



April LRCA Board Meeting
Lakehead Region Conservation Authority
130 Conservation Road/Microsoft Teams
April 20, 2023 4:30 PM

1. CALL TO ORDER

Declaration: "The Lakehead Region Conservation Authority respectfully acknowledges that the lands on which we live and work are the traditional lands of the Anishinabek Nation and the traditional territory of Fort William First Nation, signatory to the Robinson-Superior Treaty of 1850.

As Partners in the conservation and protection of the Lakehead Watershed along with the First Nations communities, the Metis Nation of Ontario, and other Indigenous peoples, the LRCA is committed to the common vision of a healthy, safe and sustainable Lakehead Watershed."

2. ADOPTION OF AGENDA

THAT: the Agenda be adopted as published.

3. DISCLOSURE OF INTEREST

4. MINUTES OF PREVIOUS MEETING3

THAT: the Minutes of the Lakehead Region Conservation Authority Third Regular Meeting held on Wednesday, March 29, 2023 be adopted as published.

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5. IN-CAMERA AGENDA

No in-camera meeting will be held.

6. BUSINESS ARISING FROM PREVIOUS MINUTES

7. CORRESPONDENCE

None.



8. STAFF REPORTS

8.1. Contaminant Levels Found in Fish in Thunder Bay Project..... 7

THAT: Staff Report STEW-01-2023 be received.

STEW-01-2023, Contaminent Levels Found in Fish in Thunder Bay Project.pdf..... 7

9. CHIEF ADMINISTRATIVE OFFICER'S REPORT

9.1. Monthly Financial Report 21

Monthly Financial Report March.pdf 21

10. PASSING OF ACCOUNTS..... 22

THAT: having examined the accounts for the period March 1, 2023 to March 31, 2023 cheque #2845 to #2875 for \$65,776.48 and preauthorized payments of \$111,517.77 for a total of \$177,294.25, we approve their payment.

Passing of Accounts March.pdf 22

11. REGULATORY ROLE

Plan Input and Review Program comments and Section 28 Permits issued since last meeting summaries.

11.1. Plan Review Commenting Summary 23

Plan Input and Review Yearly Summary March 2023 & April 1-12.pdf..... 23

11.2. Section 28 Permit Summary 25

April Permit Tracking Log 2023.pdf 25

12. PROJECTS UPDATE

12.1. Communications Manager 26

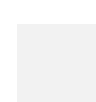
THAT: the 2022 Lakehead Region Conservation Authority Annual Report be approved.

Communications Manager April 2023 Agenda Project Update.pdf..... 26

2022 Annual Report.pdf..... 28

12.2. Lands Manager 35

Lands Manager April 2023 Agenda Project Update.pdf 35



12.3. Watershed Manager36
Watershed Manager April 2023 Agenda Project Update.pdf 36
Lakehead Region Watershed Report Card 2023.pdf 39

13. NEW BUSINESS

14. NEXT MEETING

Wednesday May 31. 2023 at 4:30 p.m.

15. BOARD TRAINING

Board training will be provided on Development Regulations and Plan Input and Review programs.

16. ADJOURNMENT

THAT: the time being _____p.m. AND FURTHER THAT there being no further business we adjourn.





March LRCA Board Meeting Minutes

March 29, 2023 at 4:30 PM

130 Conservation Road/Microsoft Teams

Members Present:

Grant Arnold, Donna Blunt, Rudy Buitenhuis, Dan Calvert, Sheelagh Hendrick, Greg Johnsen, Brian Kurikka, Jim Vezina

Members Present (Remote):

Trevor Giertuga

Absent:

Albert Aiello, Brent Cadeau

Also Present:

Tammy Cook, Chief Administrative Officer

Ryne Gilliam, Lands Manager

Ryan Mackett, Communications Manager

Melissa Hughson, Watershed Manager

Melanie O'Riley, Administrative Clerk/Receptionist, recorder of Minutes

1. CALL TO ORDER

The Chair called the Meeting to order at 4:30 p.m.

2. ADOPTION OF AGENDA

THAT: the Agenda be adopted as published.

Motion: #46/23

Motion moved by Rudy Buitenhuis and motion seconded by Jim Vezina. **CARRIED.**

3. DISCLOSURE OF INTEREST

None.

4. MINUTES OF PREVIOUS MEETING

THAT: *the Minutes of the Lakehead Region Conservation Authority Second Regular Meeting held on Wednesday, February 22, 2023 be adopted as published.*

Motion: #47/23

Motion moved by Jim Vezina and motion seconded by Rudy Buitenhuis. **CARRIED.**

5. IN-CAMERA AGENDA

No In-Camera Meeting was held.

6. BUSINESS ARISING FROM PREVIOUS MINUTES

None.

7. CORRESPONDENCE

None.

8. STAFF REPORTS

None.

9. CHIEF ADMINISTRATIVE OFFICER'S REPORT

9.1. Monthly Treasurer's Report

Members were provided with the monthly Treasurer's Report for February's Administration and Capital.

9.2. *Conservation Authorities Act Progress Report #4*

Members reviewed and discussed Staff Report CORP-06-2023 related to the *Conservation Authorities Act Progress Report #4*.

THAT: *Staff Report CORP-06-2023: Conservation Authorities Act Progress Report #4 be received AND FURTHER THAT Progress Report #4 be approved AND FURTHER THAT the report and updated Inventory of Programs Version 3.0 be forwarded to the Ministry of Natural Resources and Forestry.*

Motion: #48/23

Motion moved by Jim Vezina and motion seconded by Brian Kurikka. **CARRIED**

9.3. Provincial Offences Officer Designation – Michelle Willows

Members reviewed and discussed Staff Report CORP-07-2023 related to appointing Michelle Willows as a Provincial Offences Officer.

THAT: Staff Report CORP-07-2023 be received **AND FURTHER THAT** Michelle Willows, Environmental Planner, be appointed as Provincial Offences Officer of the Lakehead Region Conservation Authority to enforce regulations under Section 28 and Section 29 of the Conservation Authorities Act.

Motion: #49/23

Motion moved by Brian Kurikka and motion seconded by Jim Vezina. **CARRIED.**

10. PASSING OF ACCOUNTS

THAT: having examined the accounts for the period February 1, 2023 to February 28, 2023 cheque #2810 to #2843 for \$78,094.57 and preauthorized payments of \$87,621.50 for a total of \$165,716.07, we approve their payment.

Motion: #50/23

Motion moved by Sheelagh Hendrick and motion seconded by Dan Calvert. **CARRIED.**

11. REGULATORY ROLE

Members were provided with the summaries for the Plan Input Review program and Section 28 permits issued since last meeting.

12. PROJECTS UPDATE

12.1. Communications Manager Projects Update

Members reviewed and discussed the Draft 2022 Annual Report.

Members were advised that the LRCA was nominated for the 29th Annual Business Excellence Awards, hosted by the Thunder Bay Chamber of Commerce, in the “Clean, Green, and Beautiful” category for work done at Fisherman’s West Climate Change Awareness Park, Mission Island Marsh Conservation Area, and the Neebing-McIntyre Floodway habitat corridor. The Event will take place on May 3, 2023 at the Thunder Bay Community Auditorium.

12.2. Lands Manager Projects Update

Members were advised that Contractors did a mandatory site visit on March 8, 2023 as part of the tendering process for the Cascades Conservation Area Paving Project. The tender date is scheduled for April 21, 2023, allowing the contractors additional time to view the site snow free.

12.3. Watershed Manager Projects Update

It was noted that the March 15, 2023 snow surveys indicated that the snow survey locations were above average for snow depth and water content, when compared to the historical averages for March 15.

13. NEW BUSINESS

None.

14. NEXT MEETING

By consensus the Members changed the meeting date to Thursday, April 20, 2023 at 4:30 p.m. due to a conflict with the Northwestern Ontario Municipal Association Conference (NOMA).

15. BOARD TRAINING

Members were provided with the second session of Board of Directors training. The focus was on: a review of Finance Policies, Flood Forecasting and Warning Program and the Source Water Protection Program.

16. ADJOURNMENT

THAT: the time being 6:02 p.m. AND FURTHER THAT there being no further business we adjourn.

Motion: #51/23

Motion moved by Dan Calvert and motion seconded by Sheelagh Hendrick. **CARRIED.**

Chair

Chief Administrative Officer



PROGRAM AREA	Stewardship	REPORT NO.	STEW-01-2023
DATE PREPARED	March 28, 2023	FILE NO.	
MEETING DATE	April 26, 2023		
SUBJECT	Engaging communities on building and sharing knowledge around contaminant levels found in fish in Thunder Bay Project.		

RECOMMENDATION

Suggested Resolution:

“**THAT:** Staff Report STEW-01-2023 be received.”

EXECUTIVE SUMMARY

The Lakehead Region Conservation Authority (LRCA) received funding from Environment and Climate Change Canada (ECCC) to engage communities on building and sharing knowledge around contaminants found in fish within Thunder Bay (Lake Superior). The project addresses Action Item #8 of the 2020-2024 Lake Superior Lakewide Action and Management Plan, which is focused on continuing education and outreach on the impacts of chemical contaminants, pathways into fish, and how to reduce contaminants in the Thunder Bay basin. Year one of the project focused on project preparation, initial community engagement, and the development of educational tools. The objective was to finalize the key messages that would be incorporated into the engagement materials. The activities for year one were completed as planned. Year two, April 1, 2023 to March 31, 2024, will focus on the dissemination of educational materials, presentations to target audiences, webinars, and the development of an informational video by Epica Pictures.

DISCUSSION

Funded by ECCC, the LRCA is conducting an education and outreach collaborative that addresses 2023-2024 Lake Superior Lakewide Action Management Action Item #8: “Continue to outreach and educational to the public on impacts of contaminants with a focus on mercury, pharmaceuticals, PFAS, and dioxins; the pathways into fish, wildlife, humans; and actions that can be taken to help remove contaminants from the basin” (LAMP Action #8). The fish contamination education collaborative is intended to familiarize residents with chemicals of mutual concern, what contaminants are currently found in local fish, and how they can protect themselves by abiding by consumption advisories. Further, the program will provide residents with practical suggestions on how they can prevent chemicals of mutual concern from entering the Lakehead Watershed and Thunder Bay’s inner harbour. The program aligns with the LRCA’s vision to provide a healthy, safe, and sustainable Lakehead Watershed for future generations. The project has four key objectives:

- To increase community understanding and awareness of current chemical contaminants (eg. Mercury, PCBs, Toxaphene, and PFOS/PFAS) found within fish in the Thunder Bay region and tributaries within the Lakehead Watershed (Thunder Bay, Nipigon, and Dryden)

- To engage First Nations communities in building and sharing knowledge around contaminant levels found in fish within Thunder Bay and region.
- To educate the public on actions that can be taken to protect water quality and prevent CMCs and other harmful pollutants from entering the Lakehead Watershed and Lake Superior.
- To disseminate current consumption advisories and recent updates to Ontario's Fish Contaminant Monitoring Program and the Guide to Eating Ontario Fish.

Initial outreach has already begun with a presentation to the North Shore Steelhead Association at their Annual General Meeting and Confederation Collage's World Water Day. Further, the educational materials will be disseminated at six public events that the LRCA will be attending in 2023 including:

- The Home and Garden Show (April 1, 2023)
- Lake Superior Day (July 16, 2023)
- Hazelwood Family Fun Day (July 23, 2023)
- Fish and Aquatics Day (August 24, 2023)
- Silver Harbour Day (August 26, 2023)
- Science North Nerd Night (TBD)

Epica Pictures, a worldwide production company, will be hired to produce a short film highlighting the key messages of the education and outreach project. Filming will begin at the end of April to capture some of the highlights of spawning season and angling action along the banks of Thunder Bay. Epica Pictures has a substantial following on social media which will assist with reaching target numbers in the dissemination of the final film.

FINANCIAL IMPLICATIONS

ECCC has provided \$5,000 for the project's first year, beginning on December 20, 2022, and ending on March 31, 2023. The first installment was intended to cover the costs of printing educational materials (\$109), salaries and wages (\$4,308), vehicle rental (\$135), and administration (\$448). For year two of the project, April 1, 2023 to March 31, 2024, ECCC is providing \$25,000 which will be used to execute the planned communication activities (webinars, social media campaigns, seasonal newsletter, public presentations, and educational video). No municipal levy is being used for this Category 3 (non-mandatory) program.

CONCLUSION

The first year of the project, December 2022 to March 2023, was focused on project preparation, including background research, engagement, and event planning. All activities for year one have been completed as planned. The materials have been reviewed by ECCC's chemical contaminant team for accuracy. The outreach materials were selected based on their ability to reach target audiences and provide educational outreach and guidance beyond the duration of the project. The deliverables for year one include:

- Facts Sheet
- Info Pamphlet
- Spring Newsletter
- 3 Target Audience Presentations
- Webpage
- Social Media Campaign

Due to the multifaceted effects that consumption advisories can have on indigenous traditional lifestyle, the education materials were sent to ECCC's Contaminants Team, the Regional Indigenous Initiatives Coordinator with the MNRF, and the Director of Research, Treaties, Lands and Resources at Keewatinook Okimakanak Tribal Council for review to ensure that the presentations were culturally appropriate. Initial discussions with Fort William First Nations, the Métis Nation of Ontario, The Thunder Bay Indigenous Friendship Center, and Keewatinook Okimakanak First Nations have taken place. Final bookings will be determined in early April.

All schoolboard presentations have been booked for the spring and the fall, including schools from the Catholic and Public School Boards and Seventh Fire Education Institute, a First Nation Secondary School. The presentation prepared for school events encompasses fun trivia to reiterate key learning points and an interactive bioaccumulation game to help students grasp the concept of chemical accumulation between trophic levels.

The initial phase of outreach has already generated a great deal of interest from the public, with community members eager to book presentations and have discussions regarding fish contaminants. Year two of the education and outreach campaign will focus on the dissemination of the educational materials, presentations, and informational sessions, and the development of an informational video to be posted on the LRCA's website and Youtube. A mid-year and end-of-year report in 2023 will be provided to ECCC which will include a brief summary of the success of each key activity for the purpose of communicating the benefits of the project.

BACKGROUND

In 2021, the Wisconsin Department of Natural Resources and the Department of Health Services updated the consumption advisory for smelt to one meal per month in Minnesota and Wisconsin due to elevated levels of PFOS. Given the short geographical distance, this raised concern for other communities living along the shoreline of Lake Superior. Referred to as a "Forever Chemical" due to its resilience in natural environments, these chemicals have ended up in Lake Superior from point sources (municipal/industrial wastewater and landfills), non-point sources (stormwater/surface runoff), and released from contaminated sediments.

In 2022, the LRCA partnered with the MNRF to collect smelt samples to be chemically analyzed by the Ministry of Environment, Conservation, and Parks for Mercury, PCBs, Toxaphene, and PFAS/PFOS. After engaging with like-minded anglers while collecting samples, it became clear that there is a knowledge gap regarding consumption advisories, chemicals of mutual concern, and how to prevent these chemicals from entering the Lakehead Watershed. As a result, the LRCA applied to the Great Lakes Protection Initiative for funding to conduct education and outreach project and funding was approved in December 2022.

REFERENCE MATERIAL ATTACHED

- 1) Thunder Bay Fish Consumption Advisories Fact Sheet
- 2) Thunder Bay Fish Consumption Advisories Information Pamphlet
- 3) Consumption Advisory Social Media Campaign
- 4) Spring Newsletter – Engaging communities on building and sharing knowledge around contaminant levels found in fish in Thunder Bay, Ontario (Lake Superior)

PREPARED BY: Michelle Willows

<p>THIS REPORT SIGNED AND VERIFIED BY:</p> <p><i>Tammy Cook</i></p> <p>Tammy Cook Chief Administrative Officer</p>	<p>DATE: March 29, 2023</p>
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March 20, 2023



Contaminant levels in fish due to Chemicals of Mutual Concern (CMCs) has become a growing concern amongst consumers within the Lakehead Watershed. Lake Superior fish are a still nutritious food source and may safely be consumed by following the Guide to Eating Ontario Fish. The following information is intended to provide an overview of CMCs, help consumers make informed decisions to minimize exposure to toxins and provide practical suggestions to reduce our impact on Lake Superior.

What are Chemicals of Mutual Concern?

Chemicals of Mutual Concern (CMCs) originate from human sources, and both Canada and the U.S. agree are potentially harmful to human health and the environment. CMCs are persistent and can bioaccumulate in the food web, where fish consumption has now become one of the known routes of exposure. To date, eight chemicals have been designated as CMCs. In Canada, these CMCs, are listed as toxic substances and regulated under the Canadian Environmental Protection Act (CEPA) of 1999:

1. mercury
2. polychlorinated biphenyls (PCBs)
3. hexabromocyclododecane (HBCD)
4. polybrominated diphenyl ethers (PBDEs)
5. perfluorooctane sulfonate (PFOS)
6. perfluorooctanoic acid (PFOA)
7. long-chain perfluorocarboxylic acids (LC-PFCAs)
8. short-chain chlorinated paraffins (SCCPs).

Where are CMCs found?

CMCs have been used in flame retardants, consumer products (appliances and electronics), and industrial manufacturing applications (paper, plastics, and textiles). Polyfluoroalkyl substances (PFAS), a family of synthetic chemicals including PFOS, PFOA, and LC-PFCAs, have been used in many household products such as adhesives, cosmetics, cleaning products, food wrappings, and takeout containers. Further, these chemicals have been used to repel water, oil, dirt, or grease from non-stick cookware, carpets, and fabrics for outdoor clothing.



What are the harmful health effects of CMCs?

Under certain conditions, CMCs may pose a risk to human or environmental health. This depends on the type of chemical and the route of exposure (i.e., food, water, air, etc.). In some instances, exposure to certain chemicals can cause serious health problems. Long-term health effects are usually caused by exposure to harmful chemicals at smaller doses over longer periods of time. These long-term effects can include cancer, liver enlargement, changes to the metabolic systems, and other effects on various organs of the body dependent on the chemical. Exposure to certain chemicals in early developmental stages, such as fetus or infant, can lead to birth defects, and mental and physical developmental problems in children that can continue to adulthood.

How do CMCs end up in Lake Superior?

CMCs can enter the air, water and soil when they are produced, used, or disposed. CMCs are known to enter Lake Superior through atmospheric deposition, point sources (municipal/industrial wastewater discharges and landfills), non-point sources (stormwater/surface runoff), and releases from existing contaminated bottom sediments in the lake.

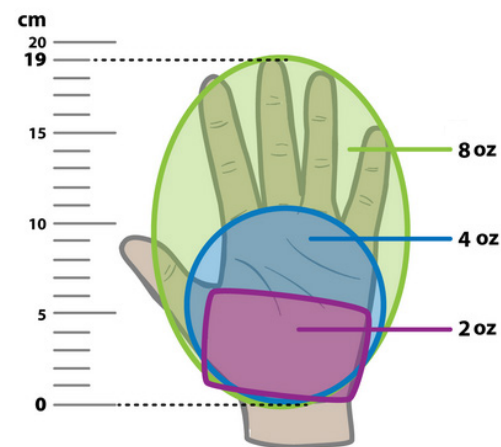
How do fish accumulate CMCs?

Biomagnification and bioaccumulation are the two ways in which chemicals of mutual concern can accumulate in fish, wildlife, and humans. Freshwater fish absorb CMCs when the water-soluble chemicals pass over the gills or when they are ingested in their diet. Fish eliminate CMCs, specifically mercury, at a very slow rate, allowing these chemical concentrations to gradually increase in the tissues.

What are Fish Consumption Advisories?

Canadian and U.S. federal, tribal, state, and provincial agencies monitor the chemical concentrations in the edible portions of fish (i.e. fillets). Consumption advice is issued in an effort to avoid the negative health effects of harmful pollutants found in fish and wildlife. The Guide to Eating Ontario Fish was developed to provide fish consumption advice for both general and sensitive populations (women of child-bearing age and children under 15). Fish consumption advisories are based on location, type of fish, length of fish, and recommended number of meals. A meal is considered 227 grams or 8 ounces for the average adult. The interactive map allows you to zoom into your favorite fishing hot spots to review the consumption advisories.

A VISUAL GUIDE TO FISH SERVING SIZES



What's the Status of Fish in Lake Superior?

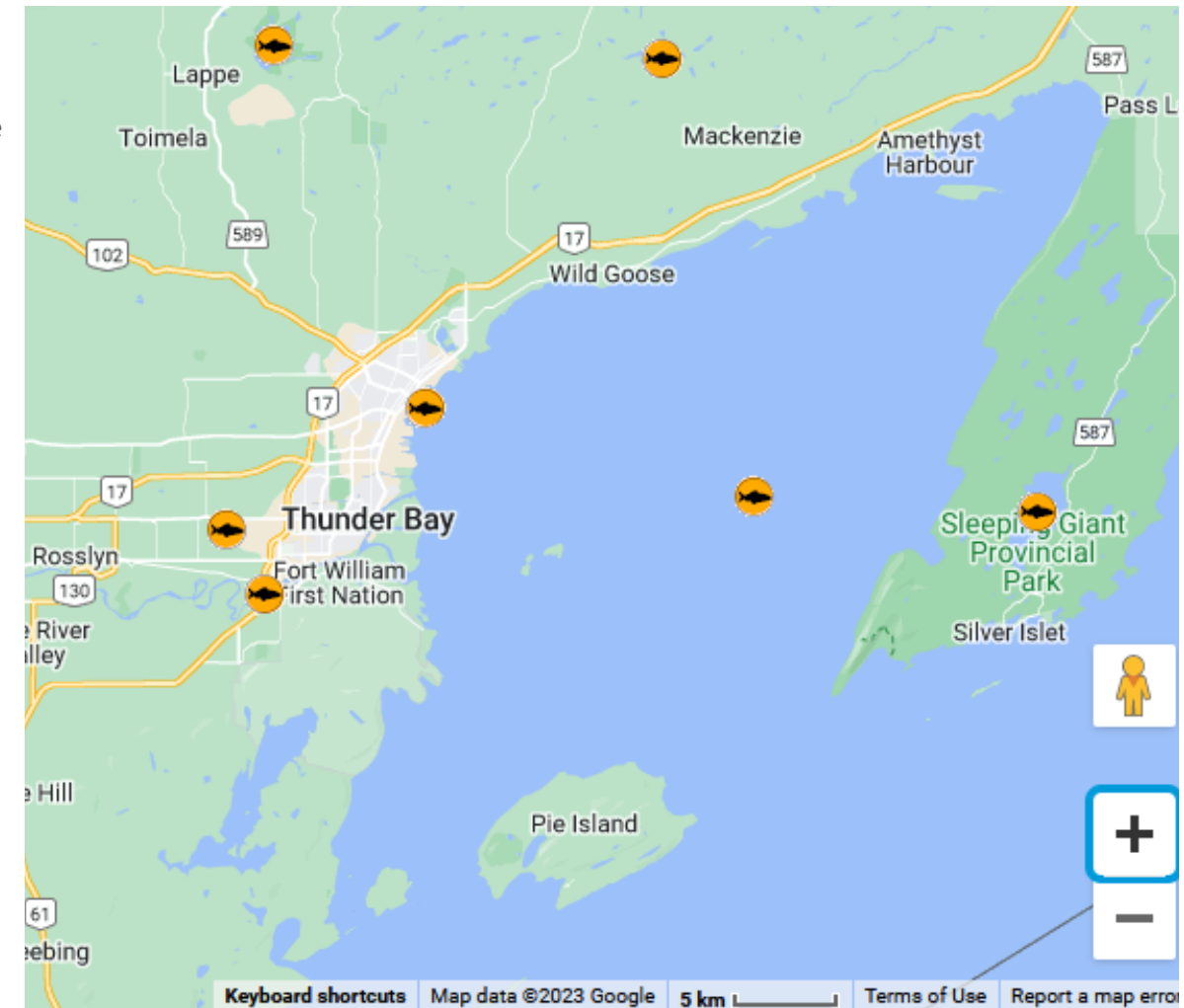
The status of contaminants in edible fish in Lake Superior is classified as "fair" with an "unchanging" trend over the past 10 years based on the 2022 State of the Great Lakes report. Fish consumption advisories in Lake Superior and the Thunder Bay region are largely due to concentrations of mercury and PCBs, and in a few locations, dioxins/furans and toxaphene (ECCC and EPA, 2022).

PFAS are now being more extensively monitored and have recently prompted the issuance of fish consumption advisories in the Neebing River. The elevated levels of PFAS are attributed to the river's close proximity to the Thunder Bay Airport a PFAS "hot spot" in the region. Fortunately, PFAS levels were low in freshwater fish sampled from Thunder Bay's inner and outer harbour and did not lead to a change in the consumption advisory.

How to use the Guide to Eating Ontario Fish:

1. Use the zoom icon (+/-) and the cursor (hand) to navigate to the lake or river of interest or use the search bar to find the location by name.
2. Click the Orange Fish Icon to display a pop-up window.
3. Ensure the location is correct and click Consumption Advisory Table, this will open the consumption advisory web page for that location.
4. Scroll down to see fish consumption advice based on the location, species, and length (cm/in).
5. Row one and two indicate fish length in centimeters and inches, row three and four indicate the number of meals for general and sensitive populations.
6. The species will have super scripts, a number that appears beside the species name, identifying the contaminant group causing the consumption restrictions.
7. It is advised to keep track of what you have consumed, no more than 100% of your advised monthly consumption.

<https://www.ontario.ca/page/guide-eating-ontario-fish>



SUB-INDICATOR	STATUS - TREND
<i>Treated Drinking Water</i>	Good - Unchanging
<i>Contaminants in Edible Fish</i>	Fair - Unchanging
<i>Toxic Chemicals in Sediment</i>	Good - Unchanging
<i>Toxic Chemicals in Water</i>	Fair - Improving
<i>Toxic Chemicals in Whole Fish</i>	Fair - Unchanging
<i>Toxic Chemicals in Herring Gull Eggs</i>	Good - Improving
<i>Toxic Chemicals in the Atmosphere</i>	Fair - Improving
<i>Groundwater Quality</i>	Undetermined

Monitoring and Regulations:

- In Canada, the manufacture, import, and use of chemicals are regulated by a number of laws, including *CEPA, 1999*, the *Hazardous Products Act*, the *Food and Drugs Act*, and the *Pest Control Products Act*.
- The 2020 – 2024 Lake Superior Lakewide Action Management Plan (LAMP) identifies restoration and protection actions to respond to chemical contaminant pollution in Lake Superior.
- Ontario regularly reviews fish consumption advisory benchmarks for PFAS and updates as necessary. Revised PFAS benchmarks may result in more restrictive fish consumption advisories in the future.

How You Can Prevent CMCs from Contaminating Lake Superior:

- Take household hazardous materials to hazardous waste collection depots.
- Do not burn garbage; prevent the release of toxic compounds such as dioxins, mercury, and lead.
- Properly dispose of unused medication through pharmaceutical take-back programs.
- Choose environmentally-friendly cleaning and personal care supplies.
- Practice energy efficiency at home.
- Utilize driveway sealants that minimize the release of toxic substances in precipitation events.
- Use natural non-toxic pest-control methods.
- Reduce the use of fluorinated consumer products such as non-stick cookware and stain-resistant products.
- Try eco-friendly de-icing alternatives such as sugar, sand, or coffee grinds.
- Join the Public Advisory Committee for the Thunder Bay Area of Concern.

Helpful Links:

- Guide to Eating Ontario Fish: <https://www.ontario.ca/page/eating-ontario-fish>
- Chemicals of Mutual Concern (Annex 3): <https://binational.net/annexes-issues/a3/>
- Lake Superior 2020-2024 Lakewide Action & Management Plan: <https://binational.net/2022/09/15/lake-superior-lamp-2020-2024/>
- State of the Great Lakes 2022 Report: <https://binational.net/wp-content/uploads/2022/07/State-of-the-Great-Lakes-2022-Report.pdf>



This project was undertaken with the financial support of:
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Environment and
Climate Change Canada

Environnement et
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f t i



LAKEHEAD REGION
CONSERVATION AUTHORITY

THUNDER BAY FISH
CONSUMPTION ADVISORIES

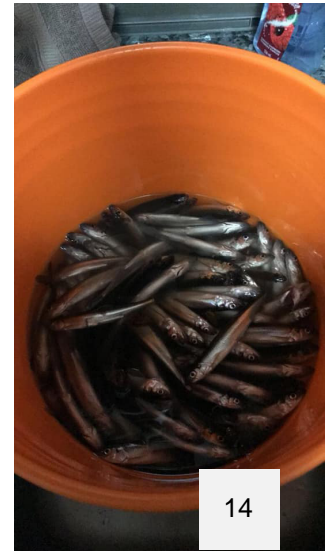
March 20, 2023



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8. short-chain chlorinated paraffins (SCCPs).



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How do CMCs end up in Lake Superior?

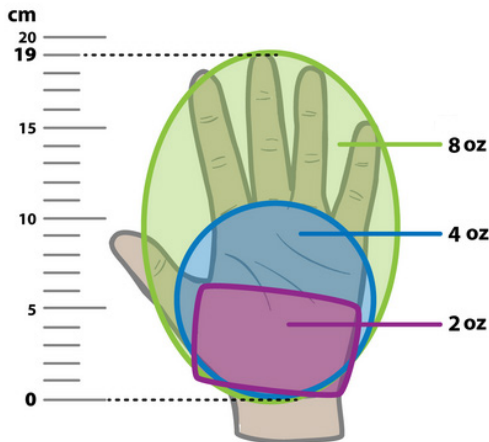
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advice for both general and sensitive populations (women of child-bearing age and children under 15). Fish consumption advisories are based on location, type of fish, length of fish, and recommended number of meals. A meal is considered 227 grams or 8 ounces for the average adult.

A VISUAL GUIDE TO FISH SERVING SIZES



What's the Status of Fish in Lake Superior?

The status of contaminants in edible fish in Lake Superior is classified as “fair” with an “unchanging” trend over the past 10 years based on the 2022 State of the Great Lakes report. Fish consumption advisories in Lake Superior and the Thunder Bay region are largely due to concentrations of mercury and PCBs, and in a few locations, dioxins/furans and toxaphene (ECCC and EPA, 2022).

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Toxic Chemicals in Water	Fair - Improving
Toxic Chemicals in Whole Fish	Fair - Unchanging
Toxic Chemicals in Herring Gull Eggs	Good - Improving
Toxic Chemicals in the Atmosphere	Fair - Improving
Groundwater Quality	Undetermined

SOURCE: State of Great Lakes Report - ECCC and EPA, 2021.

Monitoring and Regulations:

- In Canada, the manufacture, import, and use of chemicals are regulated by a number of laws, including CEPA, 1999, the Hazardous Products Act, the Food and Drugs Act, and the Pest Control Products Act.
- The 2020 – 2024 Lake Superior Lakewide Action Management Plan (LAMP) identifies restoration and protection actions to respond to chemical contaminant pollution in Lake Superior.
- Ontario regularly reviews fish consumption advisory benchmarks for PFAS and updates as necessary. Revised PFAS benchmarks result in more restrictive fish consumption advisories in the future

Fish Contaminants E&O – Social Media Campaign

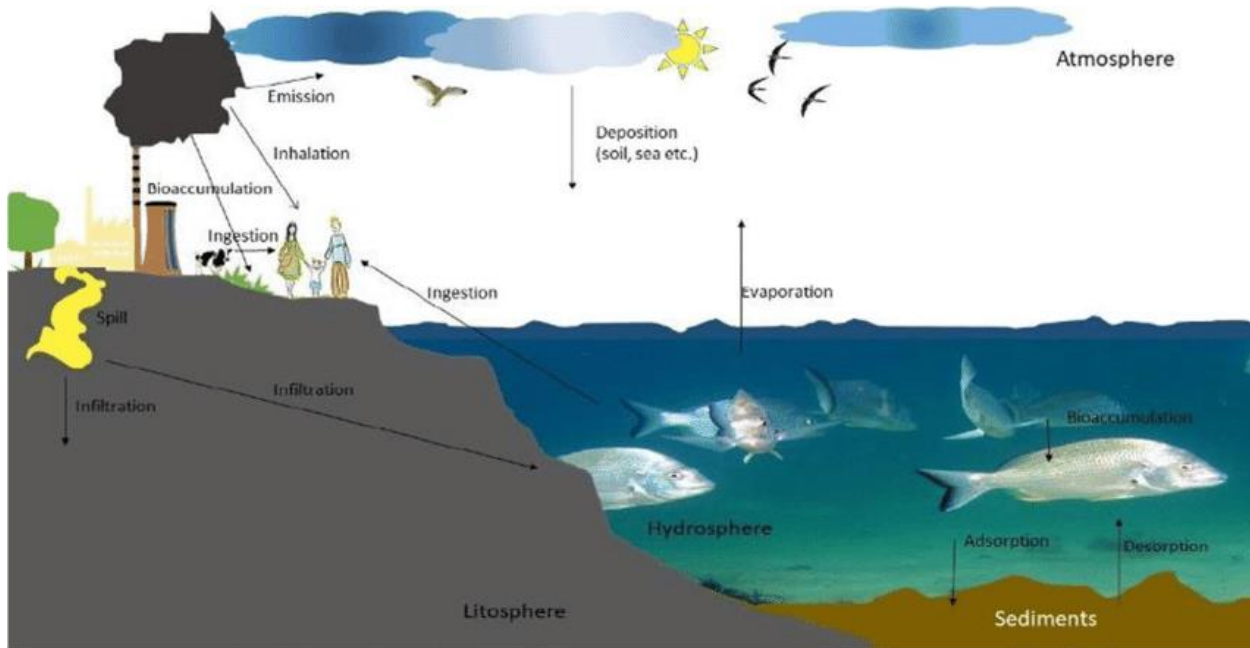
April 1st: What are Consumption Advisories?

Lake Superior fish are a nutritious food source and may safely be consumed by following the Guide to Eating Ontario Fish. Consumption advice is issued in an effort to avoid the negative health effects of harmful pollutants found in fish and wildlife. Fish consumption advisories are based on location, type of fish, length of fish, and recommended number of meals. Check it out here:

<https://www.ontario.ca/page/guide-eating-ontario-fish>

May 2nd: What are chemicals of Mutual Concern and How do they end up into Lake Superior?

Chemicals of Mutual Concern (CMCs) originate from human sources, and both Canada and the U.S. agree are potentially harmful to human health and the environment. CMCs are persistent and can bioaccumulate in the food web, where fish consumption has now become one of the known routes of exposure. Lake Superior fish are still a nutritious food source and may be safely consumed by following the Guide to Eating Ontario Fish. Check it out here: <https://www.ontario.ca/page/guide-eating-ontario-fish>



June 1st: How to prepare fish to reduce certain contaminants?

Chemicals of mutual concern, such as Mercury, PCBs, Dioxins, concentrate highest in the fatty tissues of fish. Reduce your exposure to these chemicals using these preparation techniques:

- Removing the Skin
- Trimming off fatty areas
- Discard the flesh around the belly area
- Allow fat to drip away when cooking by grilling, broiling, or baking the fish.
- When deep frying fish, do not re-use the oil.



Remove fish fillet.



Remove the skin and fat along the side and belly of the fillet.



Cook fish fillet on a rack or grill to let fat drip away.

For more information visit: <https://www.ontario.ca/page/guide-eating-ontario-fish>

July 1st: What's the status in Lake Superior?

Curious about what chemical contaminants are in your freshly caught fish? Fish consumption guidelines in the open waters of Lake Superior are due to concentrations of mercury and PCBs, and in a few locations, dioxins/furans and toxaphene (ECCC and EPA, 2021). Don't worry, fish are still safe to consume when you follow the Guide to Eating Ontario fish! Check it out here!

<https://www.ontario.ca/page/guide-eating-ontario-fish>

July 1st: PFAS in Lake Superior and the Thunder Bay Harbour?

The concentration of PFAS, a family of chemicals known as “forever chemicals”, is considered low in Thunder Bay's inner and outer harbour. **However**, PFAS was included in some consumption advisories for the Neebing River due to its close proximity to the airport. Ontario regularly reviews fish consumption advisory benchmarks for PFAS and updates as necessary. Revised PFAS benchmarks may result in more restrictive fish consumption advisories in the future.

Lake Superior fish are a nutritious food source and may safely be consumed by following the Guide to Eating Ontario Fish. Learn more about the consumption advisories on your favorite rivers at:

<https://www.ontario.ca/page/guide-eating-ontario-fish>

August 1st: How do Chemicals of Mutual Concern Enter Lake Superior?

CMCs can enter the air, water, and soil when they are produced, used, or disposed of. CMCs are known to enter Lake Superior through atmospheric deposition, point sources (municipal/industrial wastewater discharges and landfills), non-point sources (stormwater/surface runoff), and releases from existing contaminated bottom sediments in the lake. Want to reduce your impact? Check out our facts sheet to learn more!

September 1st : Atmospheric deposition of CMCs in Lake Superior?

Biomagnification and bioaccumulation are the two ways in which chemicals of mutual concern can accumulate in fish, wildlife, and humans. Freshwater fish absorb CMCs when the water-soluble chemicals pass over the gills or when they are ingested in their diet. Fish eliminate CMCs, specifically mercury, at a very slow rate, allowing these chemical concentrations to gradually increase in the tissues. Remember to check consumption advisories when consuming freshly caught fish from Lake Superior!

September 29th (October post): How do fish accumulate CMCs?

FUN FACT FRIDAY!

DID YOU KNOW? Atmospheric transport and deposition of chemicals from local and distant sources is the largest contributor of contaminants (e.g., mercury) to Lake Superior. The large surface area, year-round cool temperature, declining ice cover, and long retention time make the lake susceptible to atmospheric deposition of toxic chemicals (chemicals of mutual concern). Now you know!

November 1st: Actions to Reduce Chemicals of Mutual Concern in Lake Superior.

In Canada, the manufacture, import and use of chemicals are regulated by a number of laws, including *CEPA, 1999, the Hazardous Products Act, The Food and Drugs Act* and the *Pest Control Products Act*. As a result, there were substantial improvements in PCB and mercury levels in Lake Superior fish between the 1970s and 1990s. Did we pique your curiosity? Check out the Lake Superior 2020-2024 Lakewide Action Management Plan to learn more about binational restoration and protection actions that are being implemented!

December 1st: How can you prevent CMCs from entering Lake Superior?

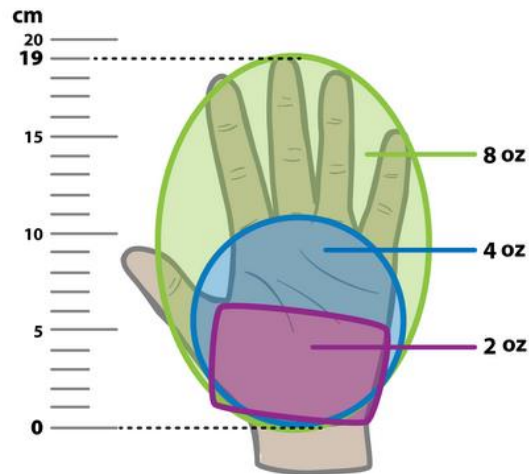
Curious on how you prevent Chemicals of Mutual Concern and other toxins from entering Lake Superior!? Here's a few tips!

- Take household hazardous materials to hazardous waste collection depots.
- Do not burn garbage; prevent the release of toxic compounds such as dioxins, mercury, and lead.
- Properly dispose of unused medication through pharmaceutical take-back programs.
- Choose environmentally-friendly cleaning and personal care supplies.
- Practice energy efficiency at home.
- Utilize driveway sealants that minimize the release of toxic substances in precipitation events.
- Use natural non-toxic pest-control methods.
- Reduce the use of fluorinated consumer products such as non-stick cookware and stain-resistant products.
- Try eco-friendly de-icing alternatives such as sugar, sand, or coffee grinds.
- Join the Public Advisory Committee for the Thunder Bay Area of Concern.

January 2nd: What's considered a meal?

Fish consumption advice is issued by the number of "meals" per month... But what's a meal? A meal is considered 227 grams or 8 ounces. You can use the palm of your hand to visually gauge the size of your fish meal!

A visual guide to fish serving sizes



February 1st: Tips for reducing the risk!

Want to reduce your risk from contaminants in locally caught fish? Here are a few tips!

- 1) Eat smaller fish. Smaller fish tend to have led contaminants that larger fish of the same species or those of a higher trophic level.
- 2) Eat leaner fish such as bass, pike, walleye, perch, they tend to have less fatty tissues than species such as trout and salmon.
- 3) Eat panfish, herring, or whitefish, top predatory fish such as pike and walleye generally have higher contaminants.

March 1st: Video Release

Funded by Environment and Climate Change Canada, the LRCA has partnered with Epica Pictures to develop an educational clip about fish contaminants and consumption advisories within the Thunder Bay inner and outer harbour. Check it out!

The Lakehead Region Conservation Authority has partnered with Environment and Climate Change Canada (ECCC) to conduct an education collaborative focused on Chemicals of Mutual Concern (CMCs). The Lake Superior Lakewide Action Management Plan 2022 – 2024 (LAMP) has developed action items to prevent and reduce chemical contaminant pollution in Lake Superior. The LAMP highlights the importance of education and outreach programs to inform the public of these concerning chemicals. The Fish Contaminants Education and Outreach collaborative is intended to familiarize residents with CMCs, review contaminants currently found in fish within the Thunder Bay Harbor and Lakehead Watershed, and outline actions that can be taken to prevent additional contaminants from being released into the basin.

Chemicals of Mutual Concern (CMCs) originate from human sources, and both Canada and the U.S. agree are potentially harmful to human health and the environment. CMCs are persistent and can bioaccumulate in the food web, where fish consumption has now become one of the known routes of exposure. To date, eight chemicals have been designated as CMCs. These chemicals enter Lake Superior through atmospheric deposition, point sources (municipal/industrial wastewater discharges and landfills), non-point sources (stormwater/surface runoff), and are released from existing contaminated bottom sediments.

Currently, the status and trends of contaminants in edible fish have been assessed ranked as “Fair and Unchanging” over the past ten years (ECCC and EPA, 2022). The Guide to Eating Ontario Fish was developed to provide consumption advice based on the level of contaminants found in fish according to location, species, and length. Consumption advisories indicate the maximum number of meals per month for general and sensitive populations (women of childbearing age and children under 15). Fish consumption advisories in Lake Superior are largely due to elevated levels of mercury and polychlorinated biphenyls (PCBs), and in a few locations dioxins/furans and toxaphene (ECCC and EPA, 2022).

Throughout the education and outreach collaboration, the LRCA will be offering a limited number of schoolboard presentations, webinars, and sessions to disseminate information on this complex issue. The LRCA’s spring webinar will occur on April 14th, 2023, at 12 pm EST, tune in to learn more about fish consumption advisories and some of the other exciting projects the LRCA is piloting. To book an informational session for your classroom please contact the Education Coordinator at education@lakeheadca.com.

Stay tuned for the LRCA’s social media campaign which will release insightful facts and key information for the upcoming presentations. Further, the LRCA has partnered with Epica Pictures to create a short video highlighting chemicals of mutual concern and how community members can protect themselves and our waterways from contaminant exposure. Any anglers interested in debuting their catch in the film should contact the LRCA’s Environmental Planner at michellew@lakeheadca.com.

Source: Environment and Climate Change Canada and the U.S. Environmental Protection Agency. 2022. Lake Superior Lakewide Action and Management Plan, 2020-2024.

This project was undertaken with the financial support of :

Ce projet a été réalisé avec l’appui financier de:



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

**2023 TREASURER'S REPORT
MONTHLY EXPENSES**

	2023 BUDGET	March	TOTAL TO DATE	BALANCE REMAINING
REVENUE				
Provincial Grants	337,909	37,503	155,664	182,245
Municipal Levy	1,793,799	-	1,793,799	-
Self Generated	408,570	28,240	148,982	259,588
Other Revenue	352,206	41,304	103,665	248,541
TOTAL REVENUE	2,892,484	107,048	2,202,110	690,374
EXPENSES				
Category 1 Mandatory Programs and Services				
Corporate Services	867,959	79,527	224,851	643,108
Risk of Natural Hazards	1,097,542	44,622	91,534	1,006,008
Conservation and Management of Lands owned and controlled by the Authority	563,411	26,016	75,888	487,523
Source Water Protection	58,974	6,310	11,580	47,394
Other Programs and Services	19,625	3,651	5,773	13,852
Total Category 1 Mandatory Programs and Services	2,607,511	160,126	409,625	2,197,886
Category 2 Non-Mandatory Programs and Services at the Request of a Municipality				
Mapping Services	16,311	1,488	3,625	12,686
Total Category 2 Non-Mandatory Programs and Services at the Request of a Municipality	16,311	1,488	3,625	12,686
Category 3 Non-Mandatory Programs and Services				
Education	100,438	3,654	11,405	89,033
Stewardship	158,224	16,489	28,964	129,260
Other	10,000	4,281	4,281	5,719
Total Category 3 Non-Mandatory Programs and Services	268,662	24,424	44,650	224,012
Total All Expenses	2,892,484	186,039	457,900	2,434,584



LAKEHEAD REGION
CONSERVATION AUTHORITY

April 20, 2023

Moved By _____

Seconded By _____

“THAT: having examined the accounts for the period March 1, 2023 to March 31, 2023 cheque #2845 to #2875 for \$65,776.48 and preauthorized payments of \$111,517.77 for a total of \$177,294.25, we approve their payment.”

2845	Innovated Solutions	2023 Cloud Protection	133.34
2846	Superior Outdoors Inc. The Walleye	March ad	175.15
		Initial Payment for Waterfront Shoreline Project - McVicar Creek to Richardson's Terminals	3,616.00
2847	Willis Technical Services	Richardson's Terminals	3,616.00
2848	CDS Consulting Limited	Technical Services February 2023	2,350.40
2849	Mark Ambrose	Registered mail for 2023 Levy letters	97.84
2850	Ryan Mackett	Meals for staff working at the Home & Garden Show Mar 31 - Apr 2, 2022	112.00
2851	Township of Dorion	#7 Hurkett Cove Property Tax Instalment # 1	339.83
2852	EOR Canada Inc.	Consulting-Fisherman's Park West Phase II and Floodway Corridor	5,604.80
2853	Sportop Marketing	Staff Clothing 2023	3,843.73
2854	Grant Thornton LLP	2022 Audit	14,747.69
2855	Pioneer Construction	Gravel Feb 21	35.00
2856	Thunder Bay Answering Service Inc.	Answering Service March 2023	239.56
2857	Francotyp-Postalia Canada Inc.	Quarterly postage machine rental	67.63
2858	City of Thunder Bay - Provincial Taxes	Provincial Taxes Installments 1 & 2	3,384.90
2859	Hatch Ltd.	Floodway and Diversion Channel survey 2023 - February 2023	10,170.01
2860	Esso And Mobil Business Card	Fuel February	807.20
2861	Evergard Fire and Safety	Fire safety equipment	200.01
2862	Lowery's	Photocopy charges for March 2023	288.03
2863	2611943 Ontario Ltd.	Garbage Removal Mission Marsh	226.00
2864	Mitacs	Green Stormwater Infrastructure evaluation Brant Muir	4,237.50
2865	RAS Maintenance Services	Cleaning Services	2,674.27
2866	City of Thunder Bay	Water bill February 2023	1,245.83
2867	Lakehead Monument Ltd.	3 plaques for Memorial benches	1,169.55
2868	Rutter Urban Forestry	Felling of 4 large hazard trees at Hazelwood	1,302.33
2869	Mark Ambrose	Petty Cash	186.30
2870	Yellow Pages	Yellow Pages advertising March 2023	81.70
2871	Innovated Solutions	Firewall Security new server	339.00
2872	Gayle Little	Vision Care 2023	200.00
2873	Harris Ecological Consulting	Consulting-Fisherman's Park West Phase II and Floodway Corridor	5,650.00
2874	Lowery's	Office Supplies	2,215.88
2875	Pioneer Construction	Gravel	35.00
			65,776.48
PA	Payroll and Per Diems		77,403.73
PA	Royal Bank Group Retirement RRSP and TFSA		5,060.46
PA	RWAM and Lifeworks Benefits		3,192.54
PA	Enbridge		1,305.55
PA	Synergy North		577.99
PA	Visa Routine Monthly Expenses		7,015.59
PA	Banking and Visa Fees		538.19
PA	Postage		565.00
PA	OMERS January and February		15,571.82
PA	Photocopier Lease		286.90
			111,517.77
			177,294.25

Chair

Res# _____/23

Monthly Plan Input/Review and Fill Regulations Administration
March 1 to 31, 2023

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								File No 23 301231			
Total	0	0	0	0	0	0	0	1	0	0	1
Oliver Paipoonge										Kam River Bridge Highway 130	
Total	0	0	0	0	0	0	0	0	0	1	1
O'Connor											
Total	0	0	0	0	0	0	0	0	0	0	0
Neebing											
Total	0	0	0	0	0	0	0	0	0	0	0
Shuniah		B4-22 B5-22	OPA23-1/Z23-1		Z3/22 - Updated						
Total	0	2	1	0	1	0	0	0	0	0	4
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											
Total	0	0	0	0	0	0	0	0	0	0	0
Rural Planning Board											
Total	0	0	0	0	0	0	0	0	0	0	0
Monthly Total	0	2	1	0	1	0	0	1	0	1	6

Monthly Plan Input/Review and Fill Regulations Administration
April 1 to April 12, 2023

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				PROJ-08-2020							
Total	0	0	0	1	0	0	0	0	0	0	1
Oliver Paipoonge											
Total	0	0	0	0	0	0	0	0	0	0	0
O'Connor											
Total	0	0	0	0	0	0	0	0	0	0	0
Neebing											
Total	0	0	0	0	0	0	0	0	0	0	0
Shuniah					Z4/22						
Total	0	0	0	0	1	0	0	0	0	0	1
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											
Total	0	0	0	0	0	0	0	0	0	0	0
Rural Planning Board											
Total	0	0	0	0	0	0	0	0	0	0	0
Monthly Total	0	0	0	1	1	0	0	0	0	0	2



Monthly Project Update

MEETING DATE	April 26, 2023
STAFF NAME	Ryan Mackett
POSITION	Communications Manager

2022 Annual Report

Included is the 2022 Annual Report for Board approval. The Report will be printed by Premier Printing and distributed via the Chronicle Journal on Saturday, May 27, 2023. The other physical copies the Authority is obligated to provide will be mailed out as soon as possible.

Suggested Resolution:

“THAT: the 2022 Lakehead Region Conservation Authority Annual Report be approved.”

2023 Dorion Birding Festival

Planning for the 2023 Dorion Birding Festival is currently underway. The event will occur on Saturday, May 27 and Sunday, May 28. Staff are still confirming final costs, which has been delayed due to a change in ownership of the Dorion Bible Camp property (the Day Two festival location); once confirmed, prices will be set, and tickets will go on sale. This popular event regularly sells out.

Complementary Education Programs

The LRCA’s complimentary in-class Watershed Connections (April 17-21) and Arbor Week (May 8-12) programs will be held in-person this year, similarly to the Spring Water Awareness Program (SWAP). For your information, SWAP reached 243 students from 11 classes at 7 schools during the week of March 20-24. The Watershed Connections program is currently booked for 202 students from 8 classes at 4 schools, for the week of April 17-21.

For your information, Ontario Power Generation (OPG) has once again sponsored various LRCA initiatives including the Children’s Water Festival, SWAP, Dorion Birding Festival, Waterfowl Viewing Day, etc. OPG’s 2023 contribution to the LRCA is \$16,000.00. The LRCA is grateful for OPG’s continued generous support.

Watershed Explorers Program

The LRCA was successful in receiving \$17,000.00 in funding from the TD Friends of the Environment Fund (TD FEF) for the 2023 Watershed Explorers program. New for 2023, some programs have been modified to become “Two-Eyed Seeing Watershed Explorer” programs, incorporating traditional Indigenous Ways of Knowing alongside Western methods of scientific observation. Indigenous Elders organized by Cindy Crowe of the Blue Sky Healing Centre is the Indigenous partner working with staff to coordinate the additional guest speakers for the identified events. The expert-led guided hike programs will run during the months of May - October, with LRCA staff and an invited expert guest speaker leading a guided hike at one of the LRCA’s Conservation Areas or Forest Management Properties. Topics for this program include:

- Owl Prowl
- Frogs
- Birding 101 (Spring)
- Wildflowers – *Two-Eyed Seeing*
- Photography (Spring)
- Butterflies
- Fish & Aquatics
- Photography (Fall)
- Birds & Birding (Fall) – *Two-Eyed Seeing*
- Trees & Fall Colours – *Two-Eyed Seeing*
- Archaeology – *Two-Eyed Seeing*

The Communications Manager, Education Coordinator, Watershed Stewardship Technician, and Environmental Planner will all be involved in delivering the programs alongside experts and guests from the Thunder Bay Field Naturalists, Lakehead University, Blue Sky Healing Centre and other local Indigenous Elders. The LRCA thanks the TD FEF for its continued generous support.

2023 CLE Home & Garden Show

The CLE Home & Garden Show occurred on Friday, March 31, Saturday, April 1, and Sunday, April 2, 2023. The event was successful, with staff having spoken with over 989 people over the course of the three-day event. Staff sold 22 t-shirts, one enamel pin, two tote bags, 35 buttons, three Nalgene bottles and 36 Explore Card Parking Passes, totalling \$1,992.00 in sales. Staff also distributed many copies of the various invasive species, native species, and other fact sheets to the public. The LRCA has participated in this event every year for many years, and will continue to do so in the future, as it is an excellent public outreach opportunity and ideal venue for communicating information about the LRCA’s Conservation Areas, stewardship initiatives, etc.



LAKEHEAD REGION CONSERVATION AUTHORITY
2022 ANNUAL REPORT





View of the Sleeping Giant from Fisherman's West Climate Change Awareness Park

LAKEHEAD REGION

CONSERVATION AUTHORITY

VISION

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

MISSION

To lead the conservation and protection of the Lakehead Watershed.



11 BOARD MEMBERS

- Donna Blunt, Chair **Municipality of Shuniah**
- Grant Arnold, Vice-Chair **Township of Conmee**
- Joel Brown **Township of Dorion**
- Rudy Buitenhuis **Township of Gillies**
- Erwin Butikofer **Municipality of Neebing**
- Jim Vezina **Township of O'Connor**
- Allan Vis **Municipality of Oliver Paipoonge**
- Andrew Foulds **City of Thunder Bay**
- Trevor Giertuga **City of Thunder Bay**
- Andrea Goold **City of Thunder Bay**
- Umed Panu **City of Thunder Bay**

16 STAFF MEMBERS

- Tammy Cook **Chief Administrative Officer**
- Gail Willis **Watershed Manager**
- Mark Ambrose **Finance Manager**
- Ryne Gilliam **Lands Manager**
- Ryan Mackett **Communications Manager**
- Melanie O'Riley **Administrative Clerk/Receptionist**
- Gayle Little **Finance Administrative Assistant**
- Roman Augustyn **Information Systems Coordinator**
- Scott Drebit **GIS/Water Resources Technologist**
- Michelle Sixsmith **Development Regulations Officer**
- Ryan Harris **Field Operations Lead Hand**
- Amanda Donolovitch **Labourer (Seasonal)**
- Rachael Zacharias Bezanson **Education Coordinator (Contract)**
- Jessie McFadden **Watershed Stewardship Technician (Contract - Jan. to May)**
- Nadine Elmehriki **Watershed Stewardship Technician (Contract - May to Dec.)**
- Michelle Willows **Environmental Planner (Intern)**

Various seasonal, contract and intern positions are also filled, as needed, on an annual basis.

The Lakehead Region Conservation Authority (LRCA) is a community-based environmental agency, whose purpose is to provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in the Lakehead Watershed. Conservation Authorities undertake a broad range of programs, including: watershed management, erosion control, flood forecasting and warning, recreation and land management, water level monitoring, plan input and review, environmental education, community outreach and stewardship. The LRCA's Area of Jurisdiction includes over 2,700 square kilometres, and is comprised of our eight Member Municipalities.

The Lakehead Region Conservation Authority respectfully acknowledges that the lands on which we live and work are the traditional lands of the Anishinabek Nation and the traditional territory of Fort William First Nation, signatory to the Robinson-Superior Treaty of 1850.

As partners in the conservation and protection of the Lakehead Watershed along with First Nations communities, the Métis Nation of Ontario, and other Indigenous peoples, the LRCA is committed to the common vision of a healthy, safe and sustainable Lakehead Watershed.

Cover Photo: A Juvenile Bald Eagle in Oliver Paipoonge.



Sandhill Cranes taking flight in Neebing.

Message from Donna Blunt, LRCA Chair

2022 was another year of change for the LRCA, but also a return to some level of normalcy as we were finally able to gather and meet in person after years of virtual meetings and working from home. I would like to thank the staff of the Authority, the Lakehead Conservation Foundation (LCF) and all of the volunteers and community partners that helped to make 2022 another successful year.

I would also like to thank the outgoing Board Members for their service on the Authority Board, and I would like to welcome the new members. I anticipate more great accomplishments during 2023 and beyond.

I am also very happy to have received a special extension from the Province of Ontario to allow me to act as Chair for a final year. I look forward to my responsibility to guide the new Board in our common mission to lead the conservation and protection of the Lakehead Watershed.

Message from Tammy Cook, LRCA CAO

The past year was the final year of the Authority's first ever Strategic Plan, and the final year of the four-year term of the Board of Directors. Staff would like to thank the Chair and Board for their on-going commitment to the Authority and guidance over the past four years. The Board of Directors was instrumental in the fulfillment of many of the initiatives in the Strategic Plan and also approved the Strategic Plan for the next five years. The staff look forward to continuing to work with the new and returning Members as well as our Chair, Donna Blunt.

Conservation Authorities in 2022 continued to pivot and adhere to many legislative changes throughout the year. In 2022, the LRCA met all the mandated requirements set out in new legislation, including: the completion of an Inventory of Programs; restructuring of the Budget; updated Governance section on the website; quarterly reporting to the Ministry; and the updating of the Fee Policy. Staff have also initiated work on the mandated Conservation Area Strategy, Land Inventory and Watershed Based Resource Management Strategy, all due to the Province by December 31, 2024.

The LRCA is committed to continue to work with our municipal partners in order to achieve our vision of a healthy and sustainable Lakehead Watershed for future generations.



CONSERVE & SUSTAIN

Enhance the management and sustainability of natural habitats and ecosystems through an integrated approach.

INITIATIVES:

- Support, strengthen and encourage environmental stewardship and sustainability.
- Manage future growth through a systematic evaluation of assets and landholdings.
- Collaborate with member municipalities and community partners to foster an integrated watershed management approach.
- Optimize decision-making by sharing data and knowledge.



Photos (left to right): planting volunteers at Fisherman's West; invasive species management at the Floodway; establishing a "No Mow Zone" at Fisherman's West; students building bird houses and hiking the Floodway; volunteers at the Floodway

The LRCA's Superior Stewards Shoreline Protection Program had continued success in 2022. The goal of the program is to promote watershed stewardship in the community and engage residents in the protection and restoration of shorelines and riparian ecosystems. The Superior Stewards program offers online resources, available on the LRCA website under the Stewardship dropdown.

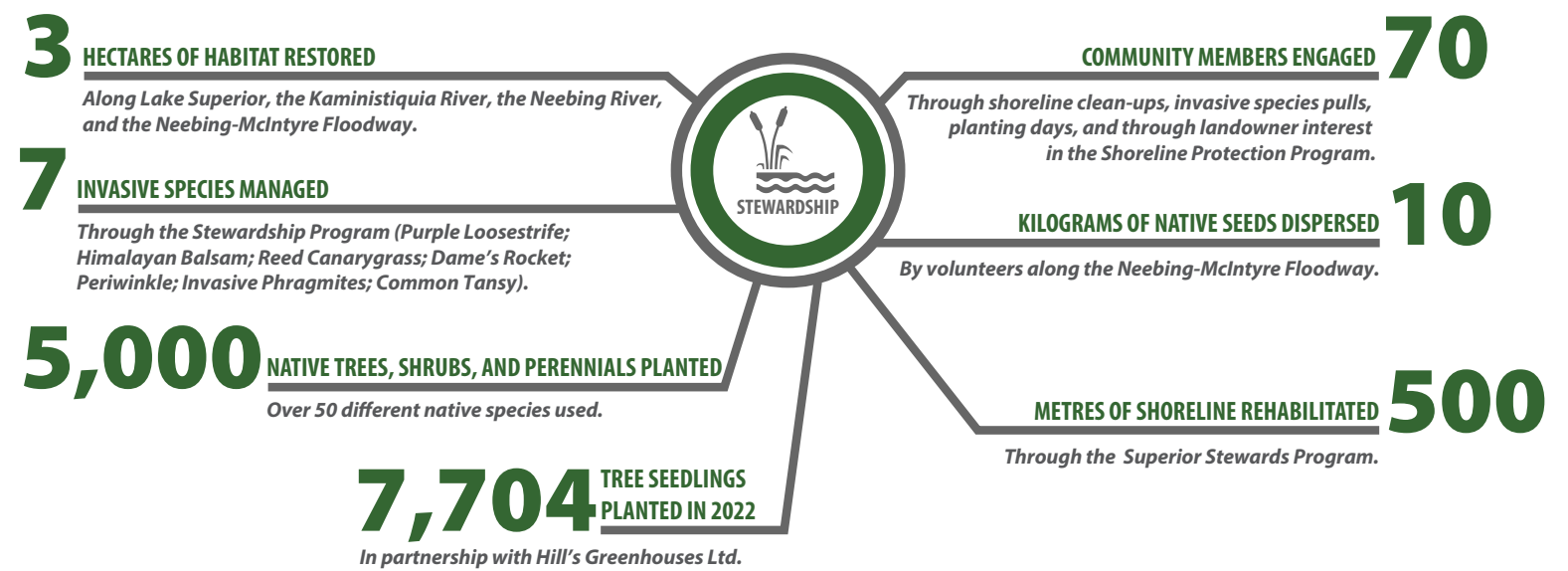
No municipal levy is used to fund the stewardship program. Between 2020-2025, over \$726,000.00 in external funding has been leveraged to support environmental stewardship in the Lakehead Watershed.

Staff had a busy year with shoreline protection and habitat creation efforts at Mission Island Marsh, the completion of Invasive Phragmites mapping, the creation of a cyanobacteria monitoring program, the completion of natural heritage assessments of all LRCA-owned lands, and a rural wetland delineation project. Additionally, select staff underwent wetland training.

Work continued at Fisherman's West Climate Change Awareness Park, with funding from the City of Thunder Bay, Ministry of Environment, Conservation and Parks, and Environment and Climate Change Canada. The LRCA will continue to restore wildlife habitat, rehabilitate the Lake Superior shoreline, recreate coastal wetlands, and provide passive recreation opportunities at the site. The goal is to return the area to a more naturalized condition by planting trees, shrubs, and perennials that are native to our region. The naturalization of this area will provide valuable breeding grounds, shelter, and forage for migratory waterfowl, birds, and pollinators, while also creating a space where the public can explore and enjoy the beautiful natural landscape.

Work also continued on the Mountdale Boat Launch riparian habitat rehabilitation project on the Kaministiquia River. Wildlife habitat restoration along the Neebing-McIntyre Floodway corridor also occurred. In partnership with grade 7 students from Pope John Paul II School and other community partners, riparian habitat at four identified locations along the Neebing-McIntyre Floodway was restored, specifically the mouth of the Floodway at Lake Superior, LRCA-owned property at Fort William Road, and near the Diversion Structure on Ford Street.

During the summer of 2022, LRCA staff completed a watershed assessment of the Mosquito Creek Watershed, which is located within the City of Thunder Bay, Municipality of Oliver Paipoonge, Municipality of Neebing and the Fort William First Nation. The main objective of the watershed assessment was to summarize the physical, biological and socio-economic attributes, collect surface water quality data, inventory the forest ecosystem, fauna, soils, streambed substrate and stream bank cover, document active erosion sites, and document the physical condition of existing water crossings. The full study can be found on the LRCA website.



8 Member Municipalities

+2,700 km² Area of Jurisdiction

+151,000 Trees planted through the Private Landowners Tree Seedling Assistance Program



Fall colours at Fisherman's West Climate Change Awareness Park



PROTECT & SUPPORT

Safeguard people, property and communities through robust watershed management.

INITIATIVES:

- Increase awareness of the impacts of floods and hazards and the importance of mitigation.
- Demonstrate effective land use planning and emergency flood management through a collaborative approach.
- Maintain and enhance flood control infrastructure to minimize the impacts of flooding, erosion, and sedimentation.
- Evaluate the priorities for the protection and management of wetlands and natural heritage features.
- Integrate the impacts of climate change into future actions.
- Align watershed decision-making with stakeholders outside of the jurisdiction.



Photos (left to right): Diversion Structure lip dredging; sediment build-up at Diversion Structure; high Kaministiquia River water levels at Fort William Historical Park; view of the Kaministiquia River from the Stanley Bridge; CPR sediment trap dredging in the Neebing-McIntyre Floodway

During 2022, the LRCA issued 12 local flood messages/message updates including: two Water Safety Watershed Condition Statements, two Flood Outlook Watershed Condition Statements, three Flood Watch Statements and five Flood Warning Statements.

In May of 2022, the only significant flooding event of the year occurred between May 11-16, during which a Flood Warning Flood Message was in effect. Roads were overtopped within the Whitefish River watershed, and the Village of Hymers experienced flooding. The Kaministiquia River, Current River, and McIntyre River were also extremely high during the event. Flood Warning messages for the Thunder Bay District outside the area of jurisdiction of the LRCA were also issued by the Ministry of Natural Resources and Forestry for residents in the Kaministiquia River, Whitefish River, Dog Lake, Shebandowan, Kashabowie, and Lac des Mille Lacs watersheds.

After five years in a row of no diversion at all, the Neebing-McIntyre Floodway diverted for a record-breaking 16 consecutive days during the spring of 2022, due to record breaking snow depth and water content in April and May. In order to ensure operational integrity, the CPR sediment trap was dredged, with 4,404 cubic metres of sediment removed. Additionally, sediment removal occurred at the lip of the Floodway near the Diversion Structure, removing an additional 6,500 cubic metres of sediment which was deposited due to the above-mentioned prolonged diversion. The Floodway maintenance agreement between the City of Thunder Bay and LRCA was also renewed until 2027, at which time the agreement will be reviewed and renewed.

Development Regulations staff were once again extremely busy during the 2022 building season, issuing 64 permits, conducting 427 property and permit consultations and creating 856 property maps.

A new online mapping tool was developed and launched in 2022 that allows landowners to gain an understanding of their property by identifying the approximate regulated area. If your property is within a regulated area, permits are required from the LRCA for any proposed development in the regulated area, in addition to a building permit and other approvals from your municipality and other agencies. The online mapping tool can be found on the LRCA website at the "Map Your Property" tab under the Regulations drop-down on the homepage. Additionally, an inquiry form was added to the website to allow the public to request information directly from the LRCA.

9 Streamflow Gauges

11 Precipitation Gauges

3 Snow Survey Sites

Riverine flood protection provided by Neebing-McIntyre Floodway to the lower Neebing River and Intercity areas

2 WATER SAFETY STATEMENT

High flows, unsafe banks, melting ice or other factors could be dangerous for recreational users such as anglers, hikers, canoeists, children, pets, etc. Flooding is not expected

FLOOD OUTLOOK STATEMENTS **2**

Early notice of the potential for flooding based on weather forecasts calling for heavy rain, snow melt, high wind or other conditions

3 FLOOD WATCH

Indicates that there is the potential for flooding within specific watercourses and municipalities

LAKE SUPERIOR SHORELINE CONDITIONS STATEMENTS **0**

The LRCA may issue a Shoreline Conditions Statement for the shores of Lake Superior when at high levels

5 FLOOD WARNINGS

Indicates that flooding is imminent or occurring within specific watercourses and municipalities

FLOODWAY DIVERSION (DAYS) **17**

The Neebing-McIntyre Floodway affords riverine flood protection to the lower Neebing River and Intercity areas



64 PERMITS ISSUED

Under Ontario Regulation 180/06: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses

COMMENTS MADE ON PLANNING ACT APPLICATIONS **155**

Per delegated commenter role regarding Section 3.1 of the Provincial Policy Statement

856 PROPERTY MAPS ISSUED

Maps are provided to illustrate regulated features on properties



GENERAL INQUIRIES **427**

Property and permit consultations



CONNECT & EXPLORE

Maximize intergenerational educational, engagement, and recreational opportunities through strong collaborations.

INITIATIVES:

- Emphasize a sense of place through positive and equitable interactive experiences.
- Develop a communications strategy to engage diverse stakeholders.
- Strengthen a shared interest in conservation through collaboration with existing and new partners.
- Manage recreational areas for current and future generations.



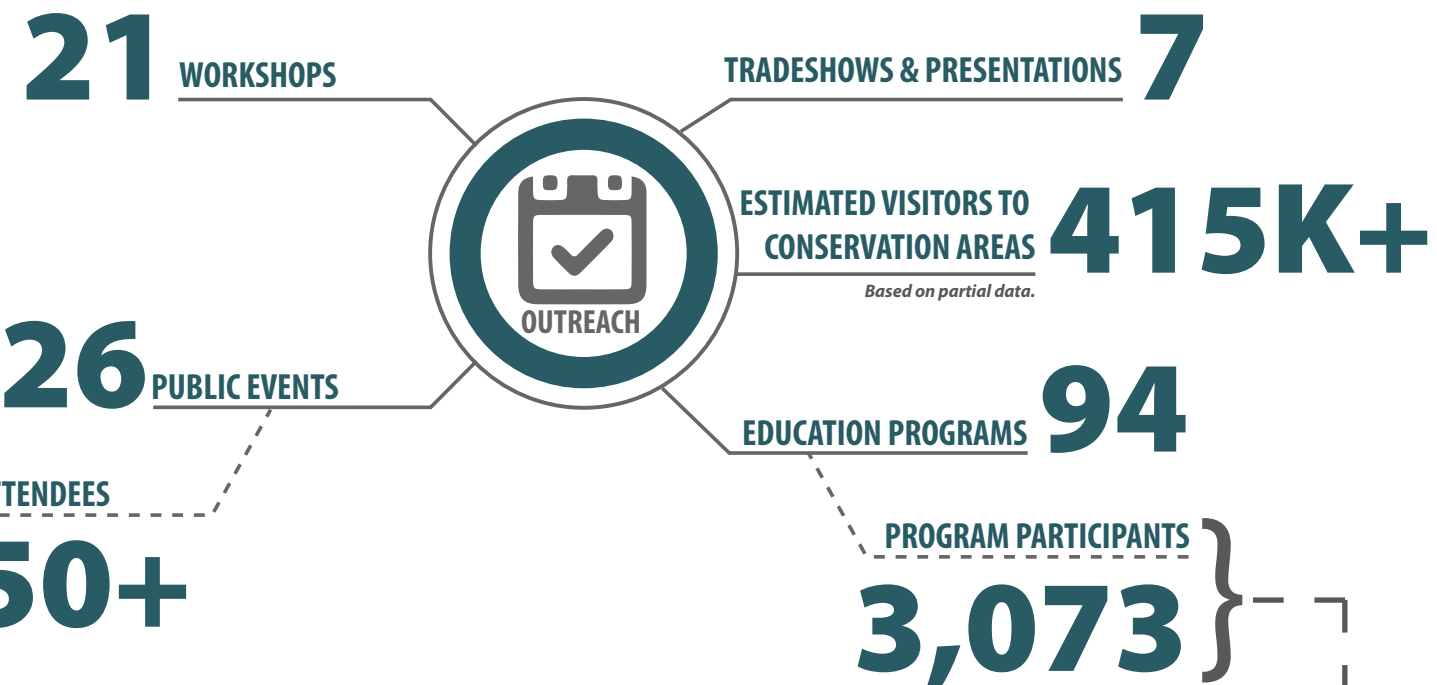
Photos (left to right): students participating in the City and Nature Challenge; maintenance work at Mission Island Marsh; paddlers at Hazelwood Lake Family Fun Day; new sign and bird box at Cedar Falls; learning about fish and aquatics; new outhouse at Little Trout Bay; Dr. Dave Norris explaining an atlas!

Field staff had a busy and eventful year, carrying out various projects in addition to regular Conservation Area and Floodway maintenance, including the expansion of the floating dock at Silver Harbour, refurbishments to the outhouse at Mission Island Marsh, the installation of a new accessible outhouse at Little Trout Bay, creation of an emergency vehicle turnaround at Cedar Falls, and the installation of a new picnic table at the end of the Dam Trail at Hazelwood Lake.

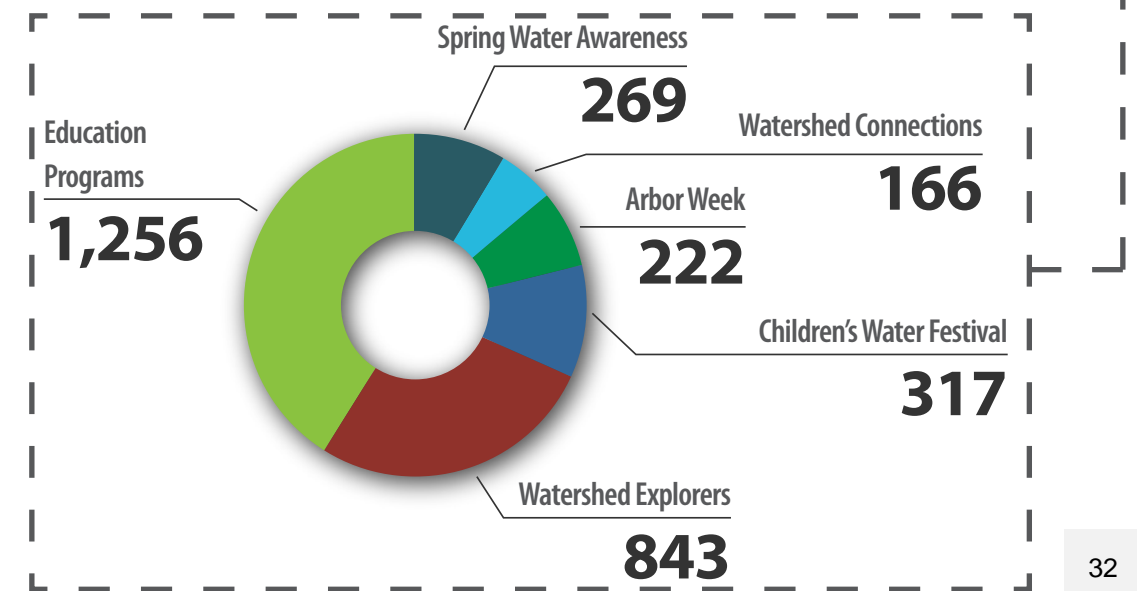
During 2022, Mills Block Forest and Wishart Forest were both reclassified as official Conservation Areas, bringing the total number of Conservation Areas owned, operated and maintained by the LRCA to ten. Mills Block and Wishart both provide excellent recreational and educational opportunities.

The popular Dorion Birding Festival returned to a modified, in-person event in 2022 for the first time since 2019. There were 104 different species observed at the Festival, including three new species to the Festival: Marsh Wren, Connecticut Warbler and Eastern Meadowlark.

Staff conducted many education programs, guided hikes and workshops during 2022, and have plans for more in 2023.



+2,500 hectares of land, including Conservation Areas, Forest Management Properties, floodplain lands, nature reserves and undeveloped holdings



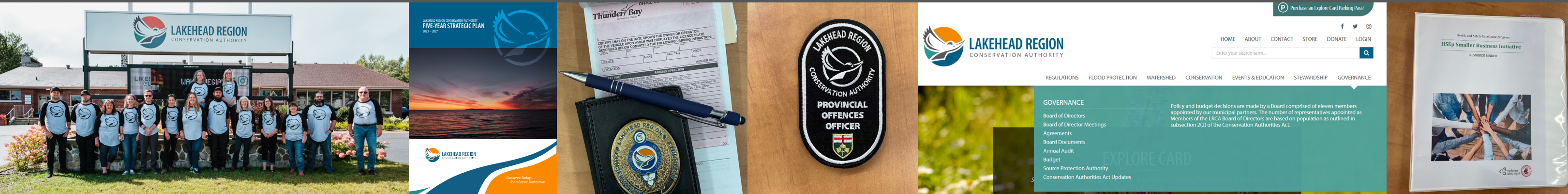


GOVERN & ENHANCE

Distinguish the organization as a leader in environmentally-sustainable practices and responsible stewardship.

INITIATIVES:

- Optimize organizational performance through policy and measurable actions to improve accountability and transparency.
- Build a resilient financial model based on capacity, capabilities and public expectations.
- Create a dynamic culture of learning, safety, and positivity.
- Increase awareness of Indigenous knowledge and practices for integration into organizational decision-making.



Photos (left to right): LRCA 2022 team photo; LRCA Five-Year Strategic Plan 2023-2027; Provincial Offences Officer's badge, parking ticket book and patch; screenshot of the new "Governance" section on the website; WSIB Health and Safety Excellence Program binder

Many changes were made to the LRCA's Administrative By-Law, budget, website and other procedures as part of recent regulatory changes enacted by the Province. There are several reporting requirements that staff begun in 2022 that will carry over into 2023 and 2024 as part of these changes.

2022 marked the fifth and final year of the LRCA's first Five-Year Strategic Plan. Over the course of the last five years, staff carried out many initiatives directly as a result of the strategic plan. Staff also developed the LRCA Five Year Strategic Plan 2023-2027 internally, which was approved by the LRCA Board in November 2022. This new strategic plan will guide the operational and organizational decisions of the LRCA over the next five years.

The LRCA has designated several staff members as Provincial Offences Officers, who are authorized to carry out enforcement of Section 28 and Section 29 of the *Conservation Authorities Act* which includes enforcement of Development Regulations as well as enforcement of Conservation Areas Regulations, including enforcement of the requirement to pay for parking at Mission Island Marsh and Cascades Conservation Areas under the City of Thunder Bay Parking By-Law. Parking fees fund the operation and maintenance of Conservation Areas, which receive no provincial funding.

The LRCA's budgeted 2022 revenue and expenditures totaled approximately \$3,396,159.00.

REVENUE

Provincial Transfer Payment & Grants

16%

Self Generation & Other

24%

Municipal Levy

60%

EXPENDITURES

Stewardship

12%

Water Management

46%

Land Management

5%

Conservation Areas

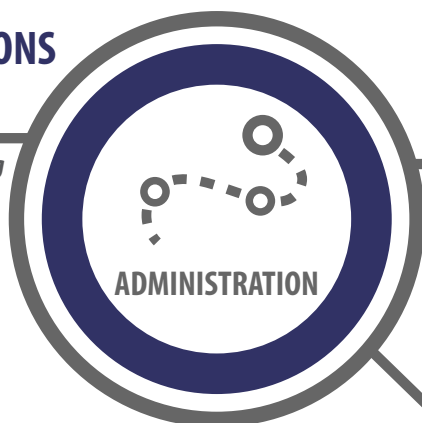
15%

Administration

22%

43 STAFF TRAINING SESSIONS (INCLUDING VIRTUAL)

Commitment of ongoing learning and development of staff.



ADMINISTRATION

5 NEW HEALTH & SAFETY POLICIES CREATED

Continued commitment to the Health and Safety of Staff.

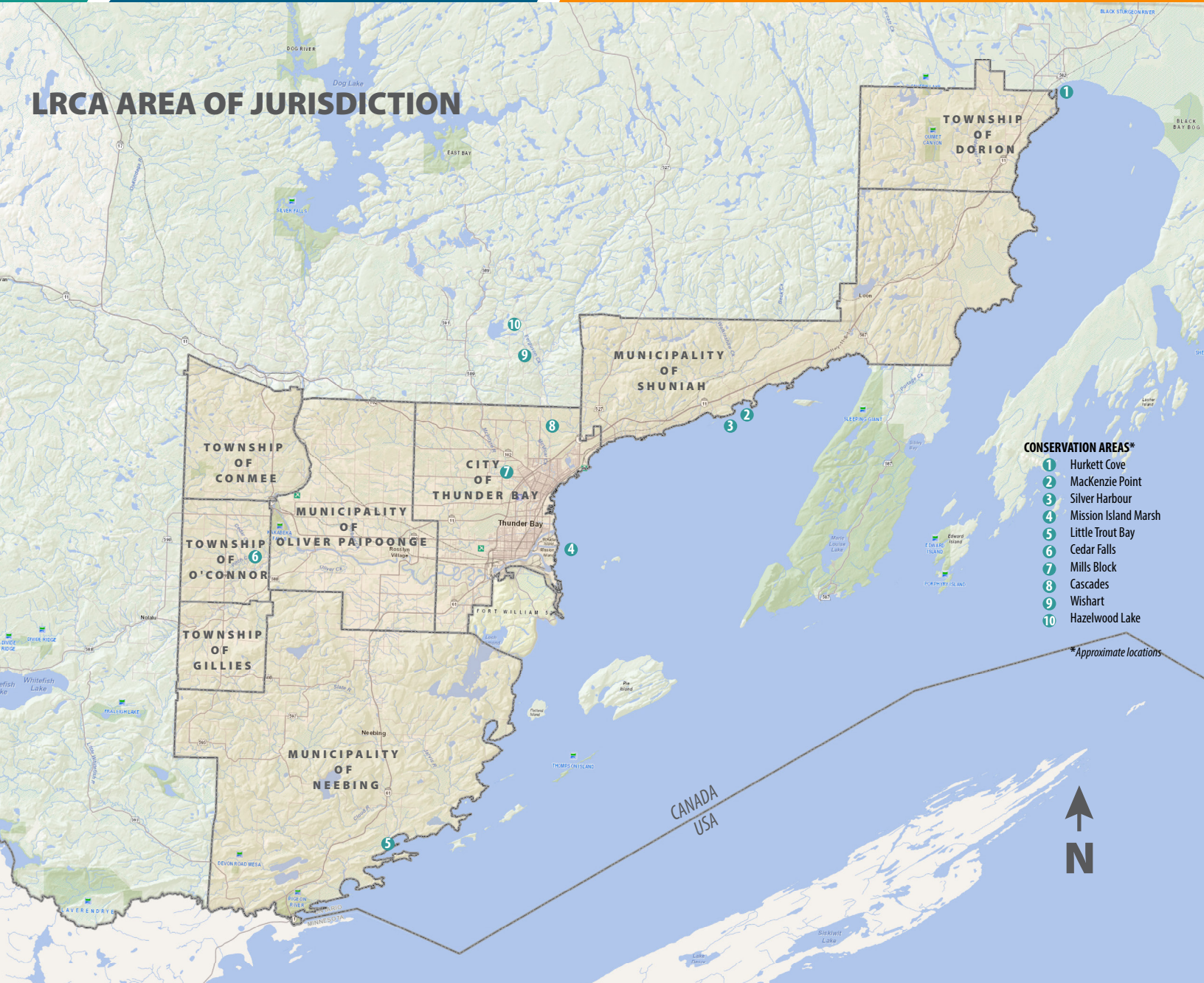
13 POLICIES CREATED & AMENDED

Continued effort to improve accountability and transparency.



Falconry demo at Hazelton Lake Day
Fam 33 Day

LRCA AREA OF JURISDICTION



"CONSERVE TODAY... FOR A BETTER TOMORROW"

Member of



Conservation ONTARIO
Natural Champions

LRCA ESTABLISHED 1954

130 Conservation Road, PO Box 10427
Thunder Bay, ON P7B 6T8

Phone: (807) 344-5857 | Fax: (807) 345-9156

WWW.LAKEHEADCA.COM

f @lakeheadregion



Monthly Project Update

MEETING DATE	April 20, 2023.
STAFF NAME	Ryne Gilliam
POSITION	Lands Manager

Summer Field Staff

Erin Lennie, Rachel Morgan, Drew Zurevinski and Brandon Edwards have been hired as Seasonal Maintenance staff for 2023. They will begin work on May 23, 2023, with Brandon Edwards beginning July 4, 2023 due to the completion of High School courses. Contracts will continue to August 25, 2023 and September 1, 2023 respectively. Duties of seasonal staff include maintaining the Conservation Areas and Neebing-McIntyre Floodway through grass cutting and garbage removal. They will also be involved in addition projects such as painting and boardwalk and trail development.



Monthly Project Update

MEETING DATE	April 20, 2023
STAFF NAME	Melissa Hughson
POSITION	Watershed Manager

Source Protection Committee Meeting

The Source Protection Committee (SPC) held a meeting on April 6, 2023, to finalize the 8th Annual Progress Report, (due to the MECP on May 1, 2023), and the Section 36 Workplan (due to the MECP by May 7, 2023). All comments received by the SPC have been addressed, and reporting updated as applicable.

Source Protection Authority Meeting

A Source Protection Authority Meeting will be held immediately after the April 20, 2023, Board Meeting. This meeting will receive and adopt the 8th Annual Progress Report, which is prepared annually by the Source Protection Authority and submitted to the Director of the Ministry of the Environment, Conservation and Parks (MECP) prior to May 1st, as required in the *Clean Water Act*.

This meeting will also receive and adopt the Section 36 Workplan. As per the amended Section 36 Order that was issued on May 7, 2018, the updated Workplan is required to be submitted to the MECP within 5 years of the Order pursuant to subsection 36 (1) of the *Clean Water Act*.

Watershed Report Card

Ontario’s Conservation Authorities report on watershed conditions every five years to provide a ‘checkup’ on the health of many of Ontario’s watersheds. Report cards are developed following Conservation Ontario’s guide to Developing Conservation Authority Watershed Report Cards. The 2023 Watershed Report Card provides an average grade for groundwater quality, surface water quality, forest conditions and wetland conditions. These features are measured and monitored by the LRCA on an ongoing basis; the data has been analyzed and the following Grades apply within the Lakehead Watershed:

Feature	Measurement	GRADE
Surface Water Quality	7 sample sites through the Provincial Water Quality Monitoring Network (PWQMN) Program.	B

Feature	Measurement	GRADE
Groundwater Quality	7 sample wells through the Provincial Groundwater Monitoring Network (PGMN) Program.	A
Forest Conditions	Calculation of area of forest cover, forest interior and forested riparian zones.	A
Wetland Cover	Calculation of the total area of wetland within each sub-watershed.	B

The LRCA has prepared the report card as a summary of the state of the region’s forests, wetlands and water resources. Report cards can be used to target actions to address specific issues if required through watershed management programs. A copy of the 2023 Lakehead Region Watershed Report Card is attached. The document also summarizes what is being done to protect and enhance the Lakehead Watershed.

Watershed Conditions – Snow Surveys and Lake Levels

Staff conduct snow surveys on a bi-monthly 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 April 1st, snow surveys indicated that the snow survey locations are above average for snow depth and water content, when compared to the historical averages for April 1st. The snow depth results were:

- McVicar Creek – 59.5 cm (119% above average)
- Pennock Creek – 65.3 cm (205% above average) and
- Current River – 77.9 cm (66% above average)

This averages to 130% above the historical average for depth for April 1st. The water content results were on average 147% above average for the three snow courses, with an equivalent water content ranging from 174.7 mm at Hazelwood (Current River), 201.6 mm at McVicar Creek, and 207.9 mm at Pennock Creek. The next snow survey measurements will be taken on April 17, 2023.

Lake Superior’s beginning of April level was 18 cm above its period-of-record (1918-2021) beginning of month average, and 24 cm above last years level in April. Lake Superior is expected to continue its seasonal rise this month (long-term seasonal average pattern is for the lake to rise 8 cm in April). Ice cover on Lake Superior as of April 10, 2023 was reported to be very minimal (1-2%), continuing to be below average for this time of year which was the case throughout 2023.

Watershed Conditions – Flood Forecasting

On April 5th and 6th, the LRCA Region received a winter storm system with weather conditions consisting of snow, rain, freezing rain, periods of ice pellets mixed with snow and gusting wind. After the winter storm, the region received above average temperatures resulting in the beginnings of spring melt.

A Watershed Conditions Statement – Water Safety was issued on April 11, 2023 @ 2:00 p.m. to advise the public to exercise caution in and around waterways due to dangers associated with potentially high flows and slippery banks, and to keep children and pets away from all waterways.

34th Annual Spring Melt Meeting

The Authority held the 34th Annual Spring Melt Meeting on Thursday, April 13, 2023. The Meeting Minutes and presentation will be sent out to invitees after the meeting. The annual meeting is held to discuss the spring melt conditions and to keep the lines of communication open with staff and personnel who may be involved during a flood emergency. The updated Flood Warning Booklet was distributed at the meeting to those in attendance and mailed to 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.

Twenty-nine people attended the meeting including representatives from the Municipality of Oliver Paipoonge, the City of Thunder Bay, and the Townships of Dorion, Conmee, and O'Connor, as well as from the Ontario Power Generation, Fort William Historical Park, Ministry of Natural Resources and Forestry, and staff and council members from the LRCA.

Lakehead Region Watershed Report Card 2023



The Lakehead Region Conservation Authority has prepared this report card as a summary of the state of your forests, wetlands, and water resources.



LAKEHEAD REGION
CONSERVATION AUTHORITY



WHERE ARE WE?



What is a Watershed?

A watershed is an area of land drained by a creek or stream into a river which then drains into a body of water such as a lake or pond. Everything in a watershed is connected. Our actions upstream can affect conditions downstream.

Why Measure?

Measuring helps us better understand our watershed. We can target our work where it is needed and track progress. We measured:

Groundwater Quality	Surface Water Quality	Forest Conditions	Wetland Conditions

GRADING

A Excellent
B Good
C Fair
D Poor
F Very Poor
Insufficient Data

What is a watershed report card?

Ontario's Conservation Authorities report on watershed conditions every five years. The watershed report cards use Conservation Ontario guidelines and standards developed by Conservation Authorities and their partners.



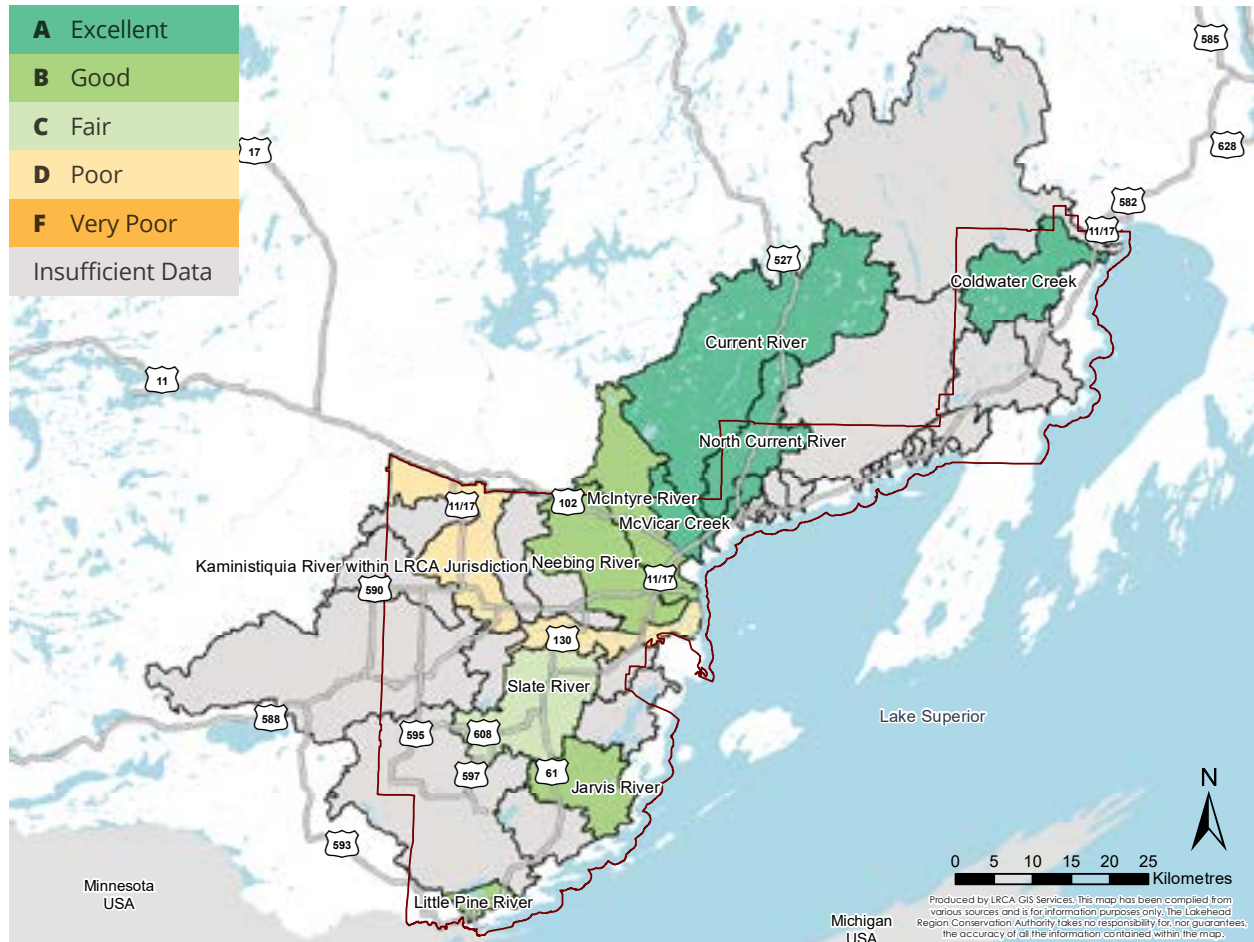
Grades for surface water quality are based on chemical (total phosphorous concentrations) and bacteriological (E. coli concentrations) indicators of water quality. The LRCA collected data from seven sample sites through the Provincial Water Quality Monitoring Network (PWQMN) program.

What Did We Find?

- In sub-watersheds, the grades range from A to D, with mostly C grades; within the Lakehead Watershed, scoring ranged from a grade of 'A' to 'D'.
- Phosphorous and E. coli concentrations are low within the Lakehead Watershed.
- Due to a lack of available data, benthic invertebrate data was not included in the assessment.

GRADING

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor
	Insufficient Data





Lakehead Region FOREST CONDITIONS

GRADE

A

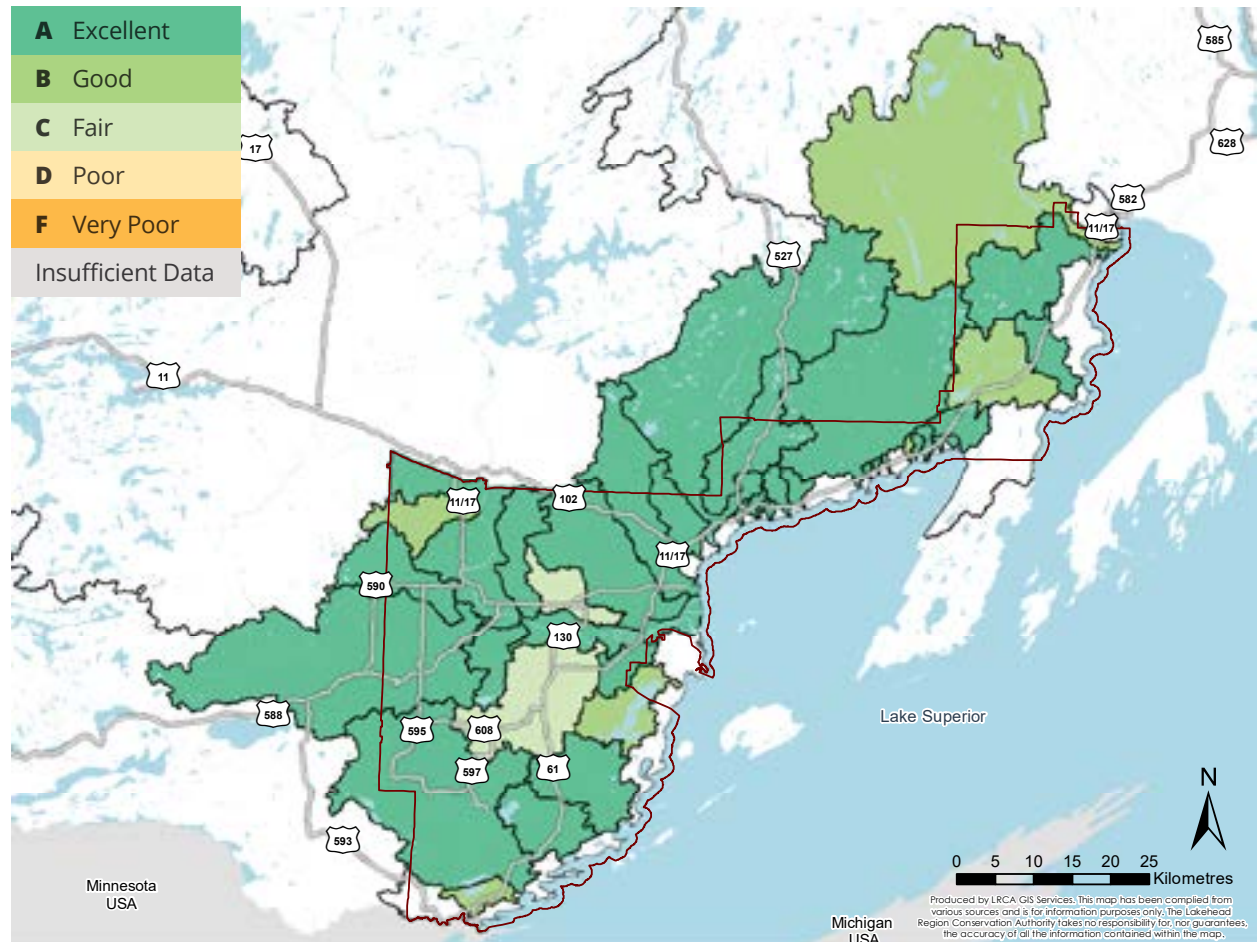
The quality of the Lakehead Watershed forest is measured by calculating the area of forest cover, forest interior, and forested riparian zones. The Forest interior is the wooded area that is more than 100 metres from a forest's edge. A forest riparian zone is the area of forest 30 metres on either side of a watercourse.

What Did We Find?

- The Lakehead Watershed forest is in excellent condition, scoring an average grade of 'A'.
- The Lakehead Watershed is comprised of approximately 80% forest cover.
- The Lakehead Watershed's forest interior is approximately 56%.
- The Lakehead Watershed riparian zone is 58% forested.

GRADING

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor
	Insufficient Data

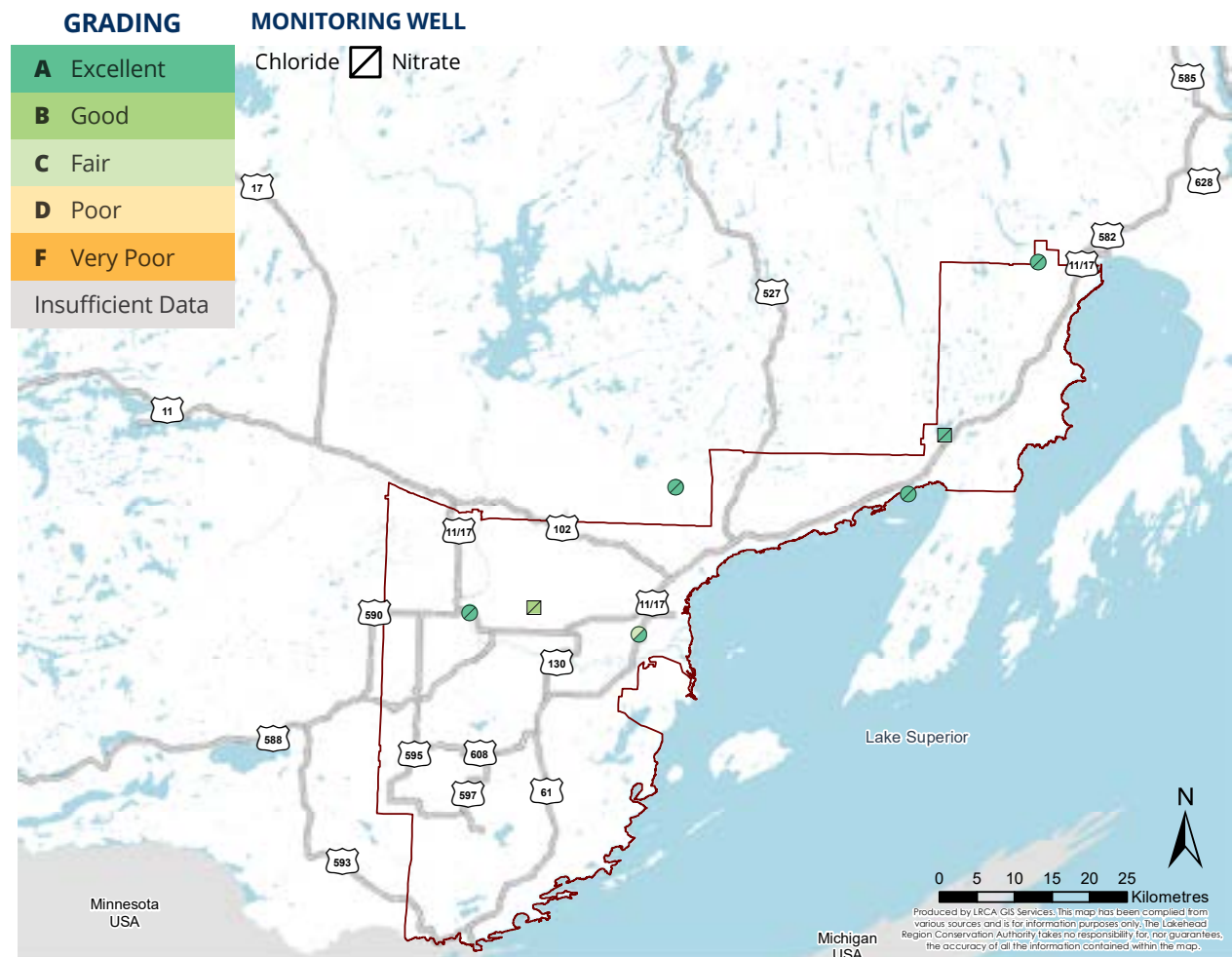




Naturally occurring elements (chlorides, nitrates, and nitrites) can be found in groundwater; however, concentrations can be increased due to human activity. The LRCA collects data from seven wells through the Provincial Groundwater Monitoring Network (PGMN) program.

What Did We Find?

- Lakehead Watershed groundwater quality is excellent; tested wells averaged 'A' in all parameters.
- Nitrate + Nitrite concentrations in all monitoring wells was low, with an average grade of 'A'.
- Concentrations of Chloride in all but two monitoring wells scored a grade of 'A'.
- Generally, nitrate, nitrite, and chloride concentrations are low at all wells.





Lakehead Region WETLAND COVER

GRADE

B

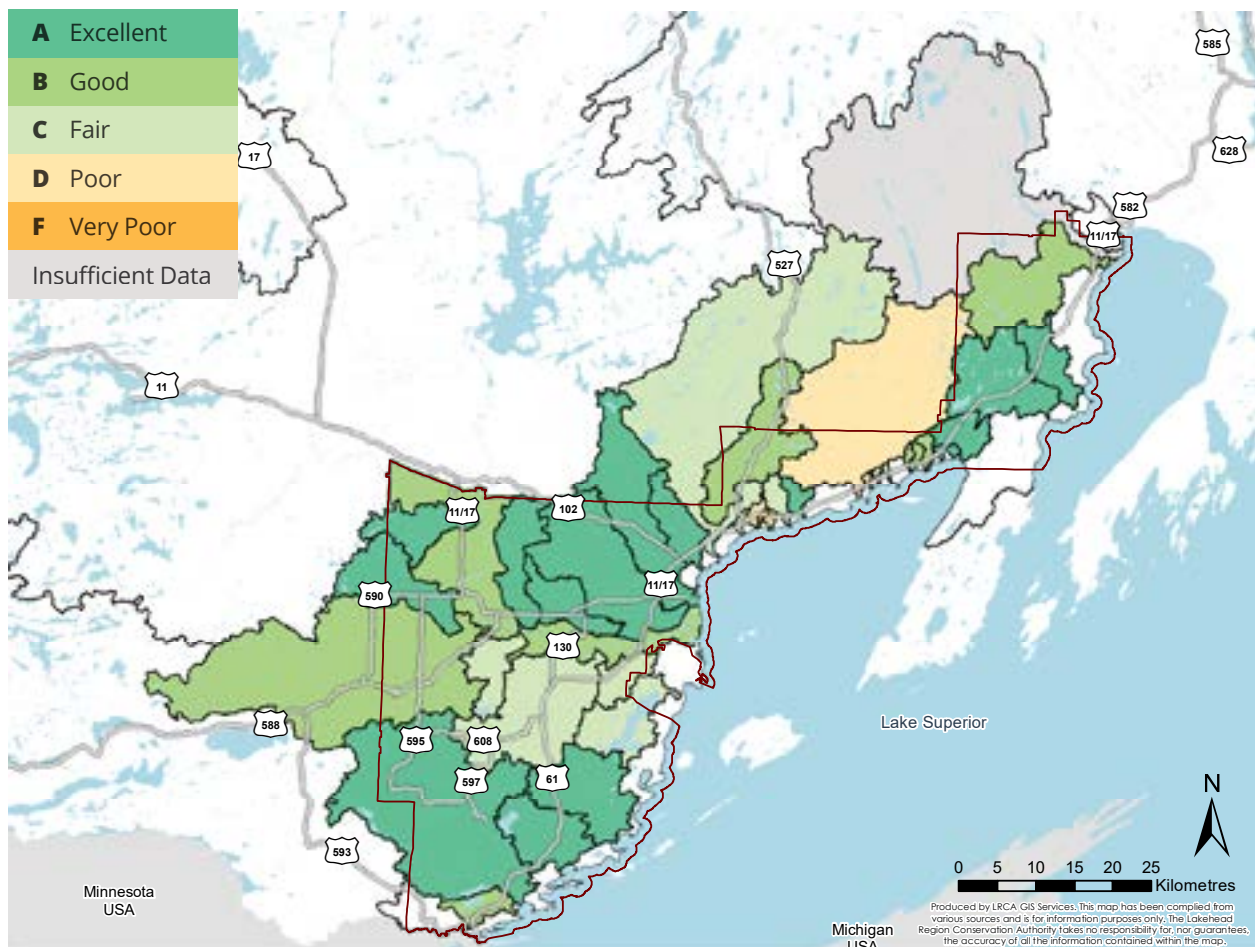
Wetland cover is measured by calculating the total area of wetland within each sub-watershed.

What Did We Find?

- Wetlands assessed within each sub-watershed are in overall good condition and scored an average grade of 'B' based on the available datasets and maps.
- Environment Canada suggests that 10% wetland cover is important for a healthy watershed. The wetlands in the Lakehead Watershed comprise approximately 11% of the total sub-watershed area.
- Approximately 62% of the Lakehead Watershed received a grade of "B" or higher.

GRADING

A	Excellent
B	Good
C	Fair
D	Poor
F	Very Poor
	Insufficient Data



MANAGING OUR WATERSHED



The 2022 Watershed Report Card (WRC) provides an average grade for groundwater quality, forested areas, wetland coverage, and surface water quality for the Lakehead Watershed. The grade scores were derived from data sets collected through the LRCA watershed assessment projects, and program partnerships with the Ministry of Environment, Conservation, and Parks. The sub-watersheds that were assessed for the WRC include:

- McVicar Creek
- McIntyre River
- Current River
- Neebing River
- Kaministiquia River
- Slate River
- Jarvis River
- Little Pine River

LRCA Five-Year Strategic Plan 2023 - 2027

The LRCA's Strategic Plan provides a trail map to build and enhance all facets of our organization with a continued focus on four priorities:

- Conserve and Sustain
- Protect and Support
- Connect and Explore
- Govern and Enhance

HOW CAN WE ENHANCE THE WATERSHED?



What Can You Do?

- Plant native trees and shrubs.
- Inspect and pump out your septic system every three to five years.
- Reduce the amount of household chemicals you use and store them as directed.
- Minimize salt use by trying eco-friendly de-icing alternatives.
- Pick up after your pets; dog feces can contaminate waterways.

What Are We Doing?

- Work closely with government partners, landowners and community groups.
- The LRCA's Superior Stewards Shoreline Naturalization program focuses on the revegetation of shoreline and streambank buffers.
- The LRCA has facilitated the planting of 21,427 trees over the last 5 years.

What Can Agencies Do?

- Adopt and support green infrastructure.
- Support local environmental programs.
- Develop environmental policies and continually evaluate their effectiveness.
- Utilize grants and funding programs to support local environmental initiatives and partnerships.
- Protect significant wetlands or natural heritage features on owned properties.



LAKEHEAD REGION
CONSERVATION AUTHORITY

*Do you have questions not answered by this summary document?
Visit www.lakeheadca.com for the full report or contact us for more
information:*

Lakehead Region Conservation Authority

130 Conservation Road, Thunder Bay, ON P7B 6T8

E-mail: info@lakeheadca.com | **Website:** www.lakeheadca.com

Phone: 807-344-5857 | **Fax:** 807-345-9156

The Watershed Report Card is available online and in other formats upon request.