lake Huron. Staff spoke with many individuals and families (>250) about what roles SRCRA plays on the landscape including biological monitoring and agricultural/rural stewardship programs and grants.

**Bio-Strips & Cover Crop Demo – September 26** Lambton Shores Champion Landowner, Doug Rogers hosted our Bio-Strips and Cover Crops Workshop. Doug talked about his experience using no-till and cover crops to manage surface water on his farm. Mike Belan of Oil Springs also talked about his experience with interseeding cover crops and planting into a living crop (also known as "planting green").



After presentations from both farmers, attendees had a chance to see Doug's bio-strips, interseeded soybeans and the modifications he has made to his interseeder. SCRCA's Kelli Smith, Aquatic Biologist, provided a presentation on how water "bugs", like soil insects, can indicate the health of your farm and adjacent watercourses.



An interseeding cover crop factsheet was created to provide information on the benefits of cover crops and the benefits of interseeding. Three examples of equipment modifications local farmers

have done to improve their success with interseeding was included to suggest ways farmers could incorporate these practices on their own farms.

## Wetland Restoration Factsheet

Due to increasing interest in wetland restoration, we have put together a factsheet to help landowners maintain and improve the wetlands on their properties.

## Fall Newsletters and GLASI Postcards

Lambton Shores Watershed Project Newsletters and Water Quality Factsheets were sent to 335 rural addresses in Lambton Shores promoting soil health and

water quality related BMPs. GLASI postcards were sent to 1,756 rural addresses in the Sydenham River headwaters watersheds promoting agricultural Best Management Practices (BMPs) and the grants and services SCRCA provide.

# Staff attended these events for training and outreach as well:

September 15 – The Dirt on Phosphorus

September 18 – Ontario Soil Network – Farm Plot Tour @ the Van Arkel Farm

September 29 – Getting Cattle onto Cover Crop

October 4 – Farm & Food Care's "Evidence Based Program Design Recommendations to Enhance Adoption of Soil BMPs by Ontario Farmers" Workshop

October 25 & 26 – 2017 Lake Huron Summit, "Working Together for a Healthy Lake Huron-Georgian Bay: Sharing Community Monitoring Experiences"









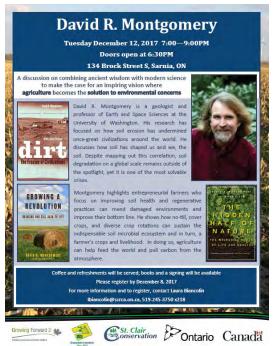
Lambton Shores

Watershed Proje

### Upcoming Events: David R. Montgomery Lecture December 12, 7-9 pm Sarnia

David R. Montgomery is a geologist and professor of Earth and Space Sciences at the University of Washington, Seattle. His research has focused on how soil erosion has undermined once-great civilizations around the world. He will discuss how soil has shaped us and we, the soil. Despite mapping out this correlation, soil degradation on a global scale remains outside of the spotlight, yet it is one of the most solvable crises.

Montgomery highlights farmers who focus on improving soil health and regenerative practices can mend damaged environments and improve their bottom line. He shows how no-till, cover crops, and diverse crop rotations can sustain the indispensable soil microbial ecosystem and in turn, a farmer's crops and livelihood. In doing so, agriculture can help feed the world and pull carbon from the atmosphere.



Montgomery will be joining us in Sarnia to discuss his research combining ancient wisdom with modern science to make the case for a vision where agriculture becomes the solution to environmental problems. The event is free and all are welcome – farmers, gardeners, and the community!



Soil Health Conference - February 15, 2018, Chatham We are really looking forward to our upcoming Soil Health Conference! Much planning has gone into this event. There will be presentations from Frank Gibbs, Dr. David Lobb, Dr. Wendy Taheri, and Dale Cowan as well as presentations from local researchers. Frank Gibbs (Wetland and Soil Consulting Services, LLC) worked for the USDA in Ohio for 36 years and will speak on BMPs in hydric soils. Dr. Lobb (University of Manitoba) will share on the economics of soil loss through wind, water and tillage erosion. Dr. Taheri (Terra Nimbus) is a specialist in arbuscular mycorrhizal fungi & plant growth. Dale Cowan (AGRIS and Wanstead Cooperatives) is a senior agronomist and sales manager, 4R Nutrient Stewardship Specialist, and 2016 International Certified Crop Adviser of the Year who will speak about local initiatives.

In addition, 15 local farmers will be sharing their experiences on our farmer panel discussions. Panel topics include reducing tillage, cover crop and rotational grazing, erosion control methods, stewarding soil on big

acres, planting green, and making interseeding work. The event is funded through an OMAFRA COA grant. This will be a Soil Health event to remember!

# Staff Report



To: Board of Directors

Date: October 26, 2017

From: Steve Shaw, Conservation Services Department

Subject: Conservation Services Report

## **Tree Planting Program**

- Staff are busy preparing for the 2018 spring tree planting program
- Landowner interest for spring tree planting is up a bit this year compared to other years
- Site visits started in early October and proposed projects will be brought to the next project review meeting scheduled in November for approval under one or more of the grant programs that SCRCA currently has available for financial 2018 incentives.
- Approximately 50,000 to 60,000 trees are expected to be subsidized though SCRCA funding programs for next spring
- 2018 tree prices from the supplying nurseries have increased slightly for 2018
- Other expected cost increases will also justify an increase in the 2018 user fee schedule.

## Seed Collection Program

- This year's tree seed collection was very successful with approximately 2600 litres of oak, hickory and walnut tree seed collected and shipped to our supplying tree nursery.
- Deciduous trees are a major component of the SCRCA planting program and future seedling stock from the tree nursery is directly related to tree seed collected and shipped annually.
- Enbridge provided a generous donation toward our seed collection program this year to support future efforts in local tree seed collection in the SCRCA watershed. Funding went toward a seed collection-mentoring program. Two tree seed experts provided a one-day training event on Oct 3<sup>rd</sup> at the Warwick CA. There were 14 participates in the program including 3 SCRCA staff.





## **Vegetation Management Program**

- Approximately 250,000 trees require follow up herbicide tending this fall
- Fall herbicide application for vegetation control on 2015, 2016 and 2017 tree planting sites started in late October and will end after the first killing frost (usually early November). This is our 3-year vegetation management program for newly planted tree seedlings. The 3-year spray program is paid in advance and carried forward every year. Payment is used to purchase berbicides and to cover the cost of



purchase herbicides and to cover the cost of application work.
Warmer fall weather over the past several years has delayed the start dates for the past

 Warmer fall weather over the past several years has delayed the start dates for the past several years and extended it later into the season due to deciduous trees staying active longer into the fall season.

## Stewardship funding

- Species at Risk application for 2018-2019 was recently submitted to MNRF for review. MNRF has provided SAR funds toward our Sydenham River Habitat Stewardship program since 2008. Approximately 140 projects including wetland creation, sediment traps, riparian buffers, steam bank stabilization and habitat creation have been funded with \$400,000 of SAR stewardship funding for the past 9 years. These are predominantly private land stewardship projects that would <u>not</u> have been completed without financial incentive programs such as the SARSF
- Enbridge grant money for seed collection program funds partially used this year for special training and mentoring. Remaining funds will be used in 2018-2019
- Trees Ontario grant has been secured for 2018 for landowners interested in planting 1.0 hectare or more of trees. Approximately \$70,000 awarded toward trees projects in 2017
- OPG Essex, Chatham-Kent & Lambton forestry/tree planting ending this year. No future funds currently approved under this program.
- RLSN-SCRCA partnership through RLSN's DFO recreational fisheries grant program: 2018 is the final year (of a 3 year program) for funding for tree and shrub riparian buffers.



SCRCA Wetland creation project 2015, near Wilkesport. Located north of Bear Creek (where Bear, Black and the N. Sydenham meet

## 11.(i)

### Drainage Act and Conservation Authorities Act Protocol (DART) (A protocol for municipalities and CAs in <u>drain maintenance and repair</u>) *Completed Files*

Municipal drain June – October 2017 activity report associated with the provincially approved guidance *"Drainage Act and Conservation Authorities Act Protocol (DART)"* approved by the Board April 18, 2013.\*

SCRO	CA DART FILES	2017 JUNE			
FHR #	Municipality	Geographic Township	Drain Name	Project Description	SCRs Issued
2779	Chatham- Kent	Camden	Scott Drain	Bottom cleanout, brushing bank slope	2
2780	Chatham- Kent	Chatham	Stuart- Weaver- Mills Drain	Culvert replacement	1
2778	Middlesex Centre	London	Taylor Drainage Works	Bottom only cleanout	1

## SCRCA DART FILES

2017 JULY

FHR #	Municipality	Geographic Township	Drain name	Project Description	SCRs Issued
2788	Adelaide- Metcalfe	Metcalfe	Harrington Drainage Works 1998	Culvert replacement	1
2790	Brooke- Alvinston	Brooke	Government Drain #1	Culvert replacement	1
2791	Chatham- Kent	Dover	Barefoot Drain and Hind Relief Drain	Dyke maintenance and repair	1
2784	Enniskillen	Enniskillen	Campbell- Watson Drain	Bottom cleanout, brushing bank slope, brushing top of bank	3

2785	Enniskillen	Enniskillen	LeCocq Drain	Bottom cleanout, brushing bank slope, brushing top of bank	3
2786	Enniskillen	Enniskillen	Moore Drain	Culvert replacement	1
2787	Enniskillen	Enniskillen	Wagner Drain	Culvert replacement, bottom only cleanout	2

## SCRCA DART FILES

### 2017 AUGUST

FHR #	Municipality	Geographic Township	Drain name	Project Description	SCRs Issued
2802	Chatham- Kent	Chatham	Elbow Road Drain	Bottom cleanout, brushing bank slope	2
2805	Chatham- Kent	Dover	Marden Drain	Bottom cleanout plus one bank slope	1
2806	Dawn- Euphemia	Dawn	Camden- Chatham- Sombra- Dawn Townline Drain	Culvert replacement	1
2807	Dawn- Euphemia	Dawn	Smale Drain	Culvert replacement	1
2808	Dawn- Euphemia	Dawn	Reid Drain	Culvert replacement	1
2809	Dawn- Euphemia	Dawn	Pyne Drain	Culvert replacement	1
2804	Sarnia	Sarnia	Elnor Drain	Culvert replacements	1
2796	St. Clair	Sombra	Joiner Drain	Brushing bank slope, brushing top of bank, bottom cleanout	3

2797	St. Clair	Sombra	Dibling Drain	Brushing bank slope, brushing top of bank, bottom cleanout	3
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### SCRCA DART FILES

#### 2017 SEPTEMBER

FHR #	Municipality	Geographic Township	Drain name	Project Description	SCRs Issued
2814	Chatham- Kent	Chatham	4 <sup>th</sup> Concession Drain	Bottom cleanout	1
2811	Enniskillen	Enniskillen	Getty Drain	Drain Culvert replacement, bottom cleanout, brushing bank slope	
2815	St. Clair	Sombra	Browning Drain	Brushing bank slope, brushing top of bank, bottom cleanout	3
2812	Warwick	Warwick	McPherson Drain	Brushing bank slope, spot cleanout	2
2813	Warwick	Warwick	Maher Drain	Brushing bank slope, brushing top of bank, bottom cleanout	3
2816	Warwick	Warwick	Willoughby No.2 Drain	Brushing bank slope, brushing top of bank, bottom cleanout	3

### SCRCA DART FILES

2017 OCTOBER

FHR #	Municipality	Geographic Township	Drain name	Project Description	SCRs Issued
2824	Chatham- Kent	Dover	Montgomery Drain	Bottom cleanout, culvert replacement	2
2818	Warwick	Warwick	Ravell- O'neil Drain	Brushing bank slope, spot cleanout	2

#### \*Note

The SCRs and the above report are prepared by Biology Section staff with ratification by Planning and Regulations Section/ Regulations Officer. Ontario Regulation 171/06 "Development, Interference with Wetlands & Alterations to Shorelines & Watercourses" applies, however the DART protocol is followed for streamlining purposes. SCR's – standard compliance requirements



To:Board of DirectorsDate:October 26, 2017From:P. Hayman, Director of PlanningSubject:J. Burbidge, 4606 Lakeside Street, Plympton-Wyoming (PW)

At the September 21, 2017 Board meeting, the landowner Jennifer Burbidge provided a presentation regarding erosion issues adjacent to the dwelling at 4606 Lakeside Street, Hillcrest Heights, Plympton-Wyoming.

Delegation: Jennifer Burbidge and Chris Hutt

The following motion was passed: McMillan-Wright BD-17-132

"That the Board of Directors acknowledge the correspondence to Ms. Burbidge dated July 26, 2017, staff's verbal introduction and Ms. Burbidge's presentation and that a full report is prepared by SCRCA staff, including an update from Municipality and a written response is formed to Ms. Burbidge's questions and recommendations provided."

### Update from Plympton-Wyoming

An email requesting an update was forwarded to Adam Sobanski, P-W Director for Public Works on October 24, 2017. P-W has suggested J. Burbidge submit a "notice of Petition" as this is the best solution to issue. AS confirmed as of October 24, 2017, no petition had been filed to date.

SCRCA Report regarding J. Burbidge 4606 Lakeside St.

- 1. Appendix 1 Chronology of key events
- Appendix 2 SCRCA staff written response to JB questions. In terms of recommendations requested in the September 21 2017 motion, SCRCA refers to the July 26, 2017 attached SCRCA correspondence (Appendix 3). Recommendation July 26, 2017: JB *"proceed to petition for Drainage Works that will include remediation work in the valley"* (July 26, 2017 SCRCA correspondence).
- 3. Appendix 3 J. Burbidge questions presented Sept 21, 2017
- Appendix 4 SCRCA July 26, 2017 correspondence to J. Burbidge cc W. Bartlett, A. Sobanski, C. Hutt, SCRCA Regulations staff.
- 5. Appendix 5 W. Bartlett P Eng., PW Consulting Drainage Engineer written opinion.
- 6. Appendix 6 J. Burbidge survey

Recommendation: JB "proceed to petition for Drainage Works that will include remediation work in the valley" (July 26, 2017 SCRCA correspondence). This is consistent with municipal engineering response.

	RE: J. Burbidge 4606 Lakeside St, Hillcrest	
Date	Event	Comment
26-Aug-11	SCRCA Regulations approval to replace an existing entrance room on	
	dwelling	Minor addition was to be constructed within approx same dimensions of
		Minor addition was to constructed based on LVM geotechnical
		engineered recommended 3 helical screw piers closest to ravine and
		another 6 caissons (LVM Jun 22, 2011)
21-25-Oct- 2011	Landowner amendment to above approval, now propose a 120 sq ft	
	additional (footprint) or 240 sq ft addition (2ndstorey); reconstruct	
	roofline; request amendment to previous CA approval. Application	
	modified without 2nd storey addition; only minor addition to landward	
	side which involves a front entrance tear down due to mold	
	SCDCA reviewed and entroved, subject to LVM design	
11-Sep-2013	SCRCA reviewed and approved; subject to LVM design On site meeting with Regulations Officer - entire dwelling moved off	2011 approval works not completed within 2 year permission.
11-3ep-2013	foundation	
	Structural issues to existing foundation were discovered and additional	
	renovation and foundation construction initiated without approvals	
	SCRCA required a stop work and need for a new application and LVM	
	revised report.	
	SCRCA considers works new structural development; need LVM	
	boreholes/detailed investigation plus certification	-
<u> </u>	Builder: Ken Maaten	
23-Sep-2013	Application received by J. Burbidge FA 10837	dwelling within LVM geotech ravine and outside lake stable slope
		setbacks (2.2:1; stable slope gradient of 22 degrees), LVM revised Set
		22, 2011, Oct 8, 2013, K. Maaten Engineered building plans, Aug 207 Helical pile log.
		dwelling cannot move back; lot constrained by community access to
		east (subject to past court case) and Lakeside Road
		reconstruction will maintain approx same dimension of existing dwellin
		LVM recommended caissons and helical screw piers below 3:1 ssa
		from ravine and lake
13-Oct-2015	SCRCA Regulations Committee (B. McDougall, G. Sankar, P.	repair of foundation of cottage and replace the entrance room with
	Hayman, D. Cundick) approved works	minor addition. Foundation non-habitable
	Reasons: i) no increase to life and property as a result of proposed	reconstruction did not exceed original habitable floor area nor the
	works, as engineered and certified (conditions). ii) no adverse effect	original footprint of the previous structure beyond minor (most landwa
	on the control of flooding and erosion as a result of the proposed	side). Piles extend below the LVM recommended 3 horizontal:1 vertic
	works, as engineered and certified (conditions).	lines

### 11. (ii) Appendix 1 Chronology of key events

	"Control of erosion" - proposal will not aggravate erosion processes. Proposal (dwelling) will not be impacted by erosion. SCRCA staff relied on the Jun 22, 2011 LVM geotechnical report. Referencing the adjacent valley (gully) slope: "Conclusions - the available building footprint area is located 47 metres from the toe of the slope on the lake and 12.2 metres from the top of the proposed experience in part of	L. Huron shoreline reach aarr low @ 0.07m/yr aarr (low) LVM and site inspections did not indicate erosion issue of adjacent west ravine or Lake Huron shoreline
	top of the slope on the gully side. The proposed construction is not a new constructionin order to replace the previous structure, new foundations must extend below the 3:1"	
	"Condition - LVM to supervise and certify caisson/helical pier to confirm soil bearing is compatible with borehole results"	the building will be protected through incorporation of engineered design parameters
	"Condition - no drains, sewers, or drainage systems shall be outletted onto the existing slopes,the existing downspout at the southwest corner of the cottage should be disconnected from the pipe outletting to the gully slope"	determined to be an acceptable risk based on site information, LVM slope assessment report and dwelling engineer design
28-Jul-2016	D. Cundick, SCRCA EP/Regulations Officer, attended site to inspect settling/erosion on west side of dwelling	photos taken; note SW roof drainage outletting at top of slope (not meeting condition of LVM report) DC assisted by forwarding CA copy of geotech, foundation design etc. Advised that CA will be available to discuss with geotechnical consultant at any time.
19-Sep-16	J. Burbidge is requesting SCRCA take action to have the adjacent	

	landowner (John Lang) repair erosion. See below: "I do not feel it to be my responsibility to contact the owner of lot A but the responsibility of the St. Clair Conservation Authority to contact the owner and enforce that the owner take the necessary steps to correct the problem affecting the subject property and it's impact by the hazards lands regulation of the Authority, implemented pursuant to Section 28 of the Conservation Authorities Act. The regulation is entitled "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" (O.R. 171/06) and requires the proponent to obtain the permission of the Authority prior to the commencement of a development activity within a regulated area. Development activities include: construction, reconstruction or placement of a structure; placement or removal of fill; re-grading; altering a watercourse or shoreline; or impacting the function of a wetland. The bank of 4606 Lakeside street adjacent to the ravine continues to slide. The problem needs to be rectified before further damage.I request the St. Clair Conservation to devise a drainage plan, submit it to the owner of Lot A which encompasses the ravine and to work with either Barry Webster of EXP, David Mitchell of Golder, or the regional director of Englobe, formerly LVM or a geotechnical engineer of the owner of lot A's choice." (J. Burbidge email Sept 19, 2016)	
7-Jun-17	Melissa Deisley, SCRCA Regulations Officer attended site at request of JB landowner more settling, erosion, and slope failure had occurred from2016. Photos taken.	photos note SW roof drainage still outletting at top of slope (not meeting condition of LVM report)
	JB requesting the SCRCA take action as noted previously in Sept 2016	
10-Jul-2017	JB called to complain to P. Hayman, Director of Planning re: JB's 3rd inquiry to seek assistance from SCRCA re: erosion. No action has been taken.	
18-Jul-17	PH site visit with W. Barlett, PW Drainage consultant engineer and landowner.	PH note that the southwest corner roof drainage had been now outlet to toe of slope (as per condition of LVM report). All tiles need to be outlet to toe of slope.

26-Jul-17	<ul> <li>Phayman letter to JB re: action discussed at on site meeting July 18, 2017 confirming that "Following the site meeting, it was recommended by SCRCA and Northwest Consulting that the following is to be undertaken going forward: Following W. Bartletts discussion with municipal staff, you will be concurrently 1) hiring Golders for preliminary analysis on works needed to remediate slope erosion and 2) proceeding to petition for Drainage works will include remediation work in the valley. W. Bartlett's discussion with the municipality was planned within a 2 week period following our site meeting.</li> <li>The SCRCA staff are supportive of engineered slope stability works in the valley and will review works under the Drainage Act in accordance with SCRCA Ontario Regulation 171/06 protocol and policies"</li> </ul>	SCRCA acknowleges that erosion is occurring at the toe and valley slope adjacent 4606 Lakeside. Significant runoff events and drainage is contributing to the issue. Conditions of roof drainage to toe of slope were not followed and likely has exacerbated the erosion. CA Natural Hazard/Regulations policy - reiterated to JB erosion is a natural process of soil loss due to human or natural processes. The application involved engineering of a dwelling within a stable slope with deep caissons and helical screw piers as per geotechnical engineer recommendations and certification. The dwelling was existing and was not permitted to have additional sq area. SCRCA July 26, 2017 correspondence attached regarding agreed upon action by the landowner in conjunction with the municipality and SCRCA support. No cracks of foundation or signs of foundation instability during site visit July 18, 2017.
30-Aug-2017	JB attends P-W council to seek assistance from P-W. P-W directs JB to SCRCA to act. JB request "In reference to the reason (to attend P-W council meeting Aug 30, I have extended the invitation to attend the council meeting tomorrow is explained on page 9 under "Conservation Authorities Act" in the attached report. I am seeking your support and power to act in an EPH1 area experiencing slope failure caused primarily by erosion at the toe of the bank."	A miscommunication occurred, as SCRCA staff did not attend P-W , as this is a Drainage Act issue, and council did not request attendance via the General Manager. P-W staff acknowlege that they should be carrying out requests, not landowners.
21-Sep-2017	JB delegation to the SCRCA Board of Directors to present issue. Board directed staff to prepare a report on the matter	

## 11. (ii) Appendix 2

#### Questions From J. Burbidge

Written Response Requested (J. Burbidge Questions handout Sept 21, 2017 SCRCA Board meeting)

Answers provided by P. Hayman Director of Planning October 27, 2017, with review by General Manager.

# 1. Why did I not receive a response when I invited SCRCA to attend Council Meeting August 31, 2017? I provided a reason for SCRCA presence as requested.

The process for SCRCA staff attending municipal council meetings is: Council via Board member requesting CA staff attendance through communication with the SCRCA General Manager. This has been clarified with P-W staff; so they are aware. CA planning and regulations staff reserve the right to attend council/committee of adjustment when public meetings are held. CA input to development matters at early stages (not OMB appeal) is beneficial. In either situation, General Manager approval required for attendance.

# 2. Why has taken so long for SCRCA input and assistance when I have been requesting help since July 2016? See Email Correspondence.

SCRCA staff have attended the site 3 x since July 2016. The SCRCA is not required to finance and remediate erosion in the watershed. Erosion is a natural process of soil loss due to human or natural processes. This information was provided verbally by Regulations Officer staff on numerous occasions and in action going forward was explained in SCRCA letter dated July 26, 2017 signed by P. Hayman, Director of Planning and copied to municipal staff and drainage engineer W Bartlett. SCRCA Planning and Regulations staff agree with W. Bartlett, P. Eng. Drainage Consulting Engineer for P-W, letter dated Aug 21, 2017, that the best option going forward for J. Burbidge is that she "petitions the Town of Plympton-Wyoming under Section 4(1) (b) of the Drainage Act for a preliminary engineer's report which would provide a general plan of a drainage works to control erosion of the ravine and restore the east slope, and provide an estimate of the cost of such a drainage works." The Authority would note that we were not cc'd WB's letter received Sept 21 by JB.

# 3. Why is it the responsibility being directed at me to apply for a municipal drain and hire a geotechnical expertise for reports and opinions?

We believe you are asking this question as you sought engineering expertise for your dwelling reconstruction and possibly you were assuming erosion would not continue. The geotechnical report did not state that erosion would not continue. The dwelling was constructed on the same footprint but is engineered to be safe from slope instability structurally. The existing dwelling (cottage) was located within the stable slope allowance of the ravine and lot was constrained with respect to moving dwelling away from slope. There seems to be issues with drainage in the watershed (hickenbottoms installed on private property) and road drain outlets, etc. Proceeding with drainage "control" is best done through the Drainage Act as a large portion of area being drained are agricultural lands. Other options may be considered but it is our opinion that this is the municipality's responsibility.

4. Why is it my responsibility when the primary cause of the problem has been identified as erosion at the toe of the bank in an EPH1 regulated hazard land under Section 28 Regulation 171/06 on the adjacent land damaging my property?

See response to 3. above. EPH1 refers to the zone in the municipal bylaw. EPH1 is referred throughout the questions.

# 5. Why is the SCRCA not investigating if there is a contravention to the Regulations 171/06 and identifying the parties involved?

See answer to Question 16 below.

# 6. Have permits and permissions been obtained from the SCRCA to direct drainage into this ravine on Lot A, Plan 31? No.

7. Does the SCRCA have the authority to request and enforce the development of a drainage plan for the Hillcrest Heights Subdivision where one does not exist? No.

## 8. Why is storm water drainage allowed to enter and EPH1 hazard land without a properly designed storm water system?

Hillcrest Heights historically was a cottage/seasonal community and was not carried out as a plan of subdivision (to the best of our knowledge). Plan of subdivision allows requirements for Stormwater drainage. Stormwater drainage from urban areas and agricultural areas could be improved through the Drainage Act. This is a municipal responsibility. SCRCA would be happy to assist the municipality in the review of any forwarded Drainage Act engineering reports. We can offer expertise with regard to building resiliency into municipal works in response to more extreme rainfall which can lead to increased flood and erosion problems.

# 9. The 2004 Drainage Engineer report identified active erosion and slope instability. Why was the petition for a municipal drain and recommended sealed 24 inch tile drain not moved forward in an EpHI hazard land under Regulation 171/06?

We do not know. The SCRCA is not the lead agency in the review and action of the 2004 Drainage works as described above.

# 10. Why didn't the SCRCA use their power under the Conservation Authority Act to ensure protection of a hazard land already identified as compromised per the preliminary drainage report?

See response to 9. above.

# 11. Why was I told in an email dated October 2016 that there is confusion on my part with the SCRCA regulation and its role in the development process? This is not a new development.

The Authority regulation implemented pursuant to Section 28 of the Conservation Authorities Act is titled "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses". Written permission of the Authority is required prior to commencement of development activities within a regulated area. Development activities include: construction, reconstruction or placement of a structure; placement or removal of fill; re-grading; altering a shoreline or watercourse; or interfering with the function of a wetland. Additional information with regard to the Authority's regulation and role in hazards lands management is on our website at: http://www.scrca.on.ca/planning-and-regs-2/regulations-services/.

Simply, The Regulation does not require the SCRCA to repair or stop erosion.

## 12. Clearly there is one or more contraventions to Reg.171/06 and why is the SCRCA not using their power under the act?

Erosion, in itself, is not a contravention of Regulation 171/06. See answer to 11 above.

# 13. It is the responsibility of the SCRCA to govern and protect lands identified as hazardous and eroding under section 21of the and section 3 (c) of Ontario Regulation 97/04.

This is a statement, not a question. However, simply, Ontario Regulation 97/04 (Generic Regulation) and SCRCA Regulation 171/06 do not have the power to stop erosion occurring.

# 14. Geotechnical Engineer requested SCRCA input into a drainage plan, why was he ignored?

In a review of emails, it is our position the geotechnical engineer was not ignored. We offered to discuss with the geotechnical engineer.

# 15. Golder Geotechnical Engineer asked why I needed to fix and pay for a problem I didn't create? Why do I?

See answer in the latter part of Question 2 above.

# 16. Do private drains not require permits and permissions from SCRCA in an EPHI area?

The Authority follows the policies outlined in the Administration and Enforcement of Regulation 171/06. This question relates to Question 5. The SCRCA generally recommends OMAFRA Best Management Practices (BMPs) for the installation of private subsurface drainage and outlets. Provided BMPs followed and works minor, SCRCA written permission not required. Urban and rural drainage issues are the responsibility of the municipality. There is an established process which allows the Authority to review works in the regulated area and determine if written permissions are required.

http://www.omafra.gov.on.ca/english/environment/bmp/series.htm#22

# 17. Why is any drainage allowed into and EPHI area without protective measures to help prevent erosion?

Refer to municipality. See answer to #16 above.

# 18. Do utility companies require permits with regards to their location in an EPHI hazard area and close proximity to a ravine?

Generally, under Regulation 171/06, SCRCA does not issue permission for utilities from road, poles, etc to house. Utilities exempt under the Regulation. SCRCA did not receive an application/contact regarding utility installation at J. Burbidge property.

# 19. Can the SCRCA order the property owner to remove trees on the bank that are exacerbating the rapidly deteriorating bank slippage as they have recommended? No.

#### Questions

#### Written Response Requested

-Why did I not receive a response when I invited SCRCA to attend Council Meeting August 31, 2017? I provided a reason for SCRCA presence as requested.

-Why has it take so long for SCRCA input and assistance when I have been requesting help since July 2016? See Email Correspondence.

-Why is the responsibility being directed at me to apply for a municipal drain and hire geotechinical expertise for reports and opinions?

-Why is it my responsibility when the primary cause of the problem has been identified as ererosion at the to of the bank in an EPH1 regulated hazard land under Section 28 Regulation 171/06 on the adjacent land damaging my property?

-Why is the SCRCA no investigating if there is a contravention to the Regulations 171/06 and identifying the parties involved?

-Have permits and permissions been obtained from the SCRCA to direct drainage into this ravine on Lot A, Plan 31?

-Does the SCRCA have the authority to request and enforce the development of a drainage plan for the Hillcrest Heights Subdivision where one does not exist?

-Why is storm water drainage allowed to enter and EPH1 hazard land without a properly designed storm water system?

-The 2004 Drainage Engineer report identified active erosion and slope instability. Why was the petition for a municipal drain and recommended sealed 24 inch tile drain not moved forward in an EpH1 hazard land under Regulation 171/06?

-Why didn't the SCRCA use their power under the Conservation Authority Act to ensure protection of a hazard land already identified as compromise per the preliminary drainage report?

-Why was the I told in an email dated October 2016 that there is confusion on my part with the SCRCA regulation and its role in the development process? This is not a new development.

Clearly there is one or more contraventions to Reg.171/06 and why is the SCRCA not using their power under the act?

-It is the responsibility of the SCRCA to govern and protect lands identified as hazardous and eroding under section 21 of the and and section 3 (c) of Ontario Regulation 97/04.

-Geotechnical Engineer requested SCRCA input into a drainage plan, why was he ignored?

-Golder Geotechnical Engineer asked why I needed to fix and pay for a problem I didn't create? Why do I?

-Do private drains not require permits and permissions from SCRCA in an EPH1 area?

-Why is any drainage allowed into and EPH1 area without protective measures to help prevent erosion?

-Do utility companies require permits with regards to their locaation in an EPH1 hazrd area and close proximity to a ravine?

-Can the SCRCA order the property owner to remove trees on the bank that are exacerbating the rapidly deteriorating bank slippage as they have recommended?



St. Clair Region Conservation Authority 205 Mill Pond Cres., Strathroy, ON, N7G 3P9 (519) 245-3710 (519) 245-3348 FAX E-Mail: stclair@scrca.on.ca Website: www.scrca.on.ca

July 26, 2017

Jennifer Burbidge 4606 Lakeside Street Hillcrest Heights, Town of Plympton Wyoming Aberarder ON N0N 1J6

Dear Ms. Burbidge:

Re: St. Clair Region Conservation Authority (SCRCA) site meeting at 4606 Lakeside Street on July 18, 2017

This is to confirm points of discussion during a site meeting with the following in attendance:

Jennifer Burbidge, landowner Chris Hutt, JB acquaintance and advisor Will Bartlett, P. Eng., Northwest Consulting Civil Engineers, Drainage Consultant for P-W Patty Hayman, Director of Planning, SCRCA

#### Background

The treed valley is an outlet for an area which drains mostly agricultural lands. The valley bank on the easterly side and directly adjacent the Burbidge dwelling is experiencing slope failure and needs remediation. In 2013, with foundation work already commencing, SCRCA required geotechnical expertise due to the proximity of the valley. Helical piles were designed/recommended by the geotechnical firm LVM Consultants. According to the geotechnical firm, the piles were driven to a depth to provide long term slope stability to the foundation/dwelling. The survey indicates at one time there was approximately 10 feet of level side yard between the top of valley bank and dwelling. This west side yard has eroded and there is no longer a level side yard area.

SCRCA staff noted that J. Burbidge has for the most part directed all roof tiles/other direct outlets away from top of the valley slope and extended to bottom of slope. The northwest roof outlet tile still needs closed tile connection to the bottom of the valley or lake slope.

#### Future action

Following the site meeting, it was recommended by SCRCA and Northwest Consulting that the following is to be undertaken going forward: Following W. Bartletts discussion with municipal staff, you will be concurrently 1) hiring Golders for preliminary analysis on works needed to remediate slope erosion and 2) proceeding to petition for Drainage works will include remediation work in the valley. W. Bartlett's discussion with the municipality was planned within a 2 week period following our site meeting.

The SCRCA staff are supportive of engineered slope stability works in the valley and will review works under the Drainage Act in accordance with SCRCA Ontario Regulation 171/06 protocol and policies.

In a review of our files, in 2016, David Mitchell from Golders provided the following:

"The cost for us to review the information provided and prepare a letter detailing the possible causes of the slope movement together with suggested repair methodologies is \$1500 not including taxes. This cost does not include ongoing consultations and/or meetings after the letter is provided".

Member Municipalities

> Township of Adelaide-Metcalfe

Township of Brooke-Alvinston

Municipality of Chatham-Kent

Township of Dawn-Euphemia

Township of Enniskillen Municipality of

Lambton Shores

Township of Middlesex Centre

> Village of Newbury

Village of Oil Springs

Town of Petrolia

Town of Plympton-Wyoming

> Village of Point Edward

> > City of Sarnia

Municipality of Southwest Middlesex

> Township of St. Clair

Township of Strathroy-Caradoc

> Township of Warwick

Should the municipality require a meeting with invited parties at the municipal office, we would be pleased to attend. SCRCA can assist with contour mapping requirements at the request of the consultant, if needed.

Regards,

Patricia Hayman Director of Planning

CC:

- W. Bartlett, P. Eng. Northwest ConsultingA. Sobanski, A.ScT, P-WC. Hutt, via Jennifer Burbidge

- A. Seidler/C. Durand, SCRCA GIS
- D. Cundick, EP/Regulations Officer

#### NorthWest Consultina CivilEngineers

August 21, 2017 File No. 01060

J. Burbidge, 4606 Lakeside Street Aberarder, ON NON 1J6

Ms. Burbidge:

#### Slope Stability Issues – 4606 Lakeside Street Re:

At your request, I have examined the westerly portion of your property at 4606 Lakeside Street, adjacent to a ravine. In this area, a general failure of the ravine bank occurred in the Spring of 2016 and currently, the top of the east bank is now at the west end of your cottage. You have requested advice on how to remedy this situation, and have asked for my opinion as to the potential causes of the slope failure.

This slope failure appears to be typical of failures that are due to oversteepening of the slope. This type of slope failure is common along the shoreline of Lake Huron where ravines discharge into the Lake. There does not appear to be any indication of a deep-seated rotational failure, or of a weaker soil structure at depth.

In my opinion, the failure of this slope is due to one primary factor, with possible additional contributing factors. The primary factor is that the bottom of the ravine is actively eroding due to surface water flows. As the ravine bottom and the toe of the slope erodes deeper, the side slopes become oversteepened and eventually unstable. This erosion of the ravine bottom is a natural process which has been ongoing for many years, probably decades.

Other factors which may have contributed to this slope failure include groundwater seepage on the east bank, surface water runoff from the east flowing over the top of the bank, and the excavation of a utility trench on your property roughly parallel with the top of bank. Groundwater seepage may weaken a soil structure, and surface water flow over a slope may cause surficial slope failures. Both of these actions can contribute to a general slope failure. The excavation of a trench along the top of a ravine bank can allow surface water to enter the disturbed soil in the trench and thereby add to the destabilizing effects of groundwater seepage.

These are my observations and opinions based on my experience as a drainage engineer. For a more detailed analysis of the slope failure and its' causes, as well as potential remedies, I would recommend that you seek the advice of a geotechnical engineer. I have also recommended that you petition the Town of Plympton-Wyoming under Section 4(1)(b) of the Drainage Act for a preliminary engineer's report which



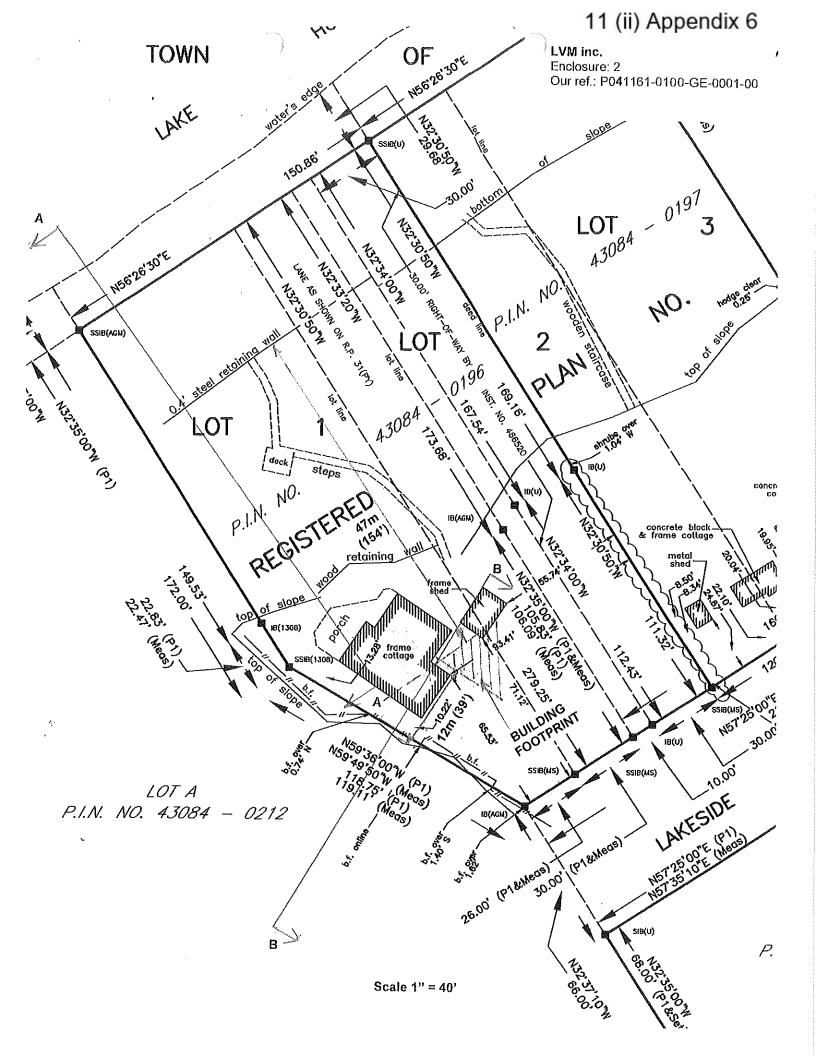
Onlario

August 21, 2017

would provide a general plan of a drainage works to control the erosion of the ravine and restore the east slope, and provide an estimate of the cost of such a drainage works.

Yours Respectfully,

W.J. Bartlett, P. Eng.



## 12. (i)

Prepared By: Tracy Prince October 20, 2017

#### ST CLAIR REGION CONSERVATION AUTHORITY Statement of Revenue and Expenditure For the Nine Months Ended 30/9/2017

	Actual To Date			Annual Budget		Variance from Budget	
	Revenue	Expenditures	Surplus(Deficit)	Revenue	Expenditures	Revenue	Expenditures
Flood Control & Erosion Control	\$811,920	\$436.954	\$374,966	\$557,420	\$557,420	\$254,500	(\$120,466)
Capital Projects/WECI	\$285,792	\$51,059	\$234,733	\$30,000	\$30,000	\$255,792	\$21,059
Conservation Area's Capital Development	\$80,000	\$73,043	\$6,957	\$71,000	\$71,000	\$9,000	\$2,043
IT Capital	\$14,508	\$1,064	\$13,444	\$19,200	\$19,200	(\$4,692)	(\$18,136)
Equipment	\$53,100	\$29,993	\$23,107	\$72,000	\$72,000	(\$18,900)	(\$42,007)
Planning & Regulations	\$384,233	\$337,317	\$46,916	\$487,933	\$502,933	(\$103,700)	(\$165,616)
Technical Studies	\$457,382	\$210,092	\$247,290	\$297,137	\$297,137	\$160,244	(\$87,045)
Recreation	\$1,308,329	\$875,799	\$432,530	\$1,301,890	\$1,301,890	\$6,439	(\$426,091)
Property Management	\$168,154	\$155,734	\$12,421	\$248,430	\$248,430	(\$80,276)	(\$92,696)
Education and Communication	\$107,864	\$186,372	(\$78,508)	\$193,821	\$193,821	(\$85,956)	(\$7,449)
Source Water Protection	\$163,199	\$75,429	\$87,770	\$175,000	\$175,000	(\$11,801)	(\$99,571)
Conservation Services/Healthy Watersheds	\$1,097,025	\$553,727	\$543,299	\$555,605	\$555,605	\$541,420	(\$1,878)
Administration/AOC Management	\$667,257	\$618,854	\$48,404	\$1,115,204	\$1,115,204	(\$447,947)	(\$496,351)
· · · · · · · · · · · · · · · · · · ·	\$5,598,764	\$3,605,435	\$1,993,328	\$5,124,640	\$5,139,640	\$474,123	(\$1,534,205)

#### Notes:

1. Municipal matching, non-matching, 3-D Special and Recreation levies totaling \$823,855 have been invoiced and are recorded in the actual revenue reported above. See General Levy Report for amounts outstanding.

2. The significant variances from budget to actual is reflective of the nature/timing and uniqueness of the particular projects. The variances will reduce and disappear as the year progresses.

# 12. (i)

### ST. CLAIR REGION CONSERVATION AUTHORITY

Statement of Operations

AS AT September 30, 2017

	2017 Budget	2017	2016 Audit
Revenue	Budget		Audit
Government Grants			
Section 39	310,000.00	310,003.00	310,003.00
Other	318,745.16	1,000,375.68	556,523.00
Municipal levies	010,110.10	1,000,010.00	000,020.00
General	778,855.00	778,855.00	701,454.00
Other	195,310.00	181,099.99	203,900.00
Other Revenue	,	,	
Contributions	483,635.78	274,915.64	496,881.00
Miscellaneous	1,777,404.37	1,635,394.81	855,141.00
Interest	30,000.00	23,083.26	82,275.00
Conservation areas (Excluding Municipal Levy)	1,245,690.00	1,271,129.28	1,372,283.00
Transfers from reserves	-		0.00
Gain(loss) on disposal of assets			
General	-		
Unrealized gain (loss) on held-for-trading investments		4,676.96 -	4,676.00
Realized gain (loss) on held for trading investments		-	-
	5,139,640.31	5,470,179.70	4,573,784.00
Expenditures Administration, Schedule 1 Capital development, Schedule 1 Operating, Schedule 2 Property management, Schedule 2 Conservation area maintenance, Schedule 3	932,224.00 182,600.00 2,474,496.31 248,430.00 <u>1,301,890.00</u> 5,139,640.31	496,317.60 170,191.26 1,781,527.32 153,668.79 875,799.47 3,477,504.44	629,018.00 316,304.00 2,526,970.00 235,827.00 1,148,983.00 4,857,102.00
Excess (deficiency) of revenues over expenditures before adjustments		1,992,675.26 -	283,318.00
Adjustments for Tangible Capital Assets			00 007 00
Acquisition of tangible capital assets		-	80,687.00
Amortization of tangible capital assets Gain/(loss) on sale of tangible capital assets			532,396.00
Proceeds on sale of tangible capital assets			33,429.00
Proceeds on sale of langible capital assets			27,358.00
	-		512,496.00
Excess (deficiency) of revenues over expenditures before adjustments		1,992,675.26 -	795,814.00

## 12. (ii)

#### ST. CLAIR REGION CONSERVATION AUTHORITY DISBURSEMENTS FROM September to October 24 2017

#### Sarah Kellestine

CHQ. #	DATE	VENDOR	DESCRIPTION	AMOUNT
19252	9/14/2017 Babcock W	elding & Fabricating	Higland Glen Project	25,856.66
19292	10/3/2017 BF ENVIRO	ONMENTAL CONSULTANTS	Property 91 & 84	7,262.51

#### \$ 33,119.17

#### TOTAL CHEQUE DISBURSEMENTS - BANK #1 -

#### INTERNET BANKING September to October 24 2017

TRANS #	DATE VENDOR DESCRIPTION		AMOUNT					
8760	9/30/2017 HYDR	O ONE Networks Inc.	Hydro		\$	31,526.93	-	
8762	9/30/2017 OMEF	S	Pension		\$	34,508.84		
8764	9/30/2017 RECE	IVER GENERAL	Source Deductions		\$	54,712.53		
8770	9/30/2017 WORI	KPLACE SAFETY & INS. BOARD	WSIB		\$	6,370.76		
8778	10/24/2017 HYDR	O ONE Networks Inc.	Hydro		\$	24,525.93		
8780	10/24/2017 OMEF	RS	Pension		\$	34,880.92		
8782	10/24/2017 RECE	IVER GENERAL	Source Deductions		\$	51,137.06		
8784	10/24/2017 RWA	I Insurance Administrators Inc	Group Benefits		\$	9,457.13		
8787	10/24/2017 Towns	hip of Enniskillen - Property Taxes	Property Taxes and Utilities		\$	7,527.73		
8791	10/24/2017 WORI	<b>VPLACE SAFETY &amp; INS. BOARD</b>	WSIB		\$	5,722.74		
							\$	260,370.57
		TOTAL INTERNET DISBUR	SEMENTS - BANK NO. 1 -					
		PAYROLL RUNS						
		PAYROLL NO. 18	\$	79,662.15				
		PAYROLL NO. 19	\$	70,977.24				
		PAYROLL NO. 20	\$	69,023.29				
		PAYROLL NO. 21	\$	68,395.20				
		PAYROLL NO.		·				
		PAYROLL NO.						
		PAYROLL NO.						
		PAYROLL NO.						
	TOTAL PAYROLL RUNS -							288,057.88
		TOTAL DISBURS	EMENTS -				\$	581,547.62

### 2017 GENERAL LEVY SUMMARY

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### GLYSUM2017 Sarah Kellestine 23-Oct-17

MUNICIPALITY	-	GROSS LEVY	-	PAID TO DATE	-	OUTSTANDING
Sarnia	\$	308,381.00	\$	308,381.00	\$	0.00
Chatham-Kent		102,822.00		102,822.00		0.00
Brooke-Alvinston Twp.		12,305.00		12,305.00		0.00
Dawn Euphemia Twp.		18,819.00		14,114.25		4,704.75
Enniskillen Twp.		13,372.00		13,372.00		0.00
Lambton Shores M.		38,420.00		38,420.00		0.00
Oil Springs V		1,529.00		1,529.00		0.00
Petrolia T		18,883.00		18,883.00		0.00
Plympton-Wyoming T		40,012.00		20,006.00		20,006.00
Point Edward V		18,483.00		18,483.00		0.00
St. Clair Twp.		85,473.00		85,473.00		0.00
Warwick Twp.		15,875.00		15,875.00		0.00
Adelaide Metcalfe Twp.		13,552.00		13,552.00		0.00
Middlesex Centre Twp.		16,494.00		16,494.00		0.00
Newbury V		1,190.00		1,190.00		0.00
Southwest Middlesex M		8,829.00		8,829.00		0.00
Strathroy-Caradoc M.		64,417.00		64,417.00		0.00
TOTAL	- \$ =	778,856.00	- \$ =	754,145.25 	- \$ =	24,710.75 

Scotia Wealth Management"

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ST. CLAIR REGION CONSERVATION AUTHORITY 205 MILL POND CRES STRATHROY ON N7G 3P9 Account Number: 460-16010

Account Type: For the Period: Last Statement: Regular Account September 1 to 29, 2017 August 31, 2017

#### **Address Information**

148 Fullarton Street Suite 1801 London ON N6A 5P3



Phone: Website: Branch Manager: (519) 679-9490 www.scotiawealthmanagement.com Matt Berry



Your Wealth Advisor Craig Emptage (519) 660-3259 craig.emptage@scotiawealth.com

## **CANADIAN** Account Overview

## Currency: CANADIAN DOLLAR

Asset Class Summary	Sep. 29, 2017 Market Value	% of Total Assets
Fixed Income	309,582	41.94
Other	428,441	58.06
Total Value of Account	\$738,023	100.00
Total Value on Last Statement, August 31, 2017	\$741,765	

58.06%

 @Registered trademark of The Bank of Nova Scotia, used under licence. ™Trademark of The Bank of Nova Scotia, used under licence. Scotia Wealth Management™ consists of a range of financial services provided by The Bank of Nova Scotia (Scotiabank®); The Bank of Nova Scotia Trust Company (Scotiatrust®); Private Investment Counsel, a service of 1832 Asset Management L.P.; 1832 Asset Management U.S. Inc.; Scotia Wealth Insurance Services Inc.; and ScotiaMcLeod®, a division of Scotia Capital Inc. Wealth advisory and brokerage services are provided by ScotiaMcLeod, a division of Scotia Capital Inc. Scotia Capital Inc. is a member of the Canadian Investor Protection Fund and the Investment Industry Regulatory Organization of Canada.



## Details of Your Account Holdings

CASH Total C	CORP CLASS EF NL (15137) Other					\$428,44
CASH	CORP CLASS EF INL (19137)					
	SIGNATURE CANADIAN BOND	21,707.863	10.282	223,202	9.765	211,977
CASH	MACKENZIE GLOBAL TACTICAL INVESTMENT GRADE BD FD SERIES PWF (6526)	22,094.907	9.990	220,735	9.797	216,464
Total F Other	ixed Income					\$309,582
CASH	PIMCO MONTHLY INCOME FUND (CANADA) CL M (505)	16,209.007	14.487	234,824	14.441	234,074
CASH	MANULIFE STRATEGIC INCOME FUND CL F NL (659)	5,881.161	12.774	75,129	12.839	75,508
Fixed I	ncome					
	Security Description	Quantity	Average Cost	Adjusted Book Value	Market Price	Market Value
Туре						

The average cost and adjusted book value displayed on this statement incorporates re-invested dividends and/or mutual fund distributions and does not necessarily reflect your original purchase price. Please see Average Cost & Adjusted Book Value in the Statement Notes for more information.

## Monthly Activity

Date Type Activity	Description	Quantity	Price Credit/Debit(-)
Opening Cash Balance	2		\$0.00
Sep. 01, 2017 CASH DIVIDENI	D PIMCO MONTHLY INCOME FUND (CANADA) CL M (505) REINVEST 08/31/17 @ \$14.4800 PLUS FRACTIONS OF 0.709 BOOK VALUE \$806.66	55	
Sep. 25, 2017 CASH DIVIDENI	<ul> <li>MACKENZIE GLOBAL TACTICAL</li> <li>INVESTMENT GRADE BD FD SERIES</li> <li>PWF (6526)</li> <li>REINVEST 09/22/17 @ \$9.8015</li> <li>PLUS FRACTIONS OF 0.217</li> <li>BOOK VALUE \$443.20</li> </ul>	45	

## Monthly Activity - continued



## Summary

Income Summary			
	This Period	Year-to-Date	
Total Income	\$0	\$0	



## Go Paperless – with Scotia Online!

ScotiaMcLeod clients can choose paperless record keeping within Scotia Online. Receive monthly statements, trade confirmations, mutual fund prospectuses and annual trading summaries all within the secure environment of your Scotia Online account.

To learn more about the ScotiaMcLeod services and features available through *Scotia Online*, please contact your advisor or member of their team.

## A Note From ScotiaMcLeod

#### Auditor's Message

Our auditors, KPMG LLP, are presently engaged in the examination of our year-end financial statements. Please compare this statement against your records and advise our auditors of any discrepancies: Shareholders' Auditors, Attention: Artie Novikov, SCI Audit Team, Bay Adelaide Centre, 333 Bay Street - Suite 4600, Toronto, ON, M5H 2S5, Canada, fax at (416) 777-8818 or email: <u>scotiacapitalconfirm@kpmg.ca</u>.

At ScotiaMcLeod we are committed to meeting your needs. Your advisor and their support team are at your service to help with any questions that you have about your account. If for some reason you need to reach someone else to discuss your situation please call the branch manager whose name and number are on the front page or call the regional office at 1-866-895-0814.





## Beginning this fall, the settlement date for certain transactions will change

When you place a trade to buy securities, funds are withdrawn from your account at a later date to complete the transaction.

Beginning September 5, 2017 and for certain securities, funds will be withdrawn from your account 2 days after you place a trade. As a result, you will need to ensure funds are available in your account to complete the transaction two days after a trade is placed.

Should you have any questions about this process or which securities this change affects, please contact your Advisor Team.

## Your Personal Investment Profile

The following information reflects your stated investment objectives and risk tolerance for this account, as well as your overall investment knowledge. If you would like to make any changes, have questions about whether or not this is appropriate for you or would like to discuss how your current investments correspond to this profile, please contact your Wealth Advisor.

For more information, please review Guidelines for Investment Objectives and Related Account Risk Factors in the ScotiaMcLeod Relationship Disclosure Document and Terms and Conditions brochure.

Alternatively, please visit http://www.scotiabank.com/ca/common/pdf/scotiamcleod/TandC.pdf.

Investment Objectives	
Income:	100%
Long Term Capital Appreciation:	
Short Term Capital Appreciation / Speculative Trading:	
Risk Tolerance	
Low Risk:	85%
Medium Risk:	15%
High Risk:	
Overall Investment Knowledge	4
Investment Knowledge:	Medium

## Your Investment Report

JTA1768313 E D ST. CLAIR REGION CONSERVATION AUTHORITY 205 MILL POND CRESCENT STRATHROY ON N7G 3P9 13055

September 30, 2017



# Your Investment Report



## Account Summary

This table provides an overview of your account; including the opening and closing balance for the reporting period.

Your Investments	Opening Value Sep 1, 2017	Closing Value Sep 30, 2017	Balance on Sep 30, 2017 (CAD\$)
Canadian Dollar Investments			
Cash Account	1,411,375.70	1,411,375.70	1,411,375.70
	1,411,375.70	1,411,375.70	1,411,375.70
Grand Total (CAD\$)			1,411,375.70

Last Statement 1,411,375.70 Aug 31, 2017 You can access your up-to-date account information online through BMO Nesbitt Burns Gateway at: https://gateway.bmonesbittburns.com. If you have not yet registered for Gateway access, please contact your Investment Advisor.

## We're here to help

Our team is dedicated to helping you succeed in meeting all of your wealth management goals. Please call any member of the team referenced below if you have questions about Your Investment Report. Visit bmo.com/nesbittburns for the latest information on investing and wealth planning.

JONATHAN BATCH Investment Advisor 519-646-3044 Batch Investment Group www.batchinvestmentgroup.com Assistant: Sharon Tingley sharon.tingley@nbpcd.com DAVID HAAK Branch Manager (519) 672-8560

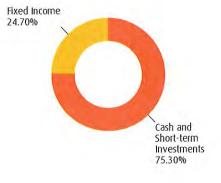
Suite 1900, One London Place, 255 Queens Avenue, London, ON N6A 5R8

BMO Nesbitt Burns Inc. is a Member - Canadian Investor Protection Fund. Member of the Investment Industry Regulatory Organization of Canada.

Non-registered account #440-17189-13

## Summary of your investments in Canadian dollars

Your Investor Profile			
Investment Objective	Income		
Time Horizon	10 yrs and more		
Investment Category	Amount	Target %	Holdings %
<ul> <li>Cash and Short-term Investments</li> </ul>	1,061,375.70	10.00	75.30
Fixed Income	350,000.00	90.00	24.70
<ul> <li>Equities</li> </ul>	0.00	0.00	0.00
Total	1,411,375.70	1.1.1.1	100.00



The investments in your account have been chosen based on the investment objectives you selected on the Client Account Agreement. As your life circumstances change, it is important to talk to your Investment Advisor about updating these objectives as may be applicable.

## Your Canadian Dollar Investments

All amounts are reported in Canadian Dollars.

## Income you received

Type of Income	Current Month	Year to Date
Interest	0.00	17,760.56
Total	0.00	17,760.56

## Your investment details

		(	Cost	Market Value on September 30, 2017		
	Quantity	Per Unit	Total	Per Unit	Total	
Cash Account						
Cash and Short-term Investments						
CASH			25.70		25.70	
BANK OF MONTREAL GIC 30 DAY CASHABLE ANNUAL DUE 11/20/2017 0.850%	243,615	100.000	243,615.00	100.000	243,615.00	
VANCITY GIC ANNUAL DUE 02/20/2018 1.350%	301,935	100.000	301,935.00	100.000	301,935.00	

Non-registered account #440-17189-13

## Account activity for this month

Date	Activity	Description	Quantity	Unit Price	Commission	Amount
Cash Account						
Sep 1, 2017		Opening Cash Balance				25.70
		No Account Activity				
Sep 30, 2017		Closing Cash Balance				25.70

This report includes only activity recorded in your account since your last report. For a more comprehensive listing of your account activity, sign into your BMO Nesbitt Burns Gateway at: https://gateway.bmonesbittburns.com.





# St. Clair Region Conservation Authority 2018 Proposed Fees

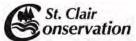
Draft

Note: All fees include applicable taxes and may be changed by resolution of the Board of Directors

CAMPING FEES		2018		2017
Reservation Fee	\$	8.00	\$	8.00
Cancellation Fee	\$	20.00	\$	15.00
Daily, Unserviced	\$	37.00	\$	36.00
Daily, Serviced (hydro & water)	\$	44.00	\$	43.00
Daily, Serviced (hydro only)	\$	41.00	\$	40.00
60 buck weekend (designated weekends)	\$	60.00	\$	60.00
Weekly, Unserviced	\$	222.00	\$	216.00
Weekly, Serviced	\$	264.00	\$	258.00
Monthly, Unserviced	\$	666.00	\$	648.00
Monthly, Serviced	\$	792.00	\$	774.00
Seasonal Camping Fees – April 15, 2018 - April 15, 2019		2018		2017
Full Payment made on or before April 15, 2018	\$	2,200.00	\$	2,155.00
First instalment payment on or before April 15, 2018	\$	1,500.00	\$	1,500.00
Second instalment payment on or before June 1, 2018	\$	735.00	\$	690.00
Half Season, (after August 1)	\$	1,100.00	\$	1,077.50
Quarter Season, (after Sept 1)	\$	550.00	\$	538.76
Seasonal late payment fee	\$	35.00	\$	35.00
Seasonal Campsite deposit (new seasonal	\$	200.00	\$	200.00
camper wanting to reserve site for following season)	φ		¢	
Miscellaneous Fees		2018		2017
Overnight Visitors (per person)	\$	5.00	\$	5.00
Sewage Pump Out per service fee	\$	30.00	\$	25.00
Sewage Pump Out seasonal fee	\$	200.00	\$	160.00
Winter Storage for Trailers arriving after Thanksgiving	\$	200.00	\$	200.00
Exterior fridge/freezer charge	\$	160.00	\$	160.00
Extra hydro fee for electric golf cart	\$	160.00	\$	160.00
Golf Cart (day/month)		00/\$30.00		.00/\$30.00
Extra hydro/Exterior fridge/freezer if found during inspection by staff	\$	200.00	\$	200.00
Ice	\$	3.00	\$	3.00
Firewood (bundle)	\$	7.00	\$	7.00
Firewood (1/2 cord)	\$	35.00	\$	35.00
Firewood (cord)	\$	70.00	\$	70.00
DAY USE FEES		2018		2017
Vehicle	\$	8.00	\$	7.00
Pedestrians/Cyclists (16 & over)	\$	2.00	\$	2.00
Seasonal Day Pass	\$	60.00	\$	60.00
Buses	\$	15.00	\$	15.00
Open Pavilion reservation	\$	60.00	\$	60.00
Closed in Pavilion reservation (Warwick/LC Henderson)	\$	100.00	\$	100.00
Swimming Daily Fee	\$	2.00	\$	2.00
Seasonal Swimming Pass - Individual	\$	35.00	\$	35.00
Seasonal Swimming Pass - Family	\$	90.00	\$	90.00
Maple Syrup Festival - Vehicle Entry	\$	5.00	\$	2.00
Rental of Grounds for X-Country Meets/Education Days	\$	160.00	\$	160.00
Rental of Portable Washrooms (On site Only)	\$	30.00	\$	30.00
Highland Glen Conservation Area		2018		2017
Vehicle	\$	5.00	\$	5.00
Seasonal Day Pass	\$	60.00	\$	60.00
	¢	10.00	\$	10.00
Daily boat ramp fee	\$	10.00	Ψ	10.00

CONSERVATION SERVICES FEES	2018	2017		
Managed Forest Tax Incentive Program Plan Approvals				
Field Work / Forest Inventory	\$75.00/hr/person	\$75.00/hr/person		
Plan Review & Approval Process (including site visit)	\$350.00/plan	\$350.00/plan		
Plan Creation & Plan Approval				
10 to 20 acres	\$550.00/plan	\$500.00/plan		
20 to 40 acres	\$700.00/plan	\$650.00/plan		
Greater than 40ac	\$850.00/plan	\$800.00/plan		
Timber Management				
Field Work / Site Visit	\$75.00/hr/person	\$62.00/hr/person		
Timber Report Creation	\$150.00/person/field day	\$150.00/person/field day		
Drain Maintenance Program				
Spot spray application for vegetation control in drains	\$110.00/hr + chemical	\$100.00/hr + chemical		
Tree Planting (Private Lands) These are guidelines, pricing is depen	dant on size and location			
	Cost vary according to size and	Cost vary according to size		
Large Stock Program	species	and species		
	Cost yerry assording to size and			
Tree Seedlings	Cost vary according to size and	Cost vary according to size		
Seedling Tree Planting Services Machine planting:	species	and species		
500 - 999 trees	\$1.250.00/site	\$950/site		
1000 – 1999 trees		•		
	\$1.25/seedling	\$0.95/tree		
2000 plus trees	\$1.20/seedling	\$0.90/tree		
Larger sites requiring more than 5000 trees	Quotation provided			
Coniferous planations	10% reduction (>1000)	15% reduction		
Includes tree planting and initial herbicide application - HST will be added				
Seedling Tree Planting Services Hand planting:				
Refill planting up to 500 trees	\$1250.00/site	\$750.00/site		
500+ trees	\$2.25/tree	\$1.50/tree		
Includes tree planting and initial herbicide application - HST will be added				
Herbicide Tending				
0 -1000 trees		\$300.00 /application		
1000+ trees -machine sprayer single herbicide		\$0.30/tree/application		
1000+ trees -back pack single herbicide		\$0.40/tree/application		
Tank Mixes multiple herbicides		\$0.50/tree/application		
up to 750 seedlings	\$300.00 / min charge	· • • • • •		
750 to 3500 trees	\$0.40/seedling/max charge \$1225.00	)		
more than 3500 trees	\$0.35/seedling			
up to 1000 trees requiring backpack sprayer	\$500.00/site			
>1000+ trees requiring backpack sprayer	\$0.50/seedling			
Tree Species (Subject to Availability)	40.00/000dining			
Coniferous Trees Native & Traditional Species - bareroot t	ransplant seedlings 20-35 cm tall			
Deciduous Trees & Shrubs Native & Traditional Species - bareroot s				
All seedlings will be grown from seeds collected in seed zones suitable to St. Cl				

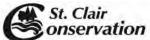
Planning and Regulation Fees		New Fee	L	
General Fees <sup>1</sup>	2017	2018		
Technical Report Review <sup>2</sup>		5% Increase		
Terms of Reference for Technical Reports (deposit reduced from report review fee)		\$300.00		
Engineering Study (floodline, geotechnical, meander belt, coastal <sup>5</sup> study)	\$300.00	\$320.00		
Major	\$500.00	\$530.00	4.50/	25%
Environmental Impact Study/ Development Assessment Report			15% Increase	25% Increase
Minor - limited assessment required, adjacent to feature	\$500.00	\$525.00	\$600.00	\$660.00
Standard - scoped technical assessment, adjacent or within feature		\$1,000.00	\$1,150.00	\$1,250.00
Major - comprehensive technical assessment, adjacent or within feature	\$2,400.00	\$2,520.00	\$2,900.00	\$3,150.00
Natural Heritage Mitigation/Monitoring Report		\$500.00		
Hydrogeological Assessment		\$1,000.00		
Stormwater Management Plans	\$500.00	\$525.00		
Administrative Fees	Fee	Fee		
Commercial Renewable Energy Projects	Double	Double		
Reactivation processing Fee (after 1 year dormant)	\$250.00	\$260.00		
Complex - more than one technical study	\$500.00	\$525.00		
File Continuation <sup>6</sup>	Individually assessed	Individually assessed		
Site Inspection	\$100.00	\$105.00		
Legal Inquiries <sup>7</sup> Fee has just been increased; will increase in future to \$175 - always increase in 25-50 increment	\$150.00	\$150.00		
Site Assessment (i.e. Terrestrial/Aquatic Ecosystem Review) plus reporting (2 hrs. min) per hour, plus exp.	\$90.00	\$95.00		
Incomplete Submission/Unconsolidated Submission Coordination		\$500.00		
Processing Fee (Written Comments or Meeting Attendance)		\$100.00		
GIS Services (plus tax)	Fee	Fee		
Data Requests (includes up to 3 data sets , \$100.00 per additional data set)	\$300.00	\$315.00		
Technical Reports – Adobe digital (pdf) format on CD (if available)	\$55.00	\$60.00		
Plotting Services (per sq. ft.)	\$9.00	\$10.00		
GIS Service Fees (per hour)	\$90.00	\$90.00		
Digital Aerial Photography (requires license agreement) per tile	\$55.00	\$60.00		
Admin fee for digital data transfers	\$100.00	\$105.00	l	



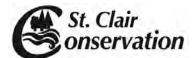
#### Planning and Regulation Fees

Planning Service Fees - Natural Hazards	2017	2018
Municipal Planning Advisory Service Fees are per application unless otherwis	5% Increase	
Planning Preconsultation <sup>4</sup>	\$200.00	\$210.00
Complex	\$500.00	\$525.00
Severance (per lot created; Waterfront <sup>8</sup> 2x)	\$200.00	\$210.00
Minor Variance (Waterfront <sup>8</sup> 2x)	\$100.00	\$150.00
Major - complex features requiring one or more technical studies.	\$200.00	\$250.00
Zoning By Law Amendment	\$200.00	\$210.00
Major - complex features requiring one or more technical studies.	\$300.00	\$315.00
Official Plan Amendment	\$200.00	\$210.00
Major - complex features requiring one or more technical studies.	\$300.00	\$315.00
Site Plans		
Value less than \$50,000	\$100.00	\$105.00
Value greater than \$50,000	\$200.00	\$210.00
Draft Plan of Subdivision/Condominium		
2-4 Units	\$500.00	\$525.00
5-15 Units	\$1,000.00	\$1,050.00
> 16 Units	\$2,500.00	\$2,625.00
Clearance of Conditions and redline revision review (Major \$300.00)		\$200.00
Discounts <sup>9</sup>	Discount	Discount
Combined Severance &/or Zoning By-law Amendment &/or Official Plan Amendment	\$200.00 off total	\$200.00 off total
Combined Severance & Minor Variance	\$100.00 off total	\$100.00 off total

Planning Service Fees - Natural Heritage	2017	2018	Ī	
Municipal Planning Advisory Service Fees are per application unless otherwise <u>Heritage fees are in addition to Natural Hazard fee outlined above</u> . Natural He applicable to lands containing the feature and may apply to adjacent lands.	5% Increase	15% Increase	25% Increase	
Severance (per lot created; Waterfront <sup>11</sup> 2x)	\$300.00	\$315.00	\$345.00	\$375.00
Minor Variance (Waterfront <sup>11</sup> 2x)	\$200.00	\$210.00	\$230.00	\$250.00
Major - complex features requiring one or more technical studies.	\$400.00	\$420.00	\$460.00	\$500.00
Zoning By Law Amendment	\$300.00	\$315.00	\$345.00	\$375.00
Major - complex features requiring one or more technical studies.	\$500.00	\$525.00	\$575.00	\$625.00
Official Plan Amendment	\$300.00	\$315.00	\$345.00	\$375.00
Major - complex features requiring one or more technical studies.	\$500.00	\$525.00	\$575.00	\$625.00
Site Plans				
Value less than \$50,000	\$250.00	\$260.00	\$290.00	\$312.50
Value greater than \$50,000	\$500.00	\$525.00	\$575.00	\$625.00
Draft Plan of Subdivision/Condominium				
2-4 Units		\$100.00		
5-15 Units		\$200.00	1	
> 16 Units		\$300.00	1	
Clearance of Conditions		\$200.00	1	



Sonservation	\$5.00	
Ontario Regulation 171/06 Review Fees	2017	2018
	Fee	Fee (5% increase)
Development Inquiry <sup>3</sup>	\$200.00	\$210.00
Application <sup>10</sup>		
MINOR	\$150.00	\$160.00
To cover site inspection, costs email clearances. Minor in nature (i.e. cost, location, impact).	\$150.00	\$100.00
Watercourse		
STANDARD	\$300.00	\$315.00
Alter a regulated area, shoreline or watercourse, meets policies (i.e. no engineering).	\$300.00	φ313.00
MAJOR		
Alter a regulated area, shoreline or watercourse, does not meet policies (i.e. engineering required)	\$600.00	\$630.00
Development		
STANDARD	\$300.00	\$315.00
Addition, accessory building, or reconstruct 500ft <sup>2</sup> (46.5m <sup>2</sup> ) or less in size, meets policies.	\$300.00	\$315.00
STANDARD		
Construct primary building, addition, accessory buildings or reconstruct greater then 500ft <sup>2</sup> (46.5m <sup>2</sup> )	\$400.00	\$420.00
in size, meets policies.		
MAJOR		
Construct primary building, addition, accessory buildings or reconstruct greater then 500ft <sup>2</sup> (46.5m <sup>2</sup> )	\$800.00	\$840.00
in size, does not meet policies, engineering required.		
Wetland		
MINOR		
Projects for which a letter/response is required. Works considered minor in nature (i.e. cost,	\$100.00	\$105.00
location, impact).		
STANDARD	\$500.00	\$525.00
Projects consistent with policy, review of technical report or EIS required.	4000100	÷0=0.00
MAJOR		
Construct a new structure or alter an area of interference of a wetland, but a prohibition in policies,	\$800.00	\$840.00
potential for significant impact.		
Other Fees	<u> </u>	<b>*</b> 0.400.00
Aggregate Resources Act review	\$2,000.00	\$2,100.00
Environmental Assessment Act (private proponent)	\$2,000.00	\$2,100.00
Major - complex features requiring one or more technical studies.	\$5,000.00	\$5,250.00
DART Review <sup>11</sup>	\$200.00	\$210.00
Major (wetland)	\$600.00	\$630.00
Drainage Act Engineer's Report Review <sup>12</sup>	\$300.00	\$315.00
Hearing request fee when submission is in non-compliance with O. R. 171 and/or board approved	\$500.00	\$525.00
	•	
Golf course development/realignment	\$600.00	\$630.00
Application renewal	\$50.00	\$50.00
Application revisions beyond 2 resubmissions provided checklist acknowledged and notification provided in writing if checklist provided	25% fee	25% fee
Pipeline or Utility directional drill under a watercourse	\$100.00/crossing	\$100.00/crossing
Review of applications where work has proceeded without authorization	100% surcharge	100% surcharge
Multi-lot or Multi Unit Development	\$400.00	\$420.00



Fee No	tes
1	The SCRCA Planning & Regulations fees structure is set for one year period by the Authority's Executive Committee or Full Authority Board. However, if an applicant feels the required fee is unjustified, for whatever reason, they have the right to appeal the required fee. To appeal a fee which has been charged the applicant should submit a written request to the Executive Committee/Full Authority Board via the General Manager. The appeal can be a written or verbal presentation to the Executive Committee/Full Authority Board. The decision to revise the fee will be made by the Executive Committee/Full Authority Board via an impartial review by the General Manager/Director of Finance (non Planning Dept staff). This is in accordance with MNR/CO Policies and Procedures for the charging of CA Fees, 1997 and SCRCA Fee Administration Guidelines
2	Technical Report Review (TRR) includes one full review and one revised report review. The SCRCA reserves the right to charge an additional TRR fee for additional reviews. Add 25% of base fee; unless difference approved by Board of Director &/or General Manager via written memo/file review.
	Authority staff reserve the right to charge technical report review fees over the noted fees for complex projects having potential significant impact. Costs will be related to multiple technical report reviews, multiple meetings, etc. The Director of Planning and General Manager are to approve the fee. With a combination of reports submitted concurrently the fee is reduced by \$100.00 per additional report.
3	The fee is reduced from the Regulations application provided no change has occurred in the proposal and the application moves forward within a 2 year limit.
4	The CA will charge a fee of base \$200.00 or complex fee of \$500.00 to provide preliminary preconsultation comments on all proposed planning applications. This fee will be deducted from the application fee when a formal application is submitted.
5	SCRCA will generally require shoreline development to be reviewed by the Conservation Authority retained coastal engineer. Costs for review are to be borne by the proponent. In this case, a Technical Report Review fee would not apply. As per Board of Directors approval November 10, 2016.
6	Top up to current cost in fee schedule for files active for longer than 2 years from application submission date. Applicable every 2 years.
7	Information on regulations and/or natural heritage features for property transactions (i.e. lawyers, owners, purchasers or agents)
8	Waterfront includes properties within the Shoreline Hazard along Lake Huron, St. Clair River, Chenal Ecarte and Lake St. Clair.
9	Applications must be submitted concurrently.
10	Regulation application fee is reduced by Development Inquiry fee if applicable.
11	Staff may use their discretion to reduce the DART fee to \$50 if the project value is less than \$500.
12	Section 76 reports are exempt.

ADMINISTRATION FEES	2018	2017
Administrative Fees negotiated by contract		
NSF Cheques	\$45.00	\$45.00
Processing Fee - Oil & Gas Long term		
a) Oil & Gas Long Term	\$340.00	\$340.00
b) Annual	\$550.00	\$550.00

EDUCATION FEES	2017/2018	2016/2017
Half Day Class/Student	\$4.50	\$4.50
Full Day Class/student	\$8.50	\$8.50
Minimum Charge for other programs	\$60.00	\$60.00
In Class program (without sponsors) first class	\$100.00	\$100.00
In Class program (without sponsors) second class same school	\$75.00	\$75.00

WATERSHED SE	2018	2017	
Technical Reports - Adobe digital (pdf) format on CD		\$50.00	\$50.00
Data and Information I			
a) HEC II, H	YMO, Hyrdo Pak, Streamgauge, Precipitation,	\$100.00	\$100.00
Meteorolo	ogical or Flow Data		
Additiona	I cost for data or information collection in excess of one	\$50.00/hr	\$50.00/hr
b) hour			
c) Additiona	I cost for CDs or printed reports	\$50.00	\$50.00
Miscellaneous Fee			

		12. (v)		Γ		
2018 Camping Fee Summary KB/October 6, 2017						
Conservation Authority	Seasonal Rate with Winter Storage & Taxes	Overnight Serviced (per night)	Overnight Unserviced (per night)	Vehicle Pass	Season al Vehicle Pass	Pump- out
Great Canadian Hideaway (*2017 rates*)	\$2,401.25 - 30 amp (plus hydro)	\$51.98 (30 amp)	\$41.81	\$ 5.00 per person \$ 16.00 per vehicle		\$ 113 per season
Upper Thames River (*2017 rates*)) (April 21 to October 15)	\$ 2,655.00 - 30 amp (reg) \$ 2,885.00 – waterfront \$ 3,520.00 premium	\$ 48.00 (30 amp) Weekly \$ 305.00	\$38.00	\$ 13.00	\$ 110.00	\$ 275.00 Bi weekly \$ 50.00 Per pump out
St. Clair Township (Cathcart, Cundick, Mooretown) (*2017*)	\$ 2,340.00 (30 amp & sewer)	\$40.00 (30 amp & sewers)) \$ 46.00 (prime campsites) Weekly \$250; monthly \$765.	N/A			
Kettle Creek Conservation Authority (*2017 rates*)	\$2,150.00 - 30 amp (no winter storage available – all trailers removed from site)	\$46.00 (30 amp) \$40.00 (15 amp) Weekly \$283.00 Monthly \$ 848.00	\$37.00	\$ 10.00	\$80.00	\$ 30 per pump
Our Ponderosa Ipperwash (*2017 rates*)	\$3,723.35 - 30 amp Regular site (plus hydro, plus, plus)	\$ 61.02 (30 amp) weekdays \$ 81.36 Weekends \$ 100.95/night Long weekends		\$ 6.78 per person		

Lakewood Christian Campground (*2017 rates*)	Ranges from \$ 2,062.25 to \$ 2,344.75 30 amp & sewers (hydro & winter storage extra)	\$ 49.72 - 30 amp (Add \$ 5.00 / night for long weekends) Weekly \$298.32 (includes hydro, water, sewer)	\$ 38.42 (Add \$ 5.00/ night for long weekends)	\$ 5.65/ person or \$ 11.30/ family	\$ 39.55/ person or \$ 67.80/ family	
Silver Dove Estates (Appin) (*2017 rates*)	\$ 2,147.00 plus hydro & winter storage	\$ 44.97 - 30 amp	\$ 15.00 per person	N/A		
Maitland Valley *2017*	\$2,650.00 (30 amp)* (April 21 to Oct 15) *if paid with credit card	\$ 48.00- 15 amp \$ 53.00- 30 amp Monthly- \$ 1,113.00 Weekly - \$ 356.00	\$ 38.00	\$ 15.00 per vehicle	\$ 90.00	\$20 per pump out
Essex Region (Holiday Beach) (*2017 rates)	\$ 2,214.80 (plus hydro)		N/A	\$10.00	\$80.00	
Mitchell's Bay Marine Park (*2017)	Ranges from \$ 4,913.70 to \$ 3,495.09 (plus hydro)	\$45.20 (weekdays) \$56.50 (Weekends) (Stat holidays – 3 day minimum)	\$ 39.55			\$452.00 biweekly \$ 33.90 per pump
St. Clair Region (2017)	\$2,155.00 – 30 amp Winter storage, water & hydro included	\$43.00 (hydro & water)	\$36.00	\$7.00/vehicle	\$60.00	\$160.00 Bi- weekly \$25.00 Per pump
St. Clair Region (Proposed for 2018)	\$2,200.00 Winter storage, water & hydro included	\$44.00 (hydro & water)	\$37.00	\$8.00/vehicle	\$60.00	\$200.00 Bi- weekly \$30.00 Per pump

• Fee increases are a result of inflationary and operational changes associated with staff, and general cost increases (minimum wage increase)

• Slight fee increases are also required to ensure financial reserves are maintained at levels sufficient to undertake large capitals expenditures (septic system updates) when required

• Even with these increases our rates remain below most local private and regional conservation authority campgrounds

## Staff Report 12. (v)



 To:
 Board of Directors

 Date:
 October 31 2017

 From:
 Patty Hayman, Director of Planning

 Brian McDougall, General Manager

 Subject:
 Natural Heritage Planning Advisory comments issued under the Planning Act and in accordance with the 2014 Provincial Policy Statement Section 2.1 - action as directed by the Board September 2017

At the last Board of Directors meeting, the Board members were provided with a background report on the "natural heritage planning advisory service" the Authority provides by way of Memorandums of Agreements. This service was officially requested by municipalities in 2015. At the September Board meeting, there were questions on the "activities" listed in Appendix A. Appendix A has been attached again with clarification provided.

To summarize, SCRCA Administration was proposing a 2018 \$40,000.00 special levy to be partnered with \$30,000.00 in review fees in order to support a Planning Ecologist to provide the required *Planning Act* service for Middlesex County, Chatham Kent and Lambton County. This service provided by SCRCA negates the need for upper and lower tier municipalities to hire qualified staff or consultants to carry out this service. It behooves the Conservation Authority to provide this service as it is part of our Strategic Plan to *"protect, manage, and restore our natural systems including woodlands, wetlands, waterways and lakes"* (Goal 2).

After some discussion the following draft resolution was passed:

#### **Broad-Scholten**

#### BD-17-117

"That the Board of Directors acknowledges the report dated September 21, 2017 regarding natural heritage planning advisory commenting services provided to member municipalities and further that the 2018 draft fees be adjusted to ensure cost recovery of the program."

#### **Going forward**

Planning Department staff have adjusted the user fee schedule to reflect the above request. See proposed 2018 SCRCA Fee schedule. The fee schedule has been presented with Natural Heritage services being separated out from the ministerial delegated and mandated Natural Hazard services. The Natural Hazard planning services directly relate to SCRCA Regulation 171/06. A 25% increase in proponent driven Natural Heritage applications is proposed.

As stated in the \* Notes section of Table 2, SCRCA does not currently charge fees for review and input services for municipal driven planning applications/initiatives ie. Official Plans, Comprehensive Zoning Bylaws, Tree Cutting bylaws, etc. These can involve numerous meetings, conference calls etc. The Memorandum of Agreement between

SCRCA and municipalities states planning "amendments sponsored by the municipality will be covered within the annual levy applied to Authority programs supported by the municipalities that are part of the County, as supplemented by the review fees collected..."

Below is a summary of levy comparison between Southwest Conservation Authorities.

2017	General Levy Total	General Levy to Planning & Regulations	Levy as a % total budget*	Comment
SCRCA	\$778,855.00	\$113,003.00	14.24%	
ABCA	\$993,860.00	\$96,000.00	24.46%	do not currently provide Natural Heritage planning service
LTVCA	\$1,367,352.00	\$146,865.00	35%	do not currently provide Natural Heritage planning service
UTRCA	\$6,077,677.00	\$752,440.00	35.88%	
ERCA	\$1,906,833.00	\$605,800.00	41.04%	

#### Table 1 - Levy Comparison

Table 1 comment - of the 3 surrounding CAs providing NH service, SCRCA total levy is less than half of ERCA's total levy. SCRCA is the lowest levy of all 5 CAs and is at least 10% of the next lowest CA (ABCA) and ABCA does not provide the NH service. Although a comparable portion of SCRCA levy goes toward Planning & Regulations, it is not sustainable to provide Natural Heritage planning services without financial assistance (user fees and outside sources).

It is a policy of the province and SCRCA that in order to set fees a comparison with other agency fees is necessary and this information must be provided publicly.

Below is a 2017 Comparison of Natural Heritage fees, both Planning Act fees and Technical report review fees.

	SCRCA	(2018 prop	osed)	UTRCA	ERCA	ABCA	MVCA	GSCA	NVCA
	Natural Hazards (5%)	Natural Heritage (25%)	Total						
Minor Variance	\$150	\$250	\$400	\$100	\$115	\$150	\$175	\$180	\$200
Severance	\$210	\$375	\$585	\$200	\$200	\$200	\$225	\$230	\$300
ZBA	\$210	\$375	\$585	\$200	\$200	\$150	\$225	\$230	\$500
OPA minor	\$210	\$375	\$585	\$200	\$200	\$200	\$225	\$230	\$500
OPA major	\$315	\$375	\$690	\$500	\$300	\$200			

Table 2 - Planning Fee Comparison to other Conservation Authorities

Note: SCRCA does not currently charge fees for review and input services for municipal driven planning applications/initiatives ie. Official Plans, Comprehensive Zoning Bylaws, Tree Cutting bylaws, etc. These can involve numerous meetings, conference calls etc.

SCRCA fees is doubled for waterfront applications. \$200.00 discount off total OP/ZBA or Consent combinations

	SCRCA (2018 proposed)	UTRCA	ERCA	GSCA	MVCA	NVCA	CLOCA	СН	TRCA
Minor	\$660	\$400	\$500	\$510	\$800		\$6,200	\$10,700	\$12,130
Standard	\$1,250					\$500-750		\$21,400	\$21,500
Major	\$3,150	\$1,000	\$1,025	\$1,280	\$2,500		\$15,500	\$32,100	\$26,150

#### Table 3 - Natural Heritage Technical Report Review Fee Comparison to other Conservation Authorities

Note \$3,500.00 is equivalent to a private consultant cost for major technical report review fee. **Minor** - limited technical assessment of the natural heritage features are required development is within adjacent lands of natural heritage features; natural heritage feature is well documented;

**Standard** - scoped technical Natural Heritage Impact studies are required (Terms of Reference), development may be within adjacent lands or within natural heritage feature

**Major** - comprehensive technical studies or reports are required; development may be within adjacent lands or within natural heritage feature

#### Table 4 - Planning Fee Comparison to Watershed Municipalities

	SCRCA (2018 proposed)	St. Clair	Sarnia	Enniskillen	Strathroy - Caradoc	Adelaide Metcalfe	Middlesex Centre
Minor Variance	\$400	\$500	\$525	\$400	\$700	\$600	\$600
Severance	\$585	\$800	\$1,300	\$400	\$1,750	\$1,100	\$1,000
ZBA	\$585	\$1,700	\$4,420	\$1,150	\$2,100	\$1,600	\$1,500
ΟΡΑ	\$585	\$2,300	\$4,825	\$1,600	\$2,600	\$1,600	\$2,000
OPA & ZBA	\$970		\$5 <i>,</i> 000		\$3 <i>,</i> 525		

Impacts of 25% increase in proponent driven Natural Heritage fees:

in comparing SCRCA Planning Act fees to member municipality Planning Act fees, minor variance fee is the same; which is not acceptable. For minor variances, the Planning Ecologist in conjunction with the upper tier County planners will be setting adjacent land boundaries as per PPS Heritage manual in order to reduce need for input. This is to be accomplished by March 2018. Time saved will be allocated toward alliances with border municipalities (ie S-C, Lambton Shores initially followed by SW Middlesex etc) for EIS Technical report review via Memorandum of Agreements and revenue derived from such.

#### Table 5 - 2017 Natural Heritage Budget

Cost	Shortfall	Municipal driven - current	Current user fee forecast	Other projects	Reserves
\$70,000	\$70,000	\$0	\$13,000	\$5,000	\$52,000

#### Table 6 - 2018 Shortfall Recovery Option

Cost	Shortfall	Municipal driven (lump sum or invoice)	Proposed user fee 25% plus adjustments (optimistic level)	Other Projects	Foundation	Other CA Tech Study Reviews (i.e. S-C)	Reserves
\$70,000	0	\$20,000	\$30,000	\$5,000	\$10,000	\$3 <i>,</i> 000	\$2,000

#### **Revenue recovery**

Upper and lower tier municipalities must meet the requirements of Section 2.0 Natural Heritage Policies of the 2014 Provincial Policy Statement. Section 2.0 sets out policies for the protection of natural heritage systems, significant wetlands (including coastal wetlands), significant woodlands, significant wildlife habitat, etc. SCRCA's Planning Ecologist has the expertise to provide this service for the watershed, instead of each municipality retaining a staff person or consultant to undertake the service.

For the upper and lower tier municipality driven applications and projects, the Authority can recover remaining funds via 2 Options

#### **Option 1**

Abide by the Memorandum of Agreement which states that an annual 2018 levy of \$20,000.00 contribute toward municipally driven or sponsored Natural Heritage planning amendments or projects or

#### Option 2

Revise the Memorandum of Agreement which changes the wording in the agreement to " "amendments sponsored by the municipality will be covered with ecologist hourly rate billed to the municipality requiring the service".

The Conservation Authority will keep track of proponent versus municipally driven amendments/projects in 2018 and report back to the Board on financial status. To balance the 2018 budget in this category, SCRCA will need to further undertake and confirm the following:

- providing the service outside the watershed where the need is evident.
- SCRCA will approach the Conservation Foundation for funding toward Natural Heritage protection in the watershed.

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Com	mittee M	t Health & Safet leeting esday June 21, 2017, 8:		205 M	r Board Room 1ill Pond Cres. rathroy, ON		
Meeting	called by:	JHSC Committee		Type of meeting:	Quarterly		
Facilita	tor:	Don Skinner	Minutes:	Tracy Prince as Cundick			
Attende	es:	K. Baker, D. Skinner,	S. Hodgkiss, Dalla				
Guests							
Please read:		om previous meeting & o ormation on your Actior	and the second se	Please bring:	Department reports		
Agend	da Items						
1. Motio	on to approv	e March 23, 2017 meet	ting minutes (Keva	n)			
• E J • E it	evan) - Con xternal lade eff; Sept. 21 o vacuation / em 4.2 - Kev o o	der safety training (Ma , 2016 - item 2.1 – Keva 1 staff member remaini Accountability Plan for van) create a subcommittee update list of 'building's system (rather than list incorporate the current inspections	arch 8 2016 - item 4 an; Nov. 30, 2016 - ng, ongoing <b>Ilowing review by</b> for further review s resources' based ing what features w	4.2; June 8, 2016 - item 2.1 Kevan) <b>Supervisors</b> (No on features or ou ve don't have)	- <i>item 2.1 -</i> - ov. 30, 2016 – r existing		
• H 2 • V rd H	.1- Kevan) ○ ○ iolence Pol eview by Ma l.) ○	t on: Tety Manual updates in Needs to be added to n Request assistance fro log licy & Procedure and H anagement (Sept. 21, 2 Needs to be added to n	nanual m Admin departme <b>Harassment Polic</b> y 2016 – item 4.3; No	ent in updating tra <b>y and Procedure</b> ov. 30, 2016 – iter	ck changes following		
• 1		Kelli has provided field Blacklegged (Deer) tick					

	Ticks vs Lone Star Tick	
	ndick to report on: & Safety Certification Train	ing – Level 2 (May 2017) - complete
3.1. LCH, for Ju 3.2. LCH E 3.3. Gene	ne. AWC Ok, McLean (July) Education Centre – ( <b>Kevan</b> )	eough - (Sarah H.) as scheduled
4. New Busin 4.1. Revie receiv	w of Incident/Injury Investigati	ion Reports since March 27, 2017 meeting (none
4.2. Revie	w of job duties for additional F	PPE protection recommendation
invest 5.2. To rev 5.3. To ap 5.4. Condu 5.5. To en more 5.6. To up 5.7. To reo a mor 5.8. To se Alerts	igations and fines (ongoing) view Health and Safety Manua point a worker rep. in October uct workplace inspections as r courage supervisors to compl frequent basis (ongoing) date the JHSC files on the O commend that Supervisors scl ath (ongoing) nd occasional Health & Safety forwarded to all staff as recei	educate ourselves and learn from documented al and make changes as necessary (ongoing) r, 2017 for a 3-year term (to replace Don Skinner) required (at least one location each month) ete safety reviews and 5-point check lists on a drive (ongoing) hedule retraining refreshers with their staff, once y Bulletins to all staff (i.e. Hot & Cold Weather ved from Lambton Public Health) ection Report specific to the Administration Office
6. Proposed	next meeting dates: Septembe	er 20, 2017
7. Adjournme	ent	
Misc. Inform	ation	
Contacts:	Worker Co-chair: Management Co-chair: Workplace Inspectors:	Don Skinner (term completed 30-Nov-2017) Kevan Baker Sarah Hodgkiss, Don Skinner, Kevan Baker

Levan / Sake

Signature of Co-Chair

Worker Reps.:

Meeting Recorder:

Sarah Hodgkiss

Signature of Worker Representative

2418,2017

Date

Don Skinner, Sarah Hodgkiss, Dallas Cundick

Oct 18, 2017

Date

# Staff Report 12. (ix)

St. Clair St. Clair

To:Board of DirectorsDate:October 11, 2017From:Ashley Fletcher, Administrative Assistant / Board CoordinatorSubject:2018 Tentative Schedule of Meetings

#### **Board of Directors:**

February 22 (4<sup>th</sup> Thursday) - Annual General Meeting (Petrolia) April 19 (3<sup>rd</sup> Thursday) June 28 (4<sup>th</sup> Thursday) – Project Tour (Warwick C.A) September 20 (3<sup>rd</sup> Thursday) November 8 (2<sup>nd</sup> Thursday) December 13 (2<sup>nd</sup> Thursday)

**Executive Committee:** at the call of the chair. February 8 (2<sup>nd</sup> Thursday) – Audit Review & Recommendation

All Board of Director and Executive Committee meetings are held at the Administration Office at 10:00 a.m., with the exception of the June meeting which follows the Project Tour.

Flood Action Committee: January 11 (2<sup>nd</sup> Thursday) and at the call of the Chair

Low Water Response: May 17 (3rd Thursday) and at the call of the Chair

Nominating Committee: At the call of the chair.

Please Note: This is a tentative schedule and circumstances may necessitate changes. Accordingly, these dates should be confirmed with the Administration Office prior to the meeting date.





To:Board of DirectorsDate:October 23, 2017From:Nicole DrummSubject:Communications Progress Report

#### **Memorial Forest Dedications**

The Foundation is expanding its partnership with Denning Funeral Homes. Tree planting throughout the region and conservation education are supported through donations made to the Foundation in recognition of families served by the Denning Funeral Homes. Over the past year, Denning's has donated a total of \$11,300 to the Foundation. \$7,850 was donated through Denning's Strathroy location. This year, the program was expanded to Denning's new West Elgin location, which donated \$3,450.

The Denning Funeral Home Memorial Forest Dedication for the Strathroy area took place on May 28th. The service was held at Centennial Park where over 250 people were in attendance. Duncan Skinner brought remarks on behalf of the Foundation. The first dedication for the new Denning's location serving the West Elgin and Chatham-Kent area was held at the Keith McLean's Conservation Lands on September 17th. Steve Arnold brought greetings from the Foundation and Authority to the more than 60 people that were in attendance.



Left: Steve Arnold speaking at the first Denning's Service at McLean's Conservation Lands Right: Families ceremonially planting the tree

The Foundation's dedication was held on September 24<sup>th</sup> at the Lorne C. Henderson Conservation Area. Duncan Skinner and Steve Arnold provided the remarks. Over 100 people were in attendance. A Red Oak was planted as a symbol for all trees dedicated over the last year through donations from individuals not associated with a funeral home program. From September 2016 to August 2017, 110 trees were dedicated through individual donations to the program. To date, a total of 2,017 trees have been dedicated through the Foundation's Memorial Forest Program.



The family of Ross Maw planting the tree during the Foundation's Memorial Service at Henderson

#### **Volunteer Event**

Andersen Windows Conservation Area Clean-up Local Strathroy company, Andersen Windows, has a corporate initiative called "Nature Preservation Day." SCRCA staff organized a volunteer event for Andersen on September 28<sup>th</sup> to teach the company about invasive species. For their Preservation Day, the volunteers helped remove invasive plants from the Strathroy Conservation Area.



Nature Preservation Day volunteers from Andersen Windows

#### **Conservation Awards**

A list of possible conservation award recipients will be brought forward at our board meeting in December. Board members wishing to nominate any individual or organization, should contact Brian McDougall or Nicole Drumm at the office.

#### **Conservation Foundation**

The St. Clair Region Conservation Foundation raises funds to support the work of the Conservation Authority. At a recent meeting, the Foundation approved support for a number of projects and programs:

- \$3,000 to support Conservation Scholarships
- \$7,000 to support memorial tree planting
- \$6,000 to support land management staff costs for Foundation owned lands
- \$8,000 to support recreational facility enhancements at the A.W. Campbell Conservation Area
- \$8,000 to finance a summer Conservation Intern position
- \$10,000 to support reptile recovery, biological monitoring and public outreach
- \$10,000 to support the Watershed Report Cards
- \$60,000 to support Conservation Education

#### **Conservation Education Fundraising**

One of the main Authority programs supported by the Foundation is Conservation Education. This support includes efforts to secure funds from corporate donors, special events and from support through the bingo program. In addition, the Conservation

Authority applies for government grants to support the education program. Support for 2016-17 included:

#### Sarnia-Lambton Environmental Association: a

request has been made to SLEA to continue its funding of the "River Bottom Critter" and the "Go with the Flow Groundwater" programs in the amount of \$30,000. The "River Bottom Critter" program is targeted at grades K-10 and the "Go with the Flow Groundwater" program at grades 4-8.



**Union Gas:** a request has been made to Union Gas to continue its support for the Authority's conservation education programs. They have supported the "Spring Water Awareness" program for the past 5 years.

**Friends of the St. Clair River:** the FOSCR is providing \$2,000 to support an in-class program called the "River RAP." This program is introduced using the RAP video supported by the Foundation in previous years. This program is targeted at grades 8-10.

**DuPont:** DuPont has awarded the SCRCA with a \$6,221 "Clear into the Future Grant" to support the Authority's Conservation Education Program. The cheque presentation took place on October 17<sup>th</sup>.



Steve Arnold, Authority Chair, receiving the donation from du Pont St. Clair River Site Plant Manager, Rudy Bhola.

**Shell:** a request has been made to Shell Sarnia to support the SCRCA's conservation education programing.

**Plains Midstream Canada:** a request has been made to Plains Midstream Canada to continue their support of the Authority's conservation education – Plains Midstream made a donation of \$3,500 at the end of 2016.

**Healthy Kids Community Challenge Lambton:** this project is led by Nicole Boyer, Project Coordinator for Healthy Kids Community Challenge Lambton. A number of municipalities and health units are involved along with the SCRCA and other organizations. Last year, the SCRCA received \$8,500 for our involvement with the Healthy Kids Challenge. The program has unexpectedly been extended to 2018 – Authority staff will be meeting the Healthy Kids Committee to discuss further involvement.

# Staff Report 13.(ii)

St. Clair onservation

To:Board of DirectorsDate:October 25, 2017From:Sharon Nethercott, Melissa GillSubject:Conservation Education Progress Report

#### **Fall Education Programs**

Education staff have been enjoying the good weather during a very busy fall. Programming is booked up through to December with many programs booked into the New Year and beyond. Thanks to Experiential Education Funding through the Ministry of Education, the month of May is already 50% booked.

Preparation and presentation of Specialist High Skills Major (SHSM) programming has been a major focus again this fall. The newest SHSM program developed is a Mussel Identification Workshop. This certification has been co-developed with SCRCA biology department staff. The workshop includes an in-class introduction to mussels, their significance in our watershed and the threats they face. A field trip to a local waterway allows students to participate in a timed mussel survey. The goal is for the students to gain first hand mussel identification skills while participating in real citizen science.

#### **Geocaching Events**

In addition to school classes, many interested watershed citizens have had the opportunity to learn about Geocaching with the use of SCRCF purchased GPS units.

- Sept. 17: "Healthy Trails Henderson" Geocaching Event. A beautiful day was forecast for the 9th annual event which attracted over 45 enthusiastic geocachers. Many participants were impressed by the trails and campground facilities.
- Sept. 13: 30 Health Unit Staff participated in a 1-hour geocaching presentation along the White Pine Trail at Warwick Conservation Area. It was the "exercise" portion of a Staff team building day.



• Sept. 30: As a part of the 50<sup>th</sup> Anniversary of the International River Crossing Event, over 300 Girl Guides and Girl Scouts took a turn at Geocaching.

## Children's Water Festival – October 3<sup>rd</sup> and 5<sup>th</sup>

The Children's Water Festival was fully booked well before the start of the school year. Day 2 was unfortunately cancelled due to poor weather. More than 12,500 elementary students have now attended this festival over the past 9 years. Because of the International Plowing Match being held in Pain Court in 2018, the next Children's Water Festival will be held in the fall of 2019.

#### Lambton Upland Game Bird Youth Day – August 26<sup>th</sup>



Staff participated in the Annual Youth Day hosted by the Lambton Upland Game Bird Chapter. SCRCA provided children with a nature-based conservation activity; hunting for insects with sweep nets! Connections were made between the insects and the ecology of farming, fishing and general ecosystem support. As a result of SCRCA's continued support and participation in this event, the Game Club has offered a \$1000 equipment grant to the education department. The funds will be used to buy equipment that benefits a wide range of conservation programming.

#### Wyoming Fair Agriculture in the Classroom – September 12th

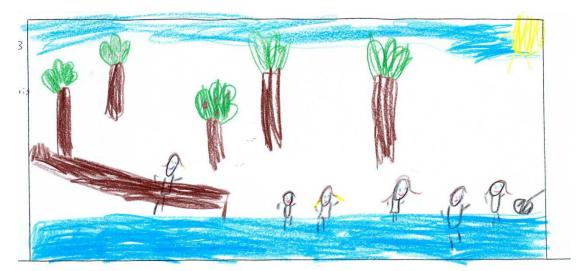
Staff provided information and a hands-on learning game for approximately 360 students in grades 3-6. A discussion of the important role farms play to help maintain healthy wetlands, forests and overall watershed health was included.

# Brigden Fair Agriculture in the Classroom – October 6<sup>th</sup>

SCRCA education staff provided an educational display and craft for approximately 800 students in grades 3 - 6. Staff discussed the importance of trees as part of the farm landscape. Students were given an opportunity to create a collaborative 'tree' using fallen leaves and stencils to cut shapes representative of the interconnections between trees, humans and the natural landscape.



**Species at Risk Program, Kettle & Stony Point First Nation – October 11<sup>th</sup> and 18<sup>th</sup>** As part of the annual education days at Kettle Stoney Point First Nations School, students in Grade 3 and 4 participated in both outdoor and indoor educational activities with 3 SCRCA staff from the Education and Biology departments. During our 'outdoor visit' students visited Shashawanda Creek to investigate the life supported there. The indoor day focused on Species At Risk, specific to Kettle/Stoney Point, encouraging the kids to share their own experiences and learn new ideas through games and crafts.



Staff later received thank you letters from the Grade 4 class:

Deal Melissa, Erin Mand Gleg, The
Thank you for teaching us about species at risk
I loved when we went to the creek with
the Grade 4 it was so fun I liked when
We got scakers I never seen a frog
Be for. Islliked when we saw a spiders
I seen the crayfish it looked liked a
CRab = was afrad ! thank you so much for
Comeing toto the shood. Cente Mesia

# Soil Your ......What???????



Don Lobb, P. Ag.(Hon) from the Soil Conservation Council of Canada spoke about improving soil health in gardens at the Port Franks Community Centre on Monday, August 28th.

#### By Doug Furtney

St Clair Region Conservation Authority and the Ausable Bayfield Conservation Authority hosted a Gardens workshop for shoreline communities at the Port Franks Community Centre on Monday, August 28th. Don Lobb, P. Ag.(Hon) from the Soil Conservation Council of Canada spoke about improving soil health in gardens.

from 1962 to 1997. In 1981, Don Lobb began to convert his cash crop land from conventional tillage to no-till. He established windbreaks, reforestation and a modified terrace system with drop inlets connected to subsurface drains and grassed waterways. The Lobb farm was presented as a case study for conservation in Senator Sparrow's report "Soil at Risk, Canada's Eroding Future," In that report, Sparrow concluded "The no till system will effectively control soil erosion on his farm and sustain the productive potential of the land. It will also maintain crop yields and reduce his production costs." Don Lobb started his presentation discussing previous civilizations on earth and the resulting degradation of the soil. As soil was degraded, people simply moved on to new areas. Now, we are on the last frontier. We must apply lessons from nature, in the farmers' fields and the home gardens, to maintain healthy productive soil. Soil should be considered a non

Don farmed in Huron County

renewable resource due to the amount of time that is required to regenerate lost topsoil. Once soil is lost, it will not return for many generations.

13 (iii)

Don Lobb discussed the make-up of healthy soil. He explained that soil consists of soil aggregates. Soil aggregates are clumps of soil particles that are held together by moist clay, organic matter (like roots), gums (from bacteria and fungi) and by fungal hyphae. These aggregates bind to each other, causing spaces between between soil particles and soil aggregates. These pores can be full of air or have water in them. Soils with lots of aggregates are extremely desirable. The more aggregate stability, the better resistance soil has to resist disruptive forces associated with tillage, and water or wind erosion is applied. Don mentioned," Less aggregates are lost from the soil when a no-till system of growing crops or gardens is used. No tillage makes the soils more resilient."

This workshop was particularly for gardeners. Healthy garden plants require healthy soil. Organic management of soil was discussed. He pointed out that organic gardening (farming) increases beneficial fungi diversity in soils, and improves macrobiotic soil communities such as earthworms, beetles, bacteria, nutrient availability and soil structure.

He commented that today's farmer should consider that the microorganisms in the soil, need to be fed throughout the year, even after harvest is finished.

Lastly, both Don Lobb and Jessica Van Zwol of St. Clair Region Conservation Authority mentioned the 'Soil Your Undies' campaign by the Soil Conservation Council of Canada. Briefly, the experiment starts with participants digging a hole in the top soil they want to test, drop a new pair of 100 percent cotton briefs and mark the spot with a flag. After two months of being buried, there shouldn't be much left of the underwear if there is good biological activity in your soil. For more information, google the Soil Conservation Council of Canada.

# **Stewardship of Lake Huron's Beaches & Dunes**

#### By Doug Furtney

14, 2017

Sept.

Advocate

Guide

Standard

The Lake Huron Centre for Coastal Conservation was founded in 1998 with the goals of protecting and preserving Lake Huron's coastal environment and promoting a healthy coastal ecosystem. On Monday, August 28th, Hannah Cann the Coastal Stewardship Coordinator for the Lake Huron Coastal Centre for Conservation spoke at the Port Franks Community Centre. She discussed eroding shorelines, dune conservation, extreme lake level changes, invasive species and what you can do a shoreline resident, cottage owner, or day user to help protect and preserve Lake Huron. The CoastalCentre is the only grassroots organization focused on protecting the coastal environment lake-wide. The Centre has conducted projects and outreach initiatives along

the shorelines of Lake Huron. This organization provides education, resources, and information on lake-wide issues and their programs reflect the inter-connectivity between land and water.

Hannah Cann discussed shoreline erosion in great detail. She explained that Lake Huron has the world's largest freshwater brach and how the Shoreline continues to erode and flow south out of Lake Huron. She explained the various methods that cottage owners could use to help prevent erosion of the shoreline. She also mentioned the negative impact of the following invasive species; phragmites, spotted knapweed, common reed and sweet white clover and black locust. She stated, "Native coastal dune plants are extremely diverse and contain a number of rare species. It is important to be vigilant over invasive species. It is very important to use tested and proven techniques to ensure that control efforts are successful and not made worse by poor information, or lack of understanding of the plant's ecology."

Hannah Cann provided a very informative workshop and she discussed many concerns regarding the diverse coastline of Lake Huron. Some of the topics mentioned were; dune restoration, the impact of Beach grooming, groins, bluffs and gullies, sand fencing, planting dune grass, water levels, wind erosion and the composition of different types of sand. This workshop was hosted by the St. Clair Region Conservation Authority and the Ausable Bayfield Conservation Authority. More information regarding the Lake Huron Centre for Coastal Conservation can be obtained at www.lakehuron.on.ca



Hannah Cann the Coastal Stewardship Coordinator for the Lake Huron Coastal Centre for Conservation Explains the role of the Coastal Centre at a workshop at Port Franks Community Centre. The major role of the Lake Huron Coastal Centre is to guide and support sustainable environmental practices along Lake Huron's coastline.

# **Interested in Geocaching?**

#### by Doug Furtney

Standard Guide Advocate Sept. 14, 2017

The St. Clair Region Conservation Authority is hosting a Geocaching Adventure at Lorne C. Henderson Conservation Area near Petrolia on Sunday, September 17 from 9:00am-3:00pm. This is a chance to ex-

This is a chance to explore the Conservation Area with a "Geocaching is migh-tech treasure hunt which uses a global positioning system (GPS) unit to locate a hidden cache (treasure). This event is for both seasoned geocachers and for those that want to just see what geocaching is all about. Staff will be available to provide the basics to get you started. You can either bring your own GPS receiver or borrow one. There are a limited number of GPS receivers available. A computer will be set up to upload the coordinates to your GPS (if your GPS needs a special cable please bring it). There will be a potluck lunch.

For more information on a Geocaching Adventure contact Sharon at 519-882-2399 or by email at snethercott@scrca.on.ca. The Lorne C. Henderson Conservation Area is located 4 km west of Petrolia at 3653 Petrolia Line.

Sharon Nethercott, SCRCA Conservation Education Coordinator, locating a geocache using a GPS receiver. Photo submitted



#### OSCIA St. Clair Region Soil & Crop Newsletter Sept. 2017



Crops & Conservation is a column jointly submitted by the Essex, Lower Thames Valley and St. Clair Region Conservation Authorities. As farmers are amongst the most important groups of partners with whom conservation authorities work, we are pleased for this opportunity to exchange information and ideas.

#### **Conservation Areas**

Connecting people to nature is a top priority for all conservation authorities. In today's world of computers, tablets, cell phones and hectic schedules, purposeful efforts must be made to simply unwind in the outdoors. A compelling body of evidence exists that trees and natural areas are essential elements to ensure the overall health of our communities.

Fall is a marvelous time for families to explore the great outdoors, and local conservation authorities have planned a variety of activities to appeal to all ages and get people active in nature.

#### DID YOU KNOW ...

Introducing kids to nature has numerous health benefits including better motor coordination, increased physical activity, healthier body weight, better concentration, reduced symptoms of ADHD, less depression and a greater sense of energy.

#### **Community and Tree Planting Events**

Conservation Authorities are also partnering over the next few weeks with the TD Friends of the Environment Foundation to host 'TD Tree Days'. These events allow families the opportunity to plant trees on public lands to improve the environment while connecting to nature. Events will take place at



#### C.M. Wilson Conservation Area on September 23, in Learnington on October 15, in Sarnia on October 21 and in Windsor on October 22. People who wish to attend are generally asked to pre-register, and more information can be found on each Authority's website.

#### Migration Celebration

Keep looking up this fall as the raptor migration takes place. Holiday Beach Conservation Area has been identified by Audubon Magazine as one of the top ten locations in North America for hawk watching. Guests are invited to celebrate the migration at HawkFest 2017, happening September 9/10 and 16/17. "Every September through November, Holiday Beach in Amherstburg becomes a migration hot spot as fall winds carry migrating hawks, songbirds,

hummingbirds, dragonflies and butterflies across the skies and past the hawk tower," explains Kevin Money, ERCA's Director of Conservation Services. "There's no better place in Canada to witness this migration spectacle and see a wide variety and huge quantities of these majestic raptors."



## CROPS & CONSERVATION - Volume 3–Issue 3

#### (...continued from previous page)

#### **Treasure Hunting**

Come out to L.C. Henderson Conservation Area on September 17 for a geocaching adventure. This is a chance to explore the Conservation Area with a "Geocaching Twist." Geocaching is a high-tech treasure hunt which uses a global positioning system

(GPS) unit to locate a hidden cache (treasure). This event is for both seasoned geocachers and for those that want to iust see what geocaching is all about. Staff will be available to provide the basics to get you started. You can either bring your

own GPS receiver or borrow one. There are a limited number of GPS receivers available. A computer will be set up to upload the coordinates to your GPS (if your GPS needs a special cable please bring it). There will also be a potluck lunch.

#### **Celebrations of Harvest**

treasure hunt which uses a global positioning system (GPS) unit to locate a hidden cache (treasure). This event is for both seasoned geocachers and for those



#### Sharon Nethercott, SCRCA Conservation Education Coordinator, locating a geocache using a GPS receiver

#### How You Can Learn More:

Your local conservation authority offers a variety of programs and special events for all ages. If you are interested in learning more, contact one of the agricultural liaisons listed below.

ESSEX REGION Michael Dick Agricultural Technician 519-776-5209 ext. 369 mdick@erca.org LOWER THAMES VALLEY Colin Little Agricultural Program Coordinator 519-354-7310 ext. 231 ST. CLAIR REGION Jessica VanZwol

Healthy Watershed Specialist 519-245-3710 ext. 241 jvanzwol@scrca.on.ca



# THE OBSERVER

SARNIA AND LAMBTON COUNTY'S DAILY NEWSPAPER SINCE 1853

POSTMEDIA

**THURSDAY, SEPTEMBER 7, 2017** 

# Wetlands make comeback



Jessica Van Zwol of the St. Clair Region Conservation Authority discusses a wetland restoration project near Wilkesport in Lambton County. The recently completed project was helped with a \$12,000 contribution from Union Gas.

#### St. Clair Region Conservation Authority shows off latest project in Lambton County

#### TYLER KULA

THE OBSERVER

Hundreds of young oak, poplar and sycamore stand in a bowled one-hectare lot behind a farm field east of Wilkesport.

A screech from a hawk, or maybe an eagle, catches Steve Arnold's ear.

"Neither species was in abundance five years ago," says the St. Clair Region Conservation Authority chairperson. "It's things like this that bring them back."

He joined a small group Wednesday checking out the authority's newest wetland restoration project along the Sydenham River watershed.

It's one of hundreds of similar projects undertaken since a system to divert floodwater from Wallaceburg was finalized in the 1980s, using floodplain spaces sporadically submerged when the W. Darcy McKeough Floodway is put into use.

"This was the way alot of us envisioned a lot of these marginal lands would be taken out of production," said Arnold, who's also mayor of St. Clair Township.

The land in question is owned by the authority and has been tenant farmed, but the low-lying area was converted this spring.

TYLER KULA/THE OBSERVER

See WETLAND | A2

# 20 other projects also in the works

#### WETLAND from page A1

Union Gas contributed \$12,000 to the project.

The land wasn't well suited to good cash crop yields, said Jessica Van Zwol, an authority healthy watershed specialist.

Wetland species are springing back to life from the natural seed bank alongside more than 1,000 young trees planted in the newly bermed and excavated basin, she said.

Plans are to continue mowing back and spraying weeds for two or three years until the trees — which can handle being underwater — can thrive on their own, she said, The vegetation helps remove harmful chemicals from water running through, even mitigating phosphorus contributing to Lake Erie algae blooms, she and Arnold said.

"Wetlands are a form of flood retention and when that water is returned, it should leave cleaner, or have an improved water quality, than when it came in," Van Zwol said.

As far as helping hawks and eagles, there's more bare ground in the area, offering better hunting for rodents than when the land was farmed, Arnold said.

Eight times since the floodway wasbuilt in 1984, the dam at Duthill has been closed to divert water that could have submerged vehicles in Wallaceburg along the Sydenham watershed, in some places boosting levels six metres, he said. The McKeough floodway, which empties into the St. Clair River south of Sombra, was last used in 2009, he said, when spring melt and rainfall pushed the icepack up and froze the Wallaceburg Hospital parking lot even after the dam was closed.

The dam was built after a 1968 floodsubmergedmuchofthenorthern Chatham-Kent community.

The authority acquired floodplain land in the aftermath to keep it for diversion purposes, Van Zwol said.

Meanwhile, officials are working on another 20 or so restoration projects, partnering with homeowners and private investors like Union Gas to make them happen, she said.

Union Gas's contribution to the project was a natural fit with the company's focus on the natural environment, said Steven Jelich, district manager for London and Sarnia: "We recognize we play a big responsibility in helping to conserve."

The project, which cost about \$14,000, also won funding from Wildlife Habitat Canada, Van Zwol said.

The authority always looks to partner with landowners to restore wetlands along the floodplain, she said, and seeks corporate and government funding to ease the financial burden.

"Because if (owners are) retiring cropland, that in itself is their financial contribution," she said. *tkula@postmedia.com* 

## **Geocaching Adventure** at Lorne C. Henderson Conservation Area

#### By Doug Furtney

The Open Trails Henderson Geocaching event was a great success with 40+ geocachers exploring the trails on Sunday September 17th. Twenty new geocaches were placed for this year's event. Upon finding a cache, geocachers signed their geocaching name on the log paper inside the container and replaced the cache as found. Several new geocachers were introduced to this great activity that gets people outdoors. A few groups found all 20 geocaches, but others will return on another day to find the rest. The next Open Trails Henderson event will take place in September 2018. Anyone interested in finding out more about geocaching and other local events can look on-line at www.geocaching.com

# Bluewater Anglers Newsletter October 2017

### The St. Clair River Area of Concern

The St. Clair River was identified as an Area of Concern in 1987 due to a lengthy history of urban and industrial development. For almost 30 years, the local community, First Nations and government have been working together to improve the water quality and aquatic habitat of the St. Clair River and remove it from the list of Great Lakes Areas of Concern.



#### **Restoration Progress**

Decreasing contaminant levels in local fish Rebounding wildlife populations - Bald Eagles are back!! Reduced industrial spills and combined sewer overflows The river looks nicer - no persistent sludge or oil slicks Implemented over 280 habitat projects Completed 12 shoreline restoration projects



Jessica Van Zwol, Healthy Watershed Specialist, St. Clair Region Conservation Authority; Steven Jelich, Sarnia/London District Manager, Union Gas; Steve Arnold, Chair, St. Clair Region Conservation Authority at the site of the wetland restoration project. Union Gas has donated \$12,000 to the St. Clair Region Conservation Authority (SCRCA) to fund a wetland restoration project. The site of the newly rehabilitated wetland is on an SCRCA property adjacent to Black Creek in Wilkesport.

By Nick Sitter Standard Guide Advocate Public council meeting call to order at 7:03 p.m. There were no presentations or delegations present. Item 3.9.1) Zoning Bi-law for Watt St, Forest. Discussion of residential usage on commercial properties illustrated that current usage already allows for conditions and that the province has dictated that there is to be a further reduction on limitations. Amendment Approved. Item 3.9.2) Zoning Bi-law for Ipperwash Road and West Parkway Drive. Discussion was held regarding updating the zone classification of properties along the beach in this area. Residential classification will not change, so tax rates for these residences will remain the same. modifying only in accordance with their property values. Resident Judy Lane had requested clarification about this and also about changes being made to the Environmental Protection Hazard Line. The EPHL is moving farther inland, which will modify future repairs and restrict new construction on some lots, but this move is in accordance with standards provided by the St. Clair Conservation Authority. Amendment Approved.

2017

Sept. 14,

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Guide .

# Pilot project aimed at helping eradicate invasive reed

By <u>Paul Morden</u>, Sarnia Observer Wednesday, October 18, 2017 3:18:49 EDT PM



Nancy Vidler, with the Lambton Shore Phragmites Community Group, is shown in this file photo at a project to battle the invasive weed in a wetland next to Lake Huron. A pilot project has been proposed that would see the St. Clair Region Conservation Authority take on a coordinating role in the local fight against phragmites. (File photo/Sarnia Observer/Postmedia Network)

A plan to formally coordinate the local war against the invasive reed phragmites has the backing of a Lambton County council standing committee.

Committee members voted Monday to endorse a recommendation by county staff to include \$20,000 in Lambton's 2018 budget for use by the St. Clair Region Conservation Authority for a phragmites control and coordination program pilot project.

The call for a coordinated county-wide effort to battle the tough-to-eliminate non-native reed was first made last year when Nancy Vidler, of the Lambton Shores Phragmites Community Group, spoke at county council.

Introduced to Canada from its native Eurasia, invasive phragmites grows tall and dense, and its roots release toxins that can kill surrounding plants. Once it takes hold, the reed can crowd out other plants, as well as birds and other wildlife.

The community group is made up of volunteers who came together in 2008 in Port Franks to get rid of phragmites at its beach. They carried on working and raising funds to eradicate it at other locations in Lambton Shores, becoming a primary driver in the county of awareness and action against the invasive reed.

"They have taken on so much, and they have done such a good job, but they really have reached out to say, 'We need some help to do everything that needs to be done,'" said Jason Cole, Lambton County's general manager of infrastructure and development services.

The pilot project with the conservation authority is designed to take on much of the work the volunteer group has been doing on education and advocacy, coordinating funding requests and overseeing projects.

Cole said that includes "getting the stakeholders together with different municipalities so that we're focused on the whole area, rather than just the road allowance" or a single community.

"Somebody has to champion that," and keep groups working on the issue "rowing the boat in the same direction," Cole said.

County staff settled on a pilot project with the conservation authority instead of recommending creating a new county staff position or setting up a separate committee or board.

One of the challenges for the county is that it has little authority outside of its own roadways, where it spends \$70,000 a year applying herbicide and cutting stands of phragmites.

"Although we have strong community connections, we don't have the ability to help every individual who might need to fight phragmites," Cole said.

The community group, he added, "has been reaching these people, finding the funding and working with landowner groups or beach community groups to make sure they get the resources helping them to clear that phragmites."

Cole said the conservation authority has agreed the task fits within its mandate, adding the pilot project will coordinate with the Ausable Bayfield Conservation Authority, which also covers a portion of Lambton.

"We're all in agreement that any effort we can put on phragmites is a good thing," Cole said.

If the request for \$20,000 in funding is approved in the county's upcoming budget, Lambton would enter into an agreement with the authority to provide enhanced services for phragmites control and coordination.

That funding will be on top of what the county spends spraying and cutting the reed on its road allowances.

While the approximately \$330,000 Lambton has spent since 2013 battling phragmites along its roads is having an impact, "it is a very tenacious plant," Cole said.

"It spreads rapidly, and when we attack one area we don't always get it in the first try, or the second try or the third try."

Repeated applications of eradication treatments can be required to control the reed, Cole said.

"It is a long-term commitment," he said.

# Cracks in the foundation | The price of living on the edge

Donna Dobroski's home is slowly sliding into the valley. It's not just her problem — it's a problem for all taxpayers

NEWS Oct 13, 2017 by Matthew Van Dongen | Hamilton Spectator

Welcome to the first part of Living on the Edge, a three-part series by Spectator reporter Matthew Van Dongen.

Hamiltonians already know fighting gravity is an uphill battle. They're used to the unique challenges of hosting a Mountain in the middle of their city, like paying more for snow-clearing, replacing brake pads more often and watching more closely for falling rocks than your average city slicker.

Many residents will argue it's a small price to pay for fantastic vistas, trails, parks and waterfalls. But the cost of that beloved geography is now on the rise — for all taxpayers, whether you live on the edge or not — thanks to a mix of historically-bad planning, surprisingly good marketing and an inexorably-changing climate.

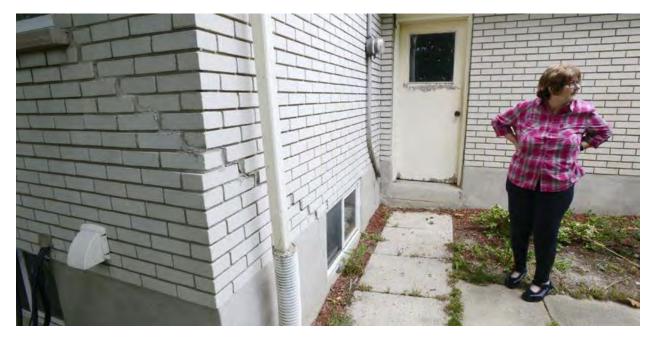
The city is being asked to save or buy homes historically built too close to the edge. Escarpment rocks — and the walls meant to keep them in place — are falling more often on our Mountain-climbing roads. Even our visitors are literally falling for our waterfalls with alarming frequency.

The proposed solutions to those problems come with big dollar signs and tough questions.

Do we have a moral or legal obligation to buy homes teetering on the brink? Do we spend tens of millions of dollars protecting motorists on escarpment roads but put off Mountain-climbing bike lanes? Should we fence off nature to save careless visitors from themselves?



How much longer will it lean? Donna Dobroski in her backyard where the fence teeters over the Red Hill Valley.



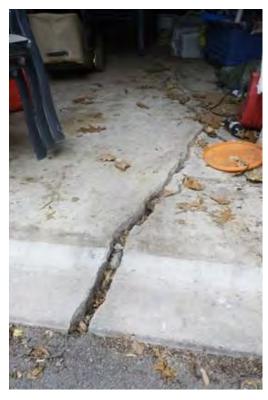
Donna Dobroski's distress: The corner of her house has settled, causing an ugly crack in the brick wall due to erosion into the Red Hill Valley behind her home.



Donna Dobroski is asking the city to buy her house before it falls off the edge of a cliff into the Red Hill valley. The city is receiving such requests more frequently and has asked a Mac prof to study erosion rates along the escarpment to evaluate future risk.



Donna Dobroski's fence is falling over due to erosion behind her house.



The garage floor of Donna Dobroski's home is being split by a crack.



A retaining wall of railway ties was installed behind her Donna Dobroski's house. It was later reinforced with concrete blocks, above.



Donna Dobroski is asking the city to buy her house before it falls off the edge of a cliff into the Red Hill valley. The city is receiving such requests more frequently and has asked a Mac prof to study erosion rates along the escarpment to evaluate future risk.

The Red Hill Valley is slowly devouring Donna Dobroski's precariously-perched home. The edge of the four-storey-high, forested valley slope — a "dream backyard" for kids before it morphed into a homeowner's nightmare — is inching inexorably closer to the back door of the brick bungalow at 18 Sinclair Ct.

Over 45 years, erosion has gradually won the battle against three wooden boundary fences, the willow trees planted to stabilize the 12-metre-high slope and even a makeshift retaining wall of stacked cement blocks and railway ties.

But the real problem is an alarming series of cracks spreading through her foundation. Her walls, inside and out. Even the concrete garage floor, one half visibly sunken compared to the other.

The 70-year-old grandmother wanders through her tidy dining room and lifts up strategically-placed family photos to reveal spiderwebs of damage on the walls. She points upwards to a seemingly random piece of wood trim that doesn't completely hide another crack growing across the ceiling.

She wants to stay, but there's only so much family photos can do to preserve the structural integrity of your home.

**"It's a heckuva predic**ament. It breaks my heart to even think about leaving, but common sense tells me I should take whatever help I can get and try to find a new **home," said Dobroski, who appealed to the city for help and is mulling a council** purchase offer made on compassionate grounds.

The teetering home is actually a predicament for all Hamilton taxpayers, whether they live on the brink or not.

Climate change is accelerating the consequences of poor planning more than half-acentury ago that allowed hundreds of homes to be constructed close to the top of creek valleys and the scarp edge of urban Hamilton. In some cases, too close. And when the city steps in to help, everyone pays.

A fair question to ask is whether the city is actually obligated to help out scarp-edge homeowners who find themselves on the literal brink of financial ruin.

City lawyers maintain in a report the municipality is not negligent or liable for **Dobroski's predicament.** 

The longtime homeowner, on the other hand, argued the city should consider fixing the eroding slope since the valley is municipally-owned. The city also made the rules — long since changed — that allowed the home to be built near the edge in the first place.

The city agreed to investigate — and an engineer soon quashed Dobroski's dreams of staying put, estimating it would cost at least \$250,000 to stabilize the shifting slope. The work would also have meant clear-cutting trees other homeowners depend on to block noise from the Red Hill Valley Parkway.

# "He told me this house should never have been built so close to the edge," said a chagrined Dobroski. "Today, it wouldn't be."

Today, the Hamilton Conservation Authority enforces a minimum six-metre setback **from "stable top of slope" for such builds. (The city and Niagara Escarpment** Commission also have a say on development along the urban scarp edge of the Mountain.)

Those setbacks also grow based on studies of slope and geological stability, risk of erosion from watercourses and other factors. "There's a lot more science involved today than even 30 years ago," said watershed engineering director Scott Peck.

So far, the city has not comprehensively studied how many homeowners might be living dangerously close to the edge.

But the conservation authority's "hazard land" map shows hundreds of residential properties backing onto creek valleys in Hamilton, particularly in the east end.

In the old city, seven estate homes atop the Mountain look directly down on the Claremont Access, while close to 30 houses on Mountain Park Avenue line the urban escarpment edge — including one that doesn't have a backyard at all, only a recently approved deck extension sticking out into the air above the lower city.

Dobroski's home isn't the first to be purchased by taxpayers — and it won't be the last, predicted her ward councillor, Chad Collins. Her home wasn't even the first bought by the city on her street.

Collins said the city has "set a precedent" in the past by offering help on compassionate grounds. "Part of it is recognizing that at the time when these houses were built, in the '40s and '50s, the setback regulations we now have simply did not exist," he said.

"Now we're seeing the effects of climate change on private and public property. We're seeing it along the Red Hill, we're seeing along escarpment crossings. It's not something we can just ignore ... but the implications are costly."

The cost of compassionate purchases is certainly on the rise.

Consider:

- City records show a different Sinclair Court home with bowing foundation walls was purchased for \$165,000 by council in 2004 and lumped in with the parkway-building project in the valley below.
- The city paid \$278,000 to buy Abacu Mendonca's Hixon Road home in 2013 after flooding collapsed part of his backyard into the Red Hill valley, leaving his back door less than a hockey-stick-length from the brink.
- The city and Dobroski haven't finalized a deal for her home yet. But market value trends suggest homes on the street are worth between \$300,000 and \$400,000.

#### The city doesn't always agree to help. But sometimes it still has to pay.

The city denied responsibility for a collapsing east end home nearly two decades ago — but ended up being forced to pay for a drawn-out lawsuit and court-ordered slope monitoring.

The lawsuit with a Quigley Road housing co-op started when a townhouse started to tilt over the edge of the Davis Creek valley. It was condemned by the city and torn down.

It's not clear what the city paid to wage that legal battle over nearly 20 years. But in 2014, a judge ordered the city to monitor slope movement below the co-op as well as foundation cracks in two townhouses for the next decade to ensure no other buildings topple over the cliff.

Teetering house syndrome is certainly more pronounced along the Red Hill Creek and its tributary valleys.

But the city is increasingly turning nervous eyes to the urban escarpment — which in some areas looms 100 metres above the lower city, or as high as Stelco tower.

The Hamilton East Mountain Community Group approached council this spring with a list of concerns about sink holes along the brow and slowly eroding backyards.

"We want the city to pay more attention to what climate change is going to mean for our community," said Kate Fraser. "There are a lot of people living along the brow."

Further west, engineers are particularly preoccupied with failing metal retaining walls along the Claremont Access that have repeatedly collapsed or burst apart, leading to road-closing landslides.

Harry Stinson watches nervously from above as the city tries to fix the problem.

"My yard goes right to the edge," said the well-known developer, who bought his toney cliff-top home above the Claremont about nine years ago. "I can peer over and watch them chewing away at the rock."

The aging metal bin walls at the top of the access hug the edge of his backyard.

The city now plans to remove all or most of those old metal panels — at a cost of close to \$10 million — but has yet to settle on how to make the bared cliff face safe in future.

A consultant's report says the ideal option would be to cut large, terraced "steps" into the escarpment slope to minimize future landslides. But doing so "will likely have property impacts" on homeowners living along the brow.

The north end of Stinson's home is a couple of long strides from the scarp edge. He admits to feeling "unnerved" by the prospect of the city eating away at the cliff below his backyard. "I'm not concerned it's going to fall down tomorrow, but it does cross one's mind," he said.

Stinson emphasizes he doesn't regret buying the "breathtaking" view overlooking the lower city and harbour, even with the risk to his backyard posed by erosion — and possibly, municipal construction beneath him.

"I'm reminded why I did it every morning when I look out the window," he said.

"But it is disconcerting to feel like there isn't really a plan (for access erosion)," he said, noting the city has not contacted him about any implications of wall removal. "I'm not convinced the city really knows how to deal with this."

The city actually just started working on a new plan: specifically, an escarpment-wide Mountain access maintenance strategy.

The strategy is more focused on preventing rocks from falling on roadways than, for example, the prospect of brow homes tumbling into the lower city.

But the work slated to start this fall will help the city understand how quickly the urban escarpment face is actually disappearing. That has implications for Mountain roadways, infrastructure and, yes, homes.

"I think we need to get a handle on how quickly that erosion is happening," said Mountain councillor Terry Whitehead. "Maybe someday the city is going to end up debating whether to buy up some of those homes (along the brow.)

"Maybe that's 40, or 50 or 75 years away — or maybe it's a lot sooner than we think. The point is, we don't know."

That's part of the reason Hamilton has hooked up with McMaster University professor Carolyn Eyles, who is preparing a hi-tech study of erosion rates along the urban scarp face with help from her students.

But don't expect an easy answer on how quickly Mountain brow backyards are disappearing. The slow retreat of the hard-capped shale of the Niagara Escarpment has been underway for millions of years, but its progress is not uniform.

"It would be very difficult to give a generic average, because the actual geology, the properties of the rock layers, can vary dramatically even over a 100-metre section," said the glacial sedimentologist.

"The one thing we know for sure is that it's going to keep going, so you have to plan for it," she said.

#### A hospital on the edge



Donna Dobroski The view from the Sherman Cut of the Juravinski Hospital and Cancer Centre's structural overhang.

In case you wondered, the Juravinski Hospital and Cancer Centre is not about to topple off the edge of a cliff.

Yes, people do wonder.

Typically, they email or write letters to The Spectator asking about the uniquelyperched former Henderson hospital whenever a new "escarpment falling down" story is published.

"What kind of engineering considerations went into the rebuilding of parts of Juravinski Hospital directly on the edge of the escarpment?" asked Jim Foreman by email after reading about a new city effort to measure Mountain erosion. "It's rather breathtaking, really."

"I hope their research and convictions in the enduring stability of that section of the Mountain is well-founded, for the sake of the patients, employees and taxpayers," wrote Ancaster resident Beverly Myhal in a letter to the editor after a landslide.

The short answer to everyone's question comes from Carol Whiteman, a senior project manager for capital development with Hamilton Health Sciences. "The sedimentary rock is solid," she told The Spectator. "That's why we were able to build so close to the edge."

There has been a hospital on the brow since 1917. The former Henderson hospital stretched most of the way to the Sherman Cut decades before modern building setbacks came into play.

The four-storey redevelopment finished in 2012 offers patients — particularly long-term stay candidates for bone marrow transplants — one of the best views of the lower city and harbour.

The hospital is separated from the natural scarp edge by parking and Mountain Park Avenue. But the east end of the building comes to within a couple of feet of the Sherman Cut, a narrow, sheer-walled access blasted out of the escarpment rock decades ago to connect the upper city with both legs of the Sherman Access.

Whiteman said hospital redevelopment planners spent "years" studying and then justifying the rationale for redeveloping what is now one of Canada's busiest cancer centres right on the brink.

She said engineers, geoscientists and other experts had to satisfy regulators and Infrastructure Ontario about everything from the stability of various rock layers to the impact of traffic vibration before the 425,000-square-foot, \$180-million redevelopment got the go-ahead on its current footprint.

Around 50,000 cubic metres of rock was excavated to build a foundation that was reinforced with 120 truckloads of concrete and 40 tonnes of steel rebar.

The city and hospital later shared the cost of installing protective mesh over the wall of the Sherman Cut that lines up with the hospital wall above.

#### That screen doesn't stop weather and natural erosion from eating at the wall, of course.

But the city monitors that erosion and the hospital regularly inspects its own facility and so far, no extra protective work is deemed necessary, said Sam Sidawi, Hamilton's asset management head.

In theory, the rock face underneath the hospital could be shored up with a retaining wall, if needed, he said. "But the hospital is responsible for the structural integrity of its facility," he noted.

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www.thespec.com/news-story/7610866-cracks-in-the-foundation-the-price-of-living-on-the-edge/