

April 20, 2017

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

Present: Steve Arnold, Chair; Alan Broad, Tony Bruinink, Joe Faas, Norm Giffen, Larry Gordon, Mike Kelch, Betty Ann MacKinnon, Don McCallum, Steve Miller, Frank Nemcek, Cindy Scholten, Muriel Wright, Jeff Wesley, Jerry Westgate

Absent: Andy Bruziewicz, Vice Chair; Kevin Marriott, John McCharles, Dan McMillan, Gerry Rupke

Staff Present: Brian McDougall, General Manager; Kevan Baker, Director of Lands; Girish Sankar, Manager of Water Resources; Erin Carroll, Manager of Biology; Patty Hayman, Director of Planning; Melissa Deisley, Regulations Officer; Tracy Prince, Director of Finance; Rick Battson, Director of Communications; Donna Strang, St. Clair River AOC Co-ordinator; Marlene Dorrestyn, Administrative Assistant

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-17-029

Bruinink - MacKinnon

“That the minutes of the Board of Directors meeting, held February 16, 2017, be approved as distributed.”

CARRIED

The General Manager's Report was presented:

- Annual General Meeting (AGM)
 - at our AGM some comments several comments were provided that were spoken to at the event and have been acted upon since the meeting
 - a concern was brought forward regarding the notification / advertisement of the Authority's AGM on the Authority's website
 - the Authority's website has for quite some time included a list of Board Meetings (including the AGM) which are and have always been open to the public
 - provisions have been made to ensure that the website will include notice of the AGM as a special event in future years as well as under coming events on the Authority's main webpage
 - a further concern was outlined regarding the membership of the Board of Directors being expanded to include representation from the Agriculture community
 - this concern was addressed several times during the review of the Conservation Authorities Act

- the Act current outlines the makeup of the Board of Directors and we are fortunate to have a broad cross section of municipal appointments that include several with experience in agriculture
 - through their appointments, our member municipalities may appoint members of council or community members to the Board of Directors and a change in legislation will be required alter the current Board member appointment method
- Aichi Biodiversity Targets
 - the Government of Canada has established a series of 20 targets to be achieved by 2020 to meet the objectives agreed to at the Convention on Biodiversity
 - Target 11 commitment states:
 - “by 2020, at least 17 percent of terrestrial and in-land water and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes”
 - Environment and Climate Change Canada (ECCC) recognizes that Conservation Authorities own important and diverse land holdings which may be important to be include in the areas recognized in confirming targets exceeded for the Aichi targets
 - ECCC hosted a workshop in Barrie on March 28th to review the evaluation process with Authority staff and confirm the information that may need to be compiled in order for Authority Conservation Areas to qualify
 - a further workshop is to be scheduled to establish common terminology, assess time commitments and discuss potential funding
- Queen’s Park Day
 - Conservation Ontario hosted the second Annual Conservation Authorities Queen’s Park Day on April 4th – Chair Arnold and I attended
 - 13 Ministers, 24 MPPs attended as well as representatives from 28 Conservation Authorities, plus CO staff, Deputy Ministers, Assistant Deputy Ministers, Environmental Commissioner staff, Mining and Lands Commissioner staff and Ministers’ staff - approximately 150 people in total
 - both MPP Monte McNaughton and MPP Bob Bailey took time away from a caucus meeting to share a few moments with us
 - Minister of Natural Resources and Forestry Kathryn McGarry spoke at length about the importance of Conservation Authorities, the broad range of program they deliver that are tailored to their watersheds and the breadth of provincial programs that benefit from Authority activities
 - she also indicated that the Conservation Authorities Act will be active on the governments agenda this “spring”

BD-17-030

Miller - Gordon

“That the Board of Directors acknowledges the General Manager’s report, dated April 10, 2017.”

CARRIED

A staff report regarding Ontario’s Environmental Registry was discussed.

- the Environmental Registry (“Registry”) is a website that provides public access to a database holding information about environmental proposals and decisions made by the Ontario government. Proposals vary from individual permit to take water applications, official plans, environmental compliance and licensing, legislation and regulations, etc.
- the Registry is an important part of ensuring that the public can participate in decisions being made on environmental issues. The Environmental Registry is the only one of its kind in Canada and was created under Ontario’s Environmental Bill of Rights, 1993 (EBR).
- through providing internet access to environmentally-relevant information, the Environmental Registry allows the Authority and the public to exercise its right to be given public notice of a range of government proposals and decisions related to environmental matters, and be able to provide comments on those issues.
- the Environmental Commissioner of Ontario is responsible for monitoring that the government fulfils its obligations under the Environmental Bill of Rights, including the Registry. Additional information is available on the Environmental Commissioner’s website (www.eco.on.ca).
- use of the Registry has grown over the past 3 year from 2368 posting in 2014, to 2897 in 2015 and 3704 in 2016. Over 1130 postings have been undertaken in 2017, appearing to show a continued trend.
- the comment period for postings varies greatly. Some postings have comment period of less than 20 days and some as long as 120 days.
- Conservation Ontario has been helpful in drawing together comments from all Authorities and providing one submission on our behalf on many issues. However, some issues that are of great importance or may have a regional or local focus require local comments. The Authority has contributed to many of Conservation Ontario’s submissions and has also provided comments from the Authority directly – such as the Authority’s comments regarding the Conservation Authorities Act review approved by the Authority Board in June of 2016.
- concern has been brought forward that a procedure for Board approval of comments should be established in order for any comments provided under the St. Clair Region Conservation Authority banner has Board support.
- with a variety of issues, mostly around timing, slowing procedure development, we are working towards a draft procedure that ensure that the Board has the time to review proposed posting comments and to provide comments as well as confirming or denying support for proposed posting comments in a timely fashion. Requesting extensions for comment periods may assist with this process, however our bi-monthly meeting schedule hampers the opportunity for open discussion at a Board meeting.
- it is hoped that through improved digital communication (e-mailed links to postings, attached draft comments and emailed responses of support) we may be able to obtain support for proposed comments in a timely fashion.

- if this concept is found to be suitable by the Board, a written procedure will be provided at the next meeting for Board review.

BD-17-031

Kelch - Nemcek

“That the Board of Directors acknowledges the report, dated April 10, 2017, regarding Ontario’s Environmental Registry and the opportunities for comment that it provides as well as a draft process for comment submission on the St. Clair Region Conservation Authority’s behalf.”

CARRIED

The minutes of the April 3rd Conservation Ontario’s Annual General meeting were reviewed.

BD-17-032

Wesley - Westgate

“That the Board of Directors acknowledges the minutes of Conservation Ontario’s Annual General meeting held April 3, 2017 at Black Creek Pioneer Village in Toronto as well as a list of members appointed to standing committees as Conservation Ontario representatives and a presentation to Council on behalf of Lake Erie Conservation Authorities.”

CARRIED

A staff report regarding business arising was reviewed:

- under New Business: the Chair recognized Dave Ferguson, a Brooke-Alvinston resident who wished to address the meeting. Mr. Ferguson requested that the annual meeting be posted as a special event on the Authority website and that he wanted to see the membership of the Board of Directors include a representative of the agricultural sector.
– see GM’s report

BD-17-033

Scholten - Kelch

“That the Board of Directors acknowledges the updates on business arising from the February 16, 2017 meeting.”

CARRIED

A Conservation Lands Update was reviewed:

- 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 420 seasonal campers and are financial self sufficient
 - profits obtained from our campgrounds are used to offset capital improvements
 - the camping season in 2017 runs from Friday, April 28 to Thanksgiving Day

- Warwick Conservation Area
 - a 24 x 32 ft pole type storage shed to be constructed
 - engineered wood chip playground protective surfacing to be installed at the main day use area play equipment
 - roads to be upgraded with gravel
 - pool washroom hydro panel to be upgraded
 - 550 meters of new chip and dust trail to be developed around the perimeter of the 5-acre climate change tree growth plantation (Foundation).
- L.C. Henderson Conservation Area
 - campground pool to be renovated with 2 new ladders and entrance railing
 - road to be upgraded with gravel
 - 10 new picnic tables have been constructed
 - shower area to be upgraded with new shower surround and ceramic tile on the floor and walls
 - a new sidewalk to be 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 to be installed on the main washroom building and on 2 utility poles
- A.W. Campbell Conservation Area
 - a new concrete side walk to be constructed at the pool washroom and visitor center
 - permanent hydro (6 – 30 amp campsites) to be installed at the Campbell house group camp area
 - water distribution pump house to be renovated with new internal and external siding and new internal plastic water lines
 - roads to be upgraded with gravel
 - 10 new picnic tables have been constructed
 - a butterfly meadow has been seeded-in on the old train station site
 - staff were busy preparing for the annual syrup festival; approximately 700 people attended the event this year which was held on March 18th & 19th .
- Highland Glen Conservation Area:
 - there are significant improvements planned for the conservation area this year, improvements focus mostly on the upgrade of the boat ramp walkways and sea walls, including:
 - install approximately 40 ft of new walkways along one side of the boat ramp, this will allow for more than one boat to dock at a time
 - repair existing seawall by excavation and installing new tie back supports
 - remove existing non-operational dock supports from within the harbor area
 - re-position armor stone to provide better protection for the steel seawall
 - there will be fees charged this year at the conservation area for use of the boat ramp and vehicle entry
 - cost to launch a boat is \$120.00 per season or \$10.00 per launch; vehicle fees are \$60.00 per season or \$5.00 per day. Purchase of a seasons pass will also allow entry into other St. Clair Conservation areas.

- these fees will be collected through the MacKay Pay system, where payments are collected on line or by phone.
- revenues collect will be used to offset future repair costs to the ramp and seawalls
- to date we have had 4 seasonal boat ramp passes and 2 vehicle seasonal pass purchased
- Other Lands Activities:
 - Keith McLean Conservation Lands - Matt Caron and Kelly Johnston (property overseers) resigned their positions effective February 28, 2017; this position has been filled by Scott O'Brien who has been on site since the end of March
 - Keith McLean Conservation Lands- a new floor has been installed in the Kent Bridge Road pump house
 - a new 5-year tower lease is being negotiated with Cogeco Connexion Inc. for the existing tower & building (Peers Wetland CA)
 - existing tennis courts to be removed and new courts constructed at the Esli Dodge Conservation Area (project of Lambton Shores)
 - staff have been maintaining many of our trails system this spring by removing fallen, dead or dangerous trees and installing or repairing boardwalks
 - over the winter we have accepted campsite reservations (overnight camping only) at the administration office for our 3 regional campgrounds; as of March 31st over 750 reservations have been taken, collecting \$ 96,649.00; as compared to 678 reservations and \$ 87,000.00 collected in 2016 (HST adjusted)
 - our financial goal in 2017 is to collect \$ 225,000 in overnight camping and \$800,000 in seasonal camping.

Directors' Comments:

- would like a means for feedback implemented regarding Conservation Areas, so the public can voice their concerns.

BD-17-034

Scholten - Bruinink

“That the Board of Directors acknowledges the Conservation Lands Update dated April 7, 2017, outlining development and management activities on Conservation Areas, and Foundation Lands.”

CARRIED

A publication from Enviro-Friends of Coldstream outlining upcoming events and programs was reviewed.

BD-17-035

Faas - Giffen

“That the Board of Directors acknowledges the “Enviro-Friends News” publication and the projects, activities and events that are taking place at the Coldstream Conservation Area.”

CARRIED

A staff report on water levels, current and flood conditions was presented.

- Watershed Stream Flow
 - as has been the case in the past few years, there was no single major freshet event this spring. There were two high water events with Water Safety Bulletins issued at the beginning of March and again at the end of the month extending into the first week of April. While there were no significant complicating issues such as ice jamming, significant rainfall over short periods raised levels quickly maintaining higher flows throughout March and into April.
 - comparison of monthly average flows with total period on record for all hydrometric stations indicates, with the exception of Alvinston and Dresden that river flows are 10% to 20% higher than the expected average due to rain events in March.
 - an additional contributing factor increasing levels as much as 20cm were periods of high winds from the west restricting outflows at Wallaceburg prolonging the impact of earlier rain events
 - precipitation number reflect a similar trend across the region with three-month averages 21% above normal. The six-month and twelve-month totals however remain 10% lower following low water conditions that prevailed throughout 2016.
 - with the exception of a storm event bringing snow in early April, generally, snow remains only in central and northern areas of the province. With the lack of snowpack across the watershed and warmer temperatures there will be little impact from melting snow on water levels into the remainder of April
- Flood Threat
 - based on current conditions we continue to monitor any major rain events. Current high levels have reduced capacity of watercourses to absorb any additional significant rainfall. This condition is expected to prevail into April with seasonal flows remaining above the average range and any precipitation falling as rain may result in floodplain areas becoming flooded. As always, Advisories will be provided as conditions dictate.
- Weather Forecast
 - short term conditions indicate near normal temperatures into April with average precipitation for the month
 - longer term into May suggest average temperatures with below average precipitation and slightly below average temperature and precipitation into the summer
- Great Lakes Levels (Canadian Hydrometric, NOAA data – March 2017)
 - the monthly comparison for March 2017 (current available data) indicates that Lake Huron levels lower (8cm) than March 2016 suggesting a slight downward trend in lake levels possibly due to significant drought conditions in 2016. Numbers continue to remain above the 10 year average for Lake Huron by 49cm. Lake St. Clair levels are very close to last year (3cm) and 39cm above the 10 year average. Both Lake Huron and Lake St. Clair current values (March) continue to remain above the average for the entire period of record.

BD-17-036**Scholten – McCallum**

“That the Board of Directors acknowledges the report dated April 7, 2017 on the current watershed conditions and Great Lakes water levels.”

CARRIED

A staff report on Water and Erosion Control Infrastructure Projects submitted for funding in 2017-2018.

- 2017- 2018 Projects have been submitted on February 1, 2017
 - all applications have been reviewed by a committee of provincial and conservation authority staff representatives in February
 - follow up interviews to discuss details of the project was completed mid-February
 - projects are ranked in comparison to all submitted projects from across the Province and the recommended list has been forwarded to the Minister for Approval
 - list of approved projects is anticipated at any time

| Structure | Project Name | Description of Work | Total Project Cost (\$) | Grant Requested (\$) |
|-----------------------------|--|---|-------------------------|----------------------|
| Courtright Park | Courtright Park Shoreline restoration | Shoreline work at Courtright Park along St. Clair River using armourstone and riprap. | \$600,000 | \$300,000 |
| Sarnia Shoreline Protection | Shoreline Repair (Helen and Kenwick Sts) Phase 1 | Carry out construction of Phase 1 from the recommendation of engineering study. | \$600,000 | \$300,000 |
| Eslie Dodge Dam | Eslie Dodge Repair Project | Repair of Concrete cable/ retaining wall | \$20,000 | \$10,000 |
| L.C.Henderson Weir #1 | L.C.H. Outfall Repair Project | Spillway Repair | \$30,000 | \$15,000 |
| W. Darcy McKeough Dam | Drop Structure Downstream Erosion Control | Install rip rap at outlet park | \$80,000 | \$40,000 |
| W. Darcy McKeough Dam | Vegetation Management Plan | Develop a vegetation management plan for vegetation control within the floodway channel | \$20,000 | \$10,000 |
| W. Darcy McKeough Dam | Watercourse Obstruction Removal | Vegetation and debris jam to be removed | \$16,000 | \$8,000 |
| W. Darcy McKeough Dam | McKeough Sill Repair | Crack repair to McKeough Dam sill | \$30,000 | \$15,000 |
| W. Darcy McKeough Dam | Wing wall repair | Repair cracks in the concrete Wing wall | \$30,000 | \$15,000 |

BD-17-037

Scholten - Wright

“That the Board of Directors acknowledges the report dated April 6, 2017 on Water and Erosion Control Infrastructure Projects and approves the projects submitted for funding in 2017-2018 and further will assist staff in obtaining matching funds, where required, to support these projects upon confirmation of funding approval.”

CARRIED

A report regarding the International Joint Commission’s Public Meeting on Great Lakes Water Quality was discussed.

- SCRCA staff participated in a recent meeting put together by International Joint Commission (IJC) in Sarnia.
- this was a Public Meeting to discuss the issues in Great Lakes Water Quality
- the event was well represented by concerned citizens, members of the First Nation Community and Municipal, Provincial and Federal Government Staff.
- Donna Strang and Girish Sankar attended the meeting
- local experts on select topics shared their knowledge on Great Lakes water quality
- Donna made a presentation on the St. Clair Area of Concern and the Remedial Action Plan
- presentation was well received
- following the presentations, there was roundtable discussions on
 - Area of Concern
 - Nutrient Loading
 - Emerging contaminants
- during the meeting there were several discussions on the nutrient loading and the monitoring work of SCRCA was echoed numerous times.

BD-17-038

Miller - Wesley

“That the Board of Directors acknowledges the report dated April 6, 2017 regarding the International Joint Commission’s Public Meeting on Great Lakes Water Quality – March 22, 2017 in Sarnia.”

CARRIED

A staff report regarding the Outlet Park was explained.

- St. Clair Township staff contacted SCRCA to consider the outlet park as a parking space for the residents of Fawn Island
- Outlet Park is home to approximately 50 trees
- a few trees were planted as memorial trees.
- a request to provide a concept of the parking lots and an idea of a location for boat dock at the outlet park was made during this meeting.
- SCRCA staff coordinated with Golder Associates to assist with providing a concept of parking lot.
- a preliminary layout of the parking lot is shown above, approximately 68 parking spots are possible

- the red highlights show the preferred location of the dock
 - (1) – North side of park
 - (2) – South side of Park
- the above concept is preliminary in nature and does not include any detailed engineering assessment.
- things to consider:
 - effects of ice and ice jam along St. Clair River
 - wave action
 - high flows in St. Clair River
 - floodway operation and high flows
- correspondence is anticipated (and will be provided at the Board meeting) from St. Clair Township requesting the Authority's support for an agreement with the municipality to assume management and maintenance of the park as an open municipal park which will also function as the primary parking, launch and ferry dock for property owners on Fawn Island.
- such an agreement will require a tree saving plan, approval of any construction plans and construction and maintenance costs to be borne by the municipality.

BD-17-039

Bruinink - Kelch

“That the Board of Directors acknowledges the report dated April 6, 2017, regarding the Outlet Park and further approves that the Chair and General Manager are to sign an agreement with St. Clair Township which maintains ownership of the property, while the development of the parking area and dock and the operation and maintenance of the Outlet Park will become the responsibility of St. Clair Township.”

CARRIED

A staff report regarding the Healthy Watersheds Program in Lambton Shores was reviewed.

- February 16 – *SCRCA Annual General Meeting*; Jessica Van Zwol presented *Phosphorus Reduction through Stewardship* to the Board of Directors, staff, and the general public.
- March 9 – *David Brandt workshop* – Cover Crop Innovator from Ohio. Close to 65 people attended this presentation and the discussion following the talk was lively and had many farmers thinking. David did a great job captivating the audience with his experiences, knowledge, and his humour. Many attendees were interested in having more speakers in the area. OMAFRA- COA funding supported this event.
- March 22 – *Soil Health Discussion Panel* – an afternoon with producers sharing their experiences with improving their soil health on their farms. Woody Van Arkel (from Dresden), Jim Patton, Andy Van Niekerk, and Mel Luymes presented. The QnA session was a great opportunity for the 60 farmers in attendance to seek out answers for their own farms. The workshop was held at the Brooke-Alvinston-Inwood Community Centre.

BD-17-040

Nemcek - Gordon

“That the Board of Directors acknowledges the report dated April 10, 2017 on the Healthy Watersheds Program in Lambton Shores.”

CARRIED

A staff report regarding Municipal Drain Review activities was explained.

- Conservation Authorities (CAs) regulate activities that change, divert, or interfere in any way with the existing channel of a river, creek, stream or watercourse, or that interfere with wetlands. Municipal drains are generally watercourses as defined under the CA Act and are therefore regulated by CAs.
- staff help member municipalities meet regulatory requirements by issuing Standard Compliance Requirements (SCRs) as per the Drainage Act and Conservation Authorities Act (DART) Protocol and Letters of Review (LoR) for projects where DART does not apply (Drainage Act, S. 4: Petition Drains and S. 78: Improvements). Staff also meet with Drainage Superintendents on proposed projects and conduct site visits where necessary. If drain repair and maintenance activities are carried out (with or without permission) and result in impact on regulated areas with respect to the Conservation Authority’s responsibilities under the Conservation Authorities Act, the Conservation Authority could be held liable for not under taking or enforcing its regulatory authority.
- SCRs and LoRs outline project specific sediment and erosion control measures for all projects. Upstream and downstream flooding are considered where appropriate (e.g., culverts and enclosures) and advice is incorporated into review letters and SCRs. Interference with wetlands is discouraged by negotiating project specific mitigations. St. Clair Conservation staff work with municipalities to try to find solutions that meet the requirements of both the Drainage Act and the Conservation Authorities Act.
- a year in review - 2016
2016 saw a total of 108 files submitted to SCRCA for review. 60 were reviewed under the DART protocol and received SCR permissions. 42 were reviewed by staff and received LoRs as the works were outside of those specified under the DART protocol.

| Categories of Drain Review | January – April 2016 | May-August 2016 | September-December 2016 | Totals |
|---|----------------------|-----------------|-------------------------|--------|
| DART Protocol – SCR issued | 19 | 28 | 13 | 108 |
| Letter of Review Issued | 17 | 9 | 16 | |
| Other Types of Files (e.g., Environmental Assessment, sign-off, Assessment changes) | 1 | 4 | 1 | |
| Total Files | 37 | 41 | 30 | |

BD-17-041

Wright - Scholten

“That the Board of Directors acknowledges the report dated March 3, 2017 summarizing Municipal Drain Review activities.”

CARRIED

A staff report regarding Water Quality and monitoring aquatic bio-indicator species in the St. Clair region was presented.

- 2016 Surface Water Monitoring Program – Background: the St. Clair Region Conservation Authority (SCRCA) collects monthly surface water samples throughout the SCRCA jurisdiction typically from April to November. These samples are shipped to appropriate organizations for water quality analysis where results are returned to the SCRCA. This data allows the SCRCA and other organizations to compare long-term results which helps to identify any changes in water quality. Water samples are collected through two monitoring programs:
 - Provincial Water Quality Monitoring Program: the Provincial Water Quality Monitoring Network (PWQMN) was implemented in 1964 by the Ministry of Environment (MOE) for the purpose of obtaining data on and determining surface water quality from watercourses throughout Ontario. While water quality samples are collected and analysed for several parameters, there are eight key parameters including suspended solids, chloride, total phosphorus, nitrate, copper, lead, zinc, and *E. coli* which are used as indicators. The Middlesex-London Health Unit tests water samples for *E. coli* while the other parameters are determined by the MOE. In 2016, eight sites were sampled monthly from April to November throughout the SCRCA jurisdiction.
- Canada-Ontario Agreement (COA): the purpose of the Canada-Ontario Agreement (COA) on Great Lakes Water Quality and Ecosystem Health is to address how federal and provincial governments can help to improve the Great Lakes basin ecosystem through partnership. Through this program, eight sites were sampled monthly from April to November 2016 in the SCRCA jurisdiction. Additionally, water samples were collected at two sites in the Lambton Shores area during these sampling events. Water samples are tested for similar water quality parameters as in the PWMQN sampling program.
- Surface Water Monitoring Program – The Bigger Picture: data collected by the SCRCA for the PWQMN and COA programs has been used in multiple provincial, national, and international programs. Such programs include SOLEC (State of the Lakes Ecosystem Conferences), which uses data collected from Lake Huron tributaries; SPARROW (Spatially Referenced Regressions on Watershed attributes), created by the USGS (United States Geologic Survey) as a modeling technique for relating water-quality measurements to attributes of the watersheds within the model; and the Integrated Climate Change Monitoring Program, a province wide sensitivity analysis created to identify sensitive watersheds. All of these programs have used data collected by the SCRCA from at least one watercourse within the watershed.
- Total Phosphorus: total Phosphorus (TP) is the amount of phosphorus from all sources and in all forms within the water column. Phosphorus easily binds to particles that can become suspended in the water through erosion and, as such, systems that run through soils that are more easily disturbed will naturally have a higher level of phosphorus. This also means that significant precipitation events or abnormally wet years can lead to large increases in total phosphorus concentrations.
- the extreme values seen in 2011 throughout the watershed are likely to have been caused by the above average amount of precipitation received that year.
- between 2011 and 2016 most normal years receive about 770mm of precipitation throughout the year. 2011 had an average of 1100mm of precipitation throughout the watershed. We can most likely rule out any changes caused by smaller scale events such as spills as this large increase was seen throughout the watershed relatively evenly. This graph also shows the dramatic difference in TP concentration between the North

and East branches of the Sydenham. The North Branch (Bear and Black Creeks) run through mainly clay and are almost exclusively bordered by agricultural land. The East Sydenham, on the other hand, starts in sand and loam and begins to transition into clay about $\frac{3}{4}$ of the way through its journey to Lake St. Clair. It should also be noted that the apparent decrease in TP in the North Branch between 2013 and 2016 should be taken with some skepticism as the MOE laboratory that process the water quality samples for this region changed their analysis method which may have reduced the reported amount of phosphorus for some sites. The overall effects of this are being looked into.

- even more concerning are the concentrations of phosphorus seen in the St. Clair River Tributaries which have the most elevated range in the watershed. Even more critical than phosphorus concentrations (displayed above) is the total amount of phosphorus moved by each river in the SCRCA, also known as phosphorus loading. While the concentration of phosphorus in a watercourse can give us an idea of the state that watercourse is in it cannot alone tell us the amount of phosphorus that flows through it every year as that requires flow data. While the majority of our efforts should be focused on reducing phosphorus loading we should also not forget the impact that watercourses with high phosphorus concentrations have on our Great Lakes, our rivers, and the flora and fauna that live within them.
- Benthic Macroinvertebrate Sampling: aquatic animals without a backbone that are visible to the naked eye and live on the bottom of a watercourse are also known as benthic macroinvertebrates. Mayflies (left), caddisflies (middle), crayfish, aquatic worms, and stoneflies (right) are all examples of benthic macroinvertebrates. These creatures are collected every spring in the SCRCA jurisdiction by Biology staff. Each species has a specific tolerance to environmental change or pollution and therefore can be used as an indicator species.
- organizations such as the SCRCA collect benthic macroinvertebrates for the purpose of assisting in determining watershed health. Through standardized grading systems this data can be compared over time to identify any changes in watershed conditions.
- specifically, the SCRCA and many other Conservation Authorities use the Family Biotic Index (FBI) to “score” a watershed. As displayed in Table 1, scores range from very poor to excellent with a lower FBI value indicating a higher water quality grade. FBI values calculated from sampling sites are averaged with other sites within the same
- the majority of sites sampled this year remained relatively consistent with their scores in previous years. Overall the Middle East Sydenham has the lowest FBI score of 5.30 closely followed by the St. Clair River Tributaries and the Sydenham Headwaters each with a score of 5.49. The Lake St. Clair Tributaries in Dover Township continue to have the highest, and therefore least favorable, score among our sub-watersheds. In terms of water quality grades eight sub-watersheds hold a “Fair” rating, four hold a “Fairly Poor” rating, and two hold a “Poor” rating. If treated as one site the score given to the entire watershed is a 5.84 or a “Fairly Poor” rating.
- OBBN Data Use: over the past year benthic data collected by the SCRCA has been used in at least one research paper determining the suitability of order level taxonomic identification versus the accuracy of family level taxonomic identification. This study used data from a variety of conservation authorities that use benthics as an indicator of aquatic health to determine that only identifying insects down to the order level was not suitable for accurately determining the health of any aquatic ecosystem. SCRCA benthic data will also be used in the near future to help assess the province wide health of streams and rivers as part of the Ontario Benthos Biomonitoring Network. Analysis methods and

protocols are now being completed that will allow for multi-metric analysis to be completed accurately and easily in each watershed across the province. The hope of this is to thoroughly assess the health of benthic communities across Ontario in an attempt to better understand the current state of benthic wellbeing.

BD-17-042

Kelch - Giffen

“That the Board of Directors acknowledges the report dated April 5, 2017 on Water Quality and monitoring aquatic bio-indicator species in the SCRCA, and acknowledges the value of continuing to support monitoring and reporting on the aquatic health of St. Clair Conservation watersheds.”

CARRIED

A staff report regarding the need for O. Regulation 171/06 written permission for drain enclosures was discussed.

- Background:
 - SCRCA follows the CO/OMAFRA approved DART protocol for the maintenance of municipal drains. A protocol does not currently exist for new drains under section 4 or improvements to drains under section 78 of the *Drainage Act*.
 - over the years, the number of proposed and actual enclosures of open drains and watercourses has increased in Southwestern Ontario. The SCRCA has seen 11 projects proposed or completed in the last five years on municipal drains, amounting to approximately 4kms of open watercourse converted into subsurface drainage. Approximately 2 kilometres of enclosure have been proposed or implemented in the last two years.
 - the majority of these enclosures of Municipal drains occur in the upper portions or the headwaters. These headwater systems have important ecosystem functions including: hydrologic, habitat/food web and physical/chemical. Intermittent headwaters may also provide unique habitat exploited by some aquatic organisms.
 - enclosures can have negative and cumulative impacts, including:
 - increased floodplains
 - downstream/upstream flooding
 - overland erosion
 - increased sediment loads
 - degraded stream health (i.e. water quality/aquatic species)
- 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 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.
 - 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. We would expect only a couple of reports per year.
 - Other Conservation Authorities:
 - currently the ABCA, LTVCA, ERCA, UTRCA, require written permission (or permits) for drain enclosures.

Directors’ Comments:

- staff should attend Drainage Superintendent’s meeting in January.

BD-17-43

Miller - Giffen

“That the Board of Directors acknowledges this report dated March 6, 2017, on the need for O. Regulation 171/06 written permission for drain enclosures and directs SCRCA staff to present a motion and policy to require O. Regulation 171/06 permission for Drain Enclosures.”

CARRIED

A staff report regarding Conservation Services projects and programs was presented.

- Stewardship Projects
 - approximately \$167,000 in grants will go towards funding riparian buffers, stream bank stabilization, wetland creation, upland habitat improvements, agricultural windbreaks and afforestation projects
 - estimated project value with landowner in-kind, land retirement value and financial contribution is more than \$1,200,000
 - construction for some projects began in March with most expected to begin in the last week of April and be completed by the first week of June

- Tree Planting Program
 - seedling tree shipping from supplying tree nurseries is operating approximately one week or so ahead of normal spring schedules this year.
 - tree nurseries started lifting seedlings the week of April 3rd this year due to minimal snow.
 - trees are expected to arrive sometime around the April 20th of April.
 - SCRCA crews will be planting more than 72,000 trees on 29 properties this spring.
 - another 4000 trees will be distributed to an additional 38 landowners for planting.
 - two, tractor mounted machine tree planting crews and one small hand planting crew is planned for operations to take place starting the first week of May.
 - approximately 225,000 trees require spray maintenance this spring (under the 3 year vegetation control program) plus another 76,000 trees scheduled for planting this year. Two machine sprayers will start herbicide applications mid to late April depending on site conditions.
 - the 3 year tending work is paid in advance and carried forward each year to cover the cost of the labour and material.
- Large Stock Trees
 - there are more than 800 large stock trees on order this spring
 - the Municipality of Brooke-Alvinston is purchasing approximately half of the order once again this year. Brooke-Alvinston is providing a financial incentive to its municipal property owners who purchase and plant trees on their property. Conservation Services staff will be planting approximately 100 trees this spring.
 - trees range in size from 1 metre for evergreen trees and approximately 1.75 metres tall for the hardwood trees. Most of the trees come either potted, ball & burlap or bare root.
 - all trees are expected to be available for landowners the week of April 17th to 21st

BD-17-044

Nemcek - MacKinnon

“That the Board of Directors acknowledges the report dated April 7, 2017 regarding Conservation Services projects and programs.”

CARRIED

A staff report regarding the larvicide program in Lambton County was explained.

- West Nile Virus Program
 - the County of Lambton operates a West Nile virus (WNV) program including a larvicide application program to control mosquito populations in catch basins. The Conservation Authority has been treating catch basins in all rural and urban area in Lambton since 2006 under direction from Lambton Public Health. SCRCA obtains permits each year from the Ministry of the Environment and trains, certifies and registers summer staff as pesticide applicator technicians
 - the contract for larvicide application between SCRCA and the County of Lambton has been extended one more year. 2017 will be the final year without extension under the existing contract.

- a high percentage of WNV carrying mosquitoes are found in the species *Culex pipiens* (the common house mosquito). The house mosquito breeds mostly in stagnant water and prefers water heavy in organic content. Therefore, catch basins in urban areas are the most common breeding grounds for WNV carrying mosquitoes.
- approximately 16,000 catch basins are treated in towns and rural communities with 3 separate applications of methoprene (a mosquito larvicide) between July 1st and August 30th. Methoprene is a growth regulator that prevents the pupa from emerging as a biting adult mosquito. Approximately 65% of the catch basins treated are within the City of Sarnia.
- SCRCA staff conduct efficacy tests by collecting mosquito pupa samples throughout the summer. Pupa are monitored by Lambton Public Health. Past efficacy tests show 80% effectiveness at controlling mosquito populations.
- SCRCA will continue to offer the treatment program for Aamjiwnaang First Nation in Sarnia and Kettle & Stony Point First Nation in Lambton Shores.
- the larvicide treatment program is completely paid for by the County of Lambton for all municipal owned lands. Health Canada pays for treatments on First Nation lands.

BD-17-045

Bruinink - Wright

“That the Board of Directors acknowledges the report dated April 7, 2017 on the application of Larvicide to catch basins in Lambton County for the control of West Nile Virus in 2016.”

CARRIED

Regulations Summary Reports for February and March 2017 were reviewed.

BD-17-046

Faas - Kelch

“That the Board of Directors acknowledges and concurs with the Regulations Summary Reports on *“Development, Interference with Wetlands & Alterations to Shorelines & Watercourses”* Regulations (Ontario Regulation 171/06), for February and March 2017.”

CARRIED

Planning Activity Summary Report for February and March 2017 was reviewed.

BD-17-047

Scholten - Giffen

“That the Board of Directors acknowledges the St. Clair Region Conservation Authority’s monthly Planning Activity Summary Reports for February and March 2017.”

CARRIED

A staff report regarding the January – March 2017 municipal drain activity report associated with the Drainage Act and Conservation Authorities Act Protocol (DART) was reviewed.

BD-17-048

Kelch - Scholten

“That the Board of Directors acknowledges the report, dated March 31, 2017 on Drainage Act and Conservation Authority Act Protocol (DART) Municipal drain activities for January, February and March 2017.”

CARRIED

A staff report regarding the West Ipperwash Dynamic Beach limit assessment was reviewed.

- Update
 - deliverables have been received by Baird and Associates Coastal Engineers and reviewed by staff. The study recommended a reduction in the dynamic hazard limit and ways to improve the beach.
 - the deliverables included: i) technical study ii) hazard map iii) Best Management Practices brochure iv) consultation comments section and v) input to Development guidelines. The report will be included in the board package for shoreline members. If you wish to receive a printed report please request a copy from Marlene Dorrestyn, Administrative Assistant.
 - the study involved consultation with West Ipperwash beach property owners and Kettle Stony Point First Nation (KSPFN), the latter which has “beach rights of use” as determined by the Supreme Court of Canada. As provided previously (Sept 2016), KSPFN has a consultation protocol. Key points are provided at the end of this memo. SCRCA inquired into obtaining KSPFN consultation funds and KSPFN must apply for the funds. SCRCA staff are going to continue to consult with KSPFN based on existing dollars to the best of our ability considering CA financial resources. Shoreline Management Plan funds will contribute to this end.
 - in addition to a KSPFN band council meeting in August 2016 to introduce the study, SCRCA staff attended the April 1 Joint KSPFN and Lambton Shores Open House to discuss the results of the study. The Open House was well attended.
- Next steps:
 - post and circulate study for comments. Consult and document. Bring comments back to the Board for approval. Finalize and incorporate into Shoreline Management Plan.

BD-17-049

Scholten - Miller

“That the Board of Directors acknowledges the receipt of the West Ipperwash Dynamic Beach limit Assessment, update on study consultation and the Shoreline Management Plan and further approves the West Ipperwash Dynamic Beach limit Assessment next steps.”

CARRIED

Authority revenue and expenditures to March 31, 2017, were reviewed.

BD-17-050

Scholten - Kelch

“That the Board of Directors acknowledges the revenue and expenditure report to March 31, 2017, as it relates to the budget.”

CARRIED

January, February and March 2017 disbursements totaling \$864,784.05 were considered.

BD-17-051

Scholten - Bruinink

“That the Board of Directors approves the January, February and March 2017 disbursements as presented in the amount of \$864,784.05 and further that future detailed listing of disbursements will no longer be provided with the Board packages.”

DEFEATED

BD-17-052

Scholten – Kelch

“That the Board of Directors approves the January, February and March 2017 disbursements as presented in the amount of \$864,784.05.”

CARRIED

BD-17-053

“That the Board of Directors directs staff to report disbursements of \$5,000.00 or greater at future Board meetings.”

CARRIED

A status report on general levy received to date was discussed.

BD-17-054

Nemcek – MacKinnon

“That the Board of Directors acknowledges the status report on the 2017 general levy receipts to date.”

CARRIED

Directors reviewed the Investment Statements for February and March 31, 2017 reports.

BD-17-055

Scholten - Bruinink

“That the Board of Directors acknowledges the February and March 2017 Investment report.”

CARRIED

A report summarizing directors' expenses for 2015 and 2016 was reviewed.

Director's Comments:

- please add the Chatham-Kent directors to the charts.

BD-17-056

Kelch - Scholten

“That the Board of Directors acknowledges the Status Summary report, dated March 31, 2017 on directors’ expenses from January 1 to December 31, 2015 and 2016.”

CARRIED

Minutes of the Joint Health and Safety Committee meeting were reviewed.

BD-17-057

McCallum - Gordon

“That the Board of Directors acknowledges the minutes of the Joint Health and Safety Committee meeting held November 30, 2017.”

CARRIED

Plans for this year’s proposed project tour were explained.

- staff is proposing a Conservation Authority Tour on Thursday, June 22, 8:30 – 12:00. The bus will leave and return to the A.W. Campbell Conservation Area. We will have lunch followed by the Board meeting. This year, we will be focusing on projects in the central portion of our watershed.
- Highlights of Tour
 - A.W. Campbell Conservation Area
 - Stewardship Projects
 - Sydenham Nature Reserve
 - Benthic and Fish Sampling Demonstration
 - Tour of Munro Honey, Alvinston

BD-17-058

Scholten - Nemcek

“That the Board of Directors acknowledges the report dated March 24, 2017 on the proposed project tour scheduled for June 22, 2017.”

CARRIED

A staff report on Conservation Education was discussed.

- Winter Programing - Thanks to our many sponsors, free in-school programs were the focus of our winter season. A few primary classes also visited Henderson Conservation Area, experiencing a muddy, but enjoyable and educational winter program! Hand feeding Black-Capped Chickadees continues to be a highlight in our outdoor winter activities!
- Program Development & Expansion
 - Innovation, Creativity & Entrepreneurship (ICE) Training - a new partnership has formed with the LKDSB to assist in ICE training sessions this spring with Wallaceburg District Secondary School. Education staff will deliver a 2 hour ‘empathy building’ workshop, in which students will be introduced to the health benefits of time spent in our local CAs. As a follow-up, the students will participate in a formal ICE training session. The student challenge will be to develop new concepts and ideas on how to encourage their peers to visit Conservation Areas for health benefits.

- Pokecaching is a Pokemon Go inspired geocaching game that puts Geography curriculum into action. Participating students will use GPS units to locate Pokecaches filled with coloured tokens of differing value. Tokens will be collected for a “Battle At The Gym” at the conclusion of the 2 hour program. Lambton-Kent District School Board Enrichment students designed the game, prepared the power point and created a promotional flyer.
- Community Partnerships
 - Great Lakes Student Conference: May 18th, 100 LKDSB grade 11 and 12 students will join SCRCA staff along the shores of the St. Clair River in Mooretown for a one day, student conference. Students will get hands-on opportunities and an in-depth look at the role of the Great Lakes in our communities. Many private and business partnerships helped to pull this exciting conference together, funded by the MOEECC.
 - Fun Fest: SCRCA staff will be participating in Kids Fun Fest 2017 on Saturday June 10th in Sarnia. The booth will highlight camping and SCRCA programs. Outdoor education staff will help kids explore the world of birds and offer a hands-on activity making their own bird nests using natural materials and mud!
 - Return the Landscape (RTL): Education staff has joined Return the Landscape board of directors to act as a liaison between SCRCA and RTL maintaining and growing this community partnerships.
 - Sarnia Lambton Arbor Week Committee: Education staff are helping to coordinate 4 public tree plantings in the 4 corners of Lambton County to celebrate Canada’s 150th birthday. Plantings will take place in Sarnia, Forest, Oil Springs and Corunna. The Committee continues to host an Arbor Week Contest for area students. Each student in 3 winning classrooms will receive a Sugar Maple sapling to plant at home.
- Special Events:
 - Maple Syrup Festival: approximately 700 people were welcomed to the Sugar Bush at A.W. Campbell Conservation Area on March 18th and 19th. Visitors were introduced to updated historical demonstrations of First Nations and Pioneer methods of collecting sap and turning it into liquid gold. Additional hands-on displays and horse-drawn wagon rides were a big attraction this year. The Alvinston Firefighters prepared pancake and sausage meals for hungry visitors.
 - Sydenham River Canoe Race: Mark your calendars for this year’s Canoe Race: Sunday April 23, 2017. We look forward to another great turn out for this Conservation Education Fund Raiser. Check our website for more details.
 - Art Walk: SCRCA Staff will be participating in Art Walk in Sarnia on June 4th and 5th. Staffed booths will highlight some of the SCRCA’s activities in our watershed.
 - Fun Fest: SCRCA staff will be participating in Kids Fun Fest 2017 on Saturday June 10th in Sarnia. The booth will highlight camping & Outdoor Education staff will offer a nature based art activity encouraging children to explore water colour paints on natural canvases (leaves, bark & twigs).

BD-17-059

Kelch - Miller

“That the Board of Directors acknowledges the Conservation Education Report, dated April 7, 2017 including the winter programming, program development and expansion, Community Partnerships, and Special Events.”

CARRIED

The meeting went “In Camera” to discuss property issues.

BD-17-060

Faas - Wesley

“That the Board of Directors move in-camera at 11:45 a.m. to discuss property issues with all staff remaining.”

CARRIED

BD-17-061

Faas - Giffen

“That the Board of Directors rise and report at 12:37 p.m..”

CARRIED

Direction was given to staff.

Directors' Comments:

- concern regarding one legislation contradicting another regarding drainage.

BD-17-062

Faas – Wesley

“That the Board of Directors request that staff meet with Chatham-Kent staff to deal with conflicting policies regarding drainage.”

CARRIED

An update on progress of digital board packages was presented. Staff are to check on a couple of software packages the directors currently use.

BD-17-063

Faas – Miller

“That the meeting be adjourned.”



Steve Arnold
Chair



Brian McDougall
General Manager