



LAKEHEAD REGION

CONSERVATION AUTHORITY

THIRD REGULAR AUTHORITY MEETING

- DATE:** Wednesday, March 31, 2021
- PLACE:** Lakehead Region Conservation Authority Boardroom
- TIME:** 4:30 p.m. via Microsoft Teams
Public participation via Tbaytel teleconference

AGENDA

1. **ADOPTION OF AGENDA**

Suggested Resolution:

“THAT: the Agenda is adopted as published.”

2. **DISCLOSURE OF INTEREST**

3. **MINUTES OF PREVIOUS MEETING – pages 1 to 7**

Attached are the Minutes of the Lakehead Region Conservation Authority Second Regular Meeting held on Wednesday, February 24, 2021.

Suggested Resolution:

“THAT: the Minutes of the Lakehead Region Conservation Authority Second Regular Meeting held on Wednesday, February 24, 2021 be adopted as published.”

4. IN-CAMERA AGENDA

Suggested Resolution:

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

“THAT: we go into Open Meeting at _____ p.m.”

The purpose of the In-Camera Meeting pertains to personnel, property, and legal matters.

Suggested Resolution:

“THAT: the In-Camera Minutes of the Lakehead Region Conservation Authority August 26, 2020 meeting be adopted as published.”

5. BUSINESS ARISING FROM PREVIOUS MINUTES

(a) File: Mission Island Board Report LM-02-2021

Further to the presentation related to Staff Report LM-02-2021, staff provide the following additional information related to the Mission Island Marsh Boardwalk:

- Included in the current LRCA Asset Management Plan, dated July 22, 2016, which was developed with direction from staff at the time, it is noted “the LRCA intends to remove the second half of the boardwalk while replacing or rehabilitating the first half up to the lookout”. As a result, the consultant did not provide an overall replacement cost in the report.
- Staff review replacement costs for assets annually as part of the annual insurance renewal process.

Staff released a request for quote to remove damaged sections of the boardwalk and sheet pilings to five contractors, with quotes received from Wilco, LH North, Tom Jones Corporation and Sacchetti. Bids ranged from \$9,778.70 to \$38,500.00 (plus HST), with LH North submitting the lowest bid. LH North was awarded the project, which they began immediately and completed the removal of the damaged remaining sections of boardwalk and sheet pilings on March 19, 2021. The remaining insurance settlement will be placed in a boardwalk deferred account for future use.

6. CORRESPONDENCE

(a) File: Changes to Conservation Authorities Act – Term of Chair

Staff have received confirmation from MECP that they have received and are reviewing the LRCA request for an exception under the *Conservation Authorities Act* related to the term of the Chair.

7. STAFF REPORTS – pages 8 to 67

Health and Safety Policy – Equipment Training

Attached on pages 8 to 47 is Staff Report POLICY-HS-13-2021 related to Health and Safety Policy HS-13 regarding Equipment Training.

Suggested Resolutions:

“THAT: Health and Safety Policy HS-13: Equipment Training be adopted.”

City of Thunder Bay Request for New Multi-Use Trail and Walkway on LRCA Owned Land

Attached on pages 48 to 53 is Staff Report LM-03-2021 related to the construction of a new multi-use trail and walkway on LRCA owned property as part of the Edward Street Bridge Replacement Project.

Suggested Resolution:

“THAT: the City of Thunder Bay is authorized to construct a new multi-use trail (LRCA Property No. 9 and 10), resurface the existing multi-use trail (LRCA Property No. 9A and 11A), and construct a new walkway (LRCA Property No. 8) on LRCA owned property as outlined on Edward Street Bridge Replacement Drawing Number 1004 and 1005 dated February 23, 2021 with the requirement that the City of Thunder Bay is responsible for the construction work and all on-going maintenance of the new multi-use trail or required maintenance resulting from the new multi-use trail.”

Kam River Erosion Control, Victor Broadway, Operational, Maintenance and Surveillance Plan

Attached on pages 54 to 67 is Staff Report KAMEC-01-2021, which summarizes the 2021 update to the Kaministiquia River Operation, Maintenance and Surveillance Plan for Victor Broadway.

Suggested Resolution:

“THAT: Staff Report KAMEC-01-2021 be received.”

8. CHIEF ADMINISTRATIVE OFFICER’S REPORT – pages 68 to 76

Attached on page 68 is the monthly Treasurer’s Report for February’s Administration and Capital.

Hours of Operation Policy

Attached on pages 68 to 72 is Staff Report POLICY-PP-12-2021 related to the development of an Hours of Operation Policy.

Suggested Resolution

“THAT: Personnel Policy PP-12: Hours of Operation be adopted.”

2021 Education Fees

Attached on pages 73 to 76 is Staff Report FIN-07-2021 related to an amendment to the 2021 Education Programming Fee Schedule.

Suggested Resolution

“THAT: Staff Report FIN-07-2021 be received AND FURTHER THAT the 2021 Education Programming Fee Schedule be amended accordingly.”

9. PASSING OF ACCOUNTS

Resolution for the month of February 2021:

“THAT: having examined the accounts for the period February 1 to February 28, 2021 cheque #2187 to #2212 for \$41,222.90 and preauthorized payments of \$87,293.22 for a total of \$128,516.12 we approve their payment.”

10. REGULATORY ROLE – pages 77 to 79

Due to the meeting being held virtually, the circulation for the Plan Input and Review and approved Section 28 permit binders cannot be undertaken. Attached on pages 77 to 78 is the Plan Input and Review Summary for the period of February 2021 to March 23, 2021 and attached on page 79 is a summary of Section 28 Permits issued in 2021.

11. PROJECTS UPDATE – pages 80 to 83

Explore Card Sales and Donations to Conservation Areas

Staff are pleased to report that 826 Explore Cards (2021) have been sold to date, compared to the previous average of 166/year (for the period of 2010-2020). The previous highest annual sales were in 2020 at 275. Staff attribute the increase in sales to an increase in visitors to the Areas along with a recent LRCA social media post about the minimum amount of money collected (i.e. \$200.00 in almost 4 months) from the coin box at Silver Harbour compared to the hundreds of visitors daily visiting the area to view the ice. The post created a lot of commenting, which resulted in education about the requirement and need for payment, along with support from

Facebook groups encouraging their members to support the LRCA. Additionally, \$790.00 in donations to the Conservation Areas has been received to date, compared to \$975.00 received in 2020.

Source Protection Committee Meeting

The Source Protection Committee (SPC) held a meeting on March 16, 2021 to discuss the sixth annual progress report, which is due to the MECP on May 1, 2021, as well as other relevant issues related to source protection. Staff have completed the mandated standardized forms and the 2020 annual progress reporting as required on the Electronic Annual Reporting online tool (EAR), as well as updated the annual report in LRCA's format, which was used for the first annual progress report. The LRCA's format will be posted to the source protection website as it provides a more comprehensive summary of the source protection program.

The SPC reviewed the annual reports, and it was the consensus that the Source Protection Plan was meeting its objectives. The SPC has until April 14, 2021 to provide any additional comments to staff, which will then be incorporated into the final report, prior to the next Source Protection Authority Meeting.

In addition, the Minutes of the Source Protection Committee Meeting held on March 16, 2020 are attached on pages 80 to 83.

Source Protection Authority Meeting

A Source Protection Authority Meeting will be held immediately after the April 28, 2021 Board Meeting. This meeting will be to receive and adopt the sixth annual progress report, which is to be prepared annually by the Source Protection Authority and submitted to the Director of the MECP prior to May 1st every year, as required in the *Clean Water Act*.

2020 Annual Report

Staff have begun work on the 2020 Annual Report. The final draft will be provided to the Board at the April Board Meeting for Adoption; distribution of the professionally printed final Annual Report is being targeted for late May.

Dorion Birding Festival

Staff have been in contact with Rob Swainson and Brian Ratcliff regarding offering a virtual bird festival experience. The plan is to offer a Microsoft Teams or Zoom virtual session that will include presentations from local birding experts like the types of talks that would have normally happened in person during dinner and lunch at the Festival. Further updates will be provided once plans have been finalized.

Parks Canada Proposed Birding Tower

Staff met virtually with Parks Canada representatives to continue discussion regarding the proposed birding tower at Hurkett Cove Conservation Area. The project was originally proposed to staff as a Parks Canada capital investment, that would eventually see the LRCA lease a small portion of land at Hurkett Cove to accommodate the tower, which would be owned and maintained by Parks Canada.

At the most recent meeting, Parks Canada representatives indicated that they would assist the LRCA seek funding for the project as it may no longer be a Parks Canada priority as a capital investment project. This was an unexpected change in the continuing talks with Parks Canada and will require further discussion. It is noted that the current Parks Canada representatives that spoke with staff are new to the project, with the original project leads having since moved on.

Parks Canada indicated that they should be able to provide the LRCA the completed engineered drawings and construction plans for the Hurkett site, which Parks Canada have spent over \$250,000.00 to produce; however, it would be the responsibility of the LRCA to acquire funds to hire a contract administrator, contractor and complete the construction.

Staff still consider that a birding tower at Hurkett Cove Conservation Area would be an ideal asset and fantastic amenity for the community; however, further consideration will be required to determine other funding sources and how to administer the project. Staff will bring forward further updates as warranted.

Snow Surveys and Lake Levels

Staff conduct snow surveys on a bimonthly basis on the 1st and 15th of the month between November and May of each year. There are three historical snow survey locations which are located at Hazelwood Lake Conservation Area (Current River), Madeline Street (McVicar Creek), and Vibert Road (Pennock Creek). Snow depth and weight (water content) are collected and forwarded to the MNR's Surface Water Monitoring Centre as part of the Flood Forecasting Program.

The March 15, 2021 snow surveys indicate that the snow survey locations are below average for snow depth and water content, when compared to the historical averages for March 15. The snow depth results were: McVicar Creek – 19.9 centimetres (cm) (44% below average), Pennock Creek – 14.8 cm (56% below average), and Current River – 42.1 cm (22% below average), which averaged is 41% below the historical average for depth for March 15. The water content results were 26% below average for the three snow courses, with an equivalent water content ranging from 70.8 mm at McVicar Creek, 52.0 millimetres (mm) at Pennock Creek and 130.8 mm at Hazelwood (Current River). The next snow survey measurements will be taken on April 1, 2021.

Lake Superior's beginning of March level was 19 centimetres (cm) above its period-of-record (1918-2019) average, the 15th highest beginning-of-March level on record, but 18 cm lower than

the record high of 1986. The current water level is approximately 79 centimetres lower than the 100-year flood level for Lake Superior. Ice cover on Lake Superior as of March 21, 2021 was 6.2%, which is well below average, and the same as the ice cover experienced in March 2020; however, still considerably less than the over 90% ice cover experienced in 2019.

Canada Water Agency – Conservation Ontario Comments

The Government of Canada is looking to establish a new Canada Water Agency (CWA) that will focus on finding the best way to keep our water safe, clean, and well-managed by working together with provinces, territories, Indigenous communities, local authorities, scientists, and others. Conservation Ontario provided a coordinated and collective response to the *“Toward the Creation of a Canada Water Agency – Discussion Paper”* from all Conservation Authorities and submitted to the Environment and Climate Change Canada (ECCC) online platform on February 26, 2021.

More information about the proposed Canada Water Agency can be found on ECCC’s website platform: www.placespeak.com/en/topic/6321-protecting-canadas-fresh-water

32nd Annual Spring Melt Meeting

The Authority will be holding the 32nd Annual Spring Melt Meeting on March 29, 2021 at 2:00 pm via Microsoft Teams. Each Member Municipality has received an invitation and has verified and/or updated their municipalities flood contact information.

The annual meeting is held to discuss the spring melt conditions and to keep the lines of communications open with staff and personnel who may be involved during a flood emergency. The updated Flood Warning Booklet will be distributed and mailed to those in attendance and others on the flood contact list not in attendance. All Flood Warning System Binder holders will be receiving their annual update by mail as well.

Fisherman’s Climate Change Awareness Park

LRCA staff were successful in executing a Transfer Payment Agreement with the Ministry of Environment, Conservation and Parks (MECP) to implement the rehabilitation design plans for Fisherman’s Park West and raise climate change awareness through volunteering and school events. The project directly provides environmental benefits to the Great Lakes by addressing fish and wildlife related beneficial use impairments (BUI’s) in the Thunder Bay Area of Concern (AOC). Total funds received from MECP to support the project is \$47,400.00.

‘Superior Stewards’ Shoreline Protection Program

In April, LRCA staff will be launching the ‘Superior Stewards’ Shoreline Protection Program through the LRCA’s Stewardship webpage, social media, media releases, and E-newsletter. Additionally, two publicly accessible webinars will be hosted by Staff on April 15 and April 22 to

provide attendees with an overview of the program, shoreline protection principles, best management and planting techniques, application process and requirements, and to answer questions.

The Superior Stewards Shoreline Protection Program is a shoreline assessment and educational stewardship program that supports private landowners in planting native vegetation to enhance shoreline and riparian zones, rehabilitate and maintain healthy shoreline habitat, provide erosion protection, and improve water quality. Qualified participants may be eligible to receive up to 100 plants along with an individualized planting plan and planting installation support by LRCA staff. Once plants are installed, however; it is the landowner's responsibility to maintain the new vegetation. The Shoreline Protection Program is focused on lands within the Thunder Bay Area of Concern to address fish and wildlife related to beneficial use impairments and is funded by the Ministry of Natural Resources and Forestry.

Spring Water Awareness Program

This year the Spring Water Awareness Program (SWAP) is being held in a virtual format. A pre-recorded presentation similar to what would normally have been delivered by the Education Coordinator was distributed to the majority of schools in the LRCA Area of Jurisdiction, including the Public and Catholic Boards, Dorion Public School, etc.

Tree Seedling Assistance Program

The 2021 Tree Seedling Assistance Program has been cancelled at the request of Hill's Greenhouses. Due to their reduced staff and closures during 2020 they do not have seedlings to offer during 2021. It is anticipated that the program will return during 2022.

2021 Wine Tasting and Dinner at Whitewater

Due to COVID-19 the May 6, 2021 Wine Tasting and Dinner at Whitewater has been cancelled.

Board Photo

At this time, all Members and staff attending the Board Meeting will be requested to turn their cameras on so that the Communications Manager can obtain a screen shot in "theatre view" to act as the Board Photo for the 2020 Annual Report.

12. NEW BUSINESS

13. NEXT MEETING

Wednesday, April 28, 2021, at 5:00 p.m. (due to a conflict with NOMA) followed by a Source Protection Authority meeting.

14. AJOURNMENT

Suggested Resolution:

“THAT: the time being _____ p.m. AND FURTHER THAT there being no further business THAT we adjourn.”

2021 EVENTS/MEETINGS

April 19-23, 2021	Watershed Connections Program
Wednesday, April 28, 2021	LRCA Board Meeting
May 3-7, 2021	Arbour Week
Thursday, May 20, 2021	Living Classroom Program
Wednesday, May 26, 2021	LRCA Board Meeting
May 29-30, 2021	Dorion Birding Festival
June 8-10, 2021	Lakehead Children’s Water Festival
Thursday, June 17, 2021	Spring Photography Workshop (Living Classroom Program)
Thursday, June 24, 2021	Living Classroom Program
Wednesday, June 30, 2021	LRCA Board Meeting
Sunday, July 18, 2021	Hazelwood Lake Family Fun Day
Thursday, July 22, 2021	Living Classroom Program
Wednesday, August 25, 2021	LRCA Board Meeting
Thursday, August 26, 2021	Living Classroom Program
Saturday, August 28, 2021	Silver Harbour Day

Sunday, September 12, 2021	Fall Mushroom Hike
Thursday, September 16, 2021	Living Classroom Program
Wednesday, September 29, 2021	LRCA Board Meeting
Thursday, September 30, 2021	Fall Photography Workshop (Living Classroom Program)
Saturday, October 2, 2021	Fall Waterfowl Viewing Day
Thursday, October 7, 2021	Living Classroom Program
Wednesday, October 27, 2021	LRCA Board Meeting
Wednesday, November 24, 2021	LRCA Board Meeting
Thursday, December 9, 2021	Holiday Gathering

****All events are tentative and are subject to current COVID-19 restrictions.**



LAKEHEAD REGION CONSERVATION AUTHORITY

Minutes of the Second Regular Meeting of the Lakehead Region Conservation Authority held on Wednesday, February 24, 2021, via Microsoft Teams. The Chair called the Meeting to order at 4:30 p.m.

PRESENT: Donna Blunt, Chair
Grant Arnold, Vice-Chair
Joel Brown
Rudy Buitenhuis
Erwin Butikofer
Andrew Foulds
Trevor Giertuga
Andrea Goold
Umed Panu
Jim Vezina
Allan Vis

ALSO PRESENT: Tammy Cook, Chief Administrative Officer
Mark Ambrose, Finance Manager
Gail Willis, Watershed Manager
Ryne Gilliam, Lands Manager
Ryan Mackett, Communications Manager
Melanie O’Riley Receptionist/Admin Clerk, recorder of Minutes

1. ADOPTION OF AGENDA

Resolution #25/21

Moved by Grant Arnold, Seconded by Joel Brown

“THAT: the Agenda be adopted as published.” CARRIED.

2. DISCLOSURE OF INTEREST

None.

3. MINUTES OF PREVIOUS MEETING

Resolution #26/21

Moved by Rudy Buitenhuis, Seconded by Erwin Butikofer

“THAT: the Minutes of the Lakehead Region Conservation Authority 67th Annual Meeting held on Wednesday, January 27, 2021 be adopted as published.” CARRIED.

4. IN-CAMERA AGENDA

An In-Camera session was not held.

5. BUSINESS ARISING FROM PREVIOUS MINUTES

(a) File: Changes to the Conservation Authorities Act

Members reviewed and discussed Staff Report CORP-3-2021 providing an update regarding the February 2, 2021 proclaimed sections of the *Conservation Authorities Act*.

On February 2, 2021 several additional sections to the *Conservation Authorities Act* were proclaimed, including sections related to: aboriginal or treaty rights; Board composition; potential appointment of an Agricultural representative; term of Chair and Vice Chair; posting of agendas and minutes; powers of authorities; Minister’s ability to appoint an investigator/administrator; removal of expropriation powers; Minister can delegate his/her powers under the Act to an employee in the Ministry; and accounting/audit requirements.

Under the new sections proclaimed, Board composition must consist of at least 70% of appointees being municipal councillors. The current City of Thunder Bay citizen appointees can complete their term which ends in November 2022. In 2022, the City of Thunder Bay will be required to appoint one citizen appointee and at least three councillors, and all other Member Municipalities/Townships will be required to only appoint councillors, unless the Municipality/Township requests an exception from the Minister. The City of Thunder Bay has been advised of the changes to future appointees to the LRCA’s Board of Directors.

The maximum term of the Chair and Vice-Chair is now limited to two consecutive years, unless the LRCA or a member municipality request an exception. As the LRCA’s 2021 election was held prior to the proclamation, the current Chair and Vice-Chair can complete the 2021 term. The MECP has confirmed that the limits of the term are effective immediately (i.e., previous terms as Chair count towards term limit). Staff recommended applying for an exception, regarding the term of the Chair and Vice-Chair to allow for the current incumbents to potentially hold the position for remainder of the municipal council term, which would be determined at the annual election in 2022.

Resolution #27/21

Moved by Andrew Foulds, Seconded by Trevor Giertuga

“THAT: Staff Report CORP-3-2021 be received AND FURTHER THAT the Lakehead Region Conservation Authority requests permission from the Minister of Environment, Conservation and Parks to extend the potential term of the Chair and Vice-Chair to the full council term of up to four years.” CARRIED.

Recorded Vote (as required to apply for an exception to the Minister)

NAME	YES	NO	ABSENT	ABSTAIN
Arnold, Grant	Yes			
Brown, Joel	Yes			
Buitenhuis, Rudy	Yes			
Butikofer, Erwin	Yes			
Foulds, Andrew	Yes			
Giertuga, Trevor	Yes			
Goold, Andrea	Yes			
Panu, Umed	Yes			
Vezina, Jim	Yes			
Vis, Allan	Yes			
Blunt, Donna (Chair)	Yes			

(b) File: Board Member Reference Manual

Members were provided with information related to updates to their Board Member Reference Manuals.

6. CORRESPONDENCE

None.

7. STAFF REPORTS

Members reviewed and discussed Staff Report LM-02-2021 related to addressing the damage to the Mission Island Marsh Conservation Area Boardwalk. The Lands Manager provided a brief presentation.

Resolution #28/21

Moved by Andrea Goold, Seconded by Umed Panu

“THAT: the LRCA accept the insurance settlement related to damage to the Mission Island Marsh Conservation Area boardwalk AND FURTHER THAT insurance proceeds will be used to remove the remaining damaged portions of the boardwalk and sheet pilings and repair the remaining structure for use by the public.” CARRIED.

Members reviewed and discussed Staff Report FORMG-01-2021, related to the 2020 annual summary of activities on the Forest Management properties.

Resolution #29/21

Moved by Jim Vezina, Seconded by Allan Vis

“THAT: Staff Report FORMG-01-2021 be received.” CARRIED.

Members reviewed and discussed Staff Report DEVREG-02-2021 related to updates to the Rules of Procedure for Permit Application Review and Approval and Hearing Guidelines incorporating recent changes to the *Conservation Authorities Act* related to permits associated with Municipal Zoning Orders (MZO). The changes specified that the Board of Directors (not staff) will approve all permits related to MZOs. It was noted that any permits issued for applications related to Municipal Zoning Orders must be approved, per the *Conservation Authorities Act* and that the Board of Directors will have no ability to refuse permissions, even if the application does not meet the intent of Regulation. Conditions may be attached; however, are subject to appeal to the Minister or the Local Planning Appeal Tribunal.

Resolution #30/21

Moved by Grant Arnold, Seconded by Joel Brown

“THAT: Staff Report DEVREG-02-2021 be received AND FURTHER THAT the Rules of Procedure for Permit Application Review and Approval, Version 4.0 and Hearing Guidelines Version 3.0 be adopted.” CARRIED.

Members reviewed and discussed Staff Report POLICY-HS-15/16/17/18/19-2021 related to Health and Safety Policies regarding Contractor Management, Workplace Health Promotion, Working Alone, Risk Assessment and Control of Hazards and Wildlife Encounters.

Resolution #31/21

Moved by Rudy Buitenhuis, Seconded by Erwin Butikofer

“THAT: Health and Safety Policy HS-15: Wildlife Encounters Policy be adopted.” CARRIED.

Resolution #32/21

Moved by Andrew Foulds, Seconded by Trevor Giertuga

“THAT: Health and Safety Policy HS-16: Contractor Management Program be adopted.” CARRIED.

Resolution #33/21

Moved by Andrea Goold, Seconded by Umed Panu

“THAT: Health and Safety Policy HS-17: Risk Assessment and Control of Hazards be adopted.”
CARRIED.

Resolution #34/21

Moved by Jim Vezina, Seconded by Allan Vis

“THAT: Health and Safety Policy HS-18: Working Alone be adopted.” **CARRIED.**

Resolution #35/21

Moved by Grant Arnold, Seconded by Joel Brown

“THAT: Health and Safety Policy HS-19: Workplace Health Promotion be adopted.” **CARRIED.**

8. CHIEF ADMINISTRATIVE OFFICER’S REPORTS

Members were provided with the monthly Treasurer’s Report for January’s Administration and Capital.

Members reviewed and discussed Staff Report FIN-06-2021 related to the annual review of the Fee Schedule.

Resolution #36/21

Moved by Rudy Buitenhuis, Seconded by Erwin Butikofer

“THAT: the Staff Report FIN-06-2021 be received **AND FURTHER THAT** the 2021 Fee Schedule be adopted **AND FURTHER THAT** the Silver Harbour Encroachment Policy GEN-15 be amended accordingly.” **CARRIED.**

It was noted that the Information and Privacy Commissioner has been advised that the Authority did not receive any Freedom of Information requests in 2020.

It was noted that as per Board of Director’s Policy BOD-06: Remuneration of Members, the Board of Directors per diems are increased each year by the change in the previous year’s Consumer Price Index (CPI). The 2021 increase was based on a 1.20% increase in CPI.

Members were provided with the final 2020 Treasurer’s Report.

9. PASSING OF ACCOUNTS

Resolution #37/21

Moved by Andrew Foulds, Seconded by Trevor Giertuga

“THAT: having examined the accounts for the period of January 1, 2021 to January 31, 2021 cheque #2162 to #2186 for \$56,700.25 and preauthorized payments of \$80,175.78 for a total of \$136,876.03, we approve their payment.” **CARRIED.**

10. REGULATORY ROLE

Members were provided with the Plan Input and Review Summary for the period of January 2021 to February 17, 2021. It was noted that no permits have been issued to date in 2021.

11. PROJECTS UPDATE

Members were advised that the Lakehead Conservation Foundation (LCF) Annual General Meeting was held on Monday, February 22, 2021 virtually.

Members were advised that depending on the COVID-19 pandemic situation closer to the Birding Festival dates of May 29 and 30, some form of birding event/activity may take place. It is unlikely that the Birding Festival will continue in 2021 in the traditional format of the festival; however, if restrictions allow it, staff will try to accommodate some form of birding activity that weekend.

It was noted that the Education Coordinator provided a virtual activity for this year's Thunder Bay Science Festival, being coordinated by Science North.

It was noted that the February 16, 2021 snow surveys indicated that the snow survey locations were below average for snow depth and water content, when compared to the historical averages for February 15.

It was noted that water levels of all the Great Lakes remain very high, except for Lake Ontario, and all are lower than where they were last year at this time.

12. NEW BUSINESS

Due to a conflict with the Northwestern Ontario Municipal Association Conference (NOMA), the April Board Meeting will start at 5:00 p.m. instead of the usual 4:30 p.m. start time.

13. NEXT MEETING

Wednesday, March 31, 2021, at 4:30 p.m.

14. AJOURNMENT

Resolution #38/21

Moved by Andrea Goold, Seconded by Umed Panu

“THAT: the time being 5:57 p.m. AND FURTHER THAT there being no further business THAT we adjourn.” CARRIED.

Chair

Chief Administrative Officer



LAKEHEAD REGION

CONSERVATION AUTHORITY

PROGRAM AREA	POLICY	REPORT NO.	POLICY-HS-13-2021
DATE PREPARED	March 22, 2021	FILE NO.	45-5-3
MEETING DATE	February 31, 2021		
SUBJECT	Health and Safety Policy HS-13: Equipment Training		

RECOMMENDATION

Suggested Resolutions

“THAT: Health and Safety Policy HS-13: Equipment Training be adopted.”

LINK TO STRATEGIC PLAN (2018-2022)

Govern and Enhance:

- Optimize organizational performance through policy and measurable action to improve accountability and transparency.
- Create a dynamic culture of learning, safety and positivity.

EXECUTIVE SUMMARY

As per recommendations from WSIB training, and as per the *Occupational Health and Safety Act* and *Workplace Safety and Insurance Act*, the Lakehead Region Conservation Authority (LRCA) has prepared a health and safety policy related to Equipment Training.

DISCUSSION

Health and Safety Policy HS-13: Equipment Training ensures that all applicable staff are appropriately trained in the safe operation and maintenance of all equipment they are to utilize in their position. The policy contains individual Operation and Safety Instruction Manuals for the following pieces of equipment:

- Push Lawn Mower
- Grass Trimmer/Brush Cutter
- ATV
- Ice Auger/Post Hole Digger
- Snow Blower
- Riding Lawn Mower
- Geonor Precipitation Gauge

Additional Operation and Safety Instruction Manuals will be added as new equipment is purchased and replaced.

FINANCIAL IMPLICATIONS

A robust Health and Safety Program will reduce the number of potential injuries to our staff, thereby reducing WSIB claims and potential increases to our WSIB premiums.

CONCLUSION

The Health and Safety Policy outlined in this report is integral to the LRCA’s overall Health and Safety Program. The LRCA is committed to health and safety and providing its employees with a safe work environment.



BACKGROUND

The LRCA is continuing to create new and revised relevant health and safety policies and procedures in an effort to provide staff with a safe work environment and to show its commitment to health and safety excellence.

REFERENCE MATERIAL ATTACHED

- Health and Safety Policy HS-13: Equipment Training

PREPARED BY: Ryan Mackett, Communications Manager

THIS REPORT SIGNED AND VERIFIED BY:  Tammy Cook Chief Administrative Officer	DATE: 
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Section:	HEALTH AND SAFETY		
Title:	HS-13: Equipment Training		
Resolution	Res # ##/21	Approval Date:	March 31, 2021
Revisions			

The Lakehead Region Conservation Authority (LRCA) has adopted this policy to ensure the ongoing health and safety of our employees, including permanent, contract, seasonal and young workers. This Policy is intended to provide equipment operation and safety training instruction to workers regarding the safe operation of the various equipment used at the Administrative Office and garage, and during the operation of equipment while maintaining the Conservation Areas and other lands owned and/or maintained by the Authority.

1.0 Definitions

Equipment is considered to be any tool, machine or piece of equipment used in performing duties at the LRCA.

Equipment includes:

- Push Lawn Mower
- Grass Trimmers/Brush Cutters
- ATV
- Ice Auger/Post Hole Digger
- Snow Blower
- Riding Lawn Mower
- Geonor Precipitation Gauge
- Lock-Out/Tag-Out

2.0 Training Requirements

Applicable staff must be trained in the proper handling and safe use of all equipment prior to use. If an employee has not received specialized training for a particular piece of equipment, they are not permitted to use the equipment until they have been adequately trained.

2.1 Supervisors Responsibilities

Supervisors are responsible at the time of hire to indicate as part of Health and Safety Policy HR-10: Health and Safety Orientation any required equipment training on the "Required Training and Policy Review Checklist".

Supervisors are responsible to ensure that all required equipment training is completed prior to any employee operating equipment.

Supervisors are responsible to ensure that all applicable employees follow all required safety requirements during the performance of any duty using equipment.

2.2 Lands Manager Responsibilities

The Lands Manager is responsible to keep current all equipment Operation and Safety Instruction Manuals and sign off log sheets and to develop new Operation and Safety Instruction Manuals when any new equipment is brought on site.

3.0 Communication

The Policy will be communicated in the following ways:

- provided to staff (e.g. email or in print),
- be available in the Health and Safety Binder, and
- be available on the LRCA Network.

4.0 Training

4.1 Policy Training

Training on the Policy will occur by:

- review during a staff meeting, or
- review of Health and Safety Binder during new employee orientation.

Dates of completed training will be recorded on the Policy Communication and Training Record and recorded on the Health and Safety Policy Matrix.

4.2 Specific Equipment Training

The Supervisor will provide training to all applicable staff prior to the use any equipment utilizing the equipment specific Operation and Safety Instruction Manuals.

Equipment specific training will occur prior to utilizing equipment for all applicable employees, and will be completed as a refresher at the beginning of each field season.

All completed equipment specific training will be recorded on the Training and Policy Matrix.

5.0 Review

This Policy will be reviewed annually by the Chief Administrative Officer, Health and Safety Representative and Lands Manager.

In an effort to ensure the continuous improvement of this policy, any gaps identified during the review process will be addressed as necessary. Gaps may be identified not only during the annual review process, but also during semi-annual staff meetings, monthly inspections, and/or weekly management meetings.

6.0 Evaluation

Evaluation dates and notes will be recorded on the Policy Communication and Training Record and recorded on the Health and Safety Policy Matrix.

Improvements will be made as necessary.

Additional Operation and Safety Instruction Manuals will be developed when new equipment is obtained.

7.0 Attachments

- HS-13-1: Push Lawn Mower – Operation and Safety Instruction Manual, Version 1.0
- HS-13-2: Grass Trimmer/Brush Cutter – Operation and Safety Instruction Manual, Version 1.0
- HS-13-4: ATV- Operation and Safety Instruction Manual, Version 1.0
- HS-13-6: Ice Auger/Post Hole Digger – Operation and Safety Instruction Manual, Version 1.0
- HS-13-7: Snow Blower - Operation and Safety Instruction Manual, Version 1.0
- HS-13-8: Riding Lawn Mower - Operation and Safety Instruction Manual, Version 1.0
- HS-13-9: Geonor Precipitation Gauge – Operation and Safety Instruction Manual, Version 1.0



Operation and Safety Instruction Manual:

HS-13-1: Push Lawn Mower

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

This checklist is intended for use during the employee training phase to ensure that employees are fully trained in the use of equipment.

EMPLOYEE: By initialing each section, the employee confirms that they have received, reviewed and understand the provided information and/or training.

SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee's personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	<i>Required PPE</i>	<i>Reason/Hazard</i>	<i>Employee Initial – Hazard Understood</i>
1	Safety Glasses	Potential eye hazard from flying debris.	
2	Ear Muffs	Continuous noise and prolonged exposure may cause damage to hearing.	
3	Work Gloves	Gloves minimize vibration and protect the hands from cuts and scrapes.	
4	CSA Approved Work Boots	Foot protection is required due to moving blades and puncture hazards.	
5	Long Pants	Potential for flying debris. Protect legs from cuts and scrapes.	



General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Disengage cutting feature and all RPM's if people or pets are within 15 meters.	Objects ejected from trimmers and mowers may cause injury.	
2	Loose clothing shall not be worn near any rotating shaft, spindle, gear or other sources of entanglement.	Possibility that the clothing could get caught and pull a person into the machine or constrict the clothing causing severe injuries.	
3	Only those people that are authorized or trained to do so are allowed to operate push mowers.	If you are not trained you may cause injury to yourself or others around you. You may damage machines.	
4	Never use any defective machinery. Lock out, tag and report to supervisor immediately.	To prevent injury and further damage to mower.	
5	Always follow proper lock out procedures when repairs are needed (see lock out procedure for details).	Inadvertent start-up of the machine may cause injury.	
6	Do not remove any guard or protective device on the riding mower. Only trained maintenance personnel conducting maintenance or repair work on the machine are to remove protective guards or protective devices after lock out. All guards must be re-installed prior to use.	Guards are protective devices are put on machines to prevent possible entanglement, bodily harm, fires and damage to equipment.	
7	Avoid steep slopes, embankments near water, steep ditches and drop-offs.	These circumstances may expose operator to turning blades and cords if they trip and fall.	



8	Do not focus only on cutting area.	Be aware of tripping or overhead hazards. Scan area for objects that may cause kickback or damage to the machine.	
9	Shut off push mower before transporting to and from cutting area.	Shutting off push mower immediately after use eliminates any accidental discharge of material or exposure to cutting blade.	
10	If there is excessive vibration on mower stop the unit immediately. Inspect cutting blade for damage	damaged cutting blade will cause excessive vibration that will cause strain and damage to the machine.	
11	Fuel machinery in a well ventilated area.	Fuel vapours can ignite.	
12	Only fuel machinery when engine is cold.	Fueling a hot machine may cause fire.	
13	Do not overfill machine when filling with fuel.	Spilled fuel can contaminate the environment and also be a fire hazard.	

Push Mower Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	<i>Task to Complete</i>	<i>Supervisor – initial to confirm adequate completion of task</i>	<i>Additional Training Required</i>
1	Adjust push bar to desired angle for proper height.		
2	Checking and adding oil. <ul style="list-style-type: none"> • What an adequate level is. • What type of oil to add if needed. • Where to add oil. 		
3	Fueling machinery. <ul style="list-style-type: none"> • What type of gas • Where to add fuel • How much determine how much fuel to add to avoid overfilling and spills. 		
4	Preform pre-operational check before using the push mower.		



	<ul style="list-style-type: none"> • How to check the cutting blade for damage. • Check that guard is in place. 		
5	Start the machine. <ul style="list-style-type: none"> • How to start (pull cord). • How to use primer. • How to use choke. 		
6	Lock out and tag procedure. <ul style="list-style-type: none"> • How to lock out. • How to tag and what to tag with. 		
7	New trainees must operate the push mower under direct supervision for 1 hour prior to operating alone.		
8	Using proper technique when operating push mower: <ul style="list-style-type: none"> • Ergonomic methods. • Grip. • Keeping machine level at boot height. • Avoiding objects that can damage machinery. 		

By signing, the employee confirms that they are capable and confident in the safe operation of the equipment and the supervisor confirms that adequate training has been provided and that the employee is capable of the safe operation of the equipment.

Employee's Signature

Supervisor's Signature

Date



Operation and Safety Instruction Manual:

HS-13-2: Grass Trimmer/Brush Cutter

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

This checklist is intended for use during the employee training phase to ensure that employees are fully trained in the use of equipment.

EMPLOYEE: By initialing each section, the employee confirms that they have received, reviewed and understand the provided information and/or training.

SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee's personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	<i>Required PPE</i>	<i>Reason/Hazard</i>	<i>Employee Initial – Hazard Understood</i>
1	Safety Glasses	Potential eye hazard from flying debris.	
2	Hard Hat, Face Screen, Ear Muff Combination	Continuous noise and prolonged exposure may cause damage to hearing. Material and objects may fly during use causing materials to strike face and eyes. Low hanging branches may strike operators head while trimming near trees.	
3	Work Gloves	Gloves minimize vibration and protect the hands from cuts and scrapes.	



4	CSA Approved Work Boots	Foot protection is required due to moving blades and puncture hazards.	
5	Long Pants	Potential for flying debris. Protect legs from cuts and scrapes.	

General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Operate trimmer on low speed when cutting around personal property (vehicles, trailers).	Objects ejected from trimmers and mowers may cause property damage.	
2	Disengage cutting feature and all RPM's if people or pets are within 15 meters.	Objects ejected from trimmers and mowers may cause injury.	
3	Loose clothing shall not be worn near any rotating shaft, spindle, gear or other sources of entanglement.	Possibility that the clothing could get caught and pull a person into the machine or constrict the clothing causing severe injuries.	
4	Only those people that are authorized or trained to do so are allowed to operate trimmers.	If you are not trained you may cause injury to yourself or others around you. You may damage machines.	
5	Never use any defective machinery. Lock out, tag and report to supervisor immediately.	To prevent injury and further damage to trimmer or mower.	
6	Always follow proper lock out procedures when repairs are needed (see lock out procedure for details).	Inadvertent start-up of the machine may cause injury.	
7	Do not remove any guard or protective device on the riding mower. Only trained maintenance personnel conducting maintenance or repair work on the machine are to remove protective	Guards are protective devices are put on machines to prevent possible entanglement, bodily harm, fires and damage to equipment.	



	guards or protective devices after lock out. All guards must be re-installed prior to use.		
8	Avoid steep slopes, embankments near water, steep ditches and drop-offs.	These circumstances may expose operator to turning blades and cords if they trip and fall.	
9	Do not focus only on cutting area.	Be aware of tripping or overhead hazards. Scan area for objects that may cause kickback or damage to the machine.	
10	Shut off trimmers and brush cutters before transporting to and from cutting area.	Shutting off trimmer/brush cutter immediately after use eliminates any accidental discharge of material or exposure to rotating chords or cutting discs.	
11	If there is excessive vibration on the trimmer/brush cutter stop the unit immediately. Change cords cutting disc as required.	Unevenly worn cords and damaged cutting disc will cause excessive vibration that will cause strain and damage to the machine.	
12	Fuel machinery in a well ventilated area.	Fuel vapours can ignite.	
13	Only fuel machinery when engine is cold.	Fueling a hot machine may cause fire.	
14	Do not overfill machine when filling with fuel.	Spilled fuel can contaminate the environment and also be a fire hazard.	

Trimmer/Brush Cutter Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	Task to Complete	Supervisor – initial to confirm adequate completion of task	Additional Training Required
1	Put on harness and adjust straps to optimal comfort.		
2	Attach trimmer/brush cutter to harness and adjust handles for optimal comfort and balance.		
3	Fueling machinery. <ul style="list-style-type: none"> • Mix gas to 40:1 ratio 		



	<ul style="list-style-type: none"> • Where to add fuel • How much determine how much fuel to add to avoid overfilling and spills. 		
4	Preform pre-operational check before using trimmer/brush cutter <ul style="list-style-type: none"> • How to add trimmer line. • Check that guard is in place. 		
5	Start the machine. <ul style="list-style-type: none"> • How to start (pull cord). • How to use primer. • How to use choke. 		
6	Lock out and tag procedure. <ul style="list-style-type: none"> • How to lock out. • How to tag and what to tag with. 		
7	New trainees must operate the riding mower under direct supervision for 1 hour prior to operating alone.		
8	Using proper technique when operating trimmer/brush cutter <ul style="list-style-type: none"> • Ergonomic methods. • Grip. • Keeping machine level at boot height. • Avoiding objects that can damage machinery. 		

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Employee's Signature

Supervisor's Signature

Date



Operation and Safety Instruction Manual:

HS-13-4: All-Terrain Vehicle (ATV)

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

This checklist is intended for use during the employee training phase to ensure that employees are fully trained in the use of equipment.

EMPLOYEE: By initialing each section, the employee confirms that they have received, reviewed and understand the provided information and/or training.

SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee's personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	<i>Required PPE</i>	<i>Reason/Hazard</i>	<i>Employee Initial – Hazard Understood</i>
1	Safety Glasses	Potential eye hazard from overhanging branches.	
2	DOT (Department of Transportation) Certified Helmet	Potential head trauma damage from crash and overhanging branches.	
3	CSA Approved Work Boots	Foot protection is required due to abrasions and potential overtopping .	
4	Long Pants	Potential for heat injury from exhaust. Protect legs from burns, cuts and scrapes.	



General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Operate ATV at reasonable (lower) speeds at all times.	Potential crash or collision with pedestrians when operating at higher speeds.	
2	Only those people that are authorized or trained to do so are allowed to operate riding mowers.	If you are not trained you may cause injury to yourself or others around you. You may damage machines.	
3	Never carry a second passenger on ATV.	Weight restrictions and distraction can cause potential crash.	
5	Do not operate on paved roads (only when absolutely necessary)	ATV's are designed for off road use. Potential to be struck by other vehicles.	
6	Always perform a pre operational check.	Damaged or missing features can lead to potential break downs or crashes.	
7	Only those people that are authorized or trained to do so are allowed to operate ATV's.	If you are not trained you may cause injury to yourself or others around you. You may damage the ATV.	
8	Never use any defective machinery. Lock out, tag and report to supervisor immediately.	To prevent injury and further damage to riding mower.	
9	Always follow proper lock out procedures when repairs are needed (see lock out procedure for details).	Inadvertent start-up of the machine may cause injury.	
10	Fuel machinery in a well ventilated area.	Fuel vapours can ignite.	
11	Only fuel machinery when engine is cold.	Fueling a hot machine may cause fire.	
12	Do not overfill machine when filling with fuel.	Spilled fuel can contaminate the environment and also be a fire hazard.	



ATV Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	Task to Complete	Supervisor – initial to confirm adequate completion of task	Additional Training Required
1	Connect trailer to truck and drive truck and trailer forwards and backwards (if needed).		
2	Load machine on and off of hauling trailer or truck.		
3	Secure ATV to hauling trailer or truck with ratchet straps.		
4	Checking and adding oil. <ul style="list-style-type: none"> • What an adequate level is. • What type of oil to add if needed. • Where to add oil. 		
5	Fueling machinery. <ul style="list-style-type: none"> • Type of fuel. • Where to add fuel. • How to determine how much fuel to add to avoid overfilling and spills. 		
6	Perform pre-operational check before using riding mower. <ul style="list-style-type: none"> • Check that there are no dents in rims. • Tires are adequately inflated. • Ensure parking break is working. 		
7	Start the machine. <ul style="list-style-type: none"> • How to start. • How to use choke. 		
8	How to shift gears (if ATV has manual transmission).		
9	How to put ATV in reverse.		
10	Lock out and tag procedure. <ul style="list-style-type: none"> • How to lock out. • How to tag and what to tag with. 		



11	New trainees must operate the ATV and display understanding and proper use under direct supervision.		
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By signing, the employee confirms that they are capable and confident in the safe operation of the equipment and the supervisor confirms that adequate training has been provided and that the employee is capable of the safe operation of the equipment.

Employee's Signature

Supervisor's Signature

Date



Operation and Safety Instruction Manual:

HS-13-6: Post Hole Digger

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

This checklist is intended for use during the employee training phase to ensure that employees are fully trained in the use of equipment.

EMPLOYEE: By initialing each section, the employee confirms that they have received, reviewed and understand the provided information and/or training.

SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee’s personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	Required PPE	Reason/Hazard	Employee Initial – Hazard Understood
1	Safety Glasses	Potential eye hazard from flying debris.	
2	Ear Muffs	Continuous noise and prolonged exposure may cause damage to hearing.	
3	Work Gloves	Gloves minimize vibration and protect the hands from cuts and scrapes.	
4	CSA Approved Work Boots	Foot protection is required due to moving blades and puncture hazards.	
5	Long Pants	Potential for flying debris. Protect legs from cuts and scrapes.	



General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Loose clothing shall not be worn near any rotating shaft, spindle, auger blade or other sources of entanglement.	Possibility that the clothing could get caught and pull a person into the machine or constrict the clothing causing severe injuries.	
2	Only those people that are authorized or trained to do so are allowed to operate push mowers.	If you are not trained you may cause injury to yourself or others around you. You may damage machines.	
3	Never use any defective machinery. Lock out, tag and report to supervisor immediately.	To prevent injury and further damage to post hole auger.	
4	Always follow proper lock out procedures when repairs are needed (see lock out procedure for details).	Inadvertent start-up of the machine may cause injury.	
5	Shut off post hole auger before transporting to and from cutting area.	Shutting off post hole auger immediately after use eliminates any accidental discharge of material or exposure to cutting blade.	
6	Fuel machinery in a well ventilated area.	Fuel vapours can ignite.	
7	Only fuel machinery when engine is cold.	Fueling a hot machine may cause fire.	
8	Do not overfill machine when filling with fuel.	Spilled fuel can contaminate the environment and also be a fire hazard.	
9	Prior to drilling preform locates if necessary.	To prevent inadvertent electrocution or loss of services.	
10	Employ hand movements that exert minimum pressure on wrist bones.	Prevent increase stress on hands and wrists.	



11	Remove larger rocks and roots as you encounter them when drilling.	This will prevent the torque of the auger from jarring or twisting the operator.	
12	Let the weight of the machine do the work, do not use excessive force.	This will prevent torque of the auger from jarring and twisting the operator if an obstruction is such as a large rock is found.	
13	Shut off auger and remove it from the hole periodically while drilling.	This allows for the safe removal of any excess earth or obstructions need to be removed.	

Ice Auger/Post Hole Digger Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	<i>Task to Complete</i>	<i>Supervisor – initial to confirm adequate completion of task</i>	<i>Additional Training Required</i>
1	Create a pilot hole by removing the top layer of sod with a shovel.		
2	Fueling machinery. <ul style="list-style-type: none"> • What type of gas • Where to add fuel How much determine how much fuel to add to avoid overfilling and spills		
3	Preform pre-operational check before using the post hole digger. <ul style="list-style-type: none"> • How to check the auger blade for damage. • How to inspect shear pins if extension is being used. Check that guard is in place.		
4	Position auger above pilot hole.		
5	Start the machine. <ul style="list-style-type: none"> • How to start (pull cord). • How to use primer. • How to use choke. 		
6	Advance the throttle slowly until the auger begins to spin and let the machine begin		



	boring into the ground. Throttle up as needed.		
7	As auger advances shut down machine and remove from hole and remove any excess earth or obstructions.		
8	New trainees must operate the post hole digger under direct supervision for 1 hour prior to operating alone.		
9	Using proper technique when operating post hole digger: <ul style="list-style-type: none"> • Ergonomic methods. • Grip. • Keeping machine level not using excessive force. 		
10	Lock out and tag procedure. <ul style="list-style-type: none"> • How to lock out. • How to tag and what to tag with. 		

By signing, the employee confirms that they are capable and confident in the safe operation of the equipment and the supervisor confirms that adequate training has been provided and that the employee is capable of the safe operation of the equipment.

Employee's Signature

Supervisor's Signature

Date



Operation and Safety Instruction Manual:

HS-13-7: Snow Blower

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

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SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee's personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	Required PPE	Reason/Hazard	Employee Initial – Hazard Understood
1	Safety Glasses	Potential eye hazard from flying debris.	
2	Ear Muffs	Continuous noise and prolonged exposure may cause damage to hearing.	
3	Work Gloves	Gloves minimize vibration and protect the hands from flying debris.	
4	CSA Approved Work Boots and (grip attachments when necessary).	Foot protection is required due to moving blades and puncture hazards. Working area may be slippery due to icy conditions.	



5	Weather Appropriate Outer Wear	To avoid potential cold weather related issues such as frost bite.	
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General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Operate snow blower on low RPM's when working around personal property (vehicles, office building).	Objects ejected from the snow blower may cause property damage.	
2	Loose clothing shall not be worn near any rotating shaft, spindle, gear or other sources of entanglement.	Possibility that the clothing could get caught and pull a person into the machine or constrict the clothing causing severe injuries.	
3	Only those people that are authorized or trained to do so are allowed to operate snow blowers.	If you are not trained you may cause injury to yourself or others around you. You may damage machines.	
4	Avoid hitting objects when blowing snow. Know the working areas prior to operation.	Objects can be hard enough to damage blades or drives of the machines. Clear debris on the ground that may become projectiles when hit by rotating blades when able to.	
5	Never remove clogged ice, snow or debris by hand from the snow blower at any time. Always remove debris with snow brush.	Tension kickback can cause serious injury or even dismemberment.	
6	Never use any defective machinery. Lock out, tag and report to supervisor immediately.	To prevent injury and further damage to the snow blower.	
7	Always follow proper lock out procedures when repairs are needed (see lock out procedure for details).	Inadvertent start-up of the machine may cause injury.	



8	Do not remove any guard or protective device on the riding mower. Only trained maintenance personnel conducting maintenance or repair work on the machine are to remove protective guards or protective devices after lock out. All guards must be re-installed prior to use.	Guards are protective devices are put on machines to prevent possible entanglement, bodily harm, fires and damage to equipment.	
9	If there is excessive vibration on the snow blower stop the unit immediately and inspect for damage.	Damaged or dented rotor blades will cause excessive vibration that will cause strain and damage to the machine.	
10	Disengage blower feature before transporting to and from clearing area.	Disengage blower feature immediately after use eliminates any accidental discharge of material.	
11	Fuel machinery in a well ventilated area.	Fuel vapours can ignite.	
12	Only fuel machinery when engine is cold.	Fueling a hot machine may cause fire.	
13	Do not overfill machine when filling with fuel.	Spilled fuel can contaminate the environment and also be a fire hazard.	

Snow Blower Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	Task to Complete	Supervisor – initial to confirm adequate completion of task	Additional Training Required
1	Checking and adding oil. <ul style="list-style-type: none"> • What an adequate level is. • What type of oil to add if needed. • Where to add oil. 		
2	Fueling machinery. <ul style="list-style-type: none"> • What type of gas • Where to add fuel 		



	<ul style="list-style-type: none"> • How much determine how much fuel to add to avoid overfilling and spills. 		
3	<p>Preform pre-operational check before using the snow blower.</p> <ul style="list-style-type: none"> • How to check the thrower blade for damage. • Check that thrower chute is functioning. • Check that the shear pins are in place. 		
4	<p>Start the machine.</p> <ul style="list-style-type: none"> • How to start (pull cord). • How to start (electric start). • How to use primer. • How to use choke. 		
5	<p>Using proper technique when operating trimmer/brush cutter</p> <ul style="list-style-type: none"> • Ergonomic methods. • Grip. • Avoiding objects that can damage machinery. 		
6	<p>Lock out and tag procedure.</p> <ul style="list-style-type: none"> • How to lock out. • How to tag and what to tag with. 		
7	<p>New trainees must operate the snow blower and display understanding and proper use under direct supervision.</p>		

By signing, the employee confirms that they are capable and confident in the safe operation of the equipment and the supervisor confirms that adequate training has been provided and that the employee is capable of the safe operation of the equipment.

Employee's Signature

Supervisor's Signature



Operation and Safety Instruction Manual:

HS-13-8: Riding Lawn Mower

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

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SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee's personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	Required PPE	Reason/Hazard	Employee Initial – Hazard Understood
1	Safety Glasses	Potential eye hazard from flying debris.	
2	Ear Muff	Continuous noise and prolonged exposure may cause damage to hearing.	
3	Work Gloves	Gloves minimize vibration and protect the hands from cuts and scrapes.	
4	CSA Approved Work Boots	Foot protection is required due to moving blades and puncture hazards.	
5	Long Pants	Potential for flying debris. Protect legs from cuts and scrapes.	



General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Operate riding mower at a low speed when operating around personal property (vehicles, trailers).	Objects ejected from riding mowers may cause property damage.	
2	Disengage cutting feature and stop if people or pets are within 15 meters.	Objects ejected from trimmers and mowers may cause injury.	
3	Loose clothing shall not be worn near any rotating shaft, spindle, gear or other sources of entanglement.	Possibility that the clothing could get caught and pull a person into the machine or constrict the clothing causing severe injuries.	
4	Only those people that are authorized or trained to do so are allowed to operate riding mowers.	If you are not trained you may cause injury to yourself or others around you. You may damage machines.	
5	Seat sensor must always be in operating order at all times and must never be disengaged.	This sensor shuts down the riding mower when the weight of the operator is lifted from the seat.	
6	Never use any defective machinery. Lock out, tag and report to supervisor immediately.	To prevent injury and further damage to riding mower.	
7	Always follow proper lock out procedures when repairs are needed (see lock out procedure for details).	Inadvertent start-up of the machine may cause injury.	
8	Do not remove any guard or protective device on the riding mower. Only trained maintenance personnel conducting maintenance or repair work on the machine are to remove protective	Guards and protective devices are put on machines to prevent possible entanglement, bodily harm, fires and damage to equipment.	



	guards or protective devices after lock out. All guards must be re-installed prior to use.		
9	Avoid steep slopes, embankments near water, steep ditches and drop-offs.	These circumstances may lose control of equipment resulting in loss of traction or roll over.	
10	Do not focus only on cutting area.	Scan area for objects that may cause damage to the machine or objects that could be ejected (e.g. tree stumps, exposed or loose rocks, etc.).	
11	If there is excessive vibration, on the riding mower, stop the unit immediately and have inspected by maintenance personnel.	Unevenly worn blades will cause excessive vibration that will cause strain and damage to the machine. Blades are only to be replaced by maintenance personnel.	
12	Always disengage the mower feature before turning off the machine.	Restarting the machine when the mower feature is engaged may cause personal injury or damage to machine.	
13	Do not attempt to remove any clogged debris from mower deck while engine is on.	Removal of debris from the mower deck while engine is on can cause serious injury if debris dislodges and/or blades engage.	
14	Fuel machinery in a well ventilated area.	Fuel vapours can ignite.	
15	Only fuel machinery when engine is cold.	Fueling a hot machine may cause fire.	
16	Do not overfill machine when filling with fuel.	Spilled fuel can contaminate the environment and be a fire hazard.	



Riding Mower Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	Task to Complete	Supervisor – initial to confirm adequate completion of task	Additional Training Required
1	Connect trailer to truck and drive truck and trailer forwards and backwards (if needed).		
2	Load machine on and off of hauling trailer or truck.		
3	Checking and adding oil. <ul style="list-style-type: none"> • What an adequate level is. • What type of oil to add if needed. • Where to add oil. 		
4	Fueling machinery. <ul style="list-style-type: none"> • Type of fuel. • Where to add fuel. • How to determine how much fuel to add to avoid overfilling and spills. 		
5	Adjust seat position for optimal comfort and reach.		
6	Perform pre-operational check before using riding mower. <ul style="list-style-type: none"> • How to check that the seat sensor is engaged. • Check that all guards are in place. Tires are adequately inflated. 		
7	Start the machine. <ul style="list-style-type: none"> • How to start. • How to use choke. 		
8	How to engage/disengage cutting mechanism to riding mower.		
9	Lock out and tag procedure. <ul style="list-style-type: none"> • How to lock out. • How to tag and what to tag with. 		
10	New trainees must operate the riding mower under direct supervision for 1 hour prior to operating alone.		



By signing, the employee confirms that they are capable and confident in the safe operation of the equipment and the supervisor confirms that adequate training has been provided and that the employee is capable of the safe operation of the equipment.

Employee's Signature

Supervisor's Signature

Date



Operation and Safety Instruction Manual:

Geonor Precipitation Gauge

Supervisor: _____
Employee: _____
Initial Training <input type="checkbox"/>
Refresher Training <input type="checkbox"/>

This checklist is intended for use during the employee training phase to ensure that employees are fully trained in the use of equipment.

EMPLOYEE: By initialing each section, the employee confirms that they have received, reviewed and understood the provided information and/or training.

SUPERVISOR: By initialing each section, the supervisor will initial each item where they observed the employee demonstrating the proper safe operation of the equipment.

A copy of the completed form is to be placed in employee's personnel file. Training is to be recorded on the Training and Policy Matrix.

Required Personal Protective Equipment (PPE)

#	<i>Required PPE</i>	<i>Reason/Hazard</i>	<i>Employee Initial – Hazard Understood</i>
1	Safety Glasses	Potential eye hazard from recharge mixture.	
2	Rubber Gloves	Gloves minimize risk of coming into contact with recharge mixture.	
3	Pants	Protect body from splash/minimize risk of coming into contact with recharge mixture.	



General Safety Rules

#	Safety Rule	Reason/Hazard	Employee Initial – Hazard Understood
1	Read the General Protocol for recharging the Geonor Precipitation Gauge.	To understand the process of recharging the Geonor Precipitation Gauge.	
2	Pour slowly while making recharge mixture.	To prevent splashing and spillage of hazardous material.	
3	Do not lift out a full precipitation bucket.	To prevent the risk of breakage of the vibrating wire if the bucket is dropped. The VW load cell has a locking set-screw to prevent damage to the vibrating wire when servicing the gauge. These set-screws should always be tightened on the transducer when servicing.	
4	Use siphon pump and hose to empty waste material from the precipitation bucket.	To prevent splashing and spillage of hazardous material.	
5	Pour recharge mixture into precipitation bucket slowly.	To prevent splashing and spillage of hazardous material.	
6	Use funnel to pour waste material into waste barrel slowly.	To prevent splashing and spillage of hazardous material.	



Geonor Precipitation Gauge Recharge Operation

To be completed by employee under the supervision of supervisor to confirm competency:

#	<i>Task to Complete</i>	<i>Supervisor – initial to confirm adequate completion of task</i>	<i>Additional Training Required</i>
1	Safety goggles, pants and rubber gloves must be worn during recharging.		
2	Fall/Winter Recharge Mixture: <ul style="list-style-type: none"> • Pour 60% methanol (2.4 L) and 40% propylene glycol (1.6 L) into 4L pre-marked mixing container • Pour 400ml of transformer oil into the pre-marked 1L bottle • From April to October, only transformer oil is required 		
3	Spring/Summer Recharge Mixture: <ul style="list-style-type: none"> • Pour 400ml of transformer oil into the pre-marked 1L bottle 		
4	Remove the gauge cover by releasing the 3 clamps around the base. <ul style="list-style-type: none"> • When removing the gauge cover press the hook into the locking lugs to keep them from catching on the base • Place gauge cover on the ground 		
5	Tighten the set-screws 4 revolutions to stabilize the weighing dish.		
6	Empty the precipitation bucket using a siphon pump and hose. Allow the other end of the hose to drain into a bucket (found in the LRCA detached garage). Pump the siphon until it starts to flow.		
7	The contents in the bucket (antifreeze and oil) are considered hazardous material and must be disposed of properly. The waste material from the gauge must be stored in the large waste barrel located in the LRCA detached garage. The waste barrel was provided by Clean Harbors Environmental		



	Services located in Winnipeg Manitoba (204-956-9770). When the barrel is full Clean Harbors will pick up the barrel and dispose of the waste property. A MOE waste generator number will need to be provided to the company in order for them to dispose of the waste.		
8	Remove any debris and clean out the bucket with a paper towel.		
9	Place the bucket back on the weighing dish. Remember to align the black lines on the rim of the bucket with the one on the support rim.		
10	Add the 4 L jug of antifreeze (for fall/winter) and 400 ml of transformer oil (for all seasons) to the bucket.		
11	Loosen the set-screws on the transducer (4 revolutions).		
12	Place the gauge cover back on the gauge and fasten the 3 clamps around the base.		
13	See Attached Recharging Geonor Precipitation Gauge Protocol for Resetting the Geonor through the PC200W computer program.		

By signing, the employee confirms that they are capable and confident in the safe operation of the equipment and the supervisor confirms that adequate training has been provided and that the employee is capable of the safe operation of the equipment.

Employee's Signature

Supervisor's Signature

Date

Attachment:

- Geonor Precipitation Gauge Recharging Protocol

General Protocol

Recharging the Geonor Precipitation Gauge

The Geonor Precipitation Gauge is designed for year round measurements of accumulated precipitation as well as precipitation intensity. The Geonor weighs precipitation using a precision load cell with a vibrating wire transducer. The gauge consists of a standard 12 L bucket that collects rain and snow.

The gauge needs to be recharged whenever the bucket needs to be emptied (all depends on the amount of rain/snow received). It will need to be recharged a minimum of 2 times per year but more then likely 3 - 4 times per year.

The collection bucket has a capacity of **600mm** but the gauge should be emptied before the precipitation reaches 600 mm as heavy rainfall will cause overflow. Consider **500mm** as a limit before emptying.

Recharging the Gauge Requires:

- 4L solution of **60 % methanol** (2.4 L) and **40 % propylene glycol** (1.6 L) mix (antifreeze mixture) – prevents precipitation from freezing in fall/winter
- **400 ml of transformer oil** – prevents precipitation from evaporating year round
Note: MDSS sheets can be found in the WHMIS binder.

Winter/Fall Recharge:

- Before winter sets in (before overnight low of **-5 degree Celsius**) empty the geonor bucket and add recharge mixture (4L jug of 60% methanol and 40% propylene glycol mix and 400 ml of transformer oil). Generally, recharge should occur in October. This volume will indicate about 195mm in the gauge datalogger.
- In the coldest part of winter, the gauge should be in the range of 200mm to 450mm. At about 400mm, the antifreeze mix is at its maximum strength to stay liquid. If it is still January and February, with very cold nights looming, and the gauge is 450mm, consider emptying it. If the gauge is at 450mm and it is April 1 it is probably not worth recharging it, as the reducing antifreeze strength should still be strong enough for the milder nights.

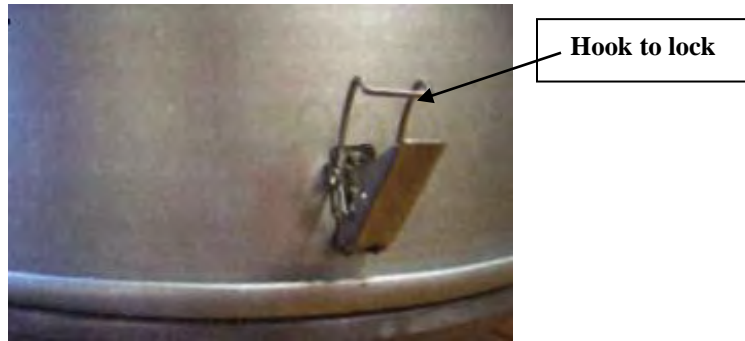
Spring/Summer Recharge:

- From April to October, **only oil is required**. If it is May and the gauge indicates around 350mm of antifreeze charge, don't bother emptying it until later, as it still has 250mm more capacity.

General Protocol

How to Recharge Geonor Gauge:

1. Safety goggles, pants and rubber gloves must be worn during recharging.
2. Pre-mix the 4L solution for the fall/winter recharge into the pre-marked 4L container. The solution is made up of 60% methanol (2.4 L) and 40% propylene glycol (1.6 L). Pour 400ml of transformer oil into the pre-marked 1L bottle. The methanol, glycol, oil, 4L pre-marked mixing container and the pre-marked 1L oil bottle can be found in the LRCA detached garage.
3. Remove the gauge cover by releasing the 3 clamps around the base.
Note: When removing the gauge cover press the hook into the locking lugs to keep them from catching on the base. See photo below.



4. Do not lift out a full bucket due to the great risk of breakage of the vibrating wire if the bucket is dropped. The VW load cell has locking set-screws to prevent damage to the vibrating wire when servicing the gauge. These set-screws should always be tightened on the transducer when servicing.
5. Tighten the set-screws 4 revolutions.

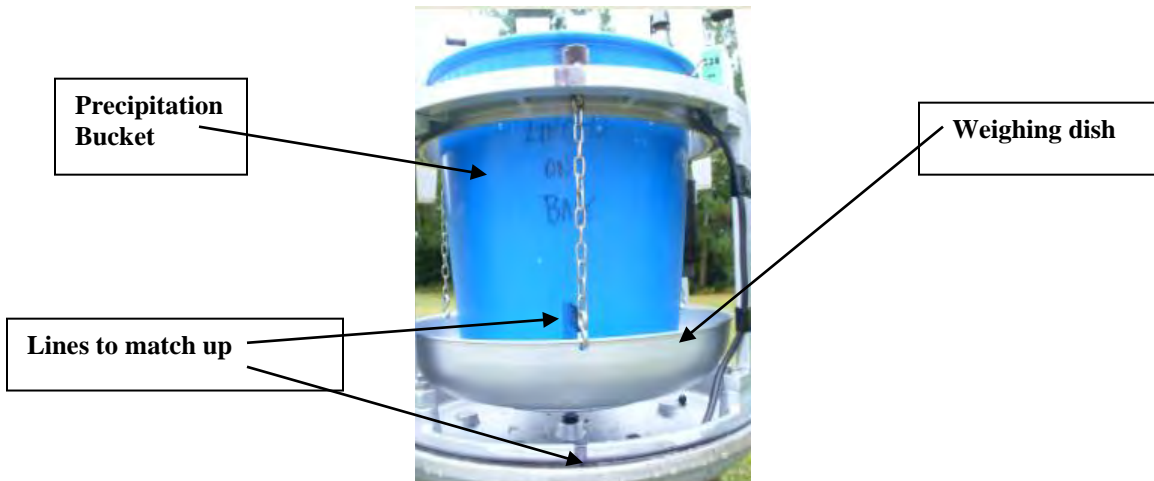


General Protocol

6. Empty the bucket using a siphon pump and hose (could be found in the LRCA detached garage). Allow the other end of the hose to drain into a bucket. Pump the siphon until it starts to flow. Once the flow has started there is no need to pump.

Note: The contents in the bucket (antifreeze and oil) are considered hazardous material and must be disposed of properly. The waste material from the gauge must be stored in the large blue waste barrel located in the LRCA detached garage. The blue waste barrel was provided by Clean Harbors Environmental Services located in Winnipeg Manitoba (204-956-9770). When the barrel is full Clean Harbors will pick up the barrel and dispose of the waste property. A MOE waste generator number will need to be provided to the company in order for them to dispose of the waste.

7. Remove any debris and clean out the bucket with a paper towel.
8. Place the bucket back on the weighing dish. Remember to align the black lines on the rim of the bucket with the one on the support rim. See below photo.

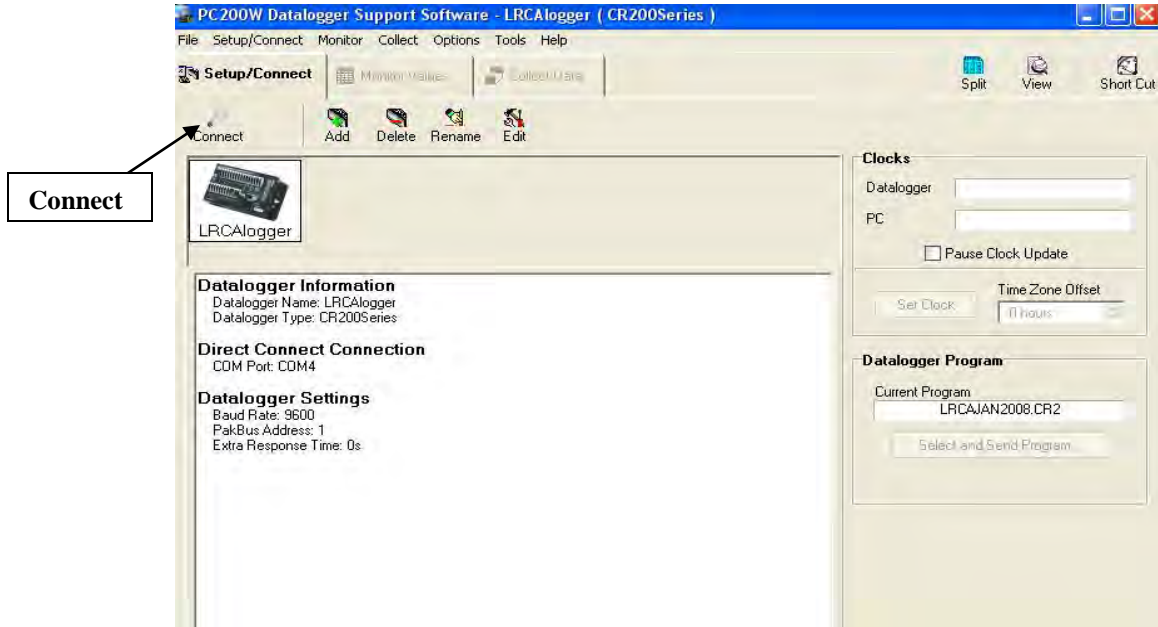


9. Add the 4 L jug of antifreeze (for fall/winter) and 400 ml of transformer oil to the bucket.
10. Loosen the set-screw on the transducer (4 revolutions).
11. Place the gauge cover back on the gauge.

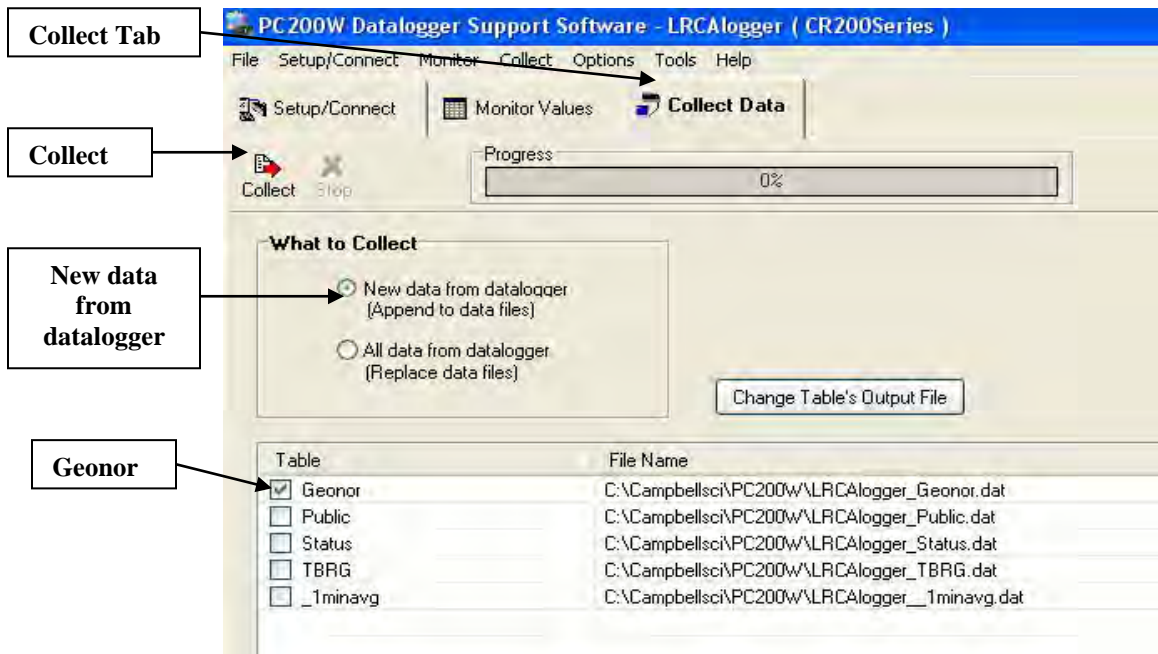
How to Reset the Geonor Gauge:

1. Once the Geonor has been recharged it is important to make sure the datalogger is zeroed. The "Gstart" needs to be manually reset when the gauge is emptied.
2. Open the "PC200W" Datalogger Support Software at the GIS/Water Resources Technologists computer station.
3. Click on "**Connect**". See below picture.

General Protocol



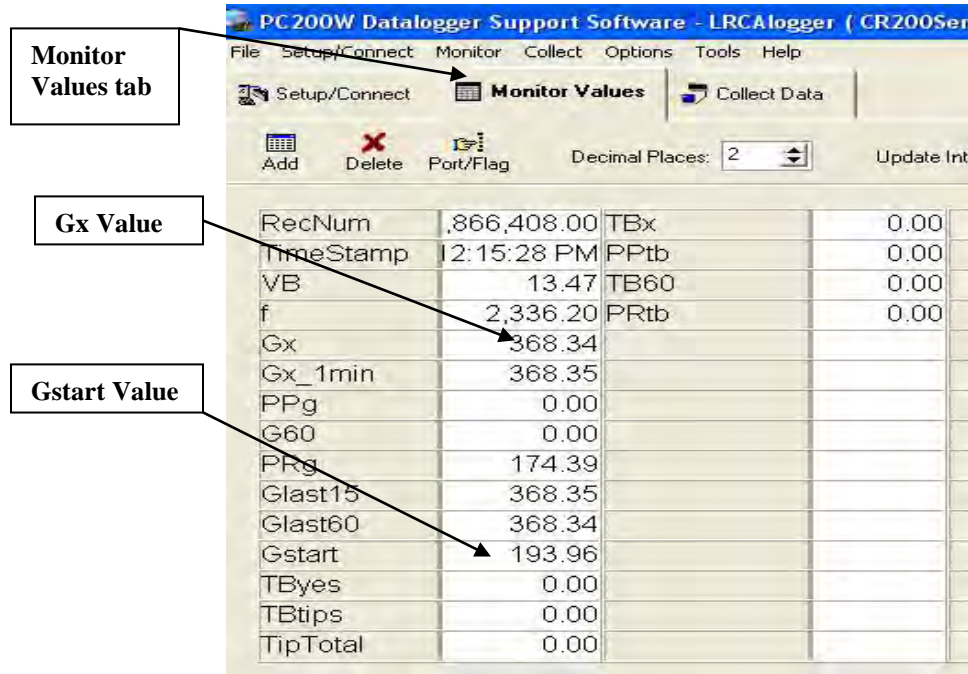
4. Click on the **“Collect Data”** tab to collect the updated data. Make sure the **“new data from datalogger”** is chosen and the **“Geonor”** in the table column is checked off. Click on **“Collect”**. See below picture.



5. Click on the **“Monitor Value”** tab (see below picture).

General Protocol

6. Look at the “Gx” value to determine the volume of the recharge solution (antifreeze mixture and oil) See picture below. The “Gx” value is the current geonor reading (updated every 5 seconds) The value should be around 195mm.
7. Double click on the “G-start” value and enter the “Gx” value (i.e. 195mm).
8. Press “Enter” and the G-start should be set.



The screenshot shows the 'Monitor Values' tab in the 'PC200W Datalogger Support Software - LRCAlgger (CR200Ser)' application. The interface includes a menu bar (File, Setup/Connect, Monitor, Collect, Options, Tools, Help) and a toolbar with buttons for 'Add', 'Delete', 'Port/Flag', and 'Update Int'. A table displays various data points:

RecNum	,866,408.00	TBx	0.00
TimeStamp	12:15:28 PM	PPtb	0.00
VB	13.47	TB60	0.00
f	2,336.20	PRtb	0.00
Gx	368.34		
Gx_1min	368.35		
PPg	0.00		
G60	0.00		
PRg	174.39		
Glast15	368.35		
Glast60	368.34		
Gstart	193.96		
TByes	0.00		
TBtips	0.00		
TipTotal	0.00		

9. Click on the “Setup/Connect” tab and click on “Disconnect”.

Location of downloaded Geonor Precipitation Data:

1. Click on “My Computer/Local Disk C: Campbellsci/PC200W”.
2. To open the most recent download Geonor data click on “CR200Series_Geonor.dat”.
3. Every time the Geonor data is downloaded from the logger, the data will be added to this file. Copy the file and paste it into “R:\Gauges\Geonor\Downloaded Geonor Data”. Rename the file with the last download date.

Note: Download the Geonor data at the beginning of every month.

Entering the monthly Geonor precipitation data manually into the Rain Gauge Record Sheet:

1. Follow above noted steps #2- 4 (**How to Reset the Geonor Gauge**) to download the most recent Geonor data.

General Protocol

2. Click on **"R:\Gauges\Geonor\Downloaded Geonor Data"**.
3. Open the most recent **"CR200Series_Geonor.dat"** file with Microsoft Office Excel.
4. To view the all the data in organized columns **highlight** the first column **"A"**.
5. At the top of the Excel screen click on the drop-down list **"Data"** and click on **"Text to Columns"**.
6. Under the Original Data Type, click on **"Delimited"**. Then click **"Next"**.
7. Under the Delimiters, click on **"comma box"**. Then click on **"Next"**.
8. The data will be viewed in organized columns. See below example.

Column "A"

	A	B	C	D	E	F	G	H
1	TOA5	LRCAlogge	CR2xx		v06	LRCAJAN2	13262	Geonor
2	TIMESTAMP	RECORD	PP	PR	VB	G60	Gx_1min	
3	TS	RN						
4			Smp	Smp	Smp	Smp	Smp	
5	10/28/2011 13:00	131239	INF	-0.00507	13.46796	49.52747	205.4449	
6	10/28/2011 13:15	131240	0	-0.01175	13.47048	0	205.4382	
7	10/28/2011 13:30	131241	0	-0.01237	13.46124	0	205.4376	
8	10/28/2011 13:45	131242	0	-0.01709	13.47383	0	205.4329	
9	10/28/2011 14:00	131243	0	-0.00311	13.46964	0	205.4469	
10	10/28/2011 14:15	131244	0	-0.00089	13.45872	0	205.4491	
11	10/28/2011 14:30	131245	0	-0.00024	13.47299	0	205.4498	
12	10/28/2011 14:45	131246	0	0.001053	13.46964	0	205.451	
13	10/28/2011 15:00	131247	0	0.000763	13.47131	0	205.4508	
14	10/28/2011 15:15	131248	0	0.000854	13.47048	0	205.4509	
15	10/28/2011 15:30	131249	0	-0.00061	13.47635	0	205.4494	

Geonor Reading

Date and Time of Geonor Reading

9. Scroll down to the date column ("A") to **find the first reading of the month**. For example 10/01/2011 0:00 would be the first reading for October 1, 2011.
10. Record the Geonor Reading (under Gx_1min column) on the **Rain Gauge Record** sheet found in the Weekly Weather Summary Binder.
11. Scroll down to find the last recorded reading for the month. For example 10/31/2011 23:45 would be the last reading of the month of October.
12. Calculate the monthly amount of precipitation by subtracting the last Geonor reading of the month from the first Geonor reading of the month.
13. The monthly amount is recorded in the **"Accumulated Precipitation"** column on the Rain Gauge Record Sheet.
14. This monthly amount will then be added to the **"Monthly precip bar graph Jan 09 to present.xls"** located in **"R:\Low Water\Precipitation On Going Summary"**.



LAKEHEAD REGION

CONSERVATION AUTHORITY

PROGRAM AREA	LAND MANAGEMENT	REPORT NO.	LM-03-2021
DATE PREPARED	March 18, 2021	FILE NO.	31-6-2
MEETING DATE	March 31, 2021		
SUBJECT	City of Thunder Bay Request for a New Multi-Use Trail and Walkway on LRCA owned land along the Neebing River for the Edward Street Bridge Replacement		

RECOMMENDATION

Suggested Resolution

“THAT: the City of Thunder Bay is authorized to construct a new multi-use trail (LRCA Property No. 9 and 10), resurface the existing multi-use trail (LRCA Property No. 9A and 11A), and construct a new walkway (LRCA Property No. 8) on LRCA owned property as outlined on Edward Street Bridge Replacement Drawing Number 1004 and 1005 dated February 23, 2021 with the requirement that the City of Thunder Bay is responsible for the construction work and all on-going maintenance of the new multi-use trail or required maintenance resulting from the new multi-use trail.”

LINK TO STRATEGIC PLAN

Conserve and Sustain:

- *Support, strengthen and encourage environmental stewardship and sustainability.*
- *Collaborate with member municipalities and community partners to foster an integrated watershed management approach.*

Connect and Explore:

- *Strengthen a shared interest in conservation through collaboration with existing and new partners.*
- *Manage recreational areas for current and future generations.*

EXECUTIVE SUMMARY

LRCA staff recommend that the City of Thunder Bay is permitted to construct a new multi-use trail on the south side of the Neebing River, resurface the existing multi-use trail on the north side of the Neebing River, and construct a new walkway to realign the existing asphalt trail on the north east corner of Edward Street and Riverview Drive East on land owned by the LRCA as part of the proposed Edward Street Bridge Replacement Project. The City of Thunder Bay will be responsible to maintain the new multi-use trail and walkway. The purpose of the new multi-use trail is to improve pedestrian safety crossing Edward Street at Riverview Drive. All work will be completed by October 31, 2021.

DISCUSSION

The City is proposing to construct a new multi-use trail on LRCA owned land located on the south side of the Neebing River under the Edward Street bridge (on LRCA Property No. 9 and 10), resurface the existing multi-use trail on the north side (on LRCA Property No. 9A and 11A), and construct a new 2.0 metre wide asphalt walkway to realign the existing south side asphalt path (on LRCA Property No. 8) as part of the proposed Edward Street Bridge Replacement Project.

The purpose of the proposed new multi-use trail is to improve pedestrian safety crossing Edward Street, north of Riverview Drive. The new 3.0 metres wide multi-use trail will be approximately 145 linear metres and will be aligned under the Edward Street bridge, connecting the existing asphalt trail on the east side and the existing concrete sidewalk on the west side of Edward Street. Additionally, the existing asphalt trail on the north east corner of Edward Street and Riverview Drive East will be realigned and a new 2.0 metre wide asphalt walkway will be constructed. The existing multi-use trail on the north side of the Neebing River (near Parkway Drive) will be removed, regraded, and reinstalled in the same location.

The proposed new multi-use trail leading under the bridge will be within the Regional Floodplain of the Neebing River; however, the total cut and fill balance in the Regional Floodplain is 488 cubic metres of net cut and demonstrates no net loss of floodplain storage (i.e., proposed cut is 715 cubic metres compared to fill of 227 cubic metres). Fill materials for the proposed trail under the bridge include new granular subbase, granular A, and asphalt surface course, as well as new riprap placed over an erosion control blanket along the Neebing Riverbank under the bridge to stabilize the slope.

Erosion Control measures including silt fencing will be implemented, where appropriate. All work will be completed by October 31, 2021.

The City of Thunder Bay will install and maintain all infrastructure.

FINANCIAL IMPLICATIONS

There will be no financial cost to the Authority. The City of Thunder Bay will maintain the infrastructure.

CONCLUSION

LRCA staff recommend that the City of Thunder Bay is permitted to construct a new multi-use trail on the south side of the Neebing River, resurface the existing multi-use trail on the north side of the Neebing River, and construct a new walkway to realign the existing asphalt trail on the north east corner of Edward Street and Riverview Drive East on land owned by the LRCA. The new multi-use trail will be constructed to 3.0 metre wide and the new asphalt walkway will be constructed to 2.0 metres wide to improve pedestrian safety crossing at Edward Street north of Riverview Drive and connection to the existing trails and pathways on the east and west side of Edward Street.

BACKGROUND

The LRCA owns land along the Neebing River on both sides of the bank from Leland Avenue North to Edward Street, and from Edward Street to Ford Street in the City of Thunder Bay. The land is leased to the City of Thunder Bay under the Order-in-Council dated July 18, 1968 (OC-2915/68) for park,

recreational, and conservation purposes. The City is responsible for the full cost and management of the leased land for a term of 92 years.



REFERENCE MATERIAL ATTACHED

Site Map – Edward Street Bridge Proposed Trail (LRCA)

WSP Drawing Number 1004 – New Construction Multi-Use Paths 1 of 2

WSP Drawing Number 1005 – New Construction Multi-Use Paths 2 of 2

PREPARED BY: Gail Willis, Watershed Manager

<p>THIS REPORT SIGNED AND VERIFIED BY:</p>  <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> 
---	---



Edward Street Bridge Proposed Trail



Legend

- Proposed Trail
- Parcels
- Approximate Regulated Area
- LRCA Property

Flood & Fill Line

- Regional Floodline
- 100 Year Floodline
- Fill Line
- Floodplain

Drainage

- Water Body
- Provincially Significant Wetland
- Evaluated Wetland
- Wetland

Watercourse

- Stream
- River
- Ditch

Roads

- Highway
- Road
- Street

0 5 10 15 20 25 30 m



1:1,000

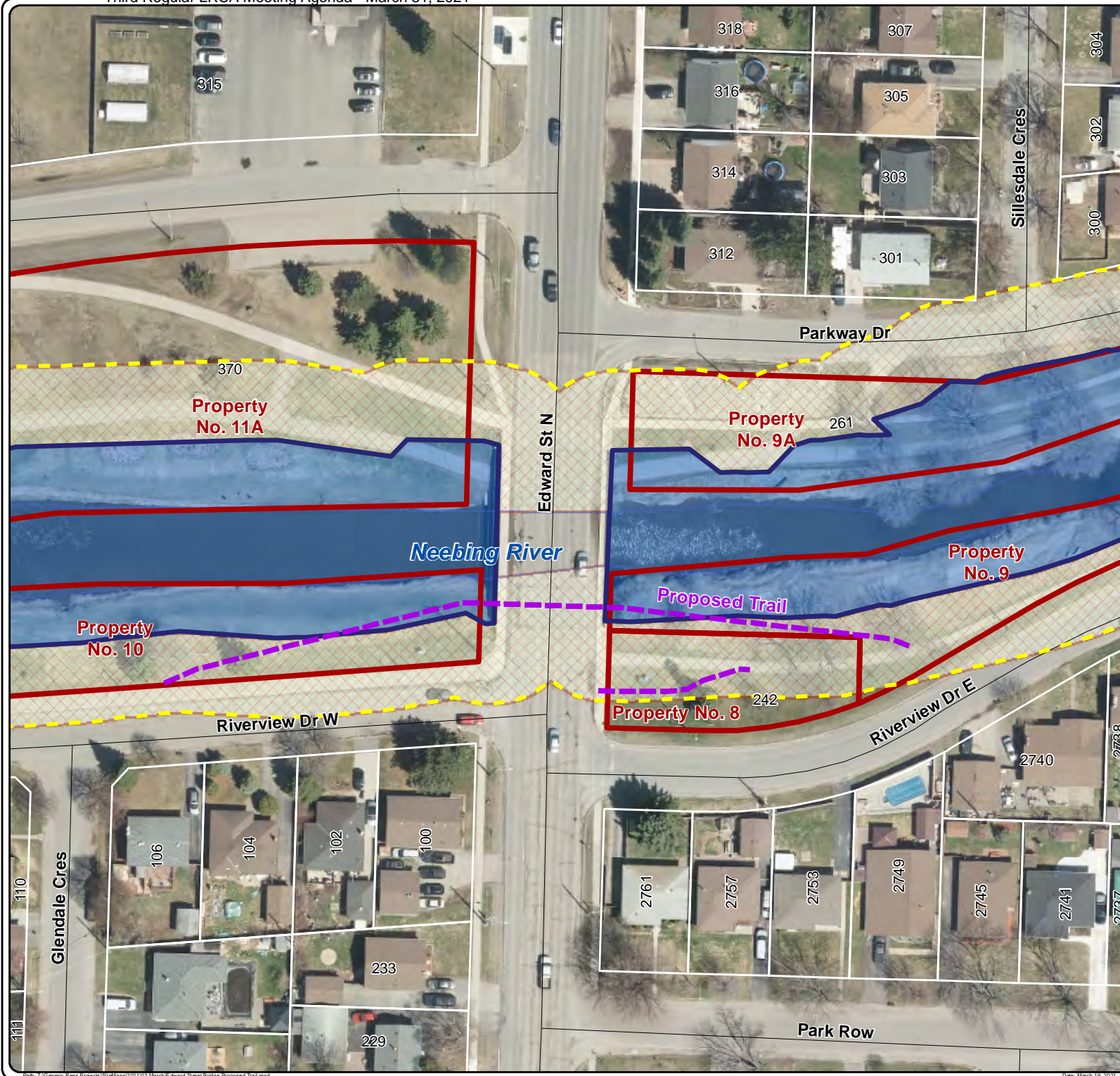
This publication was produced by:
Lakehead Region Conservation Authority
130 Conservation Rd.
Thunder Bay, ON
P7B 6T8

Base data used under license through the members of the Ontario Geospatial Data Exchange.

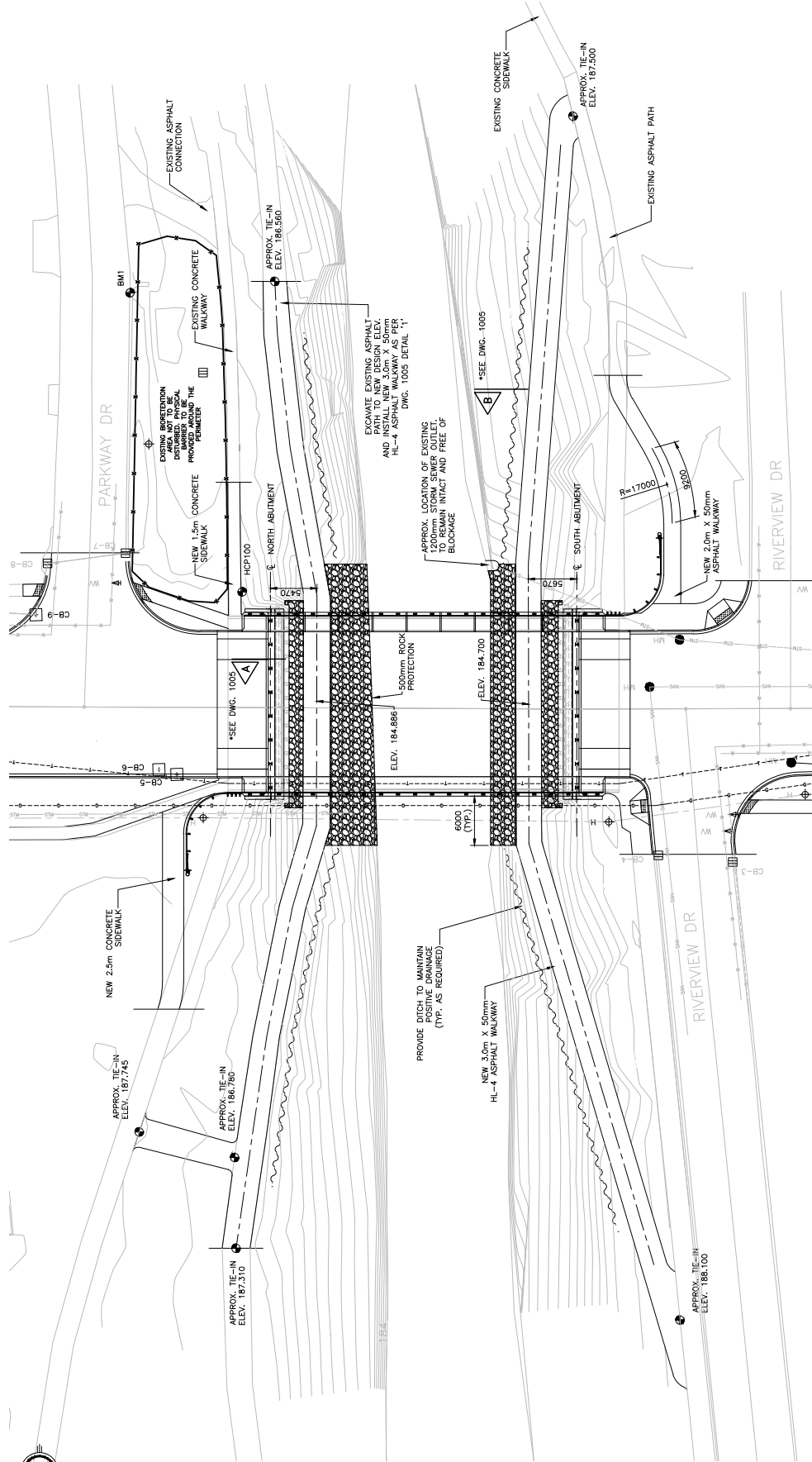
This map is illustrative only. Do not rely on it as being a precise indicator of routes or features, nor as a guide to navigation.

Datum: NAD 83
Projection: UTM Zone 16N
Date: March, 2021
Created by: scott

Copyright 2021, LRCA



DRAWING NOT TO BE SCALED
 100mm ON ORIGINAL DRAWING



PLAN
 1:250

Author	CCH	Date	02/21
Designer	HUG	Date	07/20
Checked by	HRE	Date	07/20
Scale	AS NOTED	Ref. No.	7-2621
Drawing No.	1004		

Drawing
EDWARD STREET BRIDGE REPLACEMENT
 NEW CONSTRUCTION
 MULTI-USE PATHS 1 OF 2

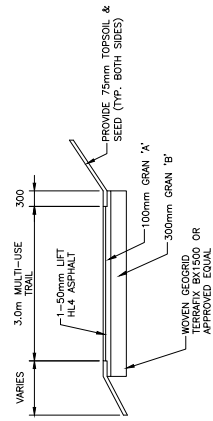
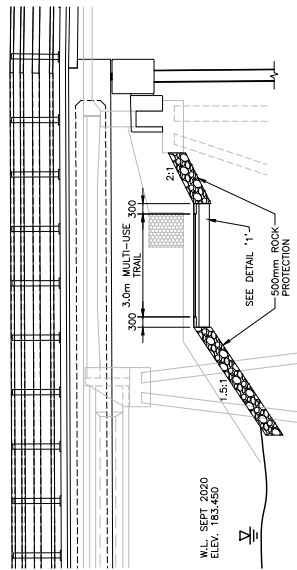
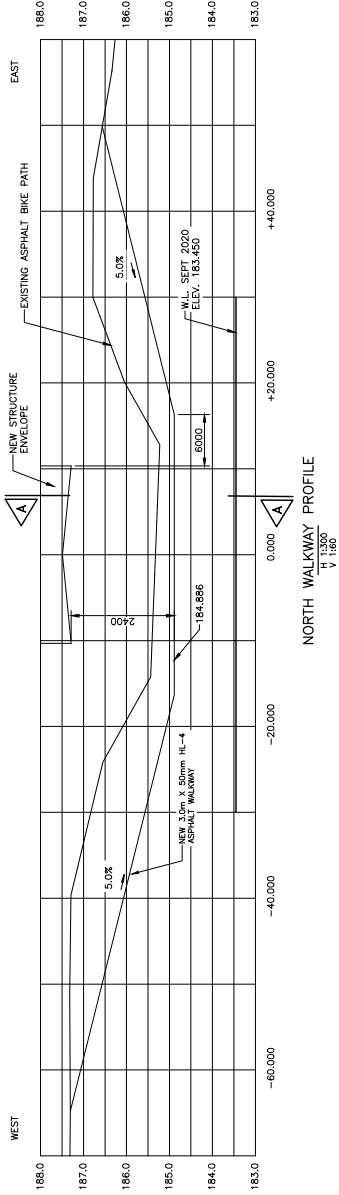


Client
City of Thunder Bay
 Superior by Nature

1250 PREMIER WAY
 THUNDER BAY (ONTARIO) CANADA, P7B 0A3
 TEL: 807 625-6700
 FAX: 807 623-4491
 WWW.WSPGROUP.COM

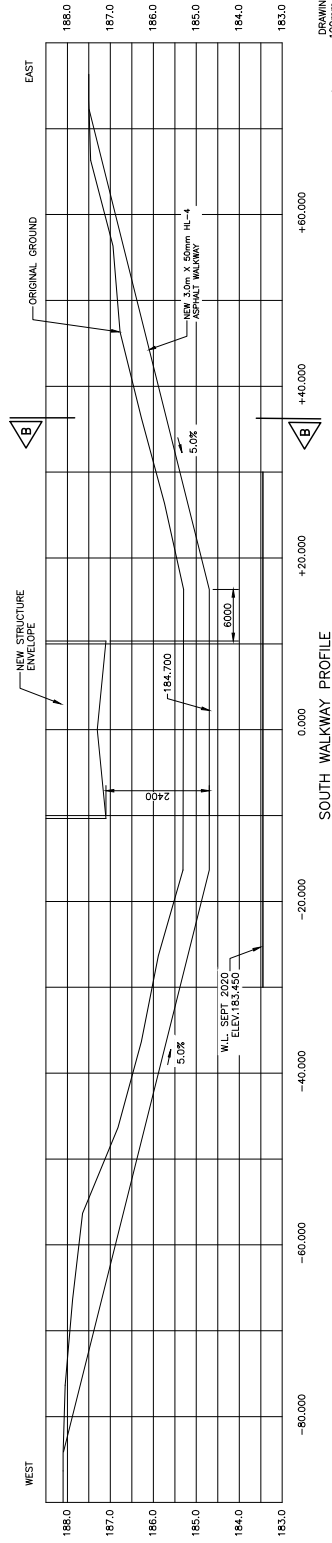


ISSUED FOR TENDER	HRE	2021-02-23	DATE
DESCRIPTION			



DETAIL 1:1

CROSS-SECTION 1:7.5



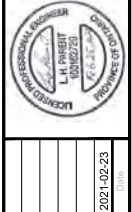
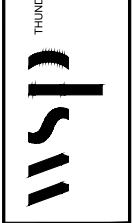
DRAWING NOT TO BE SCALED
100mm ON ORIGINAL DRAWING

Author	CCH	Date	02/21
Designer	HUG	Date	07/20
Checked by	HRE	Date	07/20
Scale	AS NOTED	Ref. No.	7-2621
Drawing No.	1005		

EDWARD STREET BRIDGE
REPLACEMENT
NEW CONSTRUCTION
MULTI-USE PATHS 2 OF 2



Client
1288 PREMIER WAY
THUNDER BAY (ONTARIO) CANADA, P7B 0A3
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FAX: 807 623-4491
WWW.WSPGROUP.COM



ISSUED FOR TENDER	HRE	2021-02-23	DATE
DESCRIPTION			



LAKEHEAD REGION

CONSERVATION AUTHORITY

PROGRAM AREA	Operation and Maintenance of Erosion Control Structures	REPORT NO.	KAMEC-01-2021
DATE PREPARED	March 22, 2021	FILE NO.	26-15-1
MEETING DATE	March 31, 2021		
SUBJECT	Kam River Erosion Control, Victor Broadway, Operation, Maintenance and Surveillance Plan – 2021		

RECOMMENDATION

Suggested Resolution:

“THAT: Staff Report KAMEC-01-2021 be received.”

LINK TO STRATEGIC PLAN (2018 – 2022)

Protect & Support:

- *Maintain and enhance flood and erosion control infrastructure to minimize the impacts of flooding, erosion, and sedimentation.*

EXECUTIVE SUMMARY

The Kaministiquia River Operation, Maintenance and Surveillance Plan for Victor Broadway area has been updated for 2021. The Plan outlines completed major works, anticipated and completed maintenance, surveillance plan, and lists past studies and reports. No major maintenance is planned in 2021 on the Kaministiquia River (Kam River). Minor maintenance includes the placement of topsoil and riprap in the vicinity of 1470 and 1480 Victor Street.

In 2021, monitoring of the slope will continue at 1620 Broadway Avenue, and at the 2014/2015 and 2005 Victor Street soil nailed sites. Further, LRCA staff will undertake a vegetation assessment along Victor Street and develop a plan for revegetation to assist in stabilizing the slope erosion.

In March 2021, Hatch Ltd. completed the Victor/Broadway Bank Stabilization Assessment Study Report. The study provided a comprehensive review of LRCA’s existing erosion mitigation and slope stabilization measures along the bank of the lower Kaministiquia (Kam) River, causes of erosion, and concepts to mitigate hazard risk. Suggested recommendations to the LRCA’s Operation, Maintenance and Surveillance Plan include periodic review of the riprap erosion protection on a five-year schedule, detailed physical assessment of the sheet pile retaining wall in the next three to five years, and the addition of soils to stabilize specific areas along the bank.

Hatch’s long-term proposed erosion and stabilization measures include augmenting the existing slope monitoring program with either real-time monitoring of the slope using slope inclinometers

(shape accelerometer arrays), or regular LiDAR ground surface surveys and compare the survey with historical LiDAR surveys.

Further, three concepts were proposed to mitigate risk and consequences of a Kam River riverbank slope failure. Concept 1 involves controlling land drainage and enhancing surveillance with real-time slope monitoring, Concept 2 involves lowering groundwater levels using wick drains, and Concept 3 involves realigning Victor Street to provide alternative access to the residents. Costs range from \$960,000.00 to \$10,185,000.00, including a 50% allowance and is based on Class 5 estimates of conceptual level engineering. A full review of the options and the final report will be undertaken at a later date with City of Thunder Bay Engineering staff.

DISCUSSION

The Kaministiquia River Operation, Maintenance and Surveillance Plan for Victor Broadway has been updated for 2021. The Plan outlines completed major works, anticipated and completed maintenance, surveillance plan, and lists past studies and reports.

In 2021, no major maintenance is planned on the lower Kaministiquia River (Kam River). Minor maintenance includes the placement of approximately 2.0 cubic metres of topsoil (i.e., silty sand with organics) and the placement of riprap in the vicinity of 1470 and 1480 Victor Street.

Surveillance will include the continued monitoring of the property at 1620 Broadway Avenue, and at the 2014/2015 and 2005 Victor Street soil nailed sites. Repairs to the corroded reference monitoring cables were replaced in 2021 as required. Further, this year LRCA staff will undertake a vegetation assessment along Victor Street and develop a plan for revegetation to assist stabilizing the slope erosion. Implementation of the Victor Street revegetation plan will be proposed in 2022 and will include strategic placements of hazard signs.

Hatch Limited completed the Victor/Broadway Bank Stabilization Assessment Study Report in March 2021. The study provided a comprehensive review of LRCA's existing erosion mitigation and slope stabilization measures along the bank of the lower Kaministiquia (Kam) River, causes of erosion, and concepts to mitigate hazard risk. The study included geotechnical investigations, laboratory testing, subsurface assessment, and slope stability assessments. Suggested recommendations to the LRCA's Operation, Maintenance and Surveillance Plan include periodic review of the riprap erosion protection (circa 1984) on a five-year schedule, detailed physical assessment of the sheet pile retaining wall (circa 1985) in the next three to five years, and the addition of soils to stabilize specific areas along the bank.

Hatch's long-term proposed erosion and stabilization measures include augmenting the existing slope monitoring program with either real-time monitoring of the slope using slope inclinometers (shape accelerometer arrays), or regular LiDAR ground surface surveys and compare the survey with historical LiDAR surveys. Further, three concepts were proposed to mitigate risk and consequences of a Kam River riverbank slope failure, and are as follows:

Note that the costs for Concept 1, 2 and 3 are based on Class 5 estimates of conceptual level engineering.

Concept 1 – The first concept is to control land drainage, and enhance operations, maintenance, and surveillance planning. The primary focus of Concept 1 is to control runoff from flowing over the crest of the riverbank and collect runoff with controlled discharge, as well as install the slope inclinometers with real-time monitoring. Concept 1 is the least expensive to implement. The estimated cost is \$960,000.00, including a 50% allowance.

Concept 2 – The second concept is more expensive than Concept 1; however, it is expected to have a larger impact. The proposed concept is to lower groundwater levels within the riverbank slope and is intended to be completed after Concept 1. The concept involves the use of directional drilling methods and technology to insert wick drains vertically to a predetermined elevation, at which time the directional drilled hole would be turned horizontally and exit out the riverbank slope. Wick drains are a synthetic product which consist of corrugated plastic with a geotextile liner which acts as a conduit for groundwater seepage. The estimated cost is \$1,561,000.00, including a 50% allowance.

Concept 3 – The final concept involves the realignment of Victor Street such that it is outside the active area of regression of the Kam River riverbank. The previous concepts are all to prevent a slope failure from impacting the access for over 70 residences. Despite the previous erosion and bank stabilization measures to date the natural regression of the riverbank slope will continue, albeit at a slower rate. A permanent solution for maintaining access is to realign the road and abandon the existing Victor Street that is situated at the top of bank. The realignment is the most expensive concept and will have a considerable impact on the neighbours and community. The scope of work includes relocating domestic water, gas, cable and electricity utilities, purchase of property, and abandonment of the existing roadway. The estimated cost is \$10,185,000.00, including a 50% allowance. It is noted that this concept has been discussed for many decades as a potential longterm solution.

A summary of Hatch's recommendations from the Victor/Broadway Bank Stabilization Assessment Study Report are attached. The recommendations from the study will be reviewed and an action plan will be developed by LRCA and City staff in 2021.

FINANCIAL IMPLICATIONS

The City of Thunder Bay is designated as sole benefitting municipality for the Victor Street monitoring. Staff were successful in obtaining funding from the Water and Erosion Control Infrastructure (WECI) program in 2020 to fund 50% of the Victor/Broadway Bank Stabilization Assessment Study Report. Available budgeted funds and deferred funds will be used for the required minor maintenance and Victor Street slope vegetation assessment and development of a revegetation plan by LRCA staff. Future WECI applications may be submitted for any future major maintenance related to the site.

CONCLUSION

No major maintenance is planned in 2021 on the Kaministiquia River for Victor Broadway area. The LRCA will continue with the annual monitoring of the Victor Street soil nailed sites. Minor maintenance and a Victor Street slope vegetation assessment and revegetation plan will be

carried out by LRCA staff in 2021. The Operation, Maintenance and Surveillance Plan has been updated for 2021.

BACKGROUND


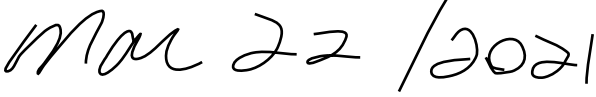
The Kaministiquia River watershed is partially located within the area of jurisdiction of the LRCA. Major erosion control projects have been undertaken by the Authority over the years on City of Thunder Bay owned land in order to protect City infrastructure including water mains and roads, mainly in the Victor Street area. Erosion control projects have been funded by the City of Thunder Bay as the sole benefitting municipality with partial funding for some completed major infrastructure maintenance coming from the Water and Erosion Control Infrastructure (WECI) program administered by the Ministry of Natural Resources and Forestry. Prior to 1995 funds were from transfer payments and after 1995 major maintenance funds were from the WECI program.

The LRCA administers O. Reg. 180/06 Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation within the area of jurisdiction of the Authority. Regulated areas within the Kam River watershed include all floodplain lands and fill regulated lands and all Provincially Significant Wetlands and 120 metre adjacent lands.

REFERENCE MATERIAL ATTACHED

Kaministiquia River Operation, Maintenance and Surveillance Plan, Victor Broadway, 2021
Victor/Broadway Bank Stabilization Assessment Study – Recommendations Summary

PREPARED BY: Gail Willis, Watershed Manager

<p>THIS REPORT SIGNED AND VERIFIED BY:</p>  <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> 
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Kaministiquia River

Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

The Kaministiquia (Kam) River system is one of the largest tributaries draining into Lake Superior. The watershed drainage area is approximately 7,800 square kilometres, originating north of the City of Thunder Bay at Dog Lake. Ontario Power Generation operates dams on the Kam River at Dog Lake, Shebandowan Lake and Kakabeka Falls.

In many areas, the Kam River is contained by steep banks that range from two metres to over 25 metres in height, while other areas along the banks are considered to be low lying. In the low lying areas flooding periodically occurs due to intense rainfall, ice jams and frazil ice. In its lower reaches, the erosion of alluvial deposits has formed many meanders, oxbow lakes and other features commonly associated with a “mature” river. Due to the natural meandering process, erosion of the banks is continuing and is expected to continue into the future.

Erosion and slope failure on the Kam River has been studied extensively over the years. In order to protect municipal infrastructure in the Vickers Heights area, particularly Victor Street and the water main along the slope of the Kam River, extensive work has been carried out to address the on-going erosion. Monitoring of the at-risk areas is conducted annually.

DST Consulting Engineers concluded that crest regression is likely to continue along Victor Street; however, more than six metres of crest failure at any one time was not expected and deep-seated failures below the roadway were not generally expected. Hazards have been managed by utilizing cautionary zones along facilities to be protected, namely Victor Street with its water main (6 metre zone) and nearby residence (10 metre zone). Flood and fill line mapping is utilized to manage development within the regulated area of the Kam River.

Speed limit restrictions on the Kam River are outlined in the Vessel Operation Restriction Regulations which state that in the City of Thunder Bay between the 20th Side Road downstream to the western boundary of Lot 14, Concession 1, south of the Kam River is restricted to 10 kilometers per hour, as shown on the attached map. The City of Thunder Bay is responsible to erect and maintain the signage advising of the speed limit. The City of Thunder Bay Police is responsible to enforce the speed limit.



Kaministiquia River

Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

Victor Street/Broadway Avenue – Completed Erosion Protection Works

Major undertakings have been completed by the Lakehead Region Conservation Authority to address the on-going erosion along the banks of the Kam River in the Vickers Heights/Victor Street/Broadway Avenue area.

Completed major works to date include (see attached map):

Table 1 – Completed Major Works	
Year	Description of Work
1980	Test drain installed at North Victor Street. Drain failed in 1981.
1981	600 metres of rip rap blanket toe protection on east side of channel of west river channel section, South Victor Street.
1982	LRCA purchased six homes that were within 10 metres of the top of bank along Broadway Avenue (i.e. within cautionary zone). All homes were then demolished, thereby removing the residents from the hazard. One home remains to be purchased, however is not presently within the 10 metre cautionary zone.
1984	1,200 metres of the toe of the slope along Broadway Avenue/ North Victor Street was armoured with 38,000 metric tonnes of rip rap.
1985	350 metres of sheet pile wall installed along a section of Victor Street.
2004-2005	Five sites secured with Soil Nail and Root Technology (SNART) as erosion was within 6 metres of the watermain along North Victor Street.
2011	Slope re-grading and rip rap placement across from 1420 Victor Street. After the May 2012 rainfall event the treated slope failed.
2013	Slope re-grading, benching and rip rap placement across from 1420 Victor Street. Short Term Solution.
2013	Slope re-grading and erosion control blanket placement across from 1470 Victor Street. Short Term Solution.
2013	Slope re-grading and erosion control blanket placement across from 1480 Victor Street. Short Term Solution.
2014	Three sites (across from 1420, 1470 and 1480 Victor Street) secured Soil Nail and Root Technology (SNART).
2015	Site across from 1470 Victor Street required additional SNART installation on south side of remediation due to additional failure in the spring of 2015. Rip rap was also added to site.



Kaministiquia River

Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

Anticipated and Completed Maintenance

The following table provides a summary of anticipated and completed maintenance.

Table 2 – Anticipated and Completed Maintenance				
Area of Work	Description of Activity	Completion Date	*Provincial Funds Provided	Estimated Required Recurrence
Victor Street – South end, west channel	600 metres of rip rap blanket toe protection	1981	Yes	2031 (50 years)
Broadway near Victor Street	Purchase of six homes and demolition, which were at risk due to erosion on bank	1982	Yes Project 416	n/a
	Consider purchase of 1620 Broadway Avenue when home is less than 10 metres from top of slope.			Within next 10 years
Broadway/ Victor Street	Phase I - Rip Rap Rock Protection 40,000 metric tonnes of rip rap and 38,000 square metres of filter cloth placed along the toe of 1,200 metres of shoreline.	1984	Yes	2034 (50 years)
	Phase II – 350 metres of sheet pile wall installed. Panels were lowered between vertical H-beams embedded in concrete and anchored for stability. The area was backfilled, and the road was rebuilt.	1985		2035 (50 years)
King Road	Repair of Slope Failure on bank of Kam on King Road north of entrance into Fort William Historical Park. Filter fabric overlain with rip rap (14,000 tonne) to elevation 187.0 (1.5:1 slope), compacted granular (300 tonne) to toe of berm (1.8:1 slope). Mulching and hydraulic seeding of area.	1987	Yes	2037 (50 years)



Kaministiquia River

Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

Table 2 – Anticipated and Completed Maintenance

Area of Work	Description of Activity	Completion Date	*Provincial Funds Provided	Estimated Required Recurrence
1400, 1420, 1460, 1480, 1510 Victor Street	Five sites stabilized with DST's proprietary soil nail stabilization system "Soil Nail and Root Technology (SNART)".	2004-2005	Yes R.04.093	2055 – 2105 (Design life of 50 to 100 years)
1420, 1470, 1480 Victor Street	Short term stabilization completed	2013	No	2064 – 2114 (Design life of 50 to 100 years)
	Long term stabilization (i.e., soil nailing SNART technology)	2014	Yes R.14.060	
1470 Victor	Additional failure south of 2014 soil nailed site, additional nails installed in June 2015 along with rip rap in the section and hydro-seeding of entire site	2015	No	
1470 and 1480 Victor Street	Minor maintenance at DST Site #2, includes adding approximately 2.0 cubic metres of topsoil, and riprap.	2021		
Victor Street Sheet Pile Retaining Wall	Regrading and revegetation	2022		
Victor Street	Revegetation of slope and placement of hazard signs	2022		

*Pre-1995 funds were from transfer payment and post 1995 were WECl funds.

Surveillance Plan

The following table summarizes the completed and on-going Surveillance along the Kaministiquia River.

Table 3 – Surveillance Plan

Area of Monitoring	Description of Monitoring	Date of Monitoring	Estimated Recurrence
1620 Broadway Avenue	Monitor slope to ensure structures are less than 10 metres from top of slope. (as of 2020, measurement is <u>12.45m</u> from top of slope).	Annual	Annual
	LRCA to consider purchasing home once dwelling is within 10 metres of crest of slope.		



Kaministiquia River Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

Table 3 – Surveillance Plan

Area of Monitoring	Description of Monitoring	Date of Monitoring	Estimated Recurrence
1400, 1420, 1460, 1480, 1510 Victor Street	Annual horizontal underground monitoring of slope using SPUD devices (dry well with an installed anchored cable that has markings that is spread across Victor Street to a corresponding flush mount casing which is used as a reference point)	Plan established August 7, 2003 and initial inspection by DST. LRCA monitored 2003 to 2007. DST monitored 2008 to present	Annual
	Repairs to SPUDS by DST Fall 2008. Repairs to SPUDS by DST Fall 2013.		
1420, 1470 and 1480 Victor Street	Inclinometers, settlement plates and piezometers monitoring for slope movement.	October 2014 to March 2015 (weekly)	Annual
		April to September 2015 (bi-weekly)	
		October 2015 to June 2016 (monthly)	
		Fall 2016 going forward	
Kam River (City to Rosslyn Village)	Floodplain Mapping	1979 2018 - 2020	tbd
Kam River within City of Thunder Bay	Erosion Sites Inventory	1987 2017 - 2019	tbd
Vegetation Assessment	Victor Street Area	2021	tbd
Victor Street Sheet Pile Retaining Wall	Structural inspection, including inspection of drainage system	2022	tbd

Past Studies/Reports

Table 4 – Past Studies & Reports

Area of Study	Title of Study	Date
Kam River Lakehead Expressway to boundary of City of Thunder Bay	Bank Erosion on the Kam River in the City of Thunder Bay, VB Cook Ltd.	August 1973
Kam River and Tributaries	Report on the Sept. 8-9, 1977 Flood, MNR	November 1977
Broadway – North Victor and South Victor	Benefit Cost Study of Erosion Control on the Kam River in Thunder Bay, Andrew Brodie Associates Inc.	December 1978



Kaministiquia River Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

Table 4 – Past Studies & Reports

Area of Study	Title of Study	Date
Lake Superior to Rosslyn Village	Kam River Floodline Mapping, James F. MacLaren Ltd.	October 1979
South Victor Avenue	Stability Analysis Kam River, South Victor Avenue, Robert Dodds Ltd.	November 1979
Vickers Heights Area	Erosion Study, Vickers Heights Area, Kam River, Dominion Soil Investigation Ltd.	January 1982
Vickers Heights Area	Review of Report on Erosion Study, Vickers Heights Area, Golder Associates	February 1982
Vickers Heights Area	Preliminary Design for Remedial Works to the banks of the Kam River, Binnie & Partners	October 1982
Vickers Heights Area	Addendum to Report Erosion Study, Vickers Heights Area, Kam River, Dominion Soil Investigations Ltd.	December 1982
Broadway Avenue and North Victor Street	Preliminary Design Report, Kam River Bank – Toe Erosion Protection, DeLCan, DeLeuw Cather, Canada Ltd.	January 1984
Kam River	Flood Risk Map, Flood Damage Protection Program	1984
Broadway Avenue and North Victor Street	Kam River Bank Toe Erosion Protection, DeLCan, DeLeuw Cather, Canada Ltd.	January 1984
Victor Street	Kam River Erosion Control Bank Stabilization Feasibility and Preliminary Design, Dominion Soil Investigation Inc.	October 1984
Victor Street	Geotechnical Design Brief Soldier Pile and Lagging Retaining Wall, Kam River Erosion Control, Bank Stabilization, Dominion Soil Investigation Inc.	October 1984
Fort William Historical Park	Old Fort William, Kam River Frontage Sand Bar Removal Study, Proctor and Redfern Ltd.	June 1985
King Road	Site Investigation, Bank Failure on Kam River, King Road, Robert Dodds Ltd.	November 1986
Kam River Hwy 61 to City Limits	Kam River Erosion Sites Inventory Study, Robert Dodds Limited	April 1987
Kam River Watershed	Kam River Watershed Management Study, Acres International Ltd.	November 1990
CP Rail Underpass to Lake Superior	Kam River Bank Clean Up Study, Proctor and Redfern Ltd.	October 1991
Lake Superior to Westfort Turning Basin	Kam River Property Assessment, LRCA	August 1994
Broadway Avenue / South Victor Street	Kam River Bank Stability Assessment Broadway Avenue / South Victor Street Area, DST	November 15, 2002
Broadway Avenue / South Victor Street	Kam River Bank Stability Assessment Broadway Avenue / South Victor Street Area	November 2002



Kaministiquia River Operation, Maintenance and Surveillance Plan, Victor Broadway – 2021

Table 4 – Past Studies & Reports		
Area of Study	Title of Study	Date
Victor Street	Instrumentation and Monitoring Plan, Kam River Bank Stability, DST	August 7, 2003
Victor Street	“First Step” Action Plan Kam River Bank Stability Assessment Broadway Avenue/ South Victor Street, DST	November 10, 2003
Kam River System	Water Management Plan, OPG	August 2004
Victor Street soil nailed area	Design Report Soil Nail Stabilization System for Five Locations along Victor Street, DST	March 2, 2005
Victor Street soil nailed area	Construction Report 2004 Design-Build Contract Kam River Bank Stabilization, DST	December 2006
1420 Victor Street	Victor Street Slope Failure Site No. 4 (1420 Victor Street), DST	January 8, 2013
1470/1480 Victor Street	1470-1480 Victor Street Slope Failures between Sites #2 and #3	June 2013
1420 Victor Street	1420 Victor Street Slope Survey Monitoring, DST	August 6 to September 2013
1470 Victor Street	Construction Report, Slope Failures Temporary Solutions, 1470 Victor Street, DST	December 20, 2013
1480 Victor Street	Construction Report, Slope Failures Temporary Solutions, 1480 Victor Street, DST	December 20, 2013
Victor Street 2005 soil nailed areas	Victor Street Monitoring Report, DST	Annual Reports 2009 to 2015 and 2017
1420/1470/1480 Victor Street	Construction Report, 2014 Design-Build Contract	December 2014
1420/1470/1480	Victor Street Monitoring Report, DST	September 29 to December 25, 2014
1420/1470/1480	Victor Street Monitoring Report, DST	Monthly reports 2015
1420/1470/1480	Victor Street Monitoring Report, DST	Annual report 2016
1420/1470/1480	Victor Street Monitoring Report, DST	Annual report 2017
1420/1470/1480	Victor Street Monitoring Report, DST	Annual report 2018
1420/1470/1480	Victor Street Monitoring Report, DST	Annual report 2019
Kam River within City of Thunder Bay	Kaministiquia River Erosion Sites Inventory Report, KGS Group	June 2019
Victor Street and Broadway Avenue	Victor/Broadway Bank Stabilization Assessment Study Report	March 2021

Attachments: Broadway Avenue/ Victor Street Erosion Projects Map
Kam River Speed Limit Restriction Area Map

Broadway Avenue / Victor Street Erosion Projects



- Legend**
- 2015 Soil Nailing Site
 - 2014 Soil Nailing Sites
 - Rip Rap Erosion Protection, 1984
 - Retaining Wall, 1985
 - Bank Stabilization
 - Rip Rap Erosion Protection, 1981
 - Soil Nailing Sites, 2004-2005
 - City Owned Property
 - LRCA Owned Property

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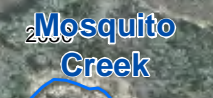
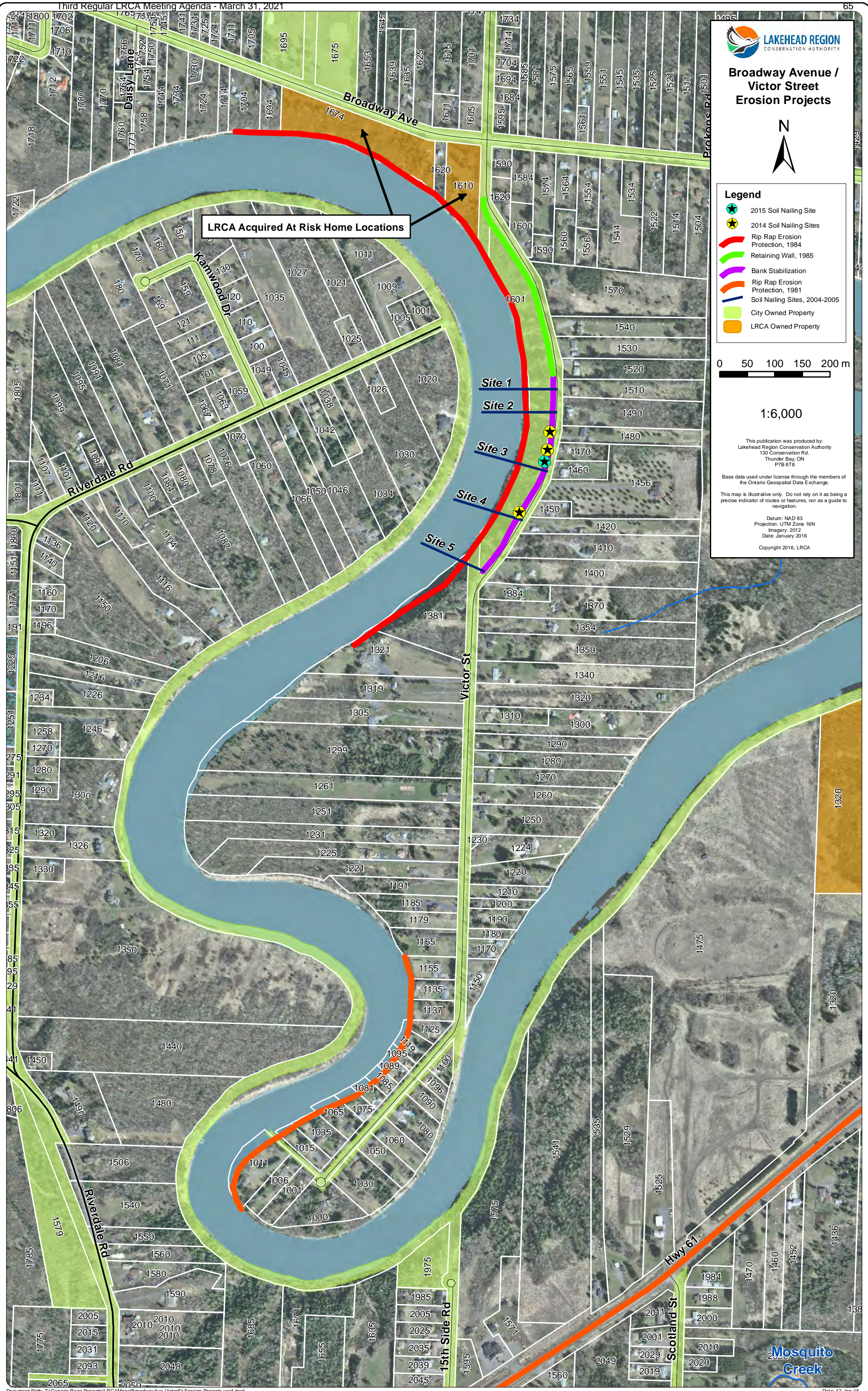
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LRCA Acquired At Risk Home Locations

Site 1
Site 2
Site 3
Site 4
Site 5





Kaministiquia River Restricted Speed Area



Legend

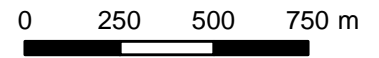
- Restricted Speed Area
- Parcels

Drainage

- Water Body
- Wetland
- Provincially Significant Wetland
- Stream
- River
- Ditch

Roads

- Highway
- Road
- Street



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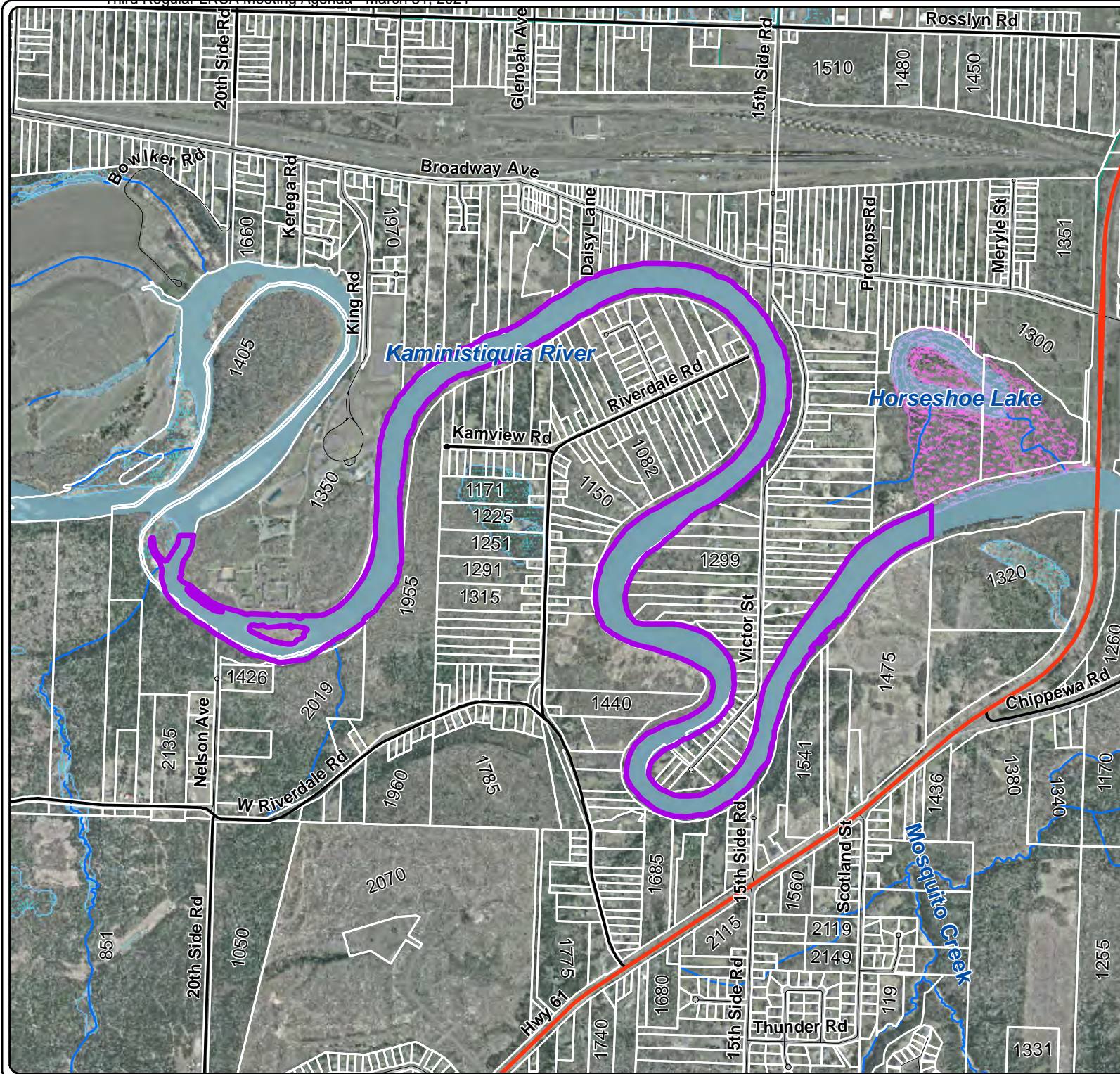
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Victor/Broadway Bank Stabilization Assessment Study - Recommendations Summary

Recommendation		Required Action	Estimated Cost	Proposed Completion Date	Completed Date	Agency Responsible - Required Action	
						LRCA	City of Thunder Bay
EXISTING Erosion & Stabilization Measures							
1	Riprap	Periodic review on a 5 year basis or at low water level, and after significant ice jamming when practical		2034 & after significant ice jam events		Yes	
2	Monitoring of river bank crest	Continue annual monitoring of 1620 Broadway. - Consider adding 1704 and 1734 Broadway**may be citizen monitoring - Consider adding 1758 and 1760 Daisey Lane ** may be citizen monitoring		Annually		Yes	
3	Retaining Wall	Consider undertaking a detailed physical assessment of retaining wall within next 3-5 years		2024-2026		Yes	
		Drainage system for the retaining wall to be inspected & soils around the wall be regraded and re-vegetated		2021		Yes	
		Regrading & stabilization of soils on the west side in the next few years		2023		Yes	
4	Soil Nails	For the five 2004/2005 soil nail site locations: - continue annual monitoring -consider installing slope inclinometer or shape accelerometer arrays with RT monitoring		Annually		Yes (LRCA's WISKI program)	Yes
		For the 2014/2015 soil nail site locations: - continue annual monitoring - existing slope inclinometer and piezometer should have periodic readings taken - consider placing hazard signs along the top of bank		2021 & Annually		Yes	Yes
PROPOSED Erosion & Stabilization Measures							
5	Augmentation of existng monitoring program	Option 1: Shape Accelerometer Arrays with Real-Time monitoring of the bank (base station at 1610 Broadway), includes: - Base station, 20 instrument install, 20 boreholes, and 50% estimate allowance	\$255,000.00	Proposed in the next 1-2 years		Yes (LRCA's WISKI program)	Yes
		Option 2: Regular LiDAR surveys with ground surface model comparisons	TBD	Proposed every 3-5 years		tbd	tbd
Concept 1 \$960k	Installation of real-time monitoring equipment	Shape Accelerometer Arrays with Real-Time monitoring of the bank (base station at 1610 Broadway), includes: - Base station, 20 instrument install, 20 boreholes, and 50% estimate allowance	\$255,000.00	Proposed in the next 1-2 years		tbd	tbd
	Extend and Improve Ditching on Victor Street	includes: -tie in to existing outlets & 50% estimate allowance	\$150,000.00		tbd	tbd	
	Reshape Victor Street to cross-fall to east	includes: -pulverize, regrade, pave, replace/adjust guardrail, ditching improvements & 50% estimate allowance	\$555,000.00		tbd	tbd	
Concept 2 \$1.56M	Install wick drains perpendicular to slope (HDD)	includes: -drains every 10m @ \$5k per install (130 drains), new outlets 20 @ \$10k & 50% estimate allowance & 50% estimate allowance	\$1,275,000.00	Proposed in the next 5-10 years (after concept 1)		tbd	tbd
	Install weeping tile under ditch using HDD technology (830m)	includes: - install drains 830m @ \$110, connect to ex. outlets 2 @ \$30k, new outlets 2 @ 20k & 50% estimate allowance	\$286,000.00		tbd	tbd	
Concept 3 \$10.2M	Relocate Victor Street to east of existing houses.	includes: - new road, driveways, hydro relocation, service reconnection (hydro, tv, cable, gas, water), abandon roadway, ditching, property purchases & 50% estimate allowance	\$10,185,000.00	TBD			Yes

-Annual Task
 - Completed Recommendation

**2021 TREASURER'S REPORT
MONTHLY EXPENSES**

	2021 BUDGET	February	TOTAL TO DATE	BALANCE REMAINING
REVENUE				
Provincial Grants	287,047	40,000	40,000	247,047
Municipal Levy	1,668,402	-	1,668,402	-
Self Generated	213,229	25,768	42,753	170,476
Other Revenue	451,869	-	-	451,869
TOTAL REVENUE	2,620,547	65,768	1,751,155	869,392
EXPENSES				
Core Mandate Operating				
Administration	525,680	38,405	79,690	445,990
Community Relations	115,685	8,300	15,564	100,121
Natural Hazard and Protection Management	631,907	36,984	64,631	567,276
Conservation and Management of Cons. Auth. Lands	204,996	11,464	20,702	184,294
Drinking Water Source Protection	56,107	5,777	8,393	47,714
Total Core Mandate Operating	1,534,375	100,930	188,980	1,345,395
Non Core Mandate Operating				
Other Programming	382,608	16,322	25,001	357,607
Total None Core Mandate	382,608	16,322	25,001	357,607
Total Core and Non Core Mandate Operating	1,916,983	117,252	213,981	1,703,002
Core Mandate Capital				
Natural Hazard and Protection Management Authority Office	426,018	17,302	17,648	408,371
Authority Office	25,200	-	-	25,200
Conservation and Management of Cons. Auth. Lands	252,346	316	628	251,718
Total Core Mandate Capital	703,564	17,618	18,276	685,288
Total Operating and Capital	2,620,547	134,870	232,257	2,388,290



LAKEHEAD REGION

CONSERVATION AUTHORITY

PROGRAM AREA	POLICY	REPORT NO.	POLICY-PP-12-2021
DATE PREPARED	March 11, 2021	FILE NO.	PP-12
MEETING DATE	March 31, 2021		
SUBJECT	Hours of Operation Policy		

RECOMMENDATION

Suggested Resolution

“THAT: Personnel Policy PP-12: Hours of Operation be adopted.”

LINK TO STRATEGIC PLAN (2018-2022)

Govern and Enhance:

- *Optimize organizational performance through policy, and measurable actions to improve accountability and transparency.*

EXECUTIVE SUMMARY

Personnel Policy PP-12: Hours of Operation is presented for Board approval to formally document the hours of operation into a Policy.

DISCUSSION

In an on-going effort to create clear and concise policies for current and future staff, the Hours of Operation Policy outlines hours of work, overtime and breaks, including providing references to the *Employment Standards Act*, where applicable.

This policy will be included as part of the on-boarding process for new staff and has already been reviewed by current staff, during a recent staff meeting.

FINANCIAL IMPLICATIONS

None.

CONCLUSION

The Hours of Operation Policy will provide clear direction related to hours of work, overtime and breaks.

BACKGROUND

The overall Personnel Policy for the Authority has not had a full update for several decades, with the original document approved in 1977. Updating policies is an on-going priority of management.

REFERENCE MATERIAL ATTACHED

Draft Personal Policy PP-12: Hours of Operation

PREPARED BY: Tammy Cook, CAO

REVIEWED BY: Mark Ambrose, Finance Manager

<p>THIS REPORT SIGNED AND VERIFIED BY:</p> <p><i>Tammy Cook</i></p> <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> <p><i>Mar 11 / 2021</i></p>
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Section:	PERSONNEL		
Title:	PP-12: Hours of Work		
Resolution	##/21	Approval Date:	March 31, 2021
Revisions			

1.0 Days/Hours of Operation

The Lakehead Region Conservation Authority hours of operation are Monday to Friday 8:30 a.m. to 4:30 p.m., with a closure between 12:00 p.m. to 1:00 p.m. for lunch. The Lands Manager and associated field staff work 8:00 a.m. to 3:30 p.m. with a 30-minute break for lunch. All staff work seven-hour workdays, 35 hours per week, unless they have a pre-approved alternate schedule.

The office is closed for all mandatory statutory holidays; Family Day and Remembrance Day (when occurs during a weekday); and between Christmas Eve (December 24th) to the first weekday after January 1st, during which all staff are off duty, with the exception of a special program or during a flood emergency. Holidays will be paid, per the *Employment Standards Act* and in accordance with LRCA Personnel Policies.

2.0 Overtime

Time worked over 35 hours per week is considered overtime and will be banked and taken as time-off-in lieu at a mutually agreed upon time with the supervisor and approved by the CAO.

Hours will be banked at equal time banked to hours worked. Per the *Employment Standards Act*, hours worked in excess of 44 hours in a one-week period will be compensated at 1½ hours for every hour worked. Work weeks run Sunday to Saturday.

Carry over of banked overtime year to year and pay out of overtime is per Personnel Policy PP-05: Overtime.

Overtime should be pre-approved with the Supervisor and/or the CAO prior to working.

3.0 Breaks

3.1 *Employment Standards Act*

Per the *Employment Standards Act*, Section 20:

An employer shall give an employee an eating period of at least 30 minutes at intervals that will not result in the employee working no more than five consecutive hours without an eating period.

The employee and employer can agree, whether or not in writing, that the employee is to be given two eating periods that together total at least 30 minutes in each consecutive five-hour period.

An employer is not required to pay an employee for an eating period in which work is not performed unless his or her employment contract requires such payment.

3.2 *Breaks*

3.2.1 Lunch Breaks

When working at the Administrative Office, the lunch break will be taken between 12:00 p.m. to 1:00 p.m., unless a circumstance arises where working over the period is necessary (i.e., meeting, site visit, education program, etc.) and then the break will be taken as appropriate, but must be of at least 30 minutes, and before working five consecutive hours. In the event of shortened lunch period, the worker will either leave 0.5 hour early the same day or bank overtime of 0.5 hour, which will be taken as time-off-in-lieu at a later date.

When working in the field, a 30-minute lunch break will be taken when appropriate, depending on the current project, or at a time as predetermined with the supervisor, and not exceeding five consecutive hours of worked time.

Lunch breaks are not paid time and per the *Employment Standards Act* cannot be skipped.

3.2.2 Coffee Breaks

Employees may take two 15-minute breaks during the workday, which are considered paid time.

If a coffee break is not taken during the day, no time-off-in-lieu is provided.



LAKEHEAD REGION

CONSERVATION AUTHORITY

PROGRAM AREA	FINANCE	REPORT NO.	FIN-07-2021
DATE PREPARED	March 17, 2021	FILE NO.	Finance Office
MEETING DATE	March 31, 2021		
SUBJECT	2021 Education Programming Fee Schedule Amendment		

RECOMMENDATION

Suggested Resolution

“THAT: Staff Report FIN-07-2021 be received AND FURTHER THAT the 2021 Education Program Fee Schedule be amended accordingly.”

LINK TO STRATEGIC PLAN (2018-2022)

Govern and Enhance:

- *Optimize organizational performance through policy, and measurable actions to improve accountability and transparency.*
- *Build a resilient financial model based on capacity, capabilities and transparency.*

EXECUTIVE SUMMARY

In order to better accommodate large school program bookings for pre-recorded virtual programming, staff recommend charging \$30.00 per class instead of \$50.00 in instances where more than five classes are registered for the same program, with a cap of 25 classes/\$750.00. This will allow staff some flexibility on pricing when accommodating larger bookings.

Within one day of marketing the pre-recorded virtual programming to teachers, staff have received 24 bookings for these programs. Staff are anticipating further evolution of the LRCA’s virtual program offerings over the coming months, both as teachers’ needs evolve and the LRCA’s program offering capabilities become clearer. The continually changing COVID-19 restrictions will also influence the LRCA’s virtual program offerings.

DISCUSSION

Due to the sudden and extremely high interest in the LRCA’s virtual programming offerings and the large number of bookings received within a few days of marketing the programs to teachers, staff recommend slightly revising the program pricing previously approved by the Board at the February 24, 2021 Board Meeting.

The current pricing is for \$50.00 per program for virtual 30-minute pre-recorded programs. Staff are suggesting that for instances where more than five classes are being booked for the same virtual program, that the rate drops to \$30.00 per class up to 25 classes, capping the programming cost at \$750.00. This will allow for whole-school presentations to occur at a more reasonable cost and will prevent schools from not booking due to unreasonably high prices.

The following wording appears on the LRCA website:

If more than FIVE classes are booked for the same Virtual Pre-Recorded Program, the rate drops to \$30.00 per class, up to 25 classes; bookings must occur at the same time to qualify for discount.

Staff will continue to adapt and modify program offerings as the needs of teachers evolve. COVID-19 restrictions will also influence the LRCA's program offerings.

FINANCIAL IMPLICATIONS

The addition of educational virtual programming fees will allow for the recovery of costs related to the education program and enables the LRCA to continue educational programming during COVID-19.

The amendment to the Education Program Fee Schedule will allow staff more flexibility in pricing options for large school bookings to prevent program costs from becoming unreasonably high.

CONCLUSION

The annual update to the Fee Schedule has been amended and will be posted to the LRCA website once approved by the Board.

BACKGROUND

Per the *Conservation Authorities Act*, Section 21 (m.1), Conservation Authorities have the power to charge fees for services approved by the Minister.

The current Fee Schedule was approved and adopted by the Board at the February 24, 2021 Board Meeting.

REFERENCE MATERIAL ATTACHED

- 2021 Education Programming Fee Schedule

PREPARED BY: Ryan Mackett, Communications Manager

REVIEWED BY: Tammy Cook, Chief Administrative Officer

<p>THIS REPORT SIGNED AND VERIFIED BY:</p> <p><i>Tammy Cook</i></p> <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE:</p> <p><i>Mar 22/2021</i></p>
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Fee Schedule

Education Programming

130 Conservation Road, P.O. Box 10427, Thunder Bay, ON P7B 6T8
 Telephone 344-5857, Fax 345-9156, Email: info@lakeheadca.com, www.lakeheadca.com

Category	Details		Fee
	Length of Program	Location	
In-person	2-hour	Conservation Area or other site	\$5.00 per student, minimum charge of \$100
	1.5-hour	In-class/At School	\$165.00 flat rate
Virtual Programming	30-minutes	Pre-recorded	\$50.00 flat rate, per class (1-4 classes same school, booked at the same time)
			\$30.00 flat rate, per class (5 -25 classes, same school, booked at the same time)
			\$750 flat rate, per school (+25 classes, same school, booked at the same time)
	60-minutes	Live	\$70.00 flat rate
	30-minutes	Live or Pre-recorded, with program materials delivered to classroom prior to program	Flat rate plus cost of materials, if applicable

Notes:

- 1 Programming for children under the age of 14 is HST exempt.
- 2 Cost of materials will be determined at time of program offering/booking.
- 3 Cancellation within one week of the scheduled program are subject of the 50% of the program fee, unless substituted with another class. Cancellation due to implement weather are at the discretion of the teacher and will be rescheduled as availability permits.

Effective Date of Fee Schedule: March 31, 2021

Version: 2.0

Version	Approval Date	Resolution #
Version 1.0	February 24, 2021	#36/21
Version 2.0	March 31, 2021	###/21

Monthly Plan Input/Review and Fill Regulations Administration February 1 to 28, 2021											
Municipality	Minor Variance (A)	Consent (B)	Official Plan	Official Plan Comprehensive Review	Zoning By-Law (Z)	Subdivisions	Clearances	Reality Services	Lawyer Inquiries	Letter of Opinion (Other)	Total
City of Thunder Bay		B-06-2021						Untravelled Biloski Rd		610 Mountdale Ave	
		B-06-2021 *						150 John Street			
		B-59-2020 *									
	Total	0	3	0	0	0	0	0	2	0	1
Oliver Paipoonge		1B/10/20 *									
		1B/11/20 *									
	Total	0	2	0	0	0	0	0	0	0	2
O'Connor											
Total	0	0	0	0	0	0	0	0	0	0	
Neebing							906 Cloud Lake Rd				
Total	0	0	0	0	0	0	1	0	0	0	
Shuniah											
Total	0	0	0	0	0	0	0	0	0	0	
Conmee											
Total	0	0	0	0	0	0	0	0	0	0	
Gillies											
Total	0	0	0	0	0	0	0	0	0	0	
Dorion											
Total	0	0	0	0	0	0	0	0	0	0	
Rural Planning Board											
Total	0	0	0	0	0	0	0	0	0	0	
Monthly Total	0	5	0	0	0	0	1	2	0	1	

Monthly Plan Input/Review and Fill Regulations Administration March 1 to 23, 2021											
Municipality	Minor Variance (A)	Consent (B)	Official Plan	Official Plan/ Zoning By- Law Comprehensive Review	Zoning By-Law (z)	Subdivisions	Clearances	Reality Services	Lawyer Inquiries	Letter of Opinion (Other)	Total
City of Thunder Bay	A-08-2021 *							Portion of 8th Ave	224 Skyline Avenue		
								Southern Ave	Vaihalla Inn Hotel		
								Laneway Adj to 107 Matthews St.	430 McKellar Street N		
Total	1	0	0	0	0	0	0	3	3	0	7
Oliver Paipoonge	18/01/21							Candy Mountain Road			
	18/02/21										
	18/03/21										
	18/04/21										
Total	0	4	0	0	0	0	1	0	0	0	5
O'Connor								564 Highway 595			
Total	0	0	0	0	0	0	0	0	1	0	1
Neebing				Amendments to Official Plan Review					142 Cloud River Road West		
				Amendments to Zoning By- law Comprehensive Review							
Total	0	0	0	2	0	0	0	0	1	0	3
Shuniah								1875 Mackenzie Beach Ave	650 Highway 587		
Total	0	0	0	0	0	0	1	0	1	0	2
Conmee											
Total	0	0	0	0	0	0	0	0	0	0	0
Gillies											
Total	0	0	0	0	0	0	0	0	0	0	0
Dorion				Official Draft Plan Review							
Total	0	0	0	1	0	0	0	0	0	0	1
Rural Planning Board											
Total	0	0	0	0	0	0	0	0	0	0	0
Monthly Total	1	4	0	3	0	0	2	3	6	0	19

MINUTES OF THE SIXTY-NINTH REGULAR LAKEHEAD SOURCE PROTECTION COMMITTEE MEETING

Minutes of the Sixty-Ninth Regular Meeting of the Lakehead Source Protection Committee held on Monday, March 16, 2020, at the Lakehead Region Conservation Authority. The Chair called the Meeting to order at 1:30 p.m.

MEMBERS PRESENT:

Lucy Kloosterhuis, Chair
Bernie Kamphof
Ross Chuchman
Walter Turek
Erin Knight (via telephone)
Guy Jarvis (via telephone)

MEMBERS ABSENT:

Chris Bowles

LIAISON MEMBERS PRESENT:

Tammy Cook, CAO, LRCA
Elizabeth (Beth) Forrest, Liaison Officer, MECP (via telephone)

LIAISON MEMBER ABSENT:

Lee Sieswerda, TBDHU

ALSO PRESENT:

Gail Willis, Watershed Manager
Roman Augustyn, Information Systems Coordinator, recorder of Minutes

1. ADOPTION OF AGENDA BY CONSENSUS

Agenda adopted by consensus.

2. DISCLOSURE OF INTEREST

None.

3. MINUTES OF PREVIOUS MEETING

It was noted that Lucy Kloosterhuis was not in attendance at the previous SPC meeting and should be deleted from the Members Present list on the meeting minutes.

The Minutes of the Sixty-Eighth Regular Meeting held on Friday, March 15, 2019, were adopted as amended by consensus.

4. **BUSINESS ARISING FROM PREVIOUS MINUTES**

None.

5. **SOURCE PROTECTION PROGRAM**

Source Protection Funding

It was noted that the current funding Agreement expires on March 31, 2020. MECP cannot commit to multiyear funding; therefore, funding is unknown from year to year. Staff have submitted a draft budget to the MECP for the 2020/2021 fiscal year for their consideration. The request included 0.50 FTE, which results in 0.20 FTE Watershed Manager, 0.10 FTE Administrative Assistant and 0.20 FTE Information Systems Coordinator. The budget has not yet been approved for 2020/2021. It was noted that a new task in this year's budget is to improve the functioning and operation of the existing Lakehead Source Protection website, which involves moving the Source Protection webpages under the LRCA website, streamlining the content and links, as well as cleaning up resources, information and graphics.

Phase II Amendments to Director's Technical Rules

It was noted that the Watershed Manager, Gail Willis, and Committee Member, Walter Turek, attended the MECP's stakeholder engagement session via webinar on the proposed amendments to the Director's Technical Rules (DTR) under the *Clean Water Act, 2006*. No immediate updates or changes to the Lakehead Source Protection Plan (SPP) or the Assessment Report are required until a comprehensive review of the Lakehead Source Protection Plan under s.36 of the *Clean Water Act* is completed, which is not due until May 2023. The DTR's in effect at the time of the comprehensive review will determine if further changes to the SPP is warranted.

Climate Change Vulnerability Assessment Tool

It was noted that the Watershed Manager attended a training session hosted by Conservation Ontario on January 30, 2020 at the Toronto Region Conservation Authority on the use of the climate change vulnerability assessment tool for water quality of drinking water sources. The assessment tool was developed through a multi-stakeholder, collaborative project coordinated by Conservation Ontario under the Drinking Water Source Protection Program, which is a semi-quantitative and excel-based tool. The training session included an overview of climate change data, the Assessment Tool, and its guidance documents, as well as an interactive hands-on activity of the Pilot Studies: Burlington Water Intake and Seaforth Well Supply.

It is noted that a Climate Change Vulnerability Assessment is not mandatory for Source Protection Authorities. Committee member, Walter Turek, attended the webinar on the Climate Change Vulnerability Assessment Tool offered by Conservation Ontario and he noted that the Lake Superior intake for Bare Point Water Treatment Plant is considered to be at a lower risk for climate change impacts.

Source Protection Information Atlas – Update

It was noted that the MECP has updated and added new features and data layers to the Source Protection Information Atlas (SPIA), which is an Ontario OPEN data website tool for searching a location to see if it is in a vulnerable area. It was noted that the MECP partnered with the Surface Water Monitoring Center at the Ministry of Natural Resources and Forestry (MNRF) to display river discharge and climate data (daily mean) from almost 1,800 hydrometric stations of the federal/provincial hydrometric agreement.

6. SOURCE PROTECTION IMPLEMENTATION

Thunder Bay North Harbour Remediation Project

It was noted that Committee members attended the public presentation that was held in Thunder Bay on February 26, 2020 regarding the sediment management options for the contaminated sediment at the Thunder Bay North Harbour site due to historic effluent discharge of a former paper mill. A short-list of remediation options included: dredge and dispose at an on-site confined disposal facility; dredge and dispose at Mission Bay confined disposal facility; or construct an in-place barrier and infill.

Implementing Bodies Annual Reports

It was noted that the two Implementing Bodies of the Lakehead Source Protection Plan (SPP), the Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit, submitted their Annual Reports on January 28, 2020 and January 10, 2020, respectively. Staff have reviewed the reports and have concluded that the Municipality of Oliver Paipoonge and the Thunder Bay District Health Unit have met the requirements of the Plan to date.

It was also noted that the Municipality of Oliver Paipoonge had no Official Plan or Zoning By-Law amendment applications with respect to WHPA-A in 2019. The Thunder Bay District Health Unit re-inspected seven sewage treatment systems in 2019, and they appear to be functioning normally. Six systems will be re-inspected in 2020, and the remaining twelve will be re-inspected in 2021.

Fifth Annual Lakehead Source Protection Plan Report

It was noted that the fifth annual progress report has been prepared for submission by the Lakehead SPA for the period of January 1, 2019 to December 31, 2019, utilizing the prepared templates from MECP. The LRCA also completed a more detailed report using a format developed by LRCA staff. The LRCA format will also be available on the LRCA website as it provides a more comprehensive summary of the program to date.

It was requested that all SPC Members written comments be received at the LRCA by April 14, 2020 for submission in the Annual Report. Staff will be presenting the final Annual Report to the SPA for adoption at the April 29, 2020 Board Meeting.

7. SOURCE PROTECTION COMMITTEE

Chair Appointment

It was noted that Ms. Lucy Kloosterhuis has been appointed by the MECP as the new Chair of the SPC for a three-year term expiring on August 19, 2022.

8. CORRESPONDENCE

Support for Actions to Address Over-Application of Winter Maintenance Chemicals

A letter was received from the Lake Erie Source Protection Region related to the implications of over-application of winter maintenance chemicals, trends in the Lake Erie Source Protection Region, and recommended actions to protect municipal drinking water sources. It was noted that the Municipality of Oliver Paipoonge has adopted a Salt Management Plan for Rosslyn Village WHPA-A as per Source Protection Plan Policy RV.3.CW-SP. By consensus, the letter was received as information and no response will be issued.

Application for Review of the *Clean Water Act, 2006* and Ontario Regulation 287/07

For information purposes, it was noted that the request by the Canadian Environmental Law Association (CELA) to the MECP to review and revise the *Clean Water Act, 2006* (CWA) and Ontario Regulation 287/07 to extend source protection planning to certain non-municipal drinking water systems, had been denied. It was noted that MECP is currently undertaking a review of 'requiring source protection plans to identify and address threats to sources of water that supply private wells and intakes' under the recommendation of the Auditor General. Committee members noted that northern municipalities with municipal drinking water systems not covered by Conservation Authorities should be focused on prior to non-municipal systems.

9. NEW BUSINESS

Lake Superior Blue Green Algae

It was noted that the City of Thunder Bay has a new 2019 Standard Operating Procedure (SOP) for addressing blue-green algae concerns.

New Director of Source Protection Programs Branch

It was noted that the MECP Source Protection Programs Branch (SPPB) has a new Director, Ms. Keley Katona. Ms. Katona started at the SPPB in February 2020 and brings a governance and financial background to the SPPB team.

10. NEXT MEETING

The date for the next meeting was tentatively scheduled for March 2021.

11. ADJOURNMENT BY CONSENSUS

Meeting adjourned by consensus at 1:55 p.m.