

April 23, 2015

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

Present: Steve Arnold, Chair; Norm Giffen, Vice Chair; Diane Brewer, Alan Broad, Andy Bruziewicz, Todd Case, Joe Faas, Larry Gordon, Mike Kelch, Betty Ann MacKinnon, Kevin Marriott, John McCharles, Dan McMillan, Steve Miller, Frank Nemcek, Gerry Rupke, Cindy Scholten, Jeff Wesley, Muriel Wright

Absent: Tony Bruinink

Also Present: Brian McDougall, General Manager; Kevan Baker, Director of Lands; Girish Sankar, Manager of Water Resources; Muriel Andreae, Manager of Biology; Patty Hayman, Director of Planning; Dallas Cundick, Environmental Planner/Regulations Officer; Tracy Prince, Director of Finance; Rick Battson, Director of Communications; 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-15-039

Kelch - McCharles

“That the minutes of the Board of Directors meeting, held February 19, 2015, be approved as distributed.”

CARRIED

Director’s Comments:

- please bring a copy of the motions and agenda for those receiving their meeting package electronically.
- directors were advised that the Lambton Rural Game Association meeting is tonight
- a picture Larry Towell took at Smith Falls is part of a Canada Post series.
- show recorded vote for budget with February 19, 2015 minutes

The General Manager’s Report was presented:

- New Member Orientation
 - staff hosted 9 Board members at the orientation for new members on April 2nd
 - senior staff made a presentation outlining the works undertaken in their sector of the organization
 - several diverse questions and enlightening discussions provided a well-rounded introduction to the Authority
- The Coastal Centre
 - the Lake Huron Centre For Coastal Conservation is an organization formed to work with partners to achieve a healthy Lake Huron coastal ecosystem
 - they are a partner with the Authority in the Healthy Lake Huron program and we continue to look for additional partnership opportunities
 - they have provided us with copies of their 2013 and 2014 Annual Report for your review

- Ipperwash Beach Management Working Group
 - as directed by the Board at their February meeting, I have been attended the working group meetings as the Authority's representative
 - this group has been established to provide a forum for the parties to discuss their views regarding Ipperwash Beach, share perspectives, reconcile differences, and seek an agreement about the management of the beach
 - by next week's Board Meeting the group will have met 6 times and have been able to achieve agreement by all parties regarding the establishment of signage and control structures that will all but eliminate motorized vehicles on the centre Ipperwash section of the beach for 2015
 - the group has a couple of significant issues to work on in the near future
 - the long term management plan for centre Ipperwash beach and the management of the Ministry of Natural Resources and Forests (MNRF) properties
 - these properties have provided the public with access to the beach, washroom facilities, garbage collection and off street parking
 - due to funding cutbacks and reduced focus on recreation, MNRF is no longer able to undertake maintenance on these properties and Ontario Parks, who has been helping with maintenance in the recent past, are no longer able to assist
 - all parties represented in the working recognize that these are important public properties to provide public access to one of the finest beaches on Lake Huron, however with additional benefits of improved tourism and economic stimulus, which could result for the additional public attraction to the area – this maintenance is seen as a priority
 - MNRF is seeking one group to act as a lead in a community cooperative group to sign an agreement to undertake the long term management and maintenance of these Provincially owned properties
 - there is concern however, that such an agreement will not be in place for the quickly approaching beach season
 - the Authority, the Municipality of Lambton Shores and the Kettle and Stony Point First Nation are all options to undertake this maintenance for 2015
 - maintenance of these properties cannot be accomplished within the Authority's current work plan
 - administration of contracts with local contractors may be feasible but the list of required tasks must be developed to ensure that needs are met and the contractors are in place to meet these needs
- *Reminder: the next Board Meeting will coincide with the Authority's Annual Project Tour on June 25th*

Directors' Comments:

- Concern that Parks Canada will not be able to do all the work required and felt that St. Clair would be the obvious organization to help.

BD-15-040

Miller - Nemcek

“That the Board of Directors acknowledges the General Manager's report, dated April 14, 2015.”

CARRIED

BD-15-041

Rupke – Bruziewicz

“That the Board of Directors authorize the General Manager to negotiate an operational agreement for one year with the Ministry of Natural Resources and the Municipality of Lambton Shores for garbage pickup and cleaning of washrooms, etc.”

CARRIED

A report regarding Conservation Ontario was presented.

- the 2014 Annual Report for Conservation Ontario will be provided upon receipt
- the 2014 Audited Financial Statements were reviewed and accepted
- the Chair, 2 Vice Chairs and the voting delegate Director were all re-elected
- the two General Manager Directors were newly elected

BD-15-042

Marriott - Case

“That the Board of Directors acknowledges the report regarding the Conservation Ontario meeting of March 30, 2015.”

CARRIED

A report on the business arising from the last meeting was discussed.

- request was made for the meeting packages to go paperless. A link to the digital packages will be sent out to the directors who requested that format. Digital minutes will also be sent to those same people.

BD-15-043

McMillan - MacKinnon

“That the Board of Directors acknowledges the updates on business arising from the February 19, 2015 Board of Director’s meeting.”

CARRIED

A Conservation Lands Update was reviewed:

- Conservation Areas:
 - the Conservation Authority owns 15 conservation areas in the watershed
 - 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 over 415 seasonal campers
 - profits obtained from our campgrounds are used to offset capital improvements
 - the camping season in 2015 runs from Friday, May 1st to Thanksgiving Day
 - over the winter months we have accepted campsite reservations at the administration office for our 3 regional campgrounds; as of March 31st over 508 reservations have been taken, collecting over \$ 77,000.00 in revenue (GST adjusted)(down slightly from 2014)

- Warwick Conservation Area:
 - construction has started on the new access roadway into the Conservation Area, weather permitted it is anticipated that the road will be completed by May 1st
 - 15 new picnic tables have been purchased & assembled
 - pool washroom and pump house has been resided with steel
 - roads to be upgraded with gravel
 - a superintendent's office has been constructed within the existing workshop
 - a new campground reservation and accounting system has been implemented
- L.C. Henderson Conservation Area:
 - 15 new picnic tables have been purchased & assembled
 - upgrades have been completed to the WIFI system (campers association assisted financially towards this project)
 - roads to be upgraded with gravel
 - the main pavilion roof to be replaced with steel
 - basketball and volleyball standards to be upgraded (Foundation bingo)
- A.W. Campbell Conservation Area:
 - 15 new picnic tables have been purchased & assembled
 - roads to be upgraded with gravel
 - hydro panel at pool building has been upgraded
 - 4 new entrance gates have been installed
 - 2 new portable washrooms have been purchased and assembled (Foundation bingo)
 - more than 30 ash trees have been removed from within the campground area
 - a new campground reservation and accounting system has been implemented
- Other Conservation Areas:
 - new property identification signs have been installed at Tony Stranak and Clark Wright Conservation Areas
 - additional boardwalks and trail resurfacing to take place at the Strathroy Conservation Area
 - boat ramp and harbour area has been dredged at the Highland Glen Conservation Area
- McKeough Upstream Lands:
 - Property 38 – a wetland to be developed
 - Property 97 – soil erosion works have been completed
 - approximately 5.2 acres of grass buffer strips have been planted along drains and natural water courses throughout the McKeough Upstream Lands
 - Property 38 & 39 - two homes and 5 out buildings have been demolished; materials will be removed from the site once the half load restrictions have been lifted
- Lambton County Lands:
 - Lambton County Heritage Forest:
 - staff regularly inspect and perform maintenance on the 8 kms of trails
 - Forestry staff to inventory, mark and oversee logging operations within one of the forestry compartments
 - Marthaville:
 - staff regularly inspect and perform maintenance
 - phragmites around the ponds to be managed with herbicide

- Bowes Creek:
 - forestry staff to manage the existing 50,000 seedlings
 - new gates to be installed on the access laneway
 - a looped trail to be developed between the St. Clair Parkway and the rail tracks
- Perch Creek:
 - staff regularly inspect and perform maintenance
 - existing trails will be cut by a local grass contractor
- Foundation Lands:
 - Harrison Woodlot:
 - a new property identification sign has been installed
 - Keith McLean Conservation Lands:
 - a 50 x 65 ft gravel parking lot to be constructed
 - 2 access gates to be installed at the Rose Beach Line entrance
 - Grass buffer strips have been planted along the municipal drain

BD-15-044

Kelch - Rupke

“That the Board of Directors acknowledges the Conservation Lands Update dated April 10, 2015, outlining development and management activities on Conservation Areas, McKeough Upstream Lands and Foundation Lands.”

CARRIED

A staff report regarding agricultural land leases was discussed.

- Background:
 - the Conservation Authority owns and leases over 1000 acres of agricultural lands in its Conservation Areas and at the McKeough Upstream Lands
 - these lands are leased to area farmers under the board approved 3 year lease
 - the current 3 year leases expire at the end of this year
 - during the previous tender process in 2012 the board of directors indicated a need to extend the lease lengths to 5 years from the current 3 year term
- Advantages:
 - longer lease periods would provide security to the tenant as well would encourage better crop rotation opportunities
 - tenants may also take more ownership in the property, being more involved in routine maintenance and stewardship projects
 - there may be some financial benefit, as our lands maybe more attractive to individuals looking to rent long term

BD-15-045

Miller - Broad

“That the Board of Directors acknowledges the Agricultural Land Lease report dated April 10, 2015 and approves the increase in lease lengths from 3 to 5 years.”

CARRIED

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

- Precipitation and Streamflow Conditions
 - the spring freshet period for 2015 continued over an extended period of almost 20 days due to relatively cold overnight conditions with only slightly warmer daytime temperatures slowing the thaw period considerably
 - during this period SCRCA issued three Watershed Conditions Statements for Water Safety (Mar 15th and 19th ; April 10th) relating to higher flows on all watercourses with high water level conditions and some flooding into floodplain areas
 - ice remained in place until the last week of the freshet in the lower reaches of the watershed between Dresden and Wallaceburg and north toward the McKeough. Later in the period ice eroded in place due to its consistent thickness and a solid integrity, finally moving out in mid to late March
 - flows at Wallaceburg increased in mid-March to peak levels following the reduction of ice and the release of snowpack into the watercourses. Outflows were partly restricted however due to the limiting factor of existing ice conditions in the Chenal and onward into Lake St. Clair which did not begin break up until the last week of March.
 - current levels reported at all stations are generally at or slightly above seasonal normal numbers following the loss of snow during spring thaw and the lack of any significant precipitation.
 - while precipitation numbers were moving toward a predicted yearly average of 100% near the end of 2014, the first quarter of 2015 is extremely dry with only 55% of the normal precipitation and only 25% of the normal March values.
- Flood Threat
 - with the elimination of snowpack across the watershed, flows are at normal levels with some high flows associated with storm events notably in early April. Watercourses are however, now able to accommodate additional rain events as we move into the spring season. As always conditions will be monitored in response to any significant changes and advisories will be provided as conditions dictate.
- Weather Forecast
 - Environment Canada (EC) and the Climate Prediction Center (CPC) continue to forecast below normal temperatures into the spring. A slight trend toward seasonal normal temperatures is expected into May. Similarly precipitation is expected to be normal however the lack of precipitation in the first few months of 2015 may result in reduced surface water and the potential for low water conditions by the summer months. Temperatures are expected to be above normal this summer with the warmest in late July and early August
- Great Lakes Levels
 - The monthly comparison for February 2015 (current available data) lake levels continued to improve significantly compared to February 2014 for Lake Huron with a level of 176.5m, an increase of 55cm making levels higher than both the 10 year average as well as the overall average for the entire period of record. This is positive news moving into the summer. Lake St. Clair however did not fair quite as well with levels 11cm lower over the same month last year and 25cm lower when compared to the 10 year average. Significant ice remains along the Lake Huron shoreline as of this report. Long term trends continue to predict increasing lake levels into the summer.

BD-15-046**Wesley - Marriott****“That the Board of Directors acknowledges the report dated April 10, 2015 on the current watershed conditions and Great Lakes water levels.”****CARRIED**

A staff report regarding Cathcart Park Shore Protection Revitalization Project and LAWSS Repair Project was reviewed.

- Cathcart Park Shore Protection Revitalization Project
 - December 5th 2014 - Township and Authority staff met on site with the design engineer, site supervisor and representatives of the contractor (Wicks Contracting)
 - construction work started second week of January 2015.
 - approximately 100 m of shoreline has been completed in this phase.
 - a habitat pod was constructed along the shoreline to enhance the habitat features
 - construction work was completed as of February 5, 2015
 - spring inspection is planned for 3rd week of April.
 - site restoration and landscaping will be completed in May 2015.
- LAWSS Shoreline Repair
 - contract awarded to AMICO Construction
 - repair work started on January 26, 2015
 - 50 working days have been provided for completion of the project under the contract (a working day is any day during which the conditions permit the contractor to be able to undertake work to greater than 60 percent of capacity).
 - approximately 280 meters of Shoreline work will be repaired in this work
 - all in water work completed as of March 31, 2015
 - project delayed due to weather conditions and MOL concerns
 - 75% of construction work is complete as of April 9, 2015
 - construction work will be completed by April 2015.
 - restoration work will be completed in May 2015

BD-15-047**Broad - Nemcek****“That the Board of Directors acknowledges the report dated April 9, 2015 on the Cathcart Park Shore Protection Revitalization Project and LAWSS Repair project.”****CARRIED**

A staff report on Water and Erosion Control Infrastructure Projects submitted for funding in 2015-2016.

- applications for grants have been submitted for funding for in 2015-2016 for the project in the table below.
- applications will be reviewed by a committee of provincial and conservation authority staff representatives later this month and will be ranked in comparison to all submitted projects from across the Province
- list of approved projects is anticipated in May or early June

Structure	Project Name	Description of Work	Total Project Cost (\$)	Grant Requested (\$)
Sarnia Shoreline Protection	Shoreline Repair (Helen and Kenwick St) Phase 1	carry out construction of Phase 1 from the recommendation of Engineering study.	\$600,000	\$300,000
McKeough Floodway	McKeough Floodway Berm Repair	perform repair work along the floodway	\$200,000	\$100,000
McKeough Floodway	McKeough Floodway Outlet	repair a section of the floodway outlet under St. Clair Parkway	\$280,000	\$140,000
McKeough Floodway	McKeough slope Stability investigation	Study- instability is being observed along the McKeough Floodway. Failure scarps and tension cracks are noticed along the face of the slope	\$15,000	\$7,500
Arda dyke	Hazard Tree Removal	remove trees, shrubs and debris that have the potential to cause slope stability issues	\$24,000	\$12,000
Esli Dodge	Esli Dodge Repair Project	repair of Concrete cable/ retaining wall	\$15,000	\$7,500
L.C. Henderson	L.C.H. Outfall repair project	Spillway Repair	\$30,000	\$15,000
Wallaceburg Retaining wall	Wallaceburg Retaining wall inspection	inspection of retaining wall in Wallaceburg	\$25,000	\$12,500

BD-15-048

Faas - Scholten

“That the Board of Directors acknowledges the report dated April 9, 2015 on Water and Erosion Control Infrastructure Projects and approves the projects submitted for funding in 2015-2016 and further will assist staff in obtaining matching funds, where required, to support these projects upon confirmation of funding approval.”

CARRIED

A staff report on Climate Change trend analysis on the watershed was explained.

- data from the identified Environment Canada station locations were selected to provide a regional cross-sectional range of temperature and precipitation information over a 49 year POR. Focus was centered on temperature and precipitation as indicators to reflect the effects of climate change in the region.
- The temperature data were analyzed focusing on the following:
 - 1) number of days per year with temperatures exceeding 30 degrees C.
 - 2) number of days per year with temperatures not exceeding 0 degrees C.

- based on each location, graphs were generated and subsequent trend lines created from the graphed data to provide the overall tendency for increase or decrease in values from 1966 to 2014. Figures 4 to 7 show the number of days per year where the max daily temperature exceeded 30 degrees C. Figures 8 to 11 show the number of days per year where the temperature was below 0 degrees C for the entire day.
- Climate change research carried out by Institute for Catastrophic Loss Reduction (ICLR) reveals that by 2050 the SCRCA watershed will experience a temperature increase of 2 to 4 degrees Celsius. (Bruce, 2011)
- a trend analysis was performed to better understand these effects of climate change in the SCRCA watershed. As noted in the temperature graphs, the number of days per year with temperatures exceeding 30 °C is trending upwards over the last 49 years while conversely, the number of days below 0 °C are decreasing. Similarly to ICLR research, these observed trends suggests an upward shift in temperature range.
- an exception to this pattern was found at the Perch Creek station (Sarnia), located in close proximity to Lake Huron. Moderating effects of the lake were noted to contribute an increase in water vapor in the atmosphere. An increase in water vapor led to a rise of minimum temperatures. This is consistent with a relationship observed between increases in precipitation followed by an increase in humidity. This is due to the greater insulating effects of the higher moisture content in the atmosphere. Additionally, elevated greenhouse gases have a similar insulating effect through all seasons of the year (*Huron Geosciences, Climate Trends in the Maitland Valley Watershed – 2010*).
- a comparison between the data of the first 10 year period, 1966 – 1975, with the last 10 year period, 2005 – 2014. The comparison suggests a distinct shift in the number of hot days consistent with the associated graph trend lines, with the exception of the moderating effects exhibited at the Sarnia location.

BD-15-049

Wright - Miller

“That the Board of Directors acknowledges the report dated April 9, 2015, on the Climate Change trend analysis on the watershed.”

CARRIED

A staff report regarding equestrian activities in the McKeough Floodway was reviewed.

- McKeough staff have received a number of complaints and concerns from hikers, bird watchers, and dog walkers who use the property on a daily basis, and have forged a connection and a respect for the property. The concerns expressed include horse excrement left on access lanes and in the channel, an increase in garbage left in the channel and parking lot.
- one gentlemen, who wishes to remain anonymous, told McKeough Staff that he witnessed horseback riders drinking alcohol in the channel on two separate occasions. He also mentioned the riders just threw the empty bottles in the grass along the access lane.
- McKeough staff have also noted increased garbage and have cleaned up a number of piles of horse excrement on two separate occasions on the McKeough Floodway property after a weekend ride.
- McKeough staff have noted an increase in ATV traffic as well, since permission was given to the equestrian group to ride in the channel. Whether there is a direct correlation between the two or just a strange coincidence, it could be argued that the ATV operators have seen the horses in the channel and assume that they have the right to ride in the channel as well.

- recently, McKeough staff have had two people enquiring about permission to horseback riding in the channel.
 - a neighbor to the dam wants to ride the channel. However, she was reluctant to the idea of cleaning up after the horses. I explained that we require the dog owners who regularly walk their dogs in the channel to pick up after their dogs, we cannot expect any less of horse owners.
 - another other person who called, would not identify themselves, but insisted that we give them a key so they could ride in the channel like the equestrian group we currently permit to ride in the channel. Not sure if this person is disgruntled with the equestrian group or not, but the person was knowledgeable with their interaction with the SCRCA.
- McKeough staff recommend a review of the equestrian use in the McKeough Floodway and address the following issues that have been raised by local citizens, neighbours, and staff:
 - garbage generated by the group that is just left behind.
 - horse excrement. We expect that the people walking their dogs in the channel clean up after them, is it too much to ask that the equestrian group adhere to the same respect for the property?
 - limit number of equestrian users without alienating or appearing to show favouritism to the horseback riders permitted to ride in the channel? What would be an acceptable number of equestrian riders? Is there another property that would be better suited to this activity?
 - regulate or monitor equestrian activities to limit liabilities, problems and deal with any issues that arise?
 - who gets keys and how do we prevent the keys from being copied and given to everyone with a horse?
 - limit the effects of the equestrian activities on the lands that are affecting other people who use and enjoy the area?
 - limit potential harm to species at risk that could be affected? i.e. fox snakes
 - limit the possibility of invasive species or disease being carried in to the property on the horses and spread in the channel, and is there a possibility of disease being spread from horses to humans, animals or other wildlife?
- the intention in permitting some controlled equestrian access over the last few years was to determine whether access to the McKeough Floodway property was appropriate and sustainable
- the review to be conducted over the next few months will provide staff with the appropriate information to provide a recommendation to the Board of Directors regarding the equestrian use of the McKeough Floodway

BD-15-050

Kelch - Bruziewicz

“That the Board of Directors acknowledges the report dated March 27, 2015, regarding Equestrian activities in the McKeough Floodway and further that staff be directed to review the status of the equestrian access experiment and provide a report with recommendations to the Board of Directors this fall.”

CARRIED

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

- Lambton Shores Healthy Lake Huron (HLH) Program
 - Lambton Shores Tributaries Watershed is a part of the Healthy Lake Huron – Clean Water, Clean Beaches campaign – tasked with shifting landowner behavior and actions to improve beach and inland surface water quality.
- a 5 year review of Outreach and Education in Lambton Shores
 - during the first few years of this project, we recognized the need to establish a stewardship presence among the farmers and cottage residents. Prior to 2006, this region of Lambton Shores did not fall under the jurisdiction of any conservation authority. Since then, SCRCAs has strived to interact with landowners and familiarize residents of our mandate.
 - our focus involved raising the profile of best management practices and stewardship projects, and connecting stewardship practices with water quality – trying to shift landowner behaviour and attitudes towards stewardship and water quality. This process of recognition, understanding, and influencing actions takes time. Nonetheless, we are beginning to witness the fruits of our efforts.
 - the SCRCAs has established a stronger partnership with the Lambton Soil and Crop Improvement Association (LSCIA) and staff are attending as many local Lambton Shores events as possible (Forest Fall Fair, Forest Earth Day, *Phragmites* Control meetings, LSCIA winter meetings and AGMs, Lambton Grain Farmers of Ontario, Shoreline Cleanup days, etc.) to put a face to our name and our mission.
 - we have mailed out literature highlighting HLH and stewardship grants and this method of communication has generated interest in stewardship projects.
 - many landowners in the region now recognize our staff and are becoming familiar with the stewardship grants that we have available and are beginning to approach us for more information on best management practices.
 - we are working with our champion landowner for a second year to conduct a comparison of tile outlet water quality between fields with contrasting management. The water quality results from the first field comparison generated much discussion among farmers at local LSCIA meetings. We are comparing nutrient levels of tile outlets from conventionally tilled, cover cropped, and no tilled fields. Analysis revealed that nutrient levels are higher on the conventionally tilled field.
 - funding from Ontario Ministry of Environment and Climate Change (MOECC) and TD Friends of the Environment has helped form partnerships with Municipality of Lambton Shores, Lambton Shores Nature Trails Committee, Lambton Shores *Phragmites* Committee, Communities in Bloom, and CH2M Hill (a local wastewater contractor) to help rehabilitate 2 retired sewage lagoons in Lambton Shores. With the help of volunteers and partners, over 750 native wetland plants, 90 shrubs and 100 trees were planted!
 - we have walked over 15 km of the Duffus Watershed to gain an understanding of where water lies on the landscape during spring melt (as well as during the summer) and to help estimate where best management practices could improve water quality along Duffus Creek, a priority subwatershed within Lambton Shores. This process has helped us meet new landowners and discuss potential projects they could implement on their properties.
 - this 5 year campaign would not be feasible without the support and funding from MOECC (\$150,000), Environment Canada (\$27,000), Ontario Ministry of Agriculture, Food and Rural Affairs (\$90,000), and TD Friends of the Environment (\$3,750). In kind support has come from landowners, the Municipality of Lambton Shores, Lambton Shores Nature Trails

Committee, Communities in Bloom, CH2MHill/OMI, and Lambton Shores *Phragmites* Committee.

- over the past 5 years, we have completed 20 stewardship projects including tree planting, a manure storage, a clean water diversion project and septic system upgrades.
- it is a joy to experience this shift in landowner attitudes in Lambton Shores and it would not have been feasible for the SCRCA to implement this program without the support of our funders and partners. We are excited to see what 2015 will bring!
- water quality monitoring – to understand the current status of water quality in our creeks and rivers and contribute to long-term data sets that may show how stewardship projects and BMPs benefit the watershed. We monitor nutrient levels including phosphorus and nitrogen.
- stewardship projects – **Grants available** SCRCA secures funding to support landowner implemented stewardship projects including riparian buffers, block tree planting, windbreaks, wetlands, and erosion control measures. Staff meet with landowners and offer advice and project design and where applicable, support projects with grants. Call today for more information.

BD-15-051

McMillan - Bruziewicz

“That the Board of Directors acknowledges the report dated April 10, 2015 on the Healthy Watersheds Program in Lambton Shores – a Five Year Review, and endorses staff efforts to engage private landowners in Best Management Practices to improve the surface water quality.”

CARRIED

A staff report regarding Municipal Drain Review activities was explained.

- 2014 saw 185 drain files submitted to SCRCA for review. 119 files were reviewed under the DART protocol and proponents received Standard Compliance Requirements permissions. 53 files were reviewed by staff and received Letters of Review. Letters of Review are issued when the project does not fall under the DART protocol. In most cases these are engineer’s reports under section 78 or section 4 of the Drainage Act for improvements and new drain petitions, and advice is provided to further the conservation and management of the existing natural heritage features of the designated watershed.

Categories of Drain Review	January – April 2014	April – June 2014	July- September 2014	Oct.- Dec. 2014	Total
DART Protocol – SCR issued	16	13	55	35	119
Letter of Review Issued	17	4	13	19	53
Other Types of Files (e.g., Environmental Assessment, sign-off, Assessment changes)	5	4	1	3	13
Total Files	38	21	69	57	185

Categories of Drain Review	January – April 2015
DART Protocol – SCR issued	24
Letter of Review Issued	17
Other Types of Files (e.g., Environmental Assessment, sign-off, Assessment changes)	2
Total Files	43

- so far in 2015, a total of 43 files have been submitted to SCRCAs for review. 24 have been reviewed under the DART protocol and have received SCR permissions. 17 have been reviewed by staff as received LoR as the works were outside of those specified under the DART protocol.
- other ways the SCRCAs work with Municipal Drain Projects - Municipal Drain Habitat Enhancement Program
 - in some cases, St. Clair Conservation is able to offer grant money towards measures that are above and beyond the legal requirements. The *Municipal Drain Habitat Enhancement Program* funded by the federal Great Lakes Sustainability Fund was used to support drain projects that increase fish habitat and mitigate sediment and erosion in agricultural watercourses of the St. Clair River Area of Concern. Projects that qualified for funding included buffers, fish refuge pools, and two-stage (“benched”) drainage ditches.
 - for the 2014/15 round of funding 3 projects were funded through the program. These projects include the Vandertil and Broad Drains (Sombra), and the Froomfield Drain (Moore). A total of \$9,600 has been awarded to these projects for habitat enhancements on these drains.

Drain	Enhancements	Amount of funding granted
Froomfield Drain	Construct two fish refuge pools at two locations along the drain	\$1,600
Vandertil Drain	Construct a fish refuge pool within the drain, install riprap erosion protection and hydra seed the exposed banks with a slope seed mix	\$4,800
Broad Drain	Construct a fish refuge pool at the downstream end of the drain, install riprap erosion protection to protect large healthy trees in place on the bank, hydra seed the exposed banks with a slope seed mix	\$3,200

- in addition to the enhancement projects that were funded through this program a series of factsheets, letters and signs were also created to highlight the buffer plantings on three drains in Chatham-Kent. The plantings themselves were funded by the Municipal Drain Habitat Enhancement Program in previous years and the factsheets, letters and signs were created to augment these enhancements and provide the landowners with the knowledge and education for

maintaining and appreciating these features.

BD-15-052

Rupke - Bruziewicz

“That the Board of Directors acknowledges the report dated April 8, 2015 summarizing Municipal Drain Review activities and the outcome of the Great Lakes Sustainability Fund Municipal Drain Habitat Enhancement Program.”

CARRIED

A staff report regarding Water Quality and Biodiversity in the St. Clair region was presented.

- 2014 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 2014, 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 2014 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.
- 2014 PWQMN – Results
 - for the purpose of this report, key indicator parameters including total phosphorus, chloride, and *E. coli* are summarized below. Monthly results from April to November 2014 are reported on in this report. This data is typically reported on by using data collected over five years which will be completed in the next Watershed Report Card in 2017 to get a more accurate understanding of watershed health.
 - factors such as weather and time of year can significantly impact results. For example, a significant rain event in November resulted in 0.705 mg/L of total phosphorus at the site in Florence. In August, this same site was sampled at 0.033 mg/L of total phosphorus. The dramatic difference is likely a result of runoff.
- Total Phosphorus
 - Phosphorus is a nutrient necessary for plant and algae growth. Phosphorus comes from natural sources (e.g., soil erosion) and through human-influenced processes such as agriculture, stormwater runoff, sewage treatment plants, and septic systems.

- each site was reported to have levels of phosphorus exceeding provincial guidelines in 2014 with the highest being Bear Creek at Marthaville Road at 0.08 mg/L. The Provincial Water Quality Objective (PWQO) for total phosphorus in streams is 0.03 mg/L. The PWQO sets standards to determine “acceptable” values in water quality parameters. High concentrations of phosphorus can result in harm to aquatic life. The values below were arrived at by calculating the median of combined monthly results in 2014 (April – November).
- Chloride
 - Chloride comes from many sources including but not limited to road salt, wastewater treatment plants, and agriculture. Although there is no provincial limit set on chloride, the Environmental Protection Agency criteria suggest that 230 mg/L can negatively impact sensitive aquatic life.
 - research suggests that chloride can become toxic to mussel larvae (glochidia) at levels as low as 153 mg/L. The site with the highest amount of chloride was Bear Creek at Marthaville road with 76.5 mg/L. Although none of these results exceed 153 mg/L, a report shows that chloride at the Shiloh site is increasing at a slope rate of 0.9 mg/L per year based on data from 1975 to 2009. If you were to analyze this same data throughout the watershed, it would likely show that chloride is increasing throughout.
- E. coli
 - *E. coli* bacteria typically inhabit the intestines of people and animals. The presence of *E. coli* in a watercourse is often a good indicator of a recent faecal contamination coming from sources such as ducks or geese, and agriculture and urban runoff.
 - the PWQO recommends 100 *E. coli* per 100 mL of water (based on a geometric mean of at least 5 samples) as an “acceptable” limit based on a recreational water quality guideline published by the Ontario Ministry of Health. A minimum of five samples per site within a one month period taken at a swimming area are typically collected and analysed to determine if swimming is suitable. Although this is not the method the SCRCA uses, it gives a sense of what an “acceptable” value is for *E. coli*.
 - each site was found to have *E. coli* in limits exceeding 100 *E. coli* per 100 mL. With the exception of the Katesville and Florence sites, results far exceeded this value. The Middlesex London Health Unit reports on *E. coli* as “>1000” when limits exceed 1000 CFU per 100mL. In many instances, especially after rain events, it is likely that results would far exceed this value.
 - samples were collected monthly at PWQMN sites and results from April to November 2014 were averaged together. Samples that were collected after a recent rain event would result in a higher overall average, likely due to agriculture and urban runoff.
- Provincial Groundwater Monitoring: eight wells were sampled during the 2014 field season throughout the SCRCA jurisdiction. These wells have been sampled in previous years and will likely continue to be sampled in future years for the purpose of determining ground water quality in these areas. Two parameters including fluoride and sodium were found to be in exceedance of the Ontario Drinking Water Quality Standards at the following locations:
 - Fluoride - the Ontario Drinking Water Quality Standards states that the acceptable amount of fluoride concentration is anything below 1.5mg/L.
W0000459-1 – Kerwood well: May. 2006 (2 mg/L), Nov. 2006 (2.3mg/L), Mar. 2007 (1.9mg/L), Sep. 2008 (2.24 mg/L), Oct. 2009 (2.42 mg/L), Oct. 2010 (2.38 mg/L), Nov. 2011 (2.42 mg/L), Oct. 2012 (2.42 mg/L), Oct. 2013 (2.48 mg/L), Oct. 2014 (2.16 mg/L).

- Sodium: the Ontario Drinking Water Quality Standards acceptable amount for sodium is 200mg/L as an aesthetic standard. However, local physicians should be notified if results exceed 20mg/L so that they can inform those on sodium restricted diets.
W0000461-1 - Bothwell well: May. 2006 (187 mg/L), Nov. 2006 (190mg/L), Sep. 2008 (175 mg/L), Oct. 2009 (190 mg/L), Oct. 2010 (195 mg/L), Oct. 2011 (189 mg/L), Oct. 2012 (185 mg/L), Oct. 2013 (189 mg/L), Oct. 2014 (169mg/L).
W0000460-1 - Warwick well: May. 2006 (113 mg/L), Nov. 2006 (94mg/L), Mar. 2007 (120mg/L), Sep. 2008 (91.9 mg/L), Oct. 2009 (84.5 mg/L), Oct. 2010 (76.5mg/L), Nov. 2011 (79.3 mg/L), Oct. 2012 (115 mg/L), Oct. 2013 (88 mg/L), Oct. 2014 (76.9mg/L).
- 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 overtime 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, scores range from very poor to excellent. FBI values calculated from sampling sites are averaged with other sites within the same subwatershed to arrive at an FBI average per subwatershed.

Table. Family-level biotic index scoring chart

Family Biotic Index	Water Quality	Degree of Pollution
0.00 – 3.75	Excellent	Organic pollution unlikely
3.76 – 4.25	Very Good	Possible slight organic pollution
4.26 – 5.00	Good	Some organic pollution likely
5.01 – 5.75	Fair	Fairly substantial pollution likely
5.76 – 6.50	Fairly Poor	Substantial pollution likely
6.51 – 7.25	Poor	Very substantial pollution likely
7.26 – 10.00	Very Poor	Severe organic pollution likely

BD-15-053

Kelch - Bruziewicz

“That the Board of Directors acknowledges the report dated April 13, 2015 on Water Quality and monitoring aquatic bioindicator 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 Kettle and Stony Point First Nation Partnership was reviewed.

- the SCRCA is one of eight partners working with KSPFN to provide monitoring, habitat enhancement, stewardship and outreach with respect to Species at Risk on Kettle Stony Point lands.

- 2014 Events
 - on two occasions, Biology and Outdoor Education staff members met with Grades 3 and 4 students at Hillside Elementary School to provide education on reptiles, ecosystem health, and aquatic ecology of the Kettle Stony Point area.
 - the first event consisted of an in-class presentation and discussion on aquatic animals, reptiles, and amphibians followed by a trip to Shashawandah Creek where students were able to explore the stream.
 - the second event was held in partnership with Jenny Pearce of Sciensational Sssnakes at the Hillside Elementary School. Jenny educated students on reptiles of Ontario and allowed students to handle live snakes and turtles.
 - in addition to these events, Biology staff held an aquatic sampling demonstration to provide members of the Kettle Stony Point First Nation with aquatic sampling techniques, and knowledge of fish identification.
 - these events are covered in previous 2014 board reports.
 - KSPFN Species at Risk Community Meeting
 - this is the fourth year Biology staff attended the KSPFN Species at Risk Community Event. The event consisted of various partners delivering presentations related to field activities in the Kettle Stony Point area. Authority staff created and delivered a presentation summarizing 2014 events.
 - the SCRCA staff and many other organizations set up displays covering a range of interests. Biology staff set up a display consisting of an eastern fox snake and snapping turtle display, and information on reptile habitat enhancements and monitoring.
 - overall, it was great to see the amount of effort and time spent on this event. There were many community members who demonstrated great interest and knowledge by raising important questions and comments.
 - we were also very pleased to read a statement by Chief Thomas Bressette which can be found on pg. 3 of the KSPFN Species at Risk Project newsletter stating: *“The St. Clair Region Conservation Authority representatives always receive a very warm welcome from our Hillside Elementary School students as they run their annual in class programs and nature walks.”*

BD-15-054

Gordon - Nemcek

“That the Board of Directors acknowledges the report dated April 13, 2015 on the Kettle and Stony Point First Nation Partnership, and endorses continued staff involvement in youth education and community outreach and engagement at Kettle and Stony Point.”

CARRIED

A staff report on the Agricultural Management Plans for the McKeough Upstream Properties was explained.

- in the 1980s, St. Clair Conservation purchased properties as part of the W. Darcy McKeough Dam and Diversion Project. The McKeough Floodway allows water to be diverted from the North Branch of the Sydenham River directly to the St. Clair River to alleviate flooding in the town of Wallaceburg.

- many of the properties lie north of the floodway from Wilkesport to Bridgen Road and are leased by tenants for agricultural purposes. In order to create environmentally sustainable farms Property Management Plans (PMP) in combination with Environmental Farm Plans were completed for 13 of the 17 McKeough upstream properties. The remaining four parcels are currently in progress for completion.
- as a result of the recommendations made through the Property Management Plans and Environmental Farm Plans several projects are in progress in 2014/15. A total of 24 acres of marginal land is being converted to wetlands (10 acres), riparian buffers (12 acres) and upland habitat (2 acres).
- Property 79
 - located just east of Kimball Road north of Wilkesport Line
 - wetland created by constructing two berms to hold back water
 - wetland totals 2 acres
 - area around the wetland was planted with a wildlife forage mix to further enhance habitat
 - funding received from Ministry of Natural Resources and Forestry and Wildlife Habitat Canada
- Property 97
 - located north of McCallum Line east of Pretty Road
 - wetland was created in 2013 however erosion was evident at the spillway
 - early 2015 a rock chute spillway and catch basin were installed to slow down the water and repair the erosion damage
 - the catch basin was installed with a tile to carry the water to Black Creek
 - the spillway has been staked and will be grassed to keep the farm equipment away and further prevent erosion
 - wetland totals 1 acre
 - funding received from Wildlife Habitat Canada
- Property 38
 - located west of Wilkesport
 - construct a series of four wetlands by constructing four berms along the gully
 - a catch basin with a tile will be installed at the bottom end to carry water to the North Sydenham River and reduce erosion
 - the area will be staked seeded and taken out of production to eliminate future erosion issues
 - project is set to be completed in summer 2015
 - wetland totals 7 acres
 - funding received from Wildlife Habitat Canada and Ministry of Natural Resources and Forestry

BD-15-055

Miller - Broad

“That the Board of Directors acknowledges the report dated April 8, 2015 on the Agricultural Management Plans for the McKeough Upstream Properties and the projects implemented as a result of these plans.”

CARRIED

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

- Stewardship Projects
 - there are 32 stewardship projects that are being funded through the provincial species at risk stewardship fund and the federal habitat stewardship program along with 6 other funding agencies.
 - more than \$235,000 in grant will go towards funding these projects which include riparian buffers, stream bank stabilization, wetland enhancement or creation and upland habitat improvements.
 - estimated project value with landowner in-kind and financial contribution is more than \$600,000
 - construction began in March for some projects and it is expected that all projects should be completed by the end of May
- Tree Planting Program
 - the tree planting program is operating on normal spring schedule with tree nurseries starting to lift tree seedlings the week of April 12th to 18th.
 - trees are expected to arrive sometime around April 23rd with planting operations starting during the last week of April on well drain lands.
 - SCRCA crews will be planting more than 53,000 trees on 30 properties this spring.
 - another 7000 trees will be distributed to an additional 35 landowners for planting.
 - three tractor mounted machine tree planters and one small hand planting crew is planned for operations to take place over the course of a 3 to 4 week time frame.
 - more than \$140,000 has been secured through several separate funding sources this year to offset planting costs for most landowners taking part in this year's program.
- Large Stock Trees
 - there are 425 large stock trees on order this spring for approximately 10 landowners plus one bulk order for the Municipality of Brooke-Alvinston
 - the Municipality of Brooke-Alvinston is providing a subsidized rate for landowners wanting to plant trees on their property. This resulted in a large landowner uptake for a third year in a row.
 - trees range in size from 1 metre for the evergreen trees to 1.8 metres for the hardwood trees. Most of the trees ordered for spring are either potted or balled and burlap stock.
 - trees are expected to arrive on April 21st.
- Vegetation Control Program
 - approximately 180,000 trees require spray maintenance this spring (under the 3 year vegetation control program) plus the 53,000 newly planted trees scheduled this year. Two machine sprayers will start herbicide applications mid to late April pending spring soil conditions.
 - most of the 3 year tending work is paid in advance and carried forward each year to cover the cost of the labour and material.
- Habitat Improvements
 - habitat improvement efforts are taking place in a 175 acre Lake Huron coastal wetland in Lambton Shores south of Stoney and Kettle Point.
 - the area has been completely taken over by phragmites which has destroyed most of the natural habitat.
 - rolling and burning started in March this year on approximately 55 acres.
 - another 70 acres or more is targeted for the same treatment as soon as the weather dries and conditions return to normal eradication protocol.

- summer and fall herbicide treatment is scheduled after plant regrowth occurs.
- the Great Lakes Community Guardian Fund will be subsidizing \$24,750 for the rolling and burning part of the project.
- an additional \$60,000 in funding from Environment Canada, Ministry of Natural Resources, Forestry and NextEra Energy Resources.
- Lambton Shores Community Phragmites Group is the driving force behind this work. They are a volunteer group of dedicated people that SCRCA will be partnering with for the next several years.
- local MPP Monte McNaughton has been very supportive with this project.

BD-15-056

MacKinnon - Faas

“That the Board of Directors acknowledges the report dated April 9, 2015 regarding Conservation Services projects and programs.”

CARRIED

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

- West Nile Virus Program
 - Larvicide operations will take place once again in Sarnia, Point Edward and all communities throughout Lambton County this summer.
 - the County of Lambton operates a West Nile virus (WNV) surveillance program including a larvicide application program to control mosquito populations in catch basins. The Conservation Authority has been treating catch basins since 2006 under its Pesticide Operators Licence under direction from Lambton Public Health Department. SCRCA obtains permits each year from the Ministry of the Environment and licences summer staff from the Conservation Services department as pesticide applicator technicians in order to implement the work.
 - 70% of the positive samples of WNV are found in the mosquito species *Culex pipiens* (the house mosquito) and related species of *Culex*. The house mosquito breeds mostly in stagnant water that is heavy in organic content. Therefore, catch basins in urban areas are the most common breeding grounds for WNV carrying mosquitoes.
 - last year several WNV positive mosquito pools were found in the County of Lambton along with several birds that tested positive for the virus.
 - less than 1% of people infected with the virus will get seriously ill, however, there have been a number of confirmed human cases of the virus in Lambton County since 2001, including one death in 2005 and a second death in 2006.
 - 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. Approximately 65% of the catch basins are within the City of Sarnia.
 - methoprene disrupts the life cycle of mosquitoes, preventing them from maturing and reproducing. It is used in many cities and municipalities throughout Southwestern Ontario.
 - Health Canada studies indicate methoprene is of low toxicity and poses little risk to people when used according to the label instructions.

- efficacy testing is conducted by SCRCA staff by collecting mosquito pupa samples throughout the summer. Pupa are monitored by Lambton Public health. Past efficacy tests show 80% effectiveness at controlling mosquito pupa.

BD-15-057

Bruzewicz - Kelch

“That the Board of Directors acknowledges the report dated April 9, 2015 on the application of Larvicide to catch basins in Lambton County for the control of West Nile Virus in 2015.”

CARRIED

Regulations Summary Reports for February and March 2015 were reviewed.

BD-15-058

Marriott - Scholten

“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 2015.”

CARRIED

Planning Activity Summary Report for February and March 2015 was reviewed.

BD-15-059

Kelch- Brewer

“That the Board of Directors acknowledges the St. Clair Region Conservation Authority’s monthly Planning Activity Summary Reports for February and March 2015.”

CARRIED

A report on hazard land fragmentation was explained.

- Background
 - many Conservation Authorities have adopted municipal plan review policies which discourage the fragmentation of floodplains and hazardous slope areas. The reason being:
 - interpretation of provincial planning policy
 - minimizes the number of owners of land that is subject to the Conservation Authority Regulations
 - negative environmental impacts that can result from fragmentation
 - for new development, hazard avoidance is the preferred method of management.
- over the last several years, the SCRCA Planning and Regulations staff have noted the negative environmental impacts from municipal planning approvals in hazardous lands. Hazardous lands consist of floodplains and slopes. Floodplains and slopes are also regulated by the SCRCA via Ontario Regulation 171/06 “Development, Interference with Wetlands & Alterations to Shorelines & Watercourses”. At the April 23rd Board of Directors meeting, staff will present examples within the watershed
- Information brief
 - Municipal decisions regarding Planning Act applications must be consistent with the Provincial Policy Statement (PPS).

- Provincial Policy Statement (PPS 2014)
- The PPS provides the following direction (words that are in *italics* are defined in the definition section of the PPS):
 - 3.1.1 Development shall generally be directed to areas outside of:
 - a) *hazardous lands* adjacent to the shorelines of the *Great Lakes – St. Lawrence River System* and *large inland lakes* which are impacted by *flooding hazards, erosion hazards* and/or *dynamic beach hazards*.
 - b) *hazardous lands* adjacent to river, stream and small inland lake system which are impacted by flooding hazards and/or erosion hazards; and
 - c) *hazardous sites*.
 - 3.1.2. *Development and site alteration* shall not be permitted within:
 - a) the *dynamic beach hazard*
 - b) *defined portions of the flooding hazard along connecting channels* (the St. Marys, St. Clair, Detroit, Niagara and St. Lawrence Rivers)
 - c) *floodway*
- PPS Definitions:
 - *Development* means the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act....
 - *Hazardous lands* - means property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the *Great Lakes – St. Lawrence River System*, this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the *flooding hazard, erosion hazard or dynamic beach hazard* limits. Along *river, stream and small inland lake systems*, this means the land, including that covered by water, to the furthest landward limit of the *flooding hazard or erosion hazard* limits.
 - Site alteration means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site.
 - the PPS provides a policy basis for discouraging, if not prohibiting, fragmentation of floodplain lands. The PPS also provides a general policy direction that development, which can be interpreted to include lot creation, should avoid slope hazards.
- SCRCA Issues with the severance or fragmentation of hazard lands
 - the main concern relates to our responsibilities for regulating these areas. Section 28 of the Conservation Authorities Act deals with the CA “Development, Interference with Wetlands & Alteration to Shorelines & Watercourses” Regulation. Under this legislation, and its enacting Regulations, a CA regulates development and site alteration within flooding and erosion prone areas as well as wetlands and adjacent lands (buffers to wetlands).
 - it is certainly recognized that all lot creation involving hazardous lands cannot, and should not, be prohibited. Technical and administrative consents should be permitted for example. (ie exchange or conveyance of lands). However, it must be recognized that each time that a new parcel is created that includes an area of land regulated by the Conservation Authority, the Authority has an additional landowner to keep advised of the regulated areas and to potentially deal with through the permitting or violation process. In 2006, when the SCRCA Regulation area was enlarged to include Lake Huron and the St Clair River plus the former No Mans Land (southwest Bosanquet Twp, now Lambton Shores), another full time equivalent Regulations Officer was required. It is important to

note, there is significant development pressure on the Lake Huron shoreline, so the demand substantially increased in this area. For example, lands along the Lake Huron shoreline strip (basically Lakeshore Road area) are designated the residential growth area for Plympton Wyoming. This is noted in P-W's Official Plan.

- where large rural parcels are created with substantial building envelopes outside the hazard, severances are not an issue. What is often the case, however, is lot creation occurring for residential purposes in compact areas. This stresses the slope and floodplain due to access and accessory uses etc. Ultimate owners of small lots have an expectation that they can develop and alter the entire lot. Conflicts can occur such as:
- Utility sheds and other types of secondary structures (ie pools, pool sheds, play houses, elaborate fencing/landscaping (ie Lake Huron low bluff and high bluff areas). These types of structures are often established without a building permit and as a result the CA and municipalities may not be aware until well after the fact. Flooding and erosion can cause damage to these structures and can impact adjacent owners properties and view scape demanding compensation or removal.
- Summary: to address the potential for hazard land fragmentation which can also impact the natural heritage features on the landscape, many Conservation Authorities are including a general prohibition of fragmentation in their planning policy and guidelines. Where it is evident that fragmentation will potentially create land use conflicts, it is recommended that this potential be dealt with proactively, so environmental damage can be reduced, future staffing costs are minimized and thus levy apportionments to municipalities kept down.

Director's Comments:

Requests a report at the next meeting regarding the fees and what is involved.

BD-15-060

Scholten - Marriott

"That the Board of Directors acknowledges the discussion paper dated April 10, 2015 on hazard land fragmentation and further that Authority staff be directed to develop guiding principles and municipal plan review and input policy on the fragmentation of hazard lands for review by the Board of Directors."

CARRIED

A staff report regarding the St. Clair River Area of Concern was discussed.

- Restrictions on Dredging Activities - the "Restrictions on Dredging Activities" BUI status assessment has been drafted, reviewed and approved by the Canadian Remedial Action Plan (RAP) Implementation Committee (CRIC) and has been accepted by the Aamjiwnaang First Nation Environment Committee and Chief and Council. The Walpole Island Heritage Committee has provided a recommended community engagement strategy that includes suggested participation at community events along with Committee questions and comments on the draft status assessment. Answers are currently being drafted and consultation with the Walpole Island First Nation community will be organized soon.

- Beach Closings - a draft status assessment has been prepared for the “Beach Closings” BUI that incorporates: 1) the results of three years of beach water quality monitoring for *Escherichia coli* (*E. coli*) at swimming areas along the St. Clair River, 2) beach water quality monitoring results from municipally identified “official” beaches sampled annually and 3) data obtained from a Microbial Source Track-down study conducted at Centennial Park in Sarnia, Ontario. The draft has undergone agency review and once all comments have been incorporated, will be reviewed by agency experts.
- Restrictions on Drinking Water Consumption or Taste and Odour Problems - at the end of 2014, a draft discussion paper was prepared for the “Restrictions on Drinking Water Consumption or Taste and Odour Problems” BUI. The document is not a status assessment but rather a report that outlines and summarizes relevant information pertaining to this BUI and initiate a discussion on its status. The document is currently being reviewed and will be available publically once the draft is completed.
- Upcoming BUI Status Assessments:
 - Fish Tumours or Other Deformities - a collaboration and partnership between Environment Canada, the Walpole Island Heritage Centre and the Walpole Island First Nation community has contributed to the collection of data required to properly determine the status of the “Fish Tumours or Other Deformities” BUI. Between 2013 and 2014, 50 Brown Bullhead (*Ameiurus nebulosus*) fish were collected from the Walpole Island delta for liver tumour analysis. Brown Bullhead fish were selected as a sentinel species as they are fish that are in constant contact with the sediment and don’t migrate, limiting their exposure to other environments. Visual inspection of the fish yielded positive results however, the results of the liver tumour analysis are pending.
 - Bird or Animal Deformities or Reproductive Problems - all data has been collected in support of the “Bird or Animal Deformities or Reproductive Problems” BUI status assessment. Leopard Frog (*Lithobates pipiens*) collection from around Walpole Island was completed in 2014. Each frog was visually inspected for deformities such as missing limbs, eyes or abnormal growths. Additionally, hatching success was assessed in snapping turtle (*Chelydra serpentine*) eggs exposed to St. Clair River sediment. Results were positive and a status assessment should be drafted shortly
 - Binational BUI Status: - the following chart provides the current status of BUIs on both the Canadian and American side of the St. Clair River AOC. Those with “**” denote that the BUI is related to the Sediment Management Project.

• St. Clair River Area of Concern Binational BUI Status		
Beneficial Use Impairment	Status Canada	Status US
Restrictions on Fish and Wildlife Consumption**	Impaired	Impaired Being assessed under MDCH statewide assessment 2012
Degradation of Benthos**	Impaired	Not Impaired Formally re-designated 2014
Restrictions on Drinking Water Consumption or Taste and Odour Problems	Impaired	Impaired

Beach Closings	Impaired Status review in 2015-16	Impaired
Loss of Fish and Wildlife Habitat	Impaired	Impaired
Restrictions on Dredging Activities	Impaired In consultation with First Nations	Not Impaired Formally re-designated 2011
Degradation of Aesthetics	Impaired Local approval 2014	Not Impaired Formally re-designated 2012
Degraded Fish and Wildlife Populations	Requires Further Assessment	Not Impaired*
Fish Tumours and other Deformities	Requires Further Assessment	Not Impaired*
Bird or Animal Deformities or Other Reproductive Problems	Requires Further Assessment	Impaired Statewide assessment finalized in August 2012
Tainting of Fish and Wildlife Flavour	Not Impaired, Formally re-designated 2011	Not Impaired Formally re-designated 2011
Eutrophication or Undesirable Algae	Not Impaired	Not Impaired
Added Costs to Agriculture or Industry	Not Impaired Formally re-designated 2012	Not Impaired Formally re-designated 2012
Degradation of Phytoplankton and Zooplankton Populations	Not Impaired	Not Impaired

* The determination in the Stage 1 RAP Report was that the BUI “Required Further Assessment”. While establishing the statewide delisting criteria in 2006, the Michigan Department of Environmental Quality decided to define American BUIs that “Required Further Assessment” as “Not Impaired”.

BD-15-061

Kelch - Scholten

“That the Board of Directors acknowledges the report dated April 7, 2015 regarding the St. Clair River Area of Concern (AOC).”

CARRIED

A staff report regarding the January – March 2015 municipal drain activity report associated with the Drainage Act and Conservation Authorities Act Protocol (DART) was reviewed.

BD-15-062

Nemcek - Miller

“That the Board of Directors acknowledges the report, dated April 7, 2015 on Drainage Act and Conservation Authority Act Protocol (DART) Municipal drain activities for January, February and March 2015.”

CARRIED

A staff report regarding the signing of a Memorandum of Agreement for planning advisory services with the County of Lambton was reviewed.

- background - in 2014, the Board of Directors recommended staff seek agreement on providing natural hazard and natural heritage planning advisory services to municipalities. The County of Lambton, being the largest upper tier planning department within the watershed was targeted for discussion and agreement purposes.
- it is important to note and as presented at the June 2014 Board meeting, only Natural Hazards provincial policy (including the hydrologic protection of wetlands) has been delegated to Conservation Authorities. Natural Heritage protection under the PPS is the responsibility of the municipalities.
- Summary
 - Memorandum of Agreement (MOA) has been signed by the County of Lambton and SCRCA. This template follows similar area CA/Municipal MOA’s.
 - it is important to note that services for Natural Heritage planning advice and technical report review have been itemized. Services are based on a user pay cost recovery basis.
 - in formulating the appropriate planning application fees for Natural Heritage, technical and administrative staff met to discuss and assign appropriate rates and times in late 2014. Staff researched consulting fees for Natural Heritage technical report review and recommended an appropriate fee schedule which was approved by the Board of Directors in November 2014.
 - as a reminder, the Conservation Ontario/Ministry of Natural Resources and Forests “Policies and Procedures for Conservation Authority Plan Review and Permitting Activities”(CALC) 2010, recommended that these types of agreements be entered into, particularly if the Conservation Authority was requested to provide technical services outside the delegated approval authority.
 - entering into an agreement is positive in that obligations are outlined so expectations can be formalized and referred to.

BD-15-063

McMillan - Wright

“That the Board of Directors acknowledges the signing of the enclosed Memorandum of Agreement for planning advisory services between the County of Lambton Planning Department and St. Clair Region Conservation Authority and that staff endeavour to seek similar MOA’s with other upper and lower tier municipalities.”

CARRIED

Authority revenue and expenditures to March 31, 2015, were reviewed.

BD-15-064

Bruzewicz - Nemcek

“That the Board of Directors acknowledges the revenue and expenditure report to March 31, 2015, as it relates to the budget.”

CARRIED

January, February and March 2015 disbursements totaling \$1,265.590.93 were considered.

BD-15-065

Kelch - Faas

“That the Board of Directors approves the January, February and March 2015 disbursements as presented in the amount of \$1,265.590.93.”

CARRIED

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

BD-15-066

Miller - MacKinnon

“That the Board of Directors acknowledges the status report on the 2015 general levy receipts to date.”

CARRIED

Directors reviewed the 2014 Investment Statement and the March 31, 2015 reports.

BD-15-067

Marriott - Rupke

“That the Board of Directors acknowledges the 2014 Investment Statement and March 31, 2015 report.”

CARRIED

A staff report outlining the accessibility improvements to the office were reviewed.

- St. Clair Region Conservation Authority is committed to treating all people in a way that allows them to maintain their dignity and independence. We believe in integration and equal opportunity. We are committed to meeting the needs of people with disabilities in a timely manner, and will do so by preventing and removing barriers to accessibility and meeting accessibility requirements under the Accessibility for Ontarians with Disabilities Act (AODA).
- as part of the Authority’s Multi Year Plan to meet the requirements of AODA, the Authority has completed the following
 - website has been updated to the appropriate format (WCAG 2.0, Level A)
 - staff training is completed annually as a refresher and training has been incorporated in new staff training
 - Board members were trained at the December 2014 meeting. New members will need to be trained before the end of 2015.
- at the end of December 2014 we were able to submit our application for the building permit after finding a local architect that was able to work with us to move this project forward.

- the architect completed the drawings and requests for quotes for the St. Clair Region Conservation Authority. Based on Board direction and the failed RFQ process last year we requested quotes from the 3 contracting firms that showed interest last year.
- the successful bidder was Graceview Enterprises who we have worked with in the past on the Clark Wright building expansion.
- the destruction of the interior of the boardroom, kitchen and bathrooms has been completed. Like any renovation project not without challenges, but we were able to correct a long time sewer issue.
- we have construction meetings every two weeks to address any required changes to the original contract and update on status. The next meeting is April 20, 2015. We expect the front entrance destruction will start that week. A further verbal update on status can be provided at the April 23rd meeting if requested.
- we expect that substantial completion will be the first week in June.

BD-15-068

Scholten – Wesley

“That the Board of Directors acknowledges the report, dated April 13, 2015 regarding accessibility improvements to the Administration Office.”

CARRIED

A staff report regarding the JCP program was discussed.

- the Conservation Authority submitted a pre-proposal to the Ministry of Training, Colleges and Universities for a Job Creation Partnership Program involving five participants in December 2015. The application requests funding of \$60,066 for wages and \$19,013 for support.
 - Land Management Technicians (2): April 27 – September 25 (22 weeks)
 - Land Management Technician Crew Leader (1): April 27 – September 25 (22 weeks)
 - Land Management Technician, McKeough: April 27 – December 18 (34 weeks)
 - Aquatic Research Technician: April 7 – January 24 (42 weeks)
- we are awaiting a decision from the Ministry.

BD-15-069

Bruziewicz - Kelch

“That the Board of Directors acknowledges the report dated April 14, 2015 on the pre-proposal submitted to the Ministry of Training, Colleges and University for the JCP program involving five participants.”

CARRIED

December 4, 2014 minutes of the Joint Health and Safety Committee were reviewed.

BD-15-070

Bruziewicz - Case

“That the Board of Directors acknowledges the minutes of the Joint Health and Safety Committee meeting held December 4, 2014.”

CARRIED

Mr. Paul Speck from Marsh Insurance Company was delayed in traffic and his presentation was tabled

until later in the meeting.

BD-15-071

Scholten - Giffen

“That the Board of Directors acknowledges the presentation by Paul Speck, Marsh Insurance Canada, regarding Authority policy and Authority and Board liability.”

TABLED

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

- staff is proposing a Conservation Authority Tour on Thursday, June 25, 8:30 – 1:00. The bus will leave and return to the Warwick Conservation Area. We will have lunch followed by the Board meeting. This year, we will be focusing on projects in the northern portion of our watershed.
- highlights of tour
 - Warwick Conservation Area
 - Healthy Lake Huron - Forest Lagoon Naturalization Project
 - Ipperwash and Kettle and Stony Point First Nation
 - Lambton and Area Water Supply System Shoreline Project

BD-15-072

Nemcek - McMillan

“That the Board of Directors acknowledges the report dated April 14, 2015 on the proposed project tour scheduled for June 25, 2015.”

CARRIED

A staff report on Conservation Education was discussed.

- Winter Programing
 - thanks to this year’s snowy wonderland, many primary classes booked into the Nature in Winter Program. We almost doubled the number of students visiting Henderson Conservation Area this winter with numbers being the highest since 2002. Some lucky students even hand-fed Black-capped Chickadees. A friendly Downy Woodpecker was attracted to adult hands!
 - A list of our in-school sponsored programs follows:
 - St. Clair River Bottom Critters: Grades K-9
 - Go With The Flow (groundwater): Grades K-10
 - River Rap: Grades 4-10
 - Aquatic Species At Risk: Grades 4-10
 - Spring Water Awareness Program: Grades K-6
 - Alternative Energy Solutions: Grades 1-12
- Program Development & Expansion
 - Go with the Flow: had a very successful winter for the expanded Go with the Flow program. The new grades being offered (Kindergarten-Gr 3) were very popular with teachers and students; and allowed SCRCa to double the number of students participating in the program! So far in the in 2014-2015 season over 1800 students have benefitted from this program, learning about the importance of water & factors that can affect water quality.

- Alternative Energy Solutions: the demand was so high for this program, that the month of April has been fully booked. Over 1000 students (Gr 1-12) are expected to have participated by the end of April. Mini wind-turbines and solar car models help to make this program a fun, hands-on success!
- Introduction to Entomology: using insects as a guide, secondary students explore a wide range of topics including; classification, insects as bio-indicators, human impacts on ecosystems, climate change, and restoration and rehabilitation techniques. Teacher requests for this program in spring 2015 have already begun. We expect this program to become an important program for the Gr 9-12 students in our watershed.
- Special Events:
 - Maple Syrup Festival: following a delayed start to the sap flow, approximately 800 people were welcomed to the Sugar Bush at A.W. Campbell Conservation Area on March 21st and 22nd. Visitors viewed historical demonstrations of First Nations, Pioneer and Modern methods of collecting sap and turning it into liquid gold. 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 19, 2015. We look forward to another great turn out for this Conservation Education Fund Raiser! In an attempt to reduce the number of competitors in the Recreation Class, it has been divided into Competitive and Lazy River Classes. Lesser used classes have been eliminated. Check our website for more details.
 - Art Walk and Fun Fest: SCRCA Staff will be participating in Art Walk on June 6, 7 and Kids Fun Fest on Saturday June 13th. Manned booths will highlight some of the SCRCA's activities in our watershed.
- Community Partnership
 - LWI Young Naturalist Groups: Staff continue to run outdoor meetings for both the Young Naturalist Group (ages 7-11) and the Junior Conservationist Group (ages 12+). Some recent meetings have included; skiing & snowshoeing, fire building, introduction to birdwatching & workdays at Bluewater Centre for Raptor Rehabilitation.
 - Return the Landscape: One staff person continues to sit on the Return the Landscape Committee. This group aims to rescue native flora from development sites and replant them within native landscapes within Lambton County.
 - Sarnia Lambton Arbor Week committee: Education staff are helping to coordinate 2 public tree plantings in the City of Sarnia. 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.

Director's Comments:

- Maple Syrup Festival was a success
- There were no VIP entries in the Canoe Race. Challenge for next year.

BD-15-073

Broad - Rupke

“That the Board of Directors acknowledges the Conservation Education Report, dated April 14, 2015 including the winter programing, program development and expansion, Special Events, and Community Partnerships.”

CARRIED

Under New Business, the Vice Chair, suggested that in order to save some money, that the Vice Chair's honourarium be discontinued.

BD-15-074

Giffen – Kelch

“That the Board of Directors discontinue the Vice Chair’s honourarium retro to February 16, 2015.”

DEFEATED

It was requested that electricity for laptops be made available for those directors using that method for their meeting packages. That will be available once the boardroom construction has been completed.

BD-15-075

Miller - Giffen

“That the meeting be adjourned.”

Paul Speck, Marsh Insurance, arrived and made his presentation during lunch.



Steve Arnold
Chair



Brian McDougall
General Manager