



LAKEHEAD REGION

CONSERVATION AUTHORITY

Minutes of the Eighth Regular Meeting of the Lakehead Region Conservation Authority held on Wednesday, September 27, 2017 in the Authority Boardroom. The Chair called the Meeting to order at 4:30 p.m.

PRESENT:

Donna Blunt, Chair
Ken Boshcoff, Vice-Chair
Grant Arnold
Erwin Butikofer
Jim Byers
Ed Chambers
Andrew Foulds
Umed Panu
Linda Rydholm
Wendy Wright
Jim Vezina

ALSO

PRESENT:

Tammy Cook, Chief Administrative Officer
Ryne Gilliam, Field Operations Supervisor
Ryan Mackett, Community Stewardship/Public Relations Officer
Mark Ambrose, Finance Manager
Simon Shankie, Watershed Manager
Melanie O'Riley Receptionist/Admin Clerk, recorder of Minutes

1. ADOPTION OF AGENDA

Resolution #105/17

Moved by Ken Boshcoff, Seconded by Jim Byers

"THAT: the Agenda is adopted as published." CARRIED.

2. DISCLOSURE OF INTEREST

None.

3. MINUTES OF PREVIOUS MEETING

Resolution #106/17

Moved by Wendy Wright, Seconded by Ken Boshcoff

“THAT: the Minutes of the Lakehead Region Conservation Authority Seventh Regular Meeting held on Wednesday, August 30, 2017, together with the In-Camera portion be adopted as published.” CARRIED.

4. IN-CAMERA AGENDA

Resolution #107/17

Moved by Ken Boshcoff, Seconded by Jim Byers

“THAT: we now go into Committee of the Whole (In-Camera) at 4:37 p.m.” CARRIED.

Resolution #108/17

Move by Wendy Wright, Seconded by Ken Boshcoff

“THAT: we go into Open Meeting at 4:40 p.m.” CARRIED.

The purpose of the In-Camera Meeting pertained to personnel, property and third party matters.

5. BUSINESS ARISING FROM PREVIOUS MINUTES

(a) File: Conservation Authorities Act Review

Members were advised that Bill 139 (Building of Better Communities and Conserving Watersheds Act) that was introduced in the legislature on May 30, 2017 has passed second reading and is at the Standing Committee. Conservation Ontario has been advised that Minister McGarry is committed to seeing the Bill to passage before the house rises in December.

(b) File: 2018 Draft Budget

It was noted that Staff have had further discussions with the City of Thunder Bay regarding the Draft 2018 budget.

(c) File: Bill 86, An Act to amend the Conservation Authorities Act

It was noted that Bill 86, which is a Private Member's Bill to amend the *Conservation Authorities Act* to require that at least half its members have significant training, experience or employment history in an environmental or natural resources field, has not proceeded any further than first reading, which was passed December 7, 2016.

6. CORRESPONDENCE

(a) File: Printed Material

Printed material was circulated.

7. STAFF REPORTS

Members reviewed and discussed Staff Report STRAT-01-2017 regarding proposed Vision and Mission Statements for the LRCA.

Resolution #109/17

Moved by Umed Panu, Seconded by Linda Rydholm

"THAT: staff report STRAT-01-2017 be received AND FURTHER THAT the Authority adopts the following vision statement:

A healthy, safe and sustainable Lakehead Watershed for future generations.

AND FURTHER THAT the Authority adopts the following Mission Statement:

*To lead the conservation and protection of the Lakehead Watershed." **CARRIED.***

8. CHIEF ADMINISTRATIVE OFFICER REPORT

Members were provided with the monthly Treasurer's Report for expenses and revenues for August plus totals to date for Administration, Capital and Vehicle and Equipment Program.

It was noted that Brian Taylor, CAO, North-Bay Mattawa will be the lead on the Conservation Authorities Service Delivery Committee as a representative of the Northern Authorities with Tammy Cook, CAO, Lakehead being the alternate.

Members were advised that the CAO has been notified that she was successful in her application to the TD Friends of the Environment for a Leadership Grant to attend their Leadership Program taking place from November 19 to 23 in Orillia, Ontario. All travel and course costs are covered by the Grant. The Program aims to enhance the organizational capacity of environmental organizations through a Leadership and Organizational Development Course.

Members were advised that Union Gas provided the LRCA with a \$1,000.00 donation towards the construction of a new dock at Hazelwood Lake Conservation Area, as well as new steps and a graded slope down to the dock area. Union Gas staff and volunteers will be carrying out all work involved with the project. Additionally, another \$1,000.00 donation was made at the local level, bringing Union Gas' total donation to \$2,000.00.

Members were advised that Workplace Safety North will be providing a Competent Supervisor Health and Safety Training Course at the LRCA on February 13 and 14th, 2018 for applicable LRCA staff. An invitation has been sent out to the rural Member Municipality clerks inviting them to register their staff that may also need the training. The cost for the course will be based on the

number of attendees, with Member Municipalities responsible for the cost for their employees. The Township of Conmee and the Municipalities of Neebing and Oliver Paipoonge have registered participants.

9. PASSING OF ACCOUNTS

Resolution #110/17

Moved by Linda Rydholm, Seconded by Jim Byers

"THAT: having examined the accounts for the period of August 1, 2017 to August 31, 2017 cheque #968 to #1006 for \$218,875.57 and preauthorized payments of \$70,073.28 for a total of \$288,948.85, we approve their payment." CARRIED.

10. REGULATORY ROLE

The Plan Input and Review for the period from August 31, 2017, to September 27, 2017, was circulated.

The Permits issued for the period from August 31, 2017, to September 27, 2017, were circulated.

11. PROJECTS UPDATE

Members were provided with the written updates on on-going projects/activities as detailed in the Agenda.

Members reviewed and discussed the Staff Report FORMG-02-2017 related to the proposal submitted by Eco Logging to harvest stands 7 and 22 in the Wishart Forest.

Resolution #111/17

Moved by Linda Rydholm, Seconded by Jim Byers

"THAT: the proposal submitted by Eco Logging Limited dated September 15, 2017 to harvest stands 7 and 22 in the Wishart Forest be approved." CARRIED.

Members concurred that in an effort to communicate the final Strategic Plan to as many members of the public as possible, the 2017 Annual Report will be distributed the first Saturday in March to allow time to include the Strategic Plan in the annual report distribution.

12. NEW BUSINESS

None.

13. NEXT MEETING

Wednesday, October 25, 2017, at 4:30 p.m.

14. AJOURNMENT

Resolution #112/17

Moved by Linda Rydholm, Seconded by Umed Panu

"THAT: the time being 5:15 p.m. AND FURTHER THAT there being no further business we adjourn." CARRIED.

Chair

Chief Administrative Officer

Tammy Cook

From: Kestrel Wraggett <kwraggett@gmail.com>
Sent: Monday, October 9, 2017 12:54 PM
To: Tammy Cook
Subject: Foundation board

Hi Tammy,

Thanks for meeting with me the other day!

I would like to join the Foundation Board:

I am interested in knowing more about the Lakehead CA and would like to contribute in any capacity I can. I currently work as a provincial park planner for Ontario Parks with the MNRF. Please consider me for a position as a member of the board.

Kestrel Wraggett
Kwraggett@gmail.com
[807-630-2874](tel:807-630-2874)

Thank you,

Kestrel

Sent from my iPhone

Kestrel Wraggett

102 Herkimer Street • Hamilton, Ontario • L8P 2G7 • (807) 630-2874 • kwraggett@gmail.com

SUMMARY OF QUALIFICATIONS

- Conceptualized and developed a community based stewardship program based on targeted ecological restoration needs.
- Implemented a range of restoration projects with private and public stakeholders including; Low Impact Development Projects, stream restoration through bio-engineering and riparian plantings, invasive species pilot projects and control, habitat enhancement and creation, turtle nest protection, large and small scale planting projects.
- Hosted and delivered many educational workshops for the public as well as private agencies.
- Worked with college and university students on year-long projects and have delivered many presentations as a guest lecturer.

RELEVANT EXPERIENCE

STEWARDSHIP TECHNICIAN

MAY 15, 2015 – PRESENT

Conservation Halton (Cootes to Escarpment EcoPark System)

Burlington, ON

- Responsible for planning and implementing restoration plans on public and private lands within the Cootes to Escarpment EcoPark System.
 - Identify, lead and coordinate sensitive environmental restoration projects based on natural heritage systems and current land use.
 - Successfully applied and received multiple funding sources to deliver a community based stewardship program.
 - Develop and implement targeted restoration plans based on existing land uses, ecosystem functions and natural heritage systems.
 - Consult and facilitate with the public and internal and external agencies in order to successfully implement project plans and restoration activities.
 - Provide consistent messaging through a multitude of presentations in many different forms to diverse audiences such as: the general public through conferences, presentations and workshops; students through guest lectures; institutions and corporations through targeted outreach; councils and boards through information dissemination, updates and approvals.

STEWARDSHIP TECHNICIAN

JULY 1 2014 – MAY 14 2015

Ganaraska Region Conservation Authority

Port Hope, ON

- Responsible for administration and implementation of all stewardship programs within the GRCA
 - Worked directly with landowners and provided technical advice on planning and implementing conservation, restoration and rehabilitation projects on their property.
 - Developed and implemented a series of workshops to educate and engage the community, local contractors and landscapers in innovative stormwater management techniques as a climate change adaptation method.
 - Worked with the local municipalities and a range of funders to financially assist landowners with implementation of projects.
 - Took the opportunity to work on unique projects such as the Port Granby Nuclear Waste clean-up initiative, sit on the Durham Region Climate Change Environmental Task Force and the Technical Advisory Committee for the Conservation Authorities Moraine Coalition, and assisted in producing the Regional Environmental Health Report.

Kestrel Wraggett**PROGRAM MANAGER**

JULY 1 2010 – AUGUST 15 2013

*Shad Valley International**Thunder Bay, ON*

- Responsible for managing and overseeing the program and staff.
 - Hired, trained, led and motivated a team of residential staff.
 - Used critical thinking in order to adapt to a fast-paced, ever-changing environment.
 - Deployed superior conflict resolution skills to mitigate unexpected issues.

STORMWATER PROJECT COORDINATOR

MAY 2011 – MAY 2013

*Northshore Remedial Action Plan**Thunder Bay, ON*

- Conceptualized, researched, designed and implemented all stormwater related projects.
 - Designed several research studies to determine upstream water quality impairments based on initial observation, data collection and analysis of possible contamination due to upstream stormwater inputs.
 - Oversaw the stormwater project team and linked them to the common goals of various other projects within the program.
 - Developed and implemented several focus groups with local stakeholders to determine common water-conservation values.
 - Collaborated with several agency stakeholders on the common goal of tackling water conservation and water quality issues within the local environment.
 - Superior analytical skills required to collect, consolidate and analyze statistical data.

GRADUATE ASSISTANT

SEPTEMBER 1 2011 – MAY 30 2013

*Lakehead University**Thunder Bay, ON*

- Teaching Assistant for Geographic Information Systems (GIS), Advanced Geographic Information Systems, Quantitative Methods in Geography and Advanced Water Resource Science.

EDUCATION**MASTER OF ENVIRONMENTAL STUDIES (MES)**

SEPTEMBER 2011 – JUNE 2013

*Hydrology and Water Resources, Lakehead University**Thunder Bay, ON*

- Successful planning, implementation and writing of a research-based thesis studying remediation options and alternatives to traditional stormwater design.
 - Successfully designed the concept for alternative stormwater management within an urban watershed using sound scientific research and community outreach.
 - Collaborated in a large research study in partnership with Provincial ministries and other stakeholders.
 - Created and followed annual work plans, budgets and tracked task completion.
 - Partnered closely with local agencies and community residents.
 - Conducted several educational workshops, focus groups and meetings with the intent of identifying community values and enhancing public outreach on stormwater concerns.

HONOURS BACHELOR OF ENVIRONMENTAL STUDIES

SEPTEMBER 2007 – MAY 2011

*Forest Conservation, Lakehead University**Thunder Bay, ON*

- Undergraduate Thesis: First Nations involvement in Canadian Climate Change policy

ADDITIONAL CERTIFICATIONS AND TRAINING

- Class 1 Electrofishing Certification
- RX-100 LCPB Workers Course
- Landscape and Forestry Exterminator Licenses
- Sustainable Technologies Evaluation Program Low Impact Development Series Certification

Tammy Cook

Subject: FW: Foundation membership request

Importance: High

From: Erin Knight [<mailto:emknight@lakeheadu.ca>]
Sent: October 6, 2017 12:43 PM
To: Ryan Mackett <ryanm@lakeheadca.com>
Subject: Foundation membership request

Hello Ryan,

Thank you for taking the time out to speak with me last night, and as discussed please forward this email to whomever it is appropriate to facilitate my request to join the foundation.
I would also like you to add me to the LRCA newsletter at this email.

My name is Erin Knight and I am a 3rd year student in the Environmental Management honours degree program at Lakehead University.

As a graduate of Confederation College's Environmental Technician program I became very interested in land use pertaining to water and for the past two summers have worked as the student lead for the City of Thunder Bay's annual Outfall inspection project, assessing their storm water infrastructure. I would like to further my community participation by volunteering with the LRCA and hope to gain more insight into storm water management practices in the region.

I have had previous board experience as the co-chair of the Conmee Social committee and also currently sit as a student representative in the Water Working Group for EarthCare here in Thunder Bay.

I am hoping to be added to your roster in time for next months meeting, and look forward to hearing from you.

Many thanks,
Erin Knight



LAKEHEAD REGION

CONSERVATION AUTHORITY

PROGRAM AREA	Kam River Erosion Control	REPORT NO.	KAMEC-03-2017
DATE PREPARED	October 16, 2017	FILE NO.	9-14-4
MEETING DATE	October 25, 2017		
SUBJECT	Kam River Erosion Sites Inventory Project Award Recommendation		

RECOMMENDATIONS

Suggested Resolutions:

“THAT: the proposal submitted by KGS Group Consulting Engineers dated October 5, 2017 to update the Kam River Erosion Sites Inventory be accepted for a cost of \$181,446.00 not including HST.”

“THAT: the proposal submitted by CDS Consulting dated October 9, 2017 for technical support services for the Kam River Erosion Sites Inventory be approved for a cost of \$8,400.00 not including HST.”

EXECUTIVE SUMMARY

A Request for Proposal to complete the Kam River Erosion Sites Inventory was released on September 13, 2017 to five consultants. Proposals were received from two consultants including: KGS Group Consulting Engineers and Hatch Ltd. A proposal was also received from CDS Consulting to provide technical support services for the project for a cost of \$8,400.00 plus HST.

LRCA and CDS Consulting staff have reviewed the proposals and recommend that the project be awarded to the KGS Group Consulting Engineers for a cost of \$181,446.00 (not including HST). KGS Group Consulting Engineers provided a thorough proposal, which indicated that they understand the full scope of the assignment and have the required experience to complete the project for the submitted cost.

DISCUSSION

A Request for Proposal (RFP) to update Kam River Erosion Sites Inventory was released on September 13, 2017 to five consultants. Proposals were received from KGS Group Consulting Engineers for \$181,446.00, and from Hatch Ltd. for \$171,080.00 (not including HST). TBT Engineering Limited, DST Consulting Engineers and Golder Associates declined to submit a proposal. Proposals are summarized on the attached Kam River Erosion Sites Inventory Proposal Evaluation.

The submitted bids were reviewed by CDS Consulting and the Watershed Manager. As outlined in the RFP, the bids were scored based on set criteria, with KGS Consulting Engineers receiving a

score of 94/100 and Hatch Ltd. received a score of 64/100 (see attached Kam River Erosion Sites Inventory Proposal).

The fixed cost of the proposal was based on an estimated 25 erosion sites; however, the actual number of erosion sites is uncertain and will be determined during the field investigation, with sites exceeding 25 approved separately based on the per site quote.

Based on an overall review of the proposal, it is recommended that the project be awarded to KGS Consulting Engineers since they have formulated a reasonably good methodology and necessary tasks to complete the project. In particular, KGS understands that acquiring the historical air photographs is an important task to complete the project. As a value-added aspect to the project, KGS will collect orthophotography at the same time of collecting LiDAR data at no additional cost to the LRCA.

CDS Consulting also submitted a proposal to provide technical support services for the project for a cost of \$8,400.00 plus HST.

FINANCIAL IMPLICATIONS

Sufficient City of Thunder Bay sole benefitting funds are within the 2017 budget to fund the study.

CONCLUSION

Staff recommend awarding the Kam River Erosion Sites Inventory Project to KGS Group Consulting Engineers and hiring CDS Consulting to provide engineering technical support for the project.

BACKGROUND


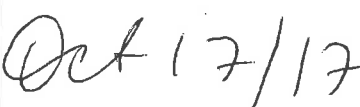
The Kaministiquia River Erosion Sites Inventory Study was initially completed in 1987 and requires updating. The study will focus on the Kaministiquia River within the City of Thunder Bay determining current and future erosion sites along the river. The study will group erosion into categories based on the severity of the erosion. Rates of erosion will be studied to determine development setback limits related to the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation. This updated information will assist staff when dealing with development proposals in the area of the study and when completing Plan Input and Review. This study will be a pre-cursor to the floodplain mapping update on the Kaministiquia River in the future. In addition, it will provide recommendations related to areas to be monitored in the future, risks to public infrastructure and any other recommended actions. The completed study will be provided to the City of Thunder Bay for their use.

REFERENCE MATERIAL ATTACHED

Kam River Erosion Sites Inventory Proposal Evaluation

CDS Consulting Proposal – Technical Support Services for Kaministiquia River Erosion Inventory Project, dated October 9, 2017

PREPARED BY: Simon Shankie, Watershed Manager

<p>THIS REPORT SIGNED AND VERIFIED BY:</p>  <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> 
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Kam River Erosion Sites Inventory Proposal Evaluation

Evaluation Criteria	Weight Factor (%)	KGS	KGS	Hatch	Hatch
Methodology	40	5	The tasks described in the work breakdown structure are well thought out and logical, and they formulate a project methodology that will deliver the performance and product expected by the LRCA. The proposed deliverables and the project schedule meet the LRCA requirements. KGS understands the important tasks of acquiring the historical airphotos for estimating the 100-year erosion hazard limit.	3	Hatch has assumed the LRCA will provide the historical airphotos and HEC-RAS model for their analysis. This assumption is wrong. The LRCA has not specified such information will be provided in the RFP. The proposed approach resembles a scientific research which requires a lot more data than what are available at the present time. Without sufficient data, it is doubtful that Hatch can deliver the performance described in the proposal.
Project team relevant experience and qualification	20	5	The project team has the qualification and experience to carry out the project	5	The project team has the qualification and experience to carry out the project
Compliance with proposal requirements and spec.	5	5	Comply with the proposal requirements and specifications.	5	Comply with the proposal requirements and specifications.
Value-added or innovative techniques proposed	5	5	Orthophotography will be taken at the same time of collecting LIDAR data at no additional cost to the LRCA. The information can be used to correlate the contour information to the background imagery provided by the LRCA accurately.	0	
Cost to LRCA	30	4		5	
Weighted Score		470		395	
Proposal Score		94		64	
Project Cost to LRCA (25 sites)			181,446		171,080
Cost per Additional Site			1,959		3,500
Expect 35 sites or more	35 sites		201,036		206,080

Score Ranking

0 = nil or not specified

5 = best

CDS

Consulting

686 Thornloe Dr., Thunder Bay, ON P7C 5L5

Tel: (807) 475-5778 Email: achow@lakeheadu.ca

October 9, 2017

Lakehead Region Conservation Authority
P. O. Box 10427, 130 Conservation Rd.
Thunder Bay, ON
P7B 6T8

Attention: Tammy Cook, Chief Administrative Officer

Dear Tammy:

RE: Technical Support Services for Kaministiquia River Erosion Inventory Project

Continuing with my commitment to provide technical support services to the Lakehead Region Conservation Authority, I am pleased to provide my services to the Authority in carrying out the Kaministiquia River Erosion Inventory project. My services will include but not limited to the following:

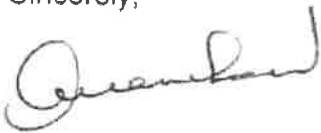
- Review and evaluate proposals submitted by the engineering consultants and assist the LRCA to select the successful consultant for the project.
- Confirm and discuss with the consultant in the project orientation meeting the scope of work, the key data requirements, the information provided by the LRCA, the project approach and methodology, the project schedule, the deliverables expected by the LRCA and the completion dates.
- Attend all project meetings between the consultant and the LRCA.
- Provide technical guidance during the course of the project and ensure that the project is being carried out according to the performance requirements specified in the RFP.
- Review the progress payment requests submitted by the consultant against the progress of the project.

- Provide technical services to review LiDAR data accuracy, digital elevation model, interim and final mapping products (paper format and ArcGIS format, geo-database, etc.) and recommend final acceptance of the project to the LRCA.
- Review the historical airphotographs acquired by the consultant and evaluate their usefulness for the project.
- Review the initial field program with the consultant and establish the criteria for identifying the erosion sites.
- Review and confirm with the consultant the number and location of the erosion sites before the detailed site information is collected.
- Attend the public meeting held at the completion of the project.

My fee for providing the technical services to oversee the completion of the project is on time basis at an hourly rate of \$100 per hour with an upset limit of \$8,400.

Trusting the above is satisfactory. Should you require more information, please do not hesitate to contact me.

Sincerely,



Allan Chow, P. Eng.
CDS Consulting

c.c. Simon Shankie, Watershed Manager, LRCA



PROGRAM AREA	Watershed Monitoring	REPORT NO.	WM-02-2017
DATE PREPARED	October 10, 2017	FILE NO.	5-10-2
MEETING DATE	October 25, 2017		
SUBJECT	Hazelwood Lake - Bacteriological Water Quality Report - 2017		

RECOMMENDATION

"THAT: the Staff Report WM-02-2017 be received **AND FURTHER THAT** the recommendations contained therein are endorsed."

- *Funds and personnel permitting, bacteriological water quality monitoring at Hazelwood Lake should be continued in the summer of 2018.*
- *Further testing of field parameters should be continued in succeeding years to determine normal ranges and trends for the Hazelwood Lake Conservation Area.*

EXECUTIVE SUMMARY

Bathing Beach sampling is conducted annually at the Hazelwood Lake Conservation Area, located 14 kilometres north of the City of Thunder in the unincorporated Township of Gorham.

Hazelwood Lake *Escherichia coli* (*E. coli*) test results were within acceptable levels (<100 counts of *E. coli* per 100 millilitres of water) for the entire season. As a result, there were no beach advisories posted in the summer of 2017. Previously, Hazelwood beach has had swimming advisories posted in 1998, 1999, 2006 and 2007 when the analyzed water samples resulted in *E. coli* levels above the Provincial Water Quality Objectives (PWQO) criterion.

DISCUSSION

Hazelwood Lake *E. coli* levels were well within the PWQO criterion of 100 counts per 100 millilitres of water for the entire sampling season, often only reaching 10 MPN/100 mL of water. The highest geometric mean of the year occurred on August 21, 2017 with a geometric mean of 13 MPN per 100 mL of water. The highest geometric mean in 2016 was 42 MPN per 100 mL.

Based on the historical bathing beach data for Hazelwood Lake, there does not seem to be an indication of improvement or deterioration of water quality at this Conservation Area. Since 1994, Hazelwood Lake has exceeded the *E. coli* criterion in only a few of the years sampled. In 2007, Hazelwood Lake exceeded the *E. coli* criteria twice: July 9, 2007 (486.63 counts per 100mL of water) and August 27, 2007 (271.81 counts per 100mL of water). In 2006, Hazelwood Lake

exceeded the criterion five times resulting in a closure from July 28 until August 16, 2006 (highest exceedance was $>10^3$ counts per 100mL of water) and was directly attributed to a large flock of Canadian geese, low lake levels and warm water temperatures. In 1998 and 1999, Hazelwood Lake exceeded the *E. coli* criterion once each year: August 5, 1998 (138.78 counts per 100 ml of water) and July 6, 1999 (97.36 counts per 100 ml of water). All other analyzed samples at Hazelwood Lake from 1994 to 2017 were within acceptable levels of *E. coli*.

Testing of field parameters began in 2005 and the general trend shows that water temperatures of Hazelwood Lake have been decreasing. The pH levels at Hazelwood Lake were greater than the PWQO criterion numerous times in 2009, but were stable and within the guidelines for all other sampling periods. It appears that conductivity and dissolved oxygen results are relatively stable since 2005.

FINANCIAL IMPLICATIONS

Water quality analysis is conducted by the Ministry of Health laboratory under the Thunder Bay District Health Unit's Bathing Beach Program.

CONCLUSION

All analyzed samples for Hazelwood Lake were within acceptable levels for *E. coli* for the 2017 bathing beach season. Funds and personnel permitting, bacteriological water quality monitoring should be continued in the summer of 2018. Further testing of field parameters should be continued in succeeding years to determine normal ranges and trends for the Hazelwood Lake Conservation Area.

BACKGROUND

Hazelwood Lake is a 300-hectare inland lake owned by the Lakehead Region Conservation Authority (LRCA) within the Current River watershed and is considered a bathing beach facility. Hazelwood Lake Conservation Area is located 14 kilometres north of the City of Thunder in the unincorporated Township of Gorham.

Since 1994, the LRCA has annually monitored the water quality of the beach waters at the Hazelwood Lake Conservation Area.

The main contaminant of concern at bathing beaches is *E. coli*, which is naturally found in the intestines of humans and warm-blooded animals. Unlike other bacteria in this family, *E. coli* does not usually occur naturally on plants or in soil and water. The inability of *E. coli* to grow in water combined with its short survival time in water environments means that the detection of *E. coli* in a water system is a good indicator of recent fecal contamination. These bacteria can cause irritation of the skin and eyes when contact is made and can cause serious illness when ingested.


When *E. coli* criterion is exceeded, a Beach Advisory is posted at the facility.

REFERENCE MATERIAL ATTACHED

Executive Summary, Hazelwood Lake Conservation Area, Bathing Beach, Bacteriological Water Quality Report 2017

A copy of the full report will circulate at the meeting.

PREPARED BY: Simon Shankie

<p>THIS REPORT SIGNED AND VERIFIED BY:</p>  <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> <p>Oct 12, 2017</p>
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EXECUTIVE SUMMARY

Water quality sampling of the bathing beach at Hazelwood Lake Conservation Area was undertaken by the Lakehead Region Conservation Authority (LRCA) throughout the summer of 2017. Collected water samples were analyzed by the Ministry of Health laboratory for *Escherichia coli* (*E. coli*) bacterial concentrations and compared to the bathing beach criterion published in the Ministry of Environment and Climate Change (MOECC) Provincial Water Quality Objectives (PWQO).

Hazelwood Lake *E. coli* test results were within acceptable levels (<100 counts of *E. coli* per 100 millilitres of water) for the entire season. As a result, there were no beach advisories posted in the summer of 2017. Previously, Hazelwood beach has had swimming advisories posted in 1998, 1999, 2006 and 2007 when the analyzed water samples resulted in *E. coli* levels above the PWQO criterion.

Field parameters, which included water temperature, turbidity, pH, dissolved oxygen and conductivity, were measured as additional indicators of water quality. Testing of these field parameters began in 2005 and the general trend shows that the temperature of Hazelwood Lake has been decreasing. The pH levels, which steadily increased from 2005 to 2009, have stabilized within the PWQO range at 7.95 for 2017. It appears that the trend for conductivity and dissolved oxygen are relatively stable. Turbidity values are considerably lower compared to the values recorded in 2006/2007. Testing of field parameters should be continued as part of the bathing beach program in succeeding years to help clarify normal ranges and trends for the Hazelwood Lake Conservation Area.

Funds and personnel permitting, bacteriological water quality monitoring at Hazelwood Lake should be continued in the summer of 2018.



PROGRAM AREA	Conservation Areas	REPORT NO.	CONAREA-07-2017
DATE PREPARED	October 16, 2017	FILE NO.	28-15-2
MEETING DATE	October 25, 2017		
SUBJECT	Traffic Counter Report - 2016		

RECOMMENDATION

“THAT: the Staff Report CONAREA-07-2017 be received **AND FURTHER THAT** the recommendation contained therein be endorsed.”

- *Personnel and funding permitted, annual vehicle counts should continue at the Conservation Areas.*

EXECUTIVE SUMMARY

In 2016, TRAFx G3 vehicle counters were deployed at Cascades, Cedar Falls, Hazelwood Lake, Hurkett Cove, Little Trout Bay, Mission Island, and Silver Harbour Conservation Areas. Trail counters were also placed at Mission Island Marsh and Mills Block.

In 2016, 137,331 vehicles visited the seven conservation areas, which corresponds to 302,128 people, assuming a count of 2.2 people per vehicle. Cascades was the most visited area with 39.1% of users, followed by Mission Island Marsh (35.3%), Silver Harbour (14.9%), Hazelwood Lake (5.1%), Little Trout Bay (2.4%), Cedar Falls (1.7%) and Hurkett Cove (1.5%).

Total revenue from all coin boxes amounted to \$4,148.38, which equates to approximately 1.5% of people who pay the parking fee. In 2016, a total of 102 Explore Cards were purchased and 23 were given away as promotional items with a revenue of \$3,060.00. This equates to a percentage of approximately 1.3% of people who purchase an Explore Card. The total revenue from coin boxes and Explore Cards in 2016 was \$7,208.38.

DISCUSSION

In 2016, annual traffic counter studies of Mission Island Marsh, Cascades, Cedar Falls, Little Trout Bay and Hazelwood Lake, and seasonal studies of Hurkett Cove and Silver Harbour from July 1 to December 31, 2016 were completed. Seasonal trail counters were also placed at Mission Island Marsh and Mills Block from July 1 to October 31, 2016.

The TRAFx G3 vehicle counters were placed underground in plastic valve boxes that provide protection from the surrounding soil and are covered with approximately 10 centimetres of native soil or rock on top. The counters were placed in Ziploc bags that have desiccant moisture

control packets to control the moisture levels in the bag. A PVC junction box is utilized at Hazelwood Lake, which has been installed on the side of the guardrail along the hill prior to the causeway.

The counters cannot distinguish direction of traffic (i.e. in or out); therefore, areas that only have one entrance to both enter and exit the area had their counts divided by two. The counters also do not give an estimate of the number of people per vehicle. Since the traffic counters only count vehicles, any visitors who bike or walk to the area would not be included in the usage summary. Traffic counts were not reduced for Authority vehicles visiting the areas.

The following table summarizes the circumstance and the data factor that was applied in calculating usage at the areas:

Table 1: Usage Factors

Circumstance	Data factor	Area Applied
Only one way into and out of area	All counts are divided by 2	All areas
Estimate number of people per vehicle	Multiply by a factor of 2.2	All areas
Authority maintenance staff entering area	Not factored into estimates	All areas

An analysis of the estimated number of vehicles paying the \$2.00 parking fee was also conducted. The calculation multiplies the number of estimated vehicles for the study period by \$2.00 to calculate the expected revenue and then calculates the percentage of the collected coin box revenue.

In 2016, Cascades was the most visited area with 39.1% of users, followed by Mission Island Marsh (35.3%), Silver Harbour (14.9%), Hazelwood Lake (5.1%), Little Trout Bay (2.4%), Cedar Falls (1.7%) and Hurkett Cove (1.5%).

Overall, Sundays (18.7%) are the day of the week that has the most visitors, followed by Saturdays (15.7%), Mondays (13.8%), Tuesdays (13.3%), Fridays (12.9%), Wednesdays (12.9%) and Thursdays (12.6%).

Throughout the study period, the seven Conservation Areas were visited by a total of 137,331 vehicles. Utilizing an assumed factor of 2.2 people per vehicle, an estimated 302,128 people attended the seven areas throughout the year.

The average monthly vehicle count from January to December 2016 was 11,444. The highest recorded monthly vehicle count was at Cascades with 7,502 vehicles visiting the area in July. The lowest recorded monthly vehicle count was at Hurkett Cove with 33 vehicles visiting the area in December.

The average monthly trail count from July to October 2016 was 4,768 at Mission Island Marsh and 699 at Mills Block. The highest monthly trail count was recorded in July, with 6007 people walking the boardwalk at Mission Island Marsh. The lowest monthly trail count was also recorded in July, with 324 people walking the trail at Mills Block.

In 2015, the Authority began collecting traffic data for the entire year. Several more years of full year data will be required before a full analysis of annual and seasonal trends can be completed.

FINANCIAL IMPLICATIONS

Total revenue from all coin boxes in 2016 amounted to \$4,148.38, which equates to 2,074 vehicles paying the \$2.00 parking fee during the entire year, compared to an estimated 137,331 vehicles visiting the areas. This equates to a percentage of approximately 1.5% of people who pay the parking fee (does not consider Explore Card passes). In 2016, a total of 102 Explore Cards were purchased with revenue of \$3,060.00, which equates to a percentage of approximately 1.3 % of people who purchase an Explore Card. The total revenue from coin boxes and Explore Cards in 2016 was \$7,208.38.

CONCLUSION

Based on a review of the 2016 traffic counters, a total of 137,331 vehicles visited the seven studied areas. This corresponds to an estimated 302,128 people visiting the area in 2016. The study found that Cascades was the most visited Conservation Area, and Sunday was the most utilized day of the week. The average monthly vehicle count from January to December 2016 was 11,444 vehicles.

BACKGROUND

In an effort to estimate usage of Conservation Areas, the Lakehead Region Conservation Authority conducts vehicle counts at its various areas.

Between 2001 and 2013, the Authority undertook seasonal traffic studies utilizing a JAMAR style counter at two Authority owned properties during the summer and fall of the given year. The JAMAR counter utilized a pressure hose that detected the depression of the hose by the tires of the vehicle. The JAMAR study period typically ran from June to September/October with all equipment removed prior to any snowfall.

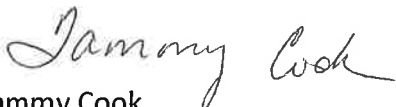
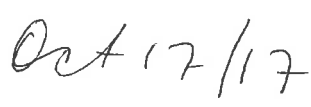
In 2014, in an effort to collect annual versus seasonal vehicle count data, the Authority purchased five TRAFx G3 vehicle counters. The TRAFx G3 vehicle counter utilizes a tiny magnetometer and embedded software to detect passing vehicles. The counter is contained in a small weatherproof box and is installed either above or below ground for the entire year. Counters are downloaded in the field with the TRAFx Dock and the data is transferred to the traffic software program at the office. The software program allows for interpretation of the data with various graphing/analyzing options.

REFERENCE MATERIAL ATTACHED

Executive Summary, Traffic Counter Report, 2016

A copy of the full report will circulate at the meeting.

PREPARED BY: Simon Shankie, Watershed Manager

THIS REPORT SIGNED AND VERIFIED BY:  Tammy Cook Chief Administrative Officer	DATE: 
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Executive Summary

In an effort to estimate usage of Conservation Areas, the Lakehead Region Conservation Authority conducts vehicle counts at its various areas.

In 2014, in an effort to collect annual versus seasonal vehicle count data, the Authority purchased five TRAFx G3 vehicle counters. The TRAFx G3 vehicle counter utilizes a tiny magnetometer and embedded software to detect passing vehicles. The counter is contained in a small weather-proof box and can be either installed above or below ground for the entire year. Counters are downloaded in the field with the TRAFx Dock and the data transferred to the traffic software program at the office. The software program allows for interpretation of the data with various graphing/analyzing options.

In 2016 the counters were deployed at Cascades, Cedar Falls, Hazelwood Lake, Hurkett Cove, Little Trout Bay, Mission Island Marsh, and Silver Harbour Conservation Areas. Trail counters were deployed at Mission Island Marsh and Mills Block.

Based on a review of the seven studied areas in 2016, Cascades Conservation Area is the most visited area with 39.1% of users, followed by Mission Island Marsh Conservation Area (35.3%), Silver Harbour Conservation Area (14.9%), Hazelwood Lake Conservation Area (5.1%), Little Trout Bay Conservation Area (2.4%), Cedar Falls Conservation Area (1.7%) and Hurkett Cove Conservation Area (1.5%).

Overall, Sundays (18.7%) are the day of the week that has the most visitors, followed by Saturdays (15.7%), Mondays (13.8%), Tuesdays (13.3%), Fridays (12.9%), Wednesdays (12.9%) and Thursdays (12.6%).

Throughout the study period the seven Conservation Areas were visited by a total of 137,331 vehicles. Utilizing an assumed factor of 2.2 people per vehicle, an estimated 302,128 people attended the seven areas throughout the year.

The average monthly vehicle count from January to December 2016 was 11,444. The highest recorded monthly vehicle count was at Cascades with 7,502 vehicles visiting the area in July. The lowest recorded monthly vehicle count was at Hurkett Cove with 33 vehicles visiting the area in December.

The average monthly trail count from July to October 2016 was 4,768 at Mission Island Marsh and 699 at Mills Block. The highest monthly trail count was recorded in July, with 6007 people walking the boardwalk at Mission Island Marsh. The lowest monthly trail count was also recorded in July, with 324 people walking the trail at Mills Block.

Total revenue from all coin boxes in 2016 amounted to \$4,148.38, which equates to 2,074 vehicles paying the \$2.00 parking fee during the entire year, compared to an



Traffic Counter Report 2016

estimated 137,331 vehicles visiting the areas. This equates to a percentage of approximately 1.5% of people who pay the parking fee. In 2016, a total of 102 Explore Cards were purchased with revenue of \$3,060.00, which equates to 1746 vehicles during the entire year, compared to an estimated 137,331 vehicles visiting the areas. This equates to a percentage of approximately 1.3% of people who purchase an Explore Card. The total revenue from coin boxes and Explore Cards in 2016 was \$7,208.38.

**2017 TREASURER'S REPORT
MONTHLY ADMINISTRATION EXPENSES**

	2017 BUDGET	September EXPENSES	TOTAL TO DATE	BALANCE REMAINING
Salaries & Benefits	162,000	14,005	118,144	43,856
Member Allowance	32,000	6,416	17,227	14,773
Chairman's Expenses	9,000	592	592	8,408
Staff Expenses	18,920	2,675	13,205	5,715
Travel & Allowances	59,920	9,683	31,024	28,896
Office & Comp. Equip.	5,500	-	2,120	3,380
Equip. & Veh. Rental	500	131	709	(209)
Mtnce of Office Equip.	7,880	406	4,298	3,582
Equip. Purchase & Rentals	13,880	537	7,127	6,753
Postage	3,000	20	1,458	1,542
Office Supplies	4,000	615	3,662	338
Plans, maps & photos		-	-	-
Materials & Supplies	7,000	635	5,120	1,880
Telephone	1,200	121	885	315
Light, Heat, Power	8,400	842	4,715	3,685
Office Mtnce.	7,200	238	4,644	2,556
Rent & Utilities	16,800	1,201	10,244	6,556
Audit Fees	3,200	-	2,569	631
Bank Charges/Moneris	1,300	74	772	528
Legal Fees and Consultants	4,400	-	1,730	2,670
Taxes & Insurance	19,000	-	18,343	657
Ref. Books, Subscr.	1,500	331	586	914
Conservation Ontario Levy	21,340	-	21,291	49
Advertising	660	-	2,881	(2,221)
Annual Report	4,000	-	3,472	528
General Expenses	55,400	404	51,644	3,756
Items N/E	5,000	-	1,654	3,346
TOTAL ADMINISTRATION	320,000	26,466	224,958	95,042

**2017 TREASURER'S REPORT
MONTHLY CAPITAL EXPENSES**

	2017 BUDGET	September	TOTAL TO DATE	BALANCE REMAINING
REVENUE				
MNR Transfer Pymt & SWP and Grants	668,118	-	450,309	217,809
Municipal Levy	1,656,500	-	1,656,500	-
Other Revenue	337,400	19,489	173,328	164,072
TOTAL REVENUE	2,662,018	19,489	2,280,137	381,881
EXPENSES				
ADMINISTRATION	320,000	26,466	224,958	95,042
CAPITAL EXPENSES				
Op. & Mtnce of FC Structures	711,380	31,473	299,127	412,253
Op. & Mtnce of EC Structures	216,000	418	10,563	205,437
Watershed Monitoring	441,000	40,886	304,342	136,658
SWP and CA Mapping	130,938	9,191	91,871	39,067
Conservation Area Maint.	218,000	14,008	145,489	72,511
Authority Office	60,000	153	2,703	57,297
Stewardship Program	122,700	2,935	58,087	64,613
Conservation Areas Site Dev.	180,000	-	36,373	143,627
Strategic Plan	30,000	414	3,615	26,385
Flood Plain Mapping	232,000	9,183	68,263	163,737
TOTAL EXPENSES	2,662,018	135,126	1,245,389	1,416,629
ADDITIONS / CARRY FORWARD/OTHER				
HLNC	-	-	61,612	(61,612)
Canada 150 Mission Marsh	-	-	87,242	(87,242)
Great Lakes Guardian Fund	-	9,718	10,818	(10,818)
TOTAL	-	9,718	159,672	(159,672)
Total	2,662,018	144,843	1,405,061	1,256,957

**2017 MONTHLY TREASURERS REPORT
VEHICLE & EQUIPMENT RENTAL**

	2017 BUDGET	SEPTEMBER	TOTAL TO DATE	BALANCE OUTSTANDING/ REMAINING
REVENUE				
Rentals	35,500	5,918	30,840	4,660
EXPENSES				
Insurance	4,200	-	4,005	195
Fuel	8,700	1,222	5,717	2,983
Maintenance & Repair	6,900	350	2,838	4,062
Supplies & Small Tools	500	-	-	500
TOTAL	20,300	1,572	8,555	7,545
PROFIT/(LOSS)	15,200	4,347	22,286	(2,886)

Opening Reserve Balance **\$ 106,679.35**

Approved purchases from Reserves

2 Brushcutters	- \$ 1,190.49		
1 Tool Chest	- 1,221.10		
Riding Mower	- 2,283.06		
2017 Nissan Rogue	- 26,011.89	- \$	30,706.54

Reserve Balance September 30, 2017 **\$ 75,972.81**

LAKE SUPERIOR MONTHLY MEAN LEVELS

