AGENDA
A meeting of the Council of the Corporation
of the Town of Northeastern Manitoulin and the Islands
to be held on Tuesday, March 4, 2025
at 7:00pm

1. **Call to Order**

2. **Approval of Agenda**

3. **Disclosure of Pecuniary Interest & General Nature Thereof**

4. **Minutes of Previous Meeting**
   i. Confirming By-Law 2025-08

5. **New Business**
   i. Request for use of Municipal property – Helping Hands Family Missions
   ii. Rock Networks – Harbour View Road

6. **Minutes and Reports**
   i. Little Current Landfill Monitoring Report 2024
   ii. Sheguiandah Water Treatment Annual Report
   iii. Little Current Water Treatment Annual Report
   iv. Manor minutes – January
   v. Manitoulin East Municipal Airport minutes – February
   vi. DSSAB 4th quarter

7. **Adjournment**

THE CORPORATION OF THE TOWN OF NORTHEASTERN MANITOULIN AND THE ISLANDS

BY-LAW NO. 2025-08

Being a by-law of the Corporation of the Town of Northeastern Manitoulin and the Islands to adopt the minutes of Council for the term commencing November 15, 2022 and authorizing the taking of any action authorized therein and thereby.

WHEREAS the Municipal Act, S.O. 2001, c. 25. s. 5 (3) requires a Municipal Council to exercise its powers by by-law, except where otherwise provided;

AND WHEREAS in many cases, action which is taken or authorized to be taken by a Council or a Committee of Council does not lend itself to an individual by-law;

NOW THEREFORE THE COUNCIL OF THE CORPORATION OF THE TOWN OF NORTHEASTERN MANITOULIN AND THE ISLANDS ENACTS AS FOLLOWS:

1. THAT the minutes of the meetings of the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands for the term commencing November 15, 2022

   February 18, 2025
   February 20, 2025

   are hereby adopted.

2. THAT the taking of any action authorized in or by the minutes mentioned in Section 1 hereof and the exercise of any powers by the Council or Committees by the said minutes are hereby ratified, authorized and confirmed.

3. THAT, where no individual by-law has been or is passed with respect to the taking of any action authorized in or by the minutes mentioned in Section 1 hereof or with respect to the exercise of any powers by the Council or Committees in the above-mentioned minutes, then this by-law shall be deemed for all purposes to be the by-law required for approving and authorizing the taking of any action authorized therein or thereby or required for the exercise of any power therein by the Council or Committees.

4. THAT the Mayor and proper Officers of the Corporation of the Town of Northeastern Manitoulin and the Islands are hereby authorized and directed to do all things necessary to give effect to the recommendations, motions, resolutions, reports, action and other decisions of the Council or Committees as evidenced by the above-mentioned minutes in Section 1 and the Mayor and Clerk are hereby authorized and directed to execute all necessary documents in the name of the Corporation of the Town of Northeastern Manitoulin and the Islands and to affix the seal of the Corporation thereto.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 4th day of March, 2025

Al MacNevin Mayor

Pam Myers Clerk

The Corporation of the Town of Northeastern Manitoulin and the Islands
Minutes of a meeting of Council held Thursday, February 20, 2025
at 7:00p.m.

PRESENT: Mayor Al MacNevin, Councillors:, Al Boyd, Laurie Cook, Mike Erskine, and George Williamson , William Koehler, Dawn Orr, and Bruce Wood

ABSENT: Councillor Patti Aelick

STAFF PRESENT: David Williamson, CAO
Pam Myers, Clerk

Mayor MacNevin called the meeting to order at 7:00 p.m.

Resolution No. 38-02-2025
Moved by: W. Koehler
Seconded by: A. Boyd
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands approves the agenda.

Carried

Resolution No. 39-02-2025
Moved by: D. Orr
Seconded by: M. Erskine
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands authorizes the purchase of a Pumper Fire Truck from Dependable Emergency Vehicles in the amount of $636 054.00 and
FURTHERMORE that funds be withdrawn from the Future Development Reserve fund in the amount of $417 297.00 and the Working Capital Reserve Fund in the amount of $218 757.00.

Carried

Resolution No. 40-02-2025
Moved by: : W. Koehler
Seconded by: G. Williamson
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands now reads a first, second and third time and finally passes By-Law NO 2025-07 being a by-law to authorize the Mayor and CAO to enter into an agreement with the Minister of Indigenous Services and Minister responsible for FEDNOR.

Carried

\Resolution No. 41-02-2025
Moved by: M. Erskine
Seconded by: B. Wood
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands does now adjourn at 7:31 pm.

Carried

Al MacNevin Mayor

Pam Myers Clerk

The Corporation of the Town of Northeastern Manitoulin and the Islands
Minutes of a meeting of Council held Tuesday, February 18, 2025
at 7:00p.m.

PRESENT: Mayor Al MacNevin, Councillors: Patti Aelick, Al Boyd, Laurie Cook, Mike Erskine, and George Williamson, Dawn Orr, and William Koehler

ABSENT: Councillor Bruce Wood

STAFF PRESENT: David Williamson, CAO
Pam Myers, Clerk

Mayor MacNevin called the meeting to order at 7:00 p.m.

Resolution No. 33-02-2025
Moved by: M. Erskine
Seconded by: L. Cook
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands approves the agenda.

Carried

Resolution No. 34-02-2025
Moved by: A. Boyd
Seconded by: W. Koehler
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands now reads a first, second and third time and finally passes By-law 2025-06. being a by-law to adopt the minutes of Council for the term commencing November 15th, 2022 and authorizing the taking of any action therein and thereby.

Carried

Resolution No. 35-02-2025
Moved by: : L. Cook
Seconded by: W. Koehler
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands donates $200 to the Little Current and District Fish and Game Club.

Carried

Resolution No. 36-02-2025
Moved by: : P. Aelick
Seconded by: M. Erskine
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands authorizes Rock Networks to install vaults and underground infrastructure on Tamarack Lane to support fiber internet as per the attached submission by Rock and under the terms of our agreement with them.

Carried

Resolution No. 37-02-2025
Moved by: G. Williamson
Seconded by: P. Aelick
RESOLVED THAT the Council of the Corporation of the Town of Northeastern Manitoulin and the Islands does now adjourn at 7:10 pm.

Carried

Al MacNevin Mayor

Pam Myers Clerk

Dave Williamson

From: Jamie Fitchett <info.hhfm@gmail.com>
Sent: February 26, 2025 1:22 PM
To: pmyers@townifnemi.on.ca; Dave Williamson
Cc: voiceofreason347@gmail.com
Subject: Use of rec center parking lot again

Good afternoon council,

I would like to take this time to thank you for approving the last food initiative. I have heard nothing but great things and it helped around 350 families on Manitoulin Island.

I would like to let you know that second harvest committed to one food truck a month they were so amazed how this community pulled together, including The township to make this a complete success..

On the last giveaway. Craig timmerman offered me Manitoulin Country fest grounds. I am hoping to use those for most of the giveaways going forward, but at this point in time we would like to use the arena one more time. Because of the snow buildup, it would be a lot of work for Craig to try to clean up the grounds for us..

Second Harvest is Donating a transport load of food to Manitoulin island,

I have contacted my insurance company, they are putting together a certificate of insurance in NeMI's name again

I do have to request use of the NEMI arena parking lot &facilities (bathrooms) and we would need a machine (backhoe/loader with forks) for the unloading of goods.

This event is scheduled for March 5, 2025. We would like to be onsite for 8am to unload the truck. The event should start around 9:30am

This is a free event where people will be blessed with food. All are welcome.

I can assure you that the property when I leave it will be clean, no food or Garbage will be left.

Our goal is for these events to continue in the future.

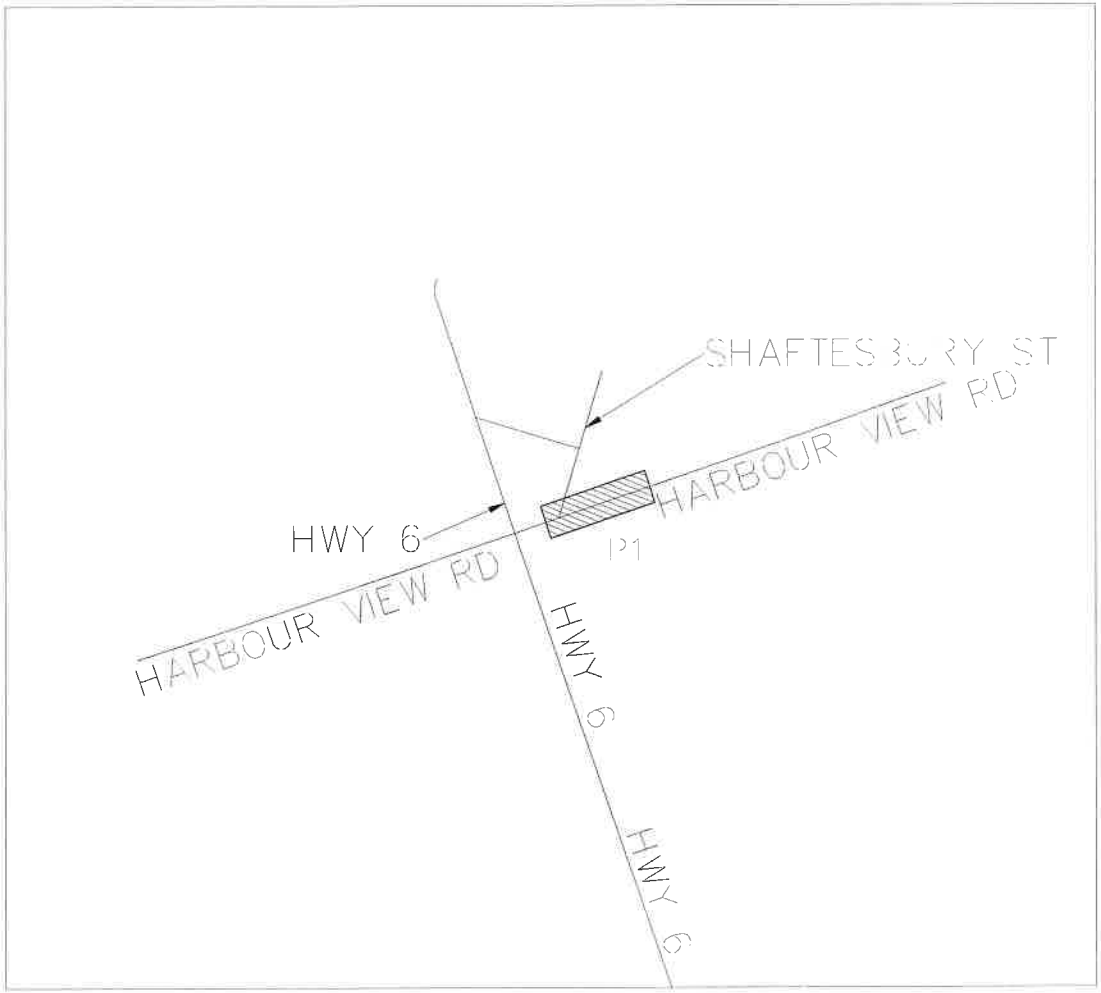
I will be onsite taking responsibility for this operation.

Thank you for your consideration,

Jamie Fitchett
Helping Hands Family Missions

Show quoted text

TOWN OF NORTHEASTERN MANITOULIN AND THE ISLANDS
TRUNK ID # TRUNK10099
DISTRIBUTION KEYMAP



POMEGRAN

ROCK NETWORKS

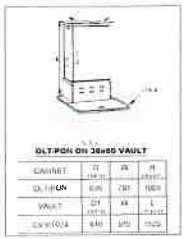
CYIENT

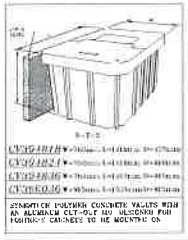
5060 EXPLORER DR MISSISSAUGA ON L4W 4T9

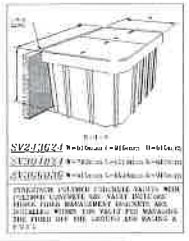
GENERAL NOTE

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND MAINTENANCE OF PUBLIC AND PRIVATE PROPERTIES HE SHALL PROTECT, SHORE, SUPPORT AND MAINTAIN ALL UTILITY SERVICES, CONDUITS, DRAINS, SEWERS AND OTHER STRUCTURES ENCOUNTERED OR CROSSED AT HIS OWN EXPENSE. ANY DAMAGE CAUSED BY THE CONSTRUCTION WORK SHALL BE MADE GOOD BY THE CONTRACTOR.
2. CERTAIN PIPE LINES, SERVICES, OVERHEAD WIRES, CABLES AND OTHER EXISTING SURFACE STRUCTURES IN THE VICINITY OF THE WORK TO BE CARRIED OUT HAVE BEEN SHOWN ON THE PLANS ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE SURVEY CREW. HOWEVER, THERE IS NO GUARANTEE OF ACCURACY OF SUCH INFORMATION AND ANY DAMAGE TO UNDERGROUND STRUCTURES OR DELAY TO THE CONTRACTOR DUE TO ENCOUNTERING STRUCTURES, CABLES OR PIPELINES NOT SHOWN OR INCORRECTLY SHOWN ON THE PLANS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT CONSTITUTE A CLAIM FOR ADDITIONAL PAYMENT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO STREETS, CURBS & SIDEWALKS, RETAINING WALLS, FENCES, TREES, SHRUBS, HEDGES, DRIVEWAYS, DRAINAGE STRUCTURES, CULVERTS, STORM DRAINS, SEWERS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED IN ANY WAY DURING THE COURSE OF THE WORK, WHICH MAY BE CAUSED BY HIS NEGLIGENCE OR THAT OF HIS SUBCONTRACTORS. SUCH DAMAGE SHALL BE MADE GOOD FROM THE CONTRACTOR'S OWN FUNDS AND TO THE SATISFACTION OF THE OWNER AND THE ENGINEER OR THE AUTHORITY HAVING JURISDICTION.
4. EXISTING GAS, WATER, SEWER AND TELEPHONE SERVICES SHALL BE MAINTAINED IN OPERATION AT ALL TIMES. WHERE CONSTRUCTION WORKS OF WHATEVER NATURE WILL BE NOTICED IN ADVANCE OF COMMENCEMENT OF ANY SUCH WORKS, TO ALLOW REQUEST MAY BE MADE TO LOCATE THE AFFECTED MAIN. ANY PROPOSED CONDUIT MAY BE PLACED ABOVE OR BELOW THE EXISTING MAIN DEPENDING ON THE DEPTH OF THE MAIN AND THE PROPOSED TRENCH. THE PROPOSED MINIMUM VERTICAL AND HORIZONTAL CLEARANCES WILL BE MAINTAINED TO MEET SPECIFIC UTILITY REQUIREMENTS. EXTRA EXCAVATION MAY BE REQUIRED TO SATISFY THE ABOVE CONDITIONS.
5. THE CONTRACTOR SHALL MAKE WITHOUT DELAY SATISFACTORY AND ACCEPTABLE ARRANGEMENTS WITH THE AGENCY OR AUTHORITY HAVING JURISDICTION OVER THE DAMAGED FACILITY FOR ANY DAMAGE, STRUCTURE OR FACILITY DAMAGED, REMOVED OR DESTROYED OR DAMAGE, REPLACEMENT OR REPAIRS OF SUCH AS CAUSED IN CONNECTION WITH SAID DAMAGE.
6. THE CONTRACTOR SHALL CLEAR BRUSH OR TREES WHERE THE FOLLOWING CONDITIONS:
   - WHEN BRUSH CLEARING IS SPECIFIED ON CONSTRUCTION DRAWINGS AND WHEN BRUSH IMPEDES PLACING CABLE ALONG ROUTE
7. ALL DEBRIS AND DEBRIS WILL BE REMOVED FROM THE RIGHT-OF-WAY AT SOLE EXPENSE OF THE CONTRACTOR.
8. EVERY EFFORT WILL BE MADE BY THE CONTRACTOR TO AVOID DAMAGE TO ORNAMENTAL SHRUBBERY OR TREES OR FIELDS, OR PROPER RIGHT OF WAYS. DAMAGE REPAIRS AT THE SOLE EXPENSE OF THE CONTRACTOR.
9. ALL WORK TO BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES OR REGULATIONS OF ANY MUNICIPALITY OR GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE RIGHT OF WAY CROSSED.
10. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC SIGNAGE AND TRAFFIC CONTROL IN ACCORDANCE WITH THE MUNICIPAL, REGIONAL AND PROVINCIAL REGULATIONS.
11. CONTRACTOR IS RESPONSIBLE FOR PROPERLY LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION ACTIVITY.
12. ALL BURIED CABLE TO BE PLACED AT 1.0 METER MINIMUM BURY UNLESS SPECIFIED OTHERWISE ON THE CONSTRUCTION DRAWINGS.
13. POMEGRAN OPERATIONS PERSONNEL TO BE CONTACTED BY THE CONTRACTOR 48 HOURS PRIOR TO CONSTRUCTION.
14. EXISTING CABLE FAULTS TO BE ALERTED AS SUCH WHEN LOCATING CABLE.
15. BORE ALL CONCRETE DRIVEWAYS AND RAMPS UNLESS OTHERWISE SPECIFIED.
16. FOAM PLUG ENDS OF CONDUIT TO GET FULL RUN AND PLUG ENDS UP PRE-DUCT.
17. THE CONTRACTOR SHALL CHECK AND VERIFY CONDITIONS, CLEARANCES AND DIMENSIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
18. ALL EXISTING UTILITIES MUST BE EXPOSED BY HAND EXCAVATION OR HYDRO-EXCAVATION PRIOR TO TRENCHING.
19. ALL BACKFILL REQUIREMENTS INCLUDING SHORING AND COMPACTION TO MEET APPROPRIATE MUNICIPAL SPECIFICATIONS AND STANDARDS.
20. ALL PAVEMENT CUTS AND SIDEWALK CUTS TO BE STRAIGHT LINES.
21. NO ALL SIDEWALKS IN THE FLEX SECTIONS.
22. CONTRACTOR TO TUNNEL ALL CURBS AND TREE ROOTS ENCOUNTERED.
23. WHEN BREAKING OUT EXISTING DUCTS WITH CABLES INSIDE, A STEEL U GUARD OR SIMILAR PROTECTIVE ELEMENT MUST BE SLID INTO THE DUCT TO PROTECT THE CABLE DURING BREAKOUT WITH JACK HAMMERS OR SIMILAR DEVICES.
24. PLANTING DRAWN TO SCALE.
25. PLANTING LOCATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO AVOID CONFLICTS WITH UTILITIES.
26. ALL WORK SITE CONDITIONS, CLEARANCES AND DIMENSIONS BOTH EXISTING AND ASSUMED ARE TO BE CHECKED AND VERIFIED BY THE CONSTRUCTION CONTRACTOR'S REPORT ANY DISCREPANCIES TO POMEGRAN AND THE ENGINEER IN HIM PRIOR TO PROCEEDING WITH ANY WORK.
27. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE SAFETY OF ALL PERSONS ON THE JOB SITE AND THE ADEQUACY OF HIS OWN, AND HIS SUBCONTRACTOR'S, WORK AND MEANS AND METHODS OF WORK. THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE LAWS, CODES AND REGULATIONS. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITY PLANT AND STRUCTURES.

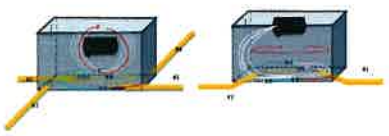
STANDARD DETAILS



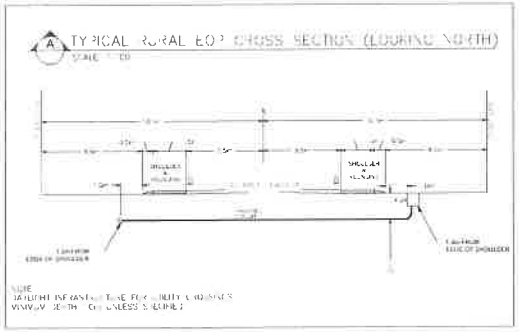


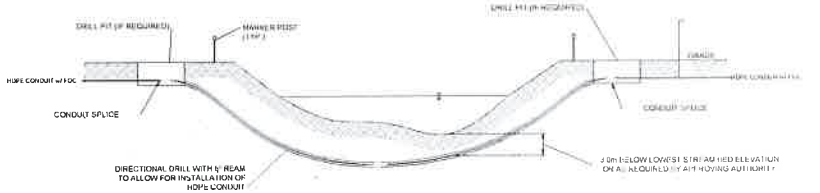


MICRODUCT TUBE IN VAULT

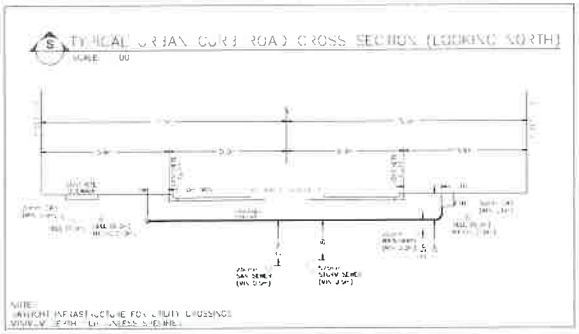


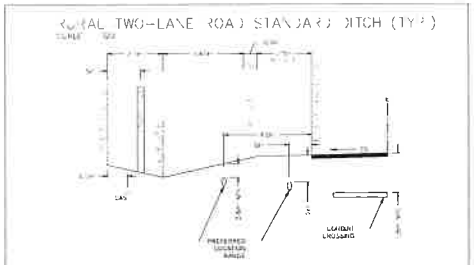
MICRODUCT SHEATH IN VAULT

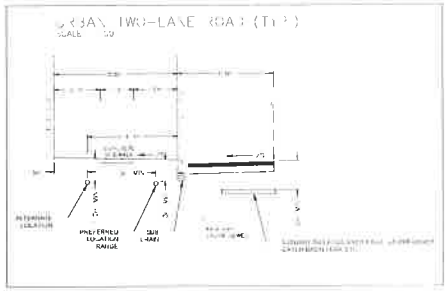


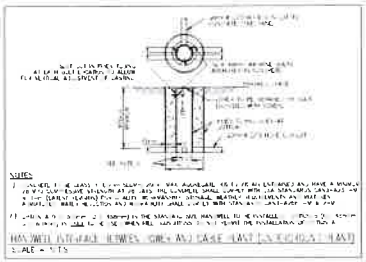


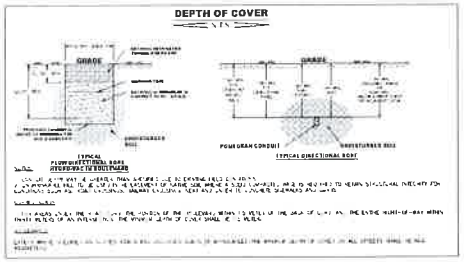
TYPICAL HORIZONTAL DIRECTIONAL DRILL
UNDER MINOR WATERCOURSE

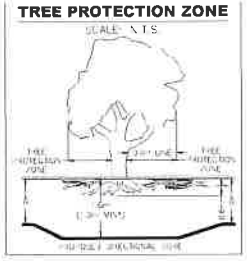


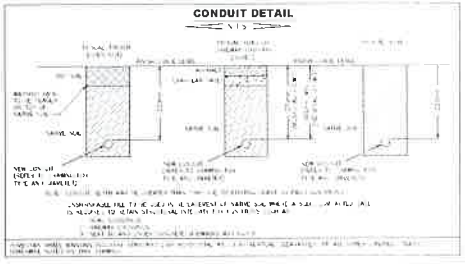












POMEGRAN

ROCK NETWORKS

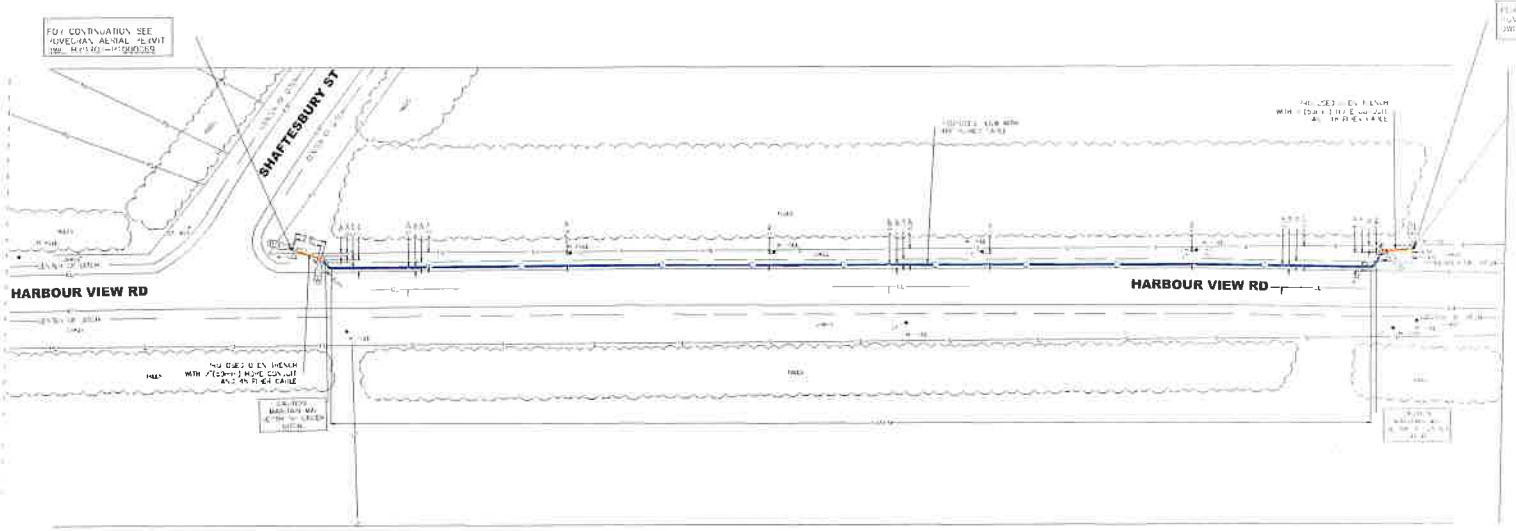
CYIENT

ELIYAZ BORRAK
TECHNICIAN ON MISSION
Email: Eliyaz.Borrak@cyient.com

GENERAL NOTE

PLAN VIEW

SCALE 1:500



SCOPE OF WORK

	THIS PAGE	TOTAL
1) LOW	2.95m	2.95m
2) OPEN TRENCH	14m	14m
3) 2"(50mm) HDPE DUCT CONDUIT	14m	14m
4) 48F SCHEDULE CABLE	225m	225m
5) GIS JOINT	2	2

CONSTRUCTION NOTES

- OPEN TRENCH AND INSTALL NEW 2"(50mm) HDPE DUCT CONDUIT AND 48 FIBRE CABLE
- FLOW POINT AND INSTALL NEW 48F SCHEDULE CABLE
- OPEN TRENCH AND INSTALL NEW 2"(50mm) HDPE DUCT CONDUIT AND 48 FIBRE CABLE
- PROPOSED OVERHEAD CABLE ROUTE
- GIS LOCATION

CAUTION	CAUTION - HAND DIG
[illegible]	WHEN CROSSING WITHIN 2m OF EXISTING UTILITIES
CAUTION	**IMPORTANT NOTE:**
REFER TO WORKSAFE CURRENT REQUIREMENTS VERTICAL AND HORIZONTAL CLEARANCE GUIDELINES	THIS REVISION PROVIDES WITH MINIMAL CONSENT REQUIREMENTS IN ACCORDANCE TO THE VERTICAL AND HORIZONTAL CLEARANCES

KEY MAP (NTS)

POMEGRANATE

ROCK NETWORKS

CYIENT

February 27, 2025
Project No. 2402967

VIA EMAIL: pmyers@townofnemi.on.ca

The Town of Northeastern Manitoulin and the Islands (NEMI)
14 Water Street
P.O. Box 608
Little Current, ON, P0P 1K0

ATTN: Ms. Pam Myers, Clerk

Re: **2024 Annual Monitoring Report**
Little Current Landfill Site

Dear Pam,

Please find enclosed one copy of the Annual Monitoring Report (2024) for the closed Little Current waste disposal site. On behalf of the Municipality, we have also submitted one copy of the report to Mr. Steven Moggy, Senior Environmental Officer at the Ministry of Environment, Conservation and Parks (MECP), Sudbury District Office. As requested by the MECP, a copy of the Monitoring and Screening Checklist included in the *Monitoring and Reporting for Waste Disposal Sites Groundwater and Surface Water Technical Guidance Document* (MOE, 2010) has been enclosed with the Annual Report. It should be noted that the attached checklist is not intended to replace the Monitoring Report, but rather to provide a general summary of the findings. Consequently, for details regarding the annual monitoring program and Site operations, please refer directly to the report.

The groundwater chemistry at the Site continues to remain relatively stable and the concentrations of leachate indicator parameters are generally consistent with recent monitoring years and are within historically observed ranges. In particular, the long-term concentration trends are generally stable to decreasing since the 2008 monitoring period.

During the 2024 monitoring period, MW-1, MW-2, and MW-8B had been decommissioned in accordance with O.Reg. 903 (as amended) and in concurrence with the MECP.

Recommendations

It is recommended that the surface water monitoring locations SW-1 and SW-2 be removed from the monitoring program due to the expected nature and chemistry of the ponded water in these locations (as discussed in Section 7 of the attached Annual Monitoring Report), the low occurrence of sufficient volumes of water being present in these features for sampling, the lack of water flowing offsite from the landfill property, and the nearby monitoring wells (i.e., MW-8A and MW-3) used to monitor the shallow groundwater quality downgradient of the landfill mound.

The water levels will continue to be measured and attempts at the collection of water samples will be made (as possible) as per the required monitoring program for the Site until written concurrence from the MECP is provided.

Finally, it was previously recommended that the Site's compliance with the Reasonable Use Criteria (RUC) is more clearly established, or establishment of stabilized concentration trends over a five-year period is observed, specifically at MW-8A, that additional review of the sampling frequency take place in order to determine the applicability of a further reduced program. Based on the generally stable to decreasing concentration trends measured from MW-8A since 2016 (i.e., approximately nine years), it is recommended that the sampling frequency be reduced to once per year in the fall.

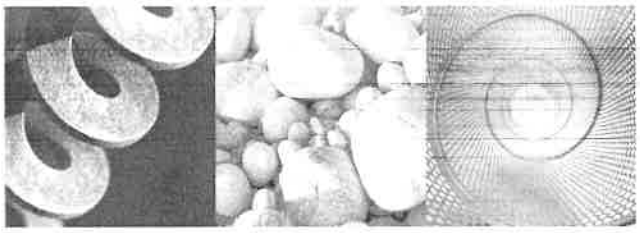
I trust that this is sufficient for your files at this time. Please do not hesitate to contact me if you have any questions, or should you wish to discuss this further.

Sincerely,
GEI Consultants Canada Ltd.

A.W. Bringleson, B.E.S., C.E.T.
Project Manager

AB/CC:clw

cc: Brendan O'Farrell, MECP Sudbury District Office (Brendan.o'farrell@ontario.ca)



GEI Consultants

NEMI
NORTHEASTERN MANITOULIN & THE ISLANDS

Annual Monitoring Report (2024)

Little Current Landfill Site

MECP Environmental Compliance Approval No. A551002

Town of Northeastern Manitoulin and the Island (NEMI), Ontario

Submitted to:
Town of NEMI
14 Water Street East
Little Current, ON, P0P 1K0

Submitted by:
GEI Consultants Canada Ltd.
1260 2nd Avenue East, Unit #1
Owen Sound, ON N4K 2J3
519.376.1805
February 27, 2025
Project No. 2402967

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CC/AB:clw
\\geiconsultants.com\Data\Data_Storage\Working\NORTHEASTERN MANITOULIN AND THE ISLANDS, TOWN OF\2402967 - M1593 Little Current Landfill Monitoring\M-1593 Reports\2024 AMR\Working Documents\2402967 - Little Current 2024 AMR - February 2025

1. Introduction

The closed Little Current landfill property is located approximately 1 kilometre (km) southwest of Little Current on the north side of Highway 540 (Figure 1). The Site is situated on Part of Lots 4 and 5, Concession 8 and Part of Lot 5, Concession 9, in the former Township of Howland, District of Manitoulin. The Town of Little Current operated the Site until it amalgamated with the Township of Howland and the unorganized Municipality of McGregor Bay to become the Town of Northeastern Manitoulin and the Islands (NEMI), District of Manitoulin (herein referred to as 'the Town') on January 1, 1998. Following amalgamation, NEMI assumed responsibility for the Site.

Operations at the Site were conducted under the Ministry of Environment, Conservation and Parks (MECP) Provisional Certificate of Approval for a Waste Disposal Site, No. A551002 (now referred to as an Environmental Compliance Approval, or ECA), which was originally issued on March 19, 1980, and was replaced with the ECA dated September 6, 1986. The ECA was further amended in March 2003, October 2004, and June 2005. Copies of the Approval for the Site, as amended, are provided in Appendix A.

The MECP approved a useable area of approximately 1.6 hectares (4 acres) for landfilling within the 3.69 ha (9.1 acre) waste disposal site. A Site Plan is provided in Figure 2. Landfilling of domestic and commercial wastes at the Site reportedly began before 1942 and was suspended in October 2002. The Site was formally closed and capped at that time. Waste generated in Little Current, and the surrounding area has since been redirected to the NEMI Landfill Site, located at 9571 Highway 6, located approximately 2 kms south of the community of Little Current.

Condition 16 of the ECA requires that an annual monitoring report be submitted by February 28th of each year to summarize the previous year's monitoring results. This monitoring report is submitted to meet the monitoring requirements specified under Condition 16 of the ECA.

2. General Site Operations

The Little Current Landfill Site closed in October 2002, at which time the Site operations ceased. Site access is restricted by a locking gate at the entrance and the perimeter of the Site is fenced with post and wire fencing. Condition 16(e) of the ECA requires that the monitoring report include "*inspection results and maintenance required for the final cover system*". Inspection of the ground cover system involves a visual assessment of the cover for areas of ponding, eroded ground cover, and/or dead or dying ground cover, trees, and brush. The ground cover inspections are conducted twice annually in conjunction with the annual sampling programs. Based on the most recent inspections, the ground cover system continues to be adequate with no areas showing signs of apparent stress of deficiencies. Conditions 16(f) requires the inclusion of "*a copy of all complaints received during the reporting period, including the Town's response and mitigative actions taken to address these complaints*". The Town reports that no complaints related to the closed Little Current Landfill site were received during the reporting period.

3. Summary of Site Setting

A detailed description of the geologic and hydrogeologic conditions at the Little Current Landfill site were presented in the previous hydrogeological study for the Site prepared by Proctor and Redfern Limited (August 1992). Key findings, as provided in previous annual reports and the report outlining the Closure and Post-Closure Care of the Little Current site (prepared by Burnside Environmental, May 2001) are summarized below. A summary of the monitoring locations and borehole details are provided in Table 1. Geological properties are summarized in the borehole logs provided in Appendix C.

3.1. Geologic Conditions

Manitoulin Island is part of the Niagara Escarpment and forms a flat tableland area, which is characterized by shallow soil cover overlying flat-lying limestone, dolostone and shale. The overburden on the tablelands consists of lacustrine silty clay to fine sandy silt deposits from glacial Lake Algonquin. The Ontario Geological Survey (OGS) Map P2670, 1985, describes the bedrock beneath the Site as a sequence of shales, limestones and dolostones belonging to the Middle to Upper Ordovician Lindsay Formation. Adjacent and south of the landfill is a contact between the Lindsay Formation and the blue-grey shale of the more recently deposited Upper Ordovician Blue Mountain Formation.

As defined by Russell and Telford (1983) and summarized in the Hydrogeologic Study for the Site (Proctor and Redfern Limited, August 1992), the Lindsay Formation has 2 members. The lower member consists of 15.25 metres (m) of thick grey to grey-brown, finely crystalline to sub-lithographic limestone and dolostone. This member has moderate amounts of interbedded shale and has a characteristic "mottling" or nodular appearance. The upper member, or Collingwood Member, is a black calcareous, proliferous shale that measures approximately 7.5 m in thickness.

Based on the borehole and test hole logs, the overburden to the south of the landfill, as noted in BH1, consists of approximately 2 m of unsaturated sand (with gravel interbeds) underlain by approximately 5 m of silt till. To the north and east of the landfill footprint, the overburden consists of 2 to 3 m of clay underlain by 0.3 to 0.6 m of silt till. To the north of the landfill footprint, the silt till unit grades into a coarser grained till with fine sand and gravel, as observed in BH3 and BH5. It is noted that the borehole identified in the appended borehole logs were completed with monitoring wells as presented in the attached figures (i.e., BH3 is representative of MW-3).

The bedrock encountered at the Site consists of the black shale of the upper member and the underlying limestone/dolostone of the lower member of the Lindsay Formation. As indicated by the borehole logs, the black petroliferous shale appears to be thickest to the south of the landfill in the vicinity of BH1 and gradually thins to the north towards BH3, BH4 and BH5. The limestone/dolostone of the lower member was encountered north of the landfill, in boreholes BH3, BH4 and BH5, and the locations of the more recent monitoring well couplets MW-6A/6B, MW-7A/7B and MW-8A/8B installed by GEI Consultants Canada Ltd. (GEI, formerly operating as GM BluePlan Engineering Limited, GMBP). As part of the subsurface investigations, the thinly laminated fossiliferous shale was reported to have a petroliferous or sulphurous odour when split. Further, thin zones of pyrite mineralization were visible on parting planes. Some interbedding of the shale with thin layers of the limestone/dolostone were also evident in the borehole core samples.

3.2. Hydrogeologic Conditions

The information presented herein summarizes information provided within the Hydrogeologic Study for the Little Current Landfill prepared by Proctor and Redfern Limited (August 1992). According to the borehole logs for BH3, BH4 and BH5, and based on the 2011 drilling investigation, a relatively significant water bearing fracture zone appears to exist at the interface between the shale and limestone/dolostone units. These fractures were typically found to be weathered and infilled with silt and clay.

The water quality in the area is typically considered to be poor. Poor water quality has been attributed to the brines associated within the upper bedrock unit (i.e., derived from the black petroliferous shale unit). According to the Hydrogeologic Study (1992), naturally elevated concentrations of sodium, calcium, magnesium, sulphate, chloride and TDS are typical for groundwater derived from petroliferous shales. Background water quality in the upper 4 m of the bedrock around the landfill (i.e., lower shale and upper dolostone units) has been found to be very saline and alkaline, with elevated concentrations of chloride, sodium, boron, strontium and TDS.

3.3. Groundwater Flow Direction

Groundwater level measurements are collected bi-annually in conjunction with the monitoring program. A summary of historical groundwater level measurements is provided in Table 2. A groundwater flow map, developed using the most recent water level measurements from wells screened within the overburden and/or shallow bedrock, is provided in Figure 3. Based on the available measurements, groundwater generally flows in a north to northwesterly direction. The groundwater flow pattern is consistent with those historically present.

Consistent with past measurements, the groundwater levels at monitoring well MW-1 were not used as the water levels were significantly lower than those measured in well MW-6B (i.e., difference of greater than 8 m), which is located approximately 15 m to the southeast. This difference in water level is inferred to be from a lack of recharge due to the location of the well screen in MW-1 within a low permeability unit of bedrock that may potentially have a lack of 'active' fractures (i.e., fractures that are interconnected). Therefore, it appears that MW-1 is screened within a zone of the upper member that is not historically active, as supported anecdotally by a lack of observed recharge during purging. Based on the lack of recharge experienced at this monitoring location, and the installation of a replacement well couplet (i.e., MW-6A/6B), this monitoring location has been decommissioned in accordance with O. Reg. 903 during the monitoring period on September 12, 2024.

Groundwater levels measured at well couplets MW-6A/6B, located upgradient of the landfill, and MW-7A/7B, located to the northwest of the landfill, suggest that while a downwards gradient exists to the south of the landfill, groundwater level measurements obtained from MW-7A/7B indicate that the area downgradient of the landfill contains vertical gradients that vary between slightly upwards and downwards between the overburden and shallow bedrock unit. Further evidence of upward gradients between the overburden and shallow bedrock in the area is provided by water levels from bedrock MW-2 in which water levels are, at times, reported to be measured within less than 0.1 m below the top of the pipe (i.e., above ground surface elevation). Similarly, the MW-2 monitoring location has been decommissioned in accordance with O. Reg. 903 during the monitoring period on September 12, 2024.

4. Monitoring Requirements

4.1. Monitoring Locations

4.1.1. Groundwater

The Little Current Landfill site is currently monitored through the collection of samples at a network of 7 groundwater monitoring wells installed throughout the landfill site and the adjacent property to the east, where shown in Figure 2.

Monitoring wells MW-1 through MW-5 (previously referred to as BH1 through BH5) were installed by Proctor and Redfern Limited in September 1991. Due to the reported observation of stained oily soil around MW-4 by a representative of Burnside Environmental in 1998, soil clean-up and monitoring well decommissioning was reportedly recommended and completed in 1998.

Condition 12 of the amended ECA (March 2003) for the Little Current Landfill required that the Town install, for the purpose of post-closure care and groundwater monitoring, several wells in addition to the initial five monitoring wells that were installed in 1991. These wells were to aid in the assessment of Site compliance and to assist in the evaluation of the potential need to acquire downgradient lands for registration as a contaminant attenuation zone (CAZ). To satisfy the requirements of the ECA, Northland Engineering recommended the installation of six additional

monitoring wells and one gas monitor. In January 2006, Northland Engineering installed 2 of the planned wells and MW-9, which is situated in the unsaturated zone within the refuse and is used as a gas monitoring location. The four remaining recommended monitoring locations were installed in July 2011 by GEI (formerly GMBP).

The additional recommended monitoring wells were installed at three different locations surrounding the closed landfill and include a new upgradient background monitoring well couplet (i.e., MW-6A/6B), intended to replace MW-1 and to better characterize the background water quality associated with the overburden and bedrock unit; and 2 overburden/shallow-bedrock well couplets situated downgradient of the landfill to aid in the assessment of Site compliance (i.e., MW-7A/7B and MW-8A/8B).

A lack of sufficient groundwater and inconsistency in water level in MW-1 has been reported since the 2000s, inferring that the monitoring well seal may have been compromised, leading to skewed results in the event sufficient water could be collected and sampled. In 2016, technical support staff from the MECP confirmed that MW-2 was situated in wetland area and concluded this monitoring location had been compromised. With respect to the geologic conditions encountered in MW-8B, naturally occurring bitumen and associated gasses have been consistently reported. As such, and due to the potential hazards associated with these conditions, groundwater samples have not been analyzed from this location since 2011. Based on the conditions noted above, and with MECP concurrence, monitoring wells MW-1, MW-2 and MW-8B were decommissioned on September 12, 2024, in accordance with O. Reg. 903.

4.1.2. Surface Water

Currently, surface water quality monitoring is completed twice annually at 2 locations to support the requirements of the Approval. The surface water sampling locations, as shown in Figure 2, include the following:

SW-1: Located within a seasonal highly localized ponded area located to the north of the landfill footprint.

SW-2: An engineered surface water collection pond located centrally and to the north of the landfill footprint. This engineered stormwater management system was designed to collect non-contact surface water originated from the closed and capped landfill pile.

4.1.3. Methane Monitoring

Methane monitoring is completed to satisfy Condition 16(b) of the ECA, which states that *"monitoring results and details of maintenance required for the landfill gas venting"* be provided in the annual report. The ECA requires that measurements of the lower explosive limit (LEL) be obtained once annually. The landfill gas vents on the top of the refuse pile are inspected annually and gas measurements are collected using a gas detector calibrated to methane. Historical gas monitoring results are summarized in Table 3.

4.2. Monitoring Program

Based on MECP concurrence with recommendation provided by GEI (formerly GMBP) in the 2008 Annual Report, as outlined in correspondence dated February 11, 2010 (Appendix B), the annual monitoring program for the Site, as amended, is as follows:

SAMPLING LOCATIONS		ANALYTICAL PARAMETERS
GROUNDWATER (Summer and Fall)		
Overburden	MW-6B MW-7A MW-8A	Conductivity, Total Dissolved Solids (TDS), pH, Alkalinity, Hardness, Ammonia, Dissolved Organic Carbon (DOC) Bromide, Chloride and Sulphate **Metals:** arsenic, barium, boron, chromium, cobalt, copper, selenium, strontium, calcium, magnesium, manganese, iron, potassium, and sodium
Bedrock	MW-3 MW-5 MW-6A MW-7B	
SURFACE WATER (Summer and Fall)		
SW-1 SW-2		Conductivity, Total Dissolved Solids (TDS), pH, Alkalinity, Hardness, Ammonia, Dissolved Organic Carbon (DOC), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Bromide, Chloride and Sulphate **Metals:** arsenic, barium, boron, chromium, cobalt, copper, selenium, strontium, calcium, magnesium, manganese, iron, potassium, and sodium **Field Parameters:** Temperature and water level

Summaries of the historical groundwater quality analytical results and surface water quality results are provided in Appendix D and Appendix E, respectively.

4.3. Sampling Procedures

For completion of the groundwater sampling program, the static groundwater level and well depth are measured in each monitoring well prior to purging three case volumes of stagnant water from each well. GEI personnel also check to ensure that all monitoring wells are properly secured and in compliance with O. Reg. 903. After purging, monitoring wells are allowed to recharge with fresh groundwater before sampling occurs. Groundwater purging and sampling is conducted using dedicated Waterra™ tubing and an inertial-type pump. Samples are collected in laboratory supplied containers. Under the Site-specific program, samples collected for the indicator metals are placed in unpreserved containers and are filtered and preserved by Bureau Veritas Laboratories (an accredited laboratory) in accordance with the applicable protocols. The laboratory provided Certificates of Analyses for the current monitoring period are included in Appendix F.

Surface water samples are collected by submerging the appropriate sample container into the water body and removing the container when a sufficient volume of sample has been collected. During collection, contact with bottom sediments is avoided to prevent the collection of particulate in the sample. When collecting surface water samples, direct dipping of the sample bottle is acceptable unless the bottle contains preservative. For those samples requiring preservative, a clean unpreserved bottle is used to obtain the sample, which is then transferred into the appropriate preserved bottle. The surface water temperature is measured and recorded at the time of sampling.

The groundwater and surface water samples are kept chilled following completion of the sampling program and are submitted within 24 hours of the sampling event to an accredited laboratory for analysis. Copies of the laboratory analytical reports for the current monitoring period are provided in Appendix F.

5. Determination of Reasonable Use Criteria for the Site

5.1. Determination of Action Levels

MECP Guideline B-7 establishes the basis for determining what constitutes the reasonable use of groundwater on properties adjacent to landfill sites. This approach uses both the provincial maximum concentrations identified in the Ontario Drinking Water Standards (ODWS), revised in June 2006, and site-specific background values, to calculate acceptable concentrations at the site boundary. By applying the RUC, the potential use of groundwater for domestic consumption will almost always provide the lowest allowable concentration limits, referred to as the objective levels. MECP Procedure B-7-1 provides the technical details for the application of the reasonable use approach. A change in the quality of groundwater on an adjacent property, where the reasonable use is determined to be for drinking water, will be acceptable only where:

i) Quality is not degraded by more than 50% of the difference between background concentrations and the Ontario Drinking Water Standards for non-health related parameters, and

ii) Quality is not degraded by more than 25% of the difference between background concentrations and the Ontario Drinking Water Standards for health-related parameters.

Background concentrations are considered to be the quality of the groundwater prior to any contamination from landfill activities.

5.2. Background Water Quality

Background concentrations are the site-specific values that represent the quality of groundwater prior to any contamination from landfill activities. As previously discussed, historically water quality results obtained from MW-1 were used to determine the background water quality. However, due to the lack of recharge into this well, the inability to regularly collect samples, and the identified differing water quality characteristics associated with the overburden and bedrock units, MW-1 was decommissioned in September 2024. As previously reported, MW-1 was previously replaced with an overburden/bedrock well couplet, MW-6A/6B.

The background water quality was determined using data from overburden monitoring well MW-6B, installed in 2006, and bedrock well MW-6A, installed in 2011. This monitoring well couplet is located upgradient from the landfill as illustrated in Figure 3. All available groundwater quality, up to and including October 2024, were used to calculate the average 95th percentile background concentrations for each indicator parameter to aid in the determination of RUC values for groundwater in the shallow overburden and bedrock. The 95th percentile concentration was used to reflect the RUC background concentrations for parameters with background concentrations that exceed the ODWS. The background concentration ranges, averages, and resulting RUC values (i.e., objective levels) for the indicator parameters monitored at the Site are summarized in Table 4A (overburden) and Table 4B (bedrock).

Overburden monitoring well MW-6B was installed to a depth of approximately 8.5 m and is screened within the silt till unit overlying the bedrock and MW-6A is screened at an interval that straddles the lower shale and the upper dolostone units, which is geologically consistent with the screened intervals in the downgradient bedrock monitoring wells MW-3, MW-5 MW-7B, and the decommissioned MW-8B. Downward gradients are consistently noted at this well nest. It is evident that the groundwater quality within each of the units, including the overburden, petroliferous black shale and the underlying limestone/dolostone varies significantly. This variation is likely due to the different geochemical characteristics and groundwater sources associated with each unit (i.e., shallow groundwater is more likely influenced by the infiltration of precipitation versus the brines associated with the low conductivity shale unit). Consequently, background groundwater quality within each unit is evaluated separately.

Overburden

Based on the analytical data for well MW-6B, the shallow background groundwater chemistry for the Site can generally be described as having chloride concentrations in the general range of 19 to 66 mg/L, a slightly basic pH of approximately 7.95, on average, and an average conductivity of approximately 721 µS/cm. The average hardness and alkalinity concentrations are approximately 363 mg/L and 270 mg/L, respectively, which is representative of a carbonate-rich groundwater system. Further, as demonstrated by the historical water quality results and trends noted at MW-6B, the background groundwater quality shows naturally elevated, and/or highly variable concentrations of sulphate, iron, and manganese.

It is noted that during previous monitoring events, anomalously elevated concentrations of manganese, strontium, calcium, sulphate, hardness, alkalinity, TDS and conductivity were reported in MW-6B. The cause of these elevated concentrations is not currently known. However, the analytical data represents a one-time occurrence with a notable decrease in concentrations for these parameters in the follow-up monitoring event. The anomalous concentrations have continued to fluctuate to some extent but with an overall decreasing trend up to the current monitoring period. The elevated parameter concentrations are not expected to be associated with landfill leachate due to their location adjacent to the hydraulically upgradient property boundary. These elevations are more likely associated with a degree of groundwater influence from the underlying shale bedrock unit. The assessment and evaluation of the long-term trends in MW-6B will continue to be completed on an ongoing basis.

Bedrock

Groundwater quality in the bedrock unit is generally poor, showing the natural occurrence of several parameters typically relied upon to characterize and identify landfill leachate impacts. Relative to the overburden groundwater quality, the bedrock unit is characterized by elevated concentrations of boron and strontium. In addition, average background concentrations of sodium and chloride are generally in the range of five to ten times those measured in the overburden. The concentration of TDS is also, on average, approximately 2 time greater in the bedrock. The average hardness and alkalinity concentrations are approximately 435 mg/L and 276 mg/L, respectively. As previously discussed, the elevated parameter concentrations in the bedrock wells are expected to be caused by the natural petroliferous-rich brines associated with the shale bedrock. Further, as noted by the reported spikes in concentrations in previous years (i.e., measured in the Fall of 2012 and 2017), concentrations can vary significantly depending on the level of influence from the upper shale bedrock unit.

In general, when compared to the overburden groundwater quality, the groundwater quality within the bedrock unit is characterized by elevated concentrations on average of boron, strontium, sodium, chloride, conductivity, total dissolved solids (TDS), and to a lesser degree, hardness and potassium.

5.3. Calculation of Objective Levels (RUC)

Table 4A and Table 4B identify the concentrations of groundwater quality indicator parameters in overburden and bedrock, respectively, used for evaluating the acceptable level of contaminant concentrations at the Site boundary. Background concentrations (C_b) are the site-specific values (discussed in the previous section). The provincial maximum concentrations (C_r) are identified in the Technical Support Document for the Ontario Drinking Water Standards Objectives and Guidelines (June 2006), referred to herein as the ODWS.

Acceptable concentrations at the Site boundary (C_m), herein referred to as the Reasonable Use Criteria (RUC), are calculated from MECP Procedure B-7-1, using the following formula:

$$C_m = C_b + x(C_r + C_b)$$

Where,

C_m = maximum concentration acceptable in groundwater beneath an adjacent property
C_b = background concentration
C_r = maximum concentration in groundwater for domestic consumption according to the ODWS
x = 0.5 for non-health related parameters (AO and OG), 0.25 for health-related parameters (MAC and IMAC)
AO = aesthetic objective
OG = operational guideline
MAC = maximum acceptable concentration – parameters related to health
IMAC = interim maximum acceptable concentration – parameters related to health

It should be noted that if background concentrations exceed the ODWS, the objective level is to be set at the background concentration, as outlined by Procedure B-7-1. A summary of the analytical results from the current monitoring period, compared to the RUC and ODWS, is provided in Table 5A (overburden) and Table 5B (bedrock).

To determine if leachate is impacting groundwater, individual indicator parameters were evaluated in conjunction with other indicator parameters and concentration trends. Wells with elevated and stable concentrations of the identified naturally elevated constituents, that show no increases in other leachate parameters, are deemed un-impacted by landfill leachate. Additionally, monitoring wells with suspected leachate impacts are compared to the groundwater chemistry at locations with naturally elevated concentrations to determine if leachate contributes to the elevated concentrations measured.

5.4. Surface Water – Provincial Water Quality Objectives

The purpose of surface water quality management at the Site is to achieve the requirements established in the Provincial Water Quality Objectives (PWQO) set out by the MECP. The PWQO were established to ensure that surface waters are of a quality which is satisfactory for aquatic life and recreation. Areas that have water quality surpassing the PWQO requirements are to be maintained at or above the applicable objectives. Areas that have water quality that do not presently meet the PWQO are not to be degraded any further and are to be upgraded if practical. Although both surface water locations have been either too stagnant or dry to sample in recent years, with the exception of a sample collected from SW-2 in July 2024, the most recent surface water results available are compared to the PWQO and shown in Table 6.

Although surface water sampling is completed at the Site as part of the annual monitoring program, the surface water features at the Site are either man-made or do not have an outflow and are representative of surface water that is designed to infiltrate. Surface water sampling location SW-1 is located within a seasonal, stagnant, organic collection pond that was designed to collect non-contact surface water drainage from the closed and capped landfill pile. In essence, water quality data represents surface water that either evaporates or infiltrates via the engineered pond, rather than information pertaining to surface water flowing offsite.

As such, due to the nearby monitoring wells (i.e., MW-3 and MW-8A) used to monitor the shallow groundwater quality downgradient of the landfill mound, the low occurrence of sufficient volumes of water being present in these features, and the lack of water flowing offsite from the landfill property, **it is recommended that the surface water locations SW-1 and SW-2 be removed from the Summer and Fall monitoring program.**

6. Groundwater Monitoring Results and Discussion

6.1. Leachate Generation

Leachate is produced when surface water percolates down through refuse resulting in impacted water that has the potential to migrate along the surface or in the ground. Landfill derived leachate that enters into the surface water and/or groundwater is often attenuated by natural mechanisms along the water migration pathway. The attenuation of leachate can occur by dilution, biological activity, and geochemical mechanisms. To determine the presence of (or potential impacts from) leachate, several indicator parameters are monitored, and a trend analysis is conducted to determine changes in water quality over time.

Upon closure, landfill sites are generally considered to have a 25 year 'contaminating' lifespan during which time leachate production peaks and then reduces. The cover material acts to limit the volume of surface water percolating down through the refuse, thereby limiting leachate production through surface water infiltration. At the Little Current Landfill site, consideration should be given to the small fill area of 1.6 ha, the placement of waste above the pre-landfill development ground surface (i.e., providing for a separation distance between the bottom of waste and the water table), and the closure of the landfill in 2002.

6.2. Leachate Characterization

Leachate generation is typically greatest directly beneath the landfill and at the perimeter of the landfilled area. Based on our assessment, monitoring well MW-8A is considered to be the well closest to providing the characteristics of leachate-impacted groundwater. It is an overburden monitoring well situated within approximately 25 m hydraulically downgradient of the landfill footprint.

Further, it is important to recognize that the hydraulic gradients have been measured to transition from downward gradients to the south of the landfill (i.e., background well MW-6A/6B) to gradients varying between slightly upwards to slightly downwards in the area to the north of the landfill. Therefore, while potential leachate impacted groundwater downgradient of the landfill footprint is generally expected to flow horizontally, primarily through the relatively thin later (i.e., up to around 3.5 m) of overburden soils and the shallow bedrock, it is also anticipated that some interaction between the overburden and the shallow bedrock groundwater flow systems will occur.

As expected, due to the close proximity of well MW-8A to the closed fill area, concentrations of primary leachate indicator parameters for alkalinity, hardness, chloride, sodium, sulphate and TDS, which typically exceed the RUC, coupled with decreasing concentration trends, specifically for chloride, sodium, TDS and conductivity indicates that the groundwater quality at well MW-8A was impacted by landfill leachate. However, the elevated and stable concentrations of boron and strontium, relative to that reported in the background overburden well, suggest that influence from the underlying shallow bedrock unit is also contributing to the degraded groundwater quality at this location, causing RUC exceedances. It is noted that the RUC for the overburden was established using the background concentrations derived from overburden well MW-6B, where downward hydraulic gradients are evident. This suggests that there is negligible influence on the overburden groundwater from the underlying petroliferous shale at MW-6B.

6.3. Groundwater Quality Assessment – Influencing Factors

The flow of groundwater influenced by the petroliferous shale into the overburden unit complicates the assessment of leachate impacts due to the natural occurrence of several parameters that are typically relied upon to identify leachate impacts, such as chloride, sodium and hardness. As a result, a detailed review and assessment of the

groundwater quality results was completed. An approach to assist in the distinguishing the various influencing factors on groundwater quality is outlined below.

Based on a detailed assessment and comparison of the groundwater quality in the monitoring wells throughout the Site, the following observations were drawn and are considered to be useful tools in the assessment of the relative influence of groundwater flow from the shallow bedrock into the overburden versus the potential leachate impacts to groundwater at a given location.

- The presence of boron, strontium, and to a lesser extent, potassium can be used to distinguish the relative magnitude of influence of the petroliferous shale unit on the groundwater quality. When increased concentrations of boron and strontium are reported at a given monitoring location, relative to other locations, similarly increased concentrations of chloride, sodium, hardness and TDS are realized.

- Alkalinity concentrations are similar in background groundwater associated with the overburden and bedrock unit, typically remaining below 400 mg/L in well couplet MW-6A/6B. Alkalinity is commonly considered to be a good indicator of leachate impacts. Therefore, alkalinity concentrations that are notably elevated are indicative of potential leachate influence.

- While background sulphate concentrations are highly variable in the overburden background well (i.e., MW-6B), sulphate concentrations typically remain below 50 mg/L. Monitoring locations that consistently report elevated concentrations of sulphate, in conjunction with other indicators of leachate impacts (e.g., alkalinity), are considered to be influence, to some degree, by landfill-derived leachate.

- Although it is evident that hardness is influenced by the bedrock unit (i.e., increased boron and strontium concentrations are correlated to increased hardness), landfill leachate derived impacts also appear to affect notable increases in this parameter.

Due to the relative concentrations of sodium and chloride in groundwater influenced by the petroliferous shale unit, which can be up to an order of magnitude greater than that anticipated from landfill leachate, contributions of increased chloride and sodium, that can be directly attributed to landfill leachate impacts, are difficult to quantify at the majority of the monitoring locations downgradient of the landfill. However, it is noted that based on the decreasing concentration trends noted at well MW-8A, it appears that the landfill leachate impacted groundwater contributed to elevated chloride concentrations in the range of 150 to 200 mg/L and sodium concentrations of up to 100 mg/L.

Therefore, when assessing the potential for leachate impacts, the relative influence of impacts from the bedrock aquifer should be considered. At locations where boron and strontium concentrations are significantly higher relative to other locations, a similar increase in chloride, sodium, TDS and hardness is expected. As a result, the initial assessment for leachate impacts should consider alkalinity as the primary indicator of leachate, which should be evaluated in conjunction with other indicator parameters and concentration trends, such as hardness, sulphate, and to a lesser degree, sodium, chloride and TDS.

In addition, due to the elevated concentrations of various metals measured in the background wells which are reported to be greater than concentrations that would typically be expected from landfill leachate, and in consideration of the anticipated interaction between the overburden and bedrock units downgradient of the landfill, it is thought that while concentrations of metals can be effectively used to evaluate potential influence of bedrock groundwater on the overburden groundwater quality, specifically boron and strontium. Metals alone are generally not considered to be a useful indicator of leachate influence at the Little Current Landfill site.

The following sections evaluate the potential impacts onsite and the potential for offsite impacts to the area surrounding the closed Little Current Landfill site using historical and recent water quality data available. The groundwater quality results for the monitoring period, compared to the RUC and ODWS, are summarized in Tables 5A and 5B. As previously noted, hardness consistently exceeds the ODWS operational guidelines, which is consistent with groundwater flowing through carbonate rich soils. Further, when RUC exceedances are reported for overburden monitoring locations situated downgradient of the landfill, the influence of groundwater flow from the underlying bedrock unit should be considered (i.e., boron and strontium). Historical groundwater sampling results and graphical trends of indicator parameters, which include summaries of the average, maximum, minimum and 95th percentile concentrations for each parameter, are included in Appendix D.

6.4. Boundary Conditions

6.4.1. South Boundary Condition

The southern property boundary is inferred to be hydraulically upgradient of the landfill footprint and is situated adjacent to Highway 540. The limit of the existing landfill is approximately 35 m from the property boundary at its closest point. Due to the north to northwesterly groundwater flow direction, the south side of the landfill is considered low risk for leachate impact. Monitoring well couplet MW-6A/6B is situated to the south and upgradient of the landfill footprint and are considered to represent background groundwater quality in the overburden and shallow bedrock units. Groundwater quality at these locations was discussed in detail in Section 5.2 of this report.

6.4.2. East Boundary Condition

The eastern property boundary is located hydraulically cross-gradient from the landfill footprint, which is situated approximately 35 m from the property boundary at its closest point. There are no monitoring wells situated between the landfill footprint and the property line. However, the area to the east of the landfill is considered low risk for leachate impact due to the north to northwesterly groundwater flow direction.

Prior to its decommissioning in September 2024, monitoring well MW-2 was situated approximately 105 m east of the landfill footprint, at its closest point, and is separated from the landfill property by a low-lying swampy area. The swampy area appears to have been created by the damming of a small creek which resulted in minor flooding of a vegetated and treed area. Consistent with MW-6A, MW-2 was screened within the shallow bedrock. Based on the separation distance between MW-2 and the landfill footprint, its cross-gradient location, and the historical analytical results, no impacts related to landfill leachate are evident at this location.

Historical groundwater quality suggests that the groundwater quality from MW-2 is geochemically similar to that reported for background bedrock well MW-6A, although concentrations are typically greater. The reported concentrations from the most recently collected samples in October 2023 are consistent with previous monitoring years and with the geochemical signature at other bedrock monitoring locations.

The groundwater quality at MW-2 was previously characterized by elevated concentrations of boron, strontium, hardness, chloride, conductivity and TDS. Concentrations of TDS and chloride had been shown to exceed ODWS criteria while only boron and chloride are shown to exceed the RUC.

Based on the location of MW-2 (cross-gradient and outside of the area of potential influence from landfilling), the elevated concentrations of boron, relative to background conditions, coupled with the typically elevated concentrations of chloride and hardness, the groundwater appears to be influenced by the petroliferous shale. Further, the significantly higher concentrations of parameters identified that signify greater influence from the

petroliferous shale unit, along with the concentration spiles in the background well, support the concept that concentrations in groundwater from the shale unit can be highly variable.

Based on MECP correspondence (provided in Appendix B), the Ministry completed an inspection and evaluation of the conditions at MW-2 and concurred that the monitoring well is not representative of groundwater conditions (i.e., is influenced by surface water quality related to the installation in a low-lying wetland area). Therefore, the MECP provided direction that the monitoring well could be removed from the monitoring program and decommissioned. As previously reported, MW-2 was decommissioned in accordance with O. Reg. 903 on September 12, 2024.

6.4.3. North Boundary Condition

The northern property boundary is considered to be hydraulically downgradient of the landfill and is situated approximately 25 to 40 m from the existing landfill footprint. Prior to the decommissioning of MW-8B, the groundwater monitoring network included six monitoring wells situated at four different locations, downgradient from the landfill, including overburden monitoring wells MW-7A and MW-8A, and bedrock wells MW-3, MW-5, MW-7B and MW-8B. These wells, which are located approximately 5 to 10 m from the northern property boundary, are used to monitor groundwater quality and Site compliance.

As previously noted, several parameter concentrations within the bedrock wells appear to be naturally elevated and in contrast to the downwards vertical gradients noted to the south of the landfill (i.e., background conditions), the vertical gradients to the north of the landfill footprint appear to fluctuate over time between slightly upwards to slightly downwards. Therefore, the vertical gradients noted to the north suggest that there is the potential for interaction between the overburden and bedrock groundwater flow systems. Consequently, it is somewhat difficult to differentiate the relative influence from landfill leachate and the influence from the petroliferous shale bedrock unit and associated brines. The ensuing discussion provides an assessment of the groundwater quality results and trends for the monitoring wells located at, or near, the north property boundary and presents an interpretation of the findings.

Overburden Groundwater Quality

Monitoring well MW-8A is considered the most likely location to be influenced by landfill leachate due to its downgradient location within the shallow overburden. As previously discussed, MW-8A has been used to characterize leachate impacts associated with the Little Current Landfill (refer to Section 6.2). The presence of leachate impacts from the closed landfill at this location is primarily supported by the generally decreasing concentration trends for sodium and chloride that have been observed, coupled with the elevated concentrations of sulphate and alkalinity. Based on the analytical data from the current monitoring year, the observed decreasing sodium and chloride trends at MW-8A continue to be evident.

However, the presence of higher concentrations of boron and strontium, relative to background conditions noted in MW-6B, suggest that groundwater quality at this location is also influenced by the interactions between overburden and bedrock groundwater flow exchanges.

Monitoring well MW-7A is situated in the northwest corner of the Site. Groundwater quality at this monitoring location has shown stable and low concentration trends since the inception of monitoring in 2011 with slightly decreasing analytical trends since 2015. RUC exceedances for hardness, alkalinity, manganese and TDS are typically reported at MW-7A, however, concentrations of other leachate indicator parameters as well as parameters that are indicative of influence from the underlying petroliferous bedrock unit, such as boron and strontium, are consistently similar to the background conditions. Based on the overall groundwater quality characteristics and trends, as well

as the location of this monitoring location generally cross-gradient to groundwater flow from the landfill, leachate derived impacts are considered to be negligible at this location. Elevated alkalinity and hardness may be due to the natural mineralization of groundwater within the shallow overburden at this monitoring location.

Bedrock Groundwater Quality

Bedrock groundwater quality in proximity to the northern property boundary is monitored (from east to west) at monitoring locations MW-5, MW-3 and MW-7B, with MW-8B previously in-tact prior to the 2024 monitoring period. The bedrock groundwater quality at each location is discussed in detail below.

Monitoring Well MW-5

Monitoring well MW-5 is situated in the northeastern portion of the Site. Relative to background conditions measured from MW-6A, the average concentration of boron and strontium suggest that there is a greater degree of influence from the petroliferous shale unit at this monitoring location. However, the magnitude of this influence is less than that interpreted for other bedrock monitoring locations situated downgradient of the landfill.

Groundwater quality trends at MW-5 indicate that while the concentrations of boron and strontium have remained relatively stable, the concentrations of some other leachate indicator parameters appear to have increased slightly in the early 2000s and have remained stable since that time. In general, concentrations of sodium, chloride and TDS remain similar to background conditions. However, the concentrations of alkalinity, sulphate and hardness are somewhat greater than background conditions indicating the potential for minor influence from landfill leachate at this location. RUC exceedances in the 2024 monitoring period are noted for boron, selenium and alkalinity. It is understood that influence from the petroliferous shale unit is causing increased concentrations of boron and selenium. In the case of increased concentration of alkalinity however, there is potential for minor influence from landfill leachate. It is noted that the long-term trend for alkalinity at MW-5 continues to display a stable trend with concentrations typically remaining within a range of about 450 to 550 mg/L.

Monitoring Wells MW-3 and MW-7B

Monitoring wells MW-3 and MW-7B monitor groundwater quality in the bedrock in the northwest portion of the property. The reported concentrations for several of the parameters are elevated above background conditions, with RUC exceedances reported for boron, iron, manganese, hardness, sodium, alkalinity, chloride and TDS. The analytical results from the 2024 monitoring period are consistent with historical results which display average boron and strontium concentrations at these 2 monitoring locations (combined) in the range of 6,300 µg/L and 13,300 µg/L, respectively, as compared to concentrations typically less than 1,000 µg/L in the background bedrock well MW-6A (refer to Appendix D). Coupled with the significantly greater boron and strontium concentrations, the average concentrations of chloride and sodium are typically greater than 10 times those reported in MW-6A. Likewise, conductivity and TDS concentrations are in the range of 5 to 10 times higher, while hardness concentrations are notably elevated (i.e., typically greater than 1,400 mg/L). Based on the stable alkalinity concentrations which remain in the range of 250 to 450 mg/L, and the geochemical signature which suggests significant influence from the petroliferous shale unit, landfill leachate derived impacts to groundwater are considered to be negligible at these monitoring locations.

Monitoring Well MW-8B

Leachate impacts were identified in the overburden monitoring well MW-8A. Consequently, landfill leachate derived impacts, if present, would likely be noted in the corresponding bedrock well MW-8B. This well was installed in 2011

to satisfy previous MECP recommendations for an additional bedrock monitoring well located north and hydraulically downgradient of the landfill footprint. The monitoring well was installed with a screened interval that straddles the lower portion of the shale unit and the upper portion of the underlying dolostone bedrock. During advancement of the borehole and monitoring well installation, a strong petroliferous odour was detected throughout the fractured black shale bedrock material, in addition to drill fluid observed to turn back in colour with evidence of naturally occurring petroleum product. After installing and developing the monitoring well, the dedicated Waterra™ sample tubing was observed to be coated with globules of dark brown to black bitumen. Based on the subsurface conditions and the occurrence of naturally occurring petroleum product and natural gas within the black petroliferous shale identified at this monitoring location, it is reasonable to expect that groundwater quality at this location would be significantly degraded.

It is noted that the occurrence of black shale and the associated sulfurous odour was also documented by others at the location of the former shallow bedrock MW-4, situated approximately 100 m north of MW-8A/8B, as shown in Figure 3. However, based on a review of the previous Closure Report and the 2007 Annual Monitoring Report completed by others, it appears that these conditions were attributed to an oil spill or fuel release to the ground surface. Consequently, MW-4 was subsequently decommissioned, and soil "clean-up" efforts were completed by others at that time.

According to the GIS mapping provided by the Ontario Oil, Gas and Salt Resource Library, there are numerous oil and gas producing test/exploration wells in the vicinity of the landfill property, in the general vicinity of Little Current and throughout Manitoulin Island. Therefore, the occurrence of petroleum product and natural gas at MW-8B appears to be related to the subsurface geology and is considered to be naturally occurring. The conditions identified at MW-8B, and those historically noted at MW-4, are due to the local geologic conditions and not considered to be associated with a spill or release.

One groundwater quality sample had been collected from this monitoring location in October 2011. However, due to the presence of naturally occurring petroleum material, monitoring well MW-8B has not been included in the monitoring program since that time. While the concentrations of the primary leachate indicators including alkalinity and sulphate were reported to be lower in the bedrock as compared to the overburden sample from MW-8A, groundwater quality results from this monitoring location included an alkalinity and sulphate concentration in exceedance of the RUC. Thus, indicating the potential for influence from landfill leachate at this location. However, based on the significantly elevated concentrations of boron and strontium, relative to background conditions, and the corresponding concentrations of sodium, chloride, hardness and TDS, which were also reported to exceed the RUC, and in consideration of the observed variability in groundwater quality within the shallow bedrock in the area around the Site, it is apparent that the groundwater quality is also influenced by the petroliferous shale unit. Therefore, it is understood that the RUC exceedances at well MW-8B have been predominantly naturally occurring.

Based on the requirements of the Ontario Water Resources Act (O. Reg. 903/90, as amended), a monitoring well where natural gas is encountered, and where it is deemed to pose potential hazard, is to be decommissioned as per the requirements of the Regulation. Additionally, it is anticipated that the groundwater at this location is sufficiently 'degraded' as a result of the natural geologic conditions and would not be considered potable. Therefore, MW-8B was decommissioned in accordance with O. Reg. 903 on September 12, 2024.

6.4.4. West Boundary Condition

The western limit of the approved landfill footprint is located approximately 30 m from, and cross-gradient to, the western property boundary at its closest point (refer to Figure 3). Based on the groundwater flow direction and this distance between the westerly limit of the landfill footprint and the compliance limit to the west, the buffer area appears to be sufficient. Offsite impacts are generally not anticipated along the majority of the western property

line, however if present, are considered to most likely be proximal to the northern property boundary. Consequently, monitoring well couplet MW-7A/7B was installed in July 2011. As discussed above, landfill leachate derived impacts at this monitoring location are not apparent.

6.5. Groundwater Quality Summary

Groundwater quality within each of the geologic units, including the overburden and shallow bedrock, varies significantly. Due to the downwards hydraulic gradients consistently noted at the background monitoring well couplet MW-6A/6B, the water quality in each of these units could be effectively characterized. In addition, monitoring results from bedrock well MW-2, which was previously located greater than 100 m to the east of the landfill footprint, could be used to verify the bedrock groundwater quality and demonstrate that a level of variability can be expected depending on the magnitude of influence from the petroliferous shale unit.

Based on a review of the water quality data, boron and strontium were identified as key indicators that could be used to measure the relative influence of the petroliferous shale unit on the water quality at a given location, including overburden monitoring locations where upwards gradients could allow for the flow of groundwater from the bedrock into the overburden. The elevated concentrations appear to be associated with the natural occurrence of petroliferous rich salt brines within the upper shale unit. In general, increased concentration of sodium, chloride, conductivity, TDS and to a lesser extent, hardness and potassium, are expected in conjunction with increased boron and strontium concentrations.

Within the bedrock groundwater, several of the parameters typically relied upon to characterize leachate are present at concentrations that would typically 'mask' potential impacts from landfill leachate, particularly from a small, closed landfill site. However, based on concentrations of alkalinity that were reported to be in the range of 300 mg/L in both the background and bedrock and overburden groundwater, alkalinity was identified as a primary indicator of leachate, which should then be evaluated in conjunction with other indicator parameters and concentration trends, including hardness, sulphate, and to a lesser extent sodium, chloride and TDS.

Downgradient of the landfill, the presence of leachate impacts from the closed landfill at overburden well MW-8A is indicated by the generally decreasing concentration trends for sodium and chloride that have been observed, coupled with the elevated concentrations of sulphate and alkalinity. However, the presence of higher concentrations of boron and strontium, relative to background conditions suggest that groundwater quality at this location is also influenced by the interactions between the overburden and bedrock groundwater flow systems. In the northeast portion of the Site in the vicinity of bedrock well MW-5, the relatively stable concentrations of boron and strontium, coupled with slightly increased concentrations for some leachate indicator parameters such as chloride and sodium in the early 2000s, and the continued elevated concentrations of alkalinity, sulphate and hardness is indicative of minor influence from landfill leachate. In the northwest portion of the Site in the vicinity of well couplet MW-7A/7B and bedrock well MW-3, landfill leachate derived impacts are not evident. The long-term trend analysis for parameter concentrations reported in the monitoring wells to the north of the landfill footprint indicates a stable to slightly decreasing trend for the target analytical parameters.

Due to the north to northwesterly groundwater flow direction, and the buffer space greater than 30 m between the landfill footprint and the compliance limits to the east, south and west of the landfill footprint, leachate impacts are not anticipated in these areas situated upgradient to cross-gradient of the Little Current Landfill site.

In summary, since the concentrations of several indicator parameters in the bedrock groundwater are elevated beyond that of typical landfill derived leachate, even a minor influence from the bedrock unit is likely to be greater than potential impacts from the closed landfill site. As a result, the magnitude of impacts from landfill leachate and compliance with the RUC along the north property boundary is difficult to discern. However, at this time it appears

that the groundwater quality downgradient of the landfill is more significantly influenced by the native petroliferous shales than by the closed landfill site.

7. Surface Water Quality Results and Discussion

Surface water quality monitoring at the Site consists of water quality monitoring from 2 locations (i.e., SW-1 and SW-2) located to the north of the landfill footprint and includes the measurement of water levels, when possible. Surface water sampling location SW-1 is located within a seasonal, localized ponded area that has primarily been dry in recent years due to its small size (i.e., approximately 2 m in diameter) and the highly localized nature of this stagnant feature. SW-2 is located within and engineered surface water collection pond that was designed to collect surface water drainage from the closed and capped landfill. Based on our observations and the groundwater elevation noted in overburden well MW-8A, SW-1 and SW-2 may be partially groundwater fed in addition to serving as a collection system for surface water flow in the highly vegetated area to the north of the closed and capped refuse pile. It is noted that these features do not provide information pertaining to surface water flowing offsite and represent surface water that either evaporates or infiltrates.

Surface water quality results are compared to the allowable concentrations specified within the PWQO. This comparison is considered to be conservative as the 2 sampling locations are representative of highly localized features that have no outlets or connection to other surface water bodies (e.g., streams or rivers) and do not represent surface water flowing offsite. In the current monitoring period, both surface water sampling locations were noted to be dry or stagnant. The surface water quality results from 2013 to 2017, as well as from the fall of 2021 and summer of 2024, compared to the PWQO, are summarized in Table 6 and a summary of the historical surface water quality results is provided in Appendix E.

The historical analytical results periodically indicate PWQO exceedances for boron, and iron (Table 6). Consistent with overburden monitoring well MW-8A, boron and strontium concentrations are reported to be greater in the surface water than in the background overburden well (i.e., MW-6B). In addition, the concentrations for various indicator parameters are noted to be variable, particularly at SW-2, however, generally follow a similar trend to that observed for boron and strontium, suggesting that the surface water quality is predominantly influenced by the bedrock flow system. However, based on the location of these features directly downgradient of the landfill footprint, there is potential for leachate derived impacts. Similar to the groundwater quality assessment, the magnitude of impacts from leachate is difficult to discern due to the natural occurrence of several indicator parameters in groundwater derived from the petroliferous shale unit.

To further assess whether PWQO exceedances at SW-1 and SW-2 are groundwater derived, 2 samples (labelled SW-3) were previously collected in 2009 from the upper surface water pond that was designed to provide catchment for the surface water and overburden flow originating from the refuse pile. The analytical results from this sample are considered to be representative of the surface water flowing off the landfill. Based on the analytical results for SW-3, it appears that the elevated concentrations of parameters identified in all surface water features (i.e., alkalinity, boron, chloride, sodium, etc.) are more related to the local surficial soils at the Site. The overburden at the Site consists primarily of the native clayey soils derived from the underlying shale. These soils are known to produce elevated levels of the above-mentioned parameters. Additionally, the water quality observed at SW-1 and SW-2 is generally consistent with the water quality observed in the overburden monitoring well, MW-8A.

As such, due to the nearby monitoring wells (i.e., MW-8A and MW-3) used to monitor the shallow groundwater quality downgradient of the landfill mound, the expected nature and chemistry of the ponded water in these locations, the low occurrence of sufficient volumes of water being present in these features, and the lack of water flowing offsite from the landfill property, **it is recommended that the surface water locations SW-1 and SW-2 be removed from the summer and fall monitoring programs.**

8. Quality Assurance and Quality Control (QA/QC)

As part of the QA/QC program, surrogate recoveries, method blanks and laboratory duplicates were reviewed to ensure analytical validity. The results for surrogate recoveries and method blanks were all reported to be within the acceptable limits as presented in the laboratory reports.

For laboratory duplicates, the relative percent difference (RPD) was calculated and is presented in Table 7. A review of the duplicate analyses indicates that the RPDs were within the laboratory quality control limits, which is indicative of good laboratory practice and analytical validity.

In addition, a review of the historical analytical data indicates that the data from the current monitoring period are within historical norms or are considered within historical trends. In summary, the QA/QC protocols indicate that the analytical results are valid.

9. Methane Gas Monitoring

Methane is a colourless and odourless gas formed by the decomposition of organic matter under oxygen poor (anerobic) conditions and is commonly associated with landfills. It is produced by anerobic bacteria, which become active only when the oxygen in the landfill has been completely consumed. The primary concern related to this parameter is that, under certain conditions, the mixture of methane with air can be explosive within a confined area. Methane gas is measured relative to the lower explosive limit (LEL) which corresponds to 5% of the concentration of methane in air.

There is currently a total of six landfill gas vents in the vicinity of MW-9, which are situated at the top of the refuse pile. According to information provided by the Municipality, the vents were installed in November 2004. The gas vents are generally described as measuring areas 3.5 m^2, excavated through the low permeability cover and approximately 0.5 m into the refuse. According to the Closure and Post Closure Care Report, the entire area is lined by a non-woven geotextile and filled with clear stone to promote the venting of landfill gases.

Historically, LEL measurements from the monitoring locations, with the exception of MW-9, have typically produced readings of zero (Table 3). Landfill gas measurements at MW-9 fluctuate significantly and when concentrations have been measured, they have historically ranged between 9.8% and 100%. Although landfill gases are being produced within the landfill, the landfill gas vents were specifically designed and constructed to prevent the offsite migration of these gases. In addition, methane gas has not been historically detected at any other monitoring locations surrounding the landfill mound, indicating that methane gas is not migrating laterally off the property. Additionally, it is noted that the closest structures where the accumulation of methane may potentially occur are greater than 100 m from the landfill.

10. Review of Monitoring Program

Condition 13 of the revised ECA (March 2003) states that the frequency of sampling and the list of parameters shall be reviewed after 2 years of sampling have been completed. As per the ECA, a detailed assessment of the monitoring results was completed by GEI (formerly operating as GMBP) in the 2008 Annual Monitoring Report. Based on this review. GEI proposed that the previously established monitoring program be revised to better reflect the conditions of the Site. The proposed revisions included reducing the sampling frequency from three times annually to twice annually and that the analytical parameters be reduced to a list that is specifically intended to provide further information regarding the Site's compliance with the Reasonable Use Criteria.

Based on MECP concurrence with recommendations provided in the 2008 Annual Report, as outlined in the correspondence dated February 11, 2010 (Appendix B), and in consideration of data and trends gathered from up to and including the 2024 monitoring period, the annual monitoring program for the Site is recommended as follows:

SAMPLING LOCATIONS		ANALYTICAL PARAMETERS
GROUNDWATER (Summer and Fall)		
Overburden	MW-6B MW-7A MW-8A	Conductivity, Total Dissolved Solids (TDS), pH, Alkalinity, Hardness, Ammonia, Dissolved Organic Carbon (DOC) Bromide, Chloride and Sulphate **Metals:** arsenic, barium, boron, chromium, cobalt, copper, selenium, strontium, calcium, magnesium, manganese, iron, potassium, and sodium
Bedrock	MW-3 MW-5 MW-6A MW-7B	
SURFACE WATER (Summer and Fall)		
SW-1 SW-2		Conductivity, Total Dissolved Solids (TDS), pH, Alkalinity, Hardness, Ammonia, Dissolved Organic Carbon (DOC), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Bromide, Chloride and Sulphate **Metals:** arsenic, barium, boron, chromium, cobalt, copper, selenium, strontium, calcium, magnesium, manganese, iron, potassium, and sodium **Field Parameters:** Temperature and water level

Since the Site has been closed and capped for a period of 23 years (i.e., since 2002), it is reasonable to expect that the primary period of leachate generation has passed. Through the past sampling programs, it has been established that there are no significant seasonal fluctuations in groundwater flow direction and that the Site conditions are stable, due to closure. In addition, the groundwater quality measured in the last several years of monitoring has been relatively consistent with the exception of the decreasing trends for sodium and chloride observed at monitoring location MW-8A. This decreasing concentration trend is interpreted to reflect decreasing influence from landfill leachate derived impacts at this downgradient overburden monitoring location.

Previous recommendations have been made to consider a further reduction in the sampling frequency once stabilized concentration trends were evident at the location of MW-8A over a five-year period. Therefore, **based on the generally stable concentration trends in the groundwater at MW-8A since 2016 (a period of 9 years), it is recommended that the sampling frequency be revised to once per year during the fall season.**

11. Conclusions

1. As a result of the Site closure in October 2002 and the subsequent placement of a low permeability cover, it is anticipated that leachate production at the Site will continue to decrease over time. Therefore, it is reasonable to expect that groundwater concentrations of leachate indicator parameters will remain stable or continue to decrease.
2. To satisfy Condition 12 of the ECA, four additional monitoring wells (MW-6A, MW-7A, MW-7B, and MW-8B) were installed at the Site in 2011. No further monitoring well installations are required under this condition.

3. The groundwater flow direction at the Site is consistently in a north to northwesterly direction. Leachate impacts are most likely to occur to the north of the landfill and along the northerly compliance limit. Further, landfill leachate derived impacts cross-gradient to the landfill (i.e., to the east and west) are not anticipated.

4. Groundwater quality within each of the geologic units, including the overburden and shallow bedrock, varies significantly. Based on a review of the water quality data, boron and strontium were identified as key indicators that can be used to measure the relative influence of the petroliferous shale unit on the water quality at a given location, including overburden monitoring locations where upward gradients permit the flow of groundwater from the bedrock into the overburden. The elevated concentrations appear to be associated with the natural occurrence of petroliferous rich salt brines within the upper shale unit. In general, increased concentration of sodium, chloride, conductivity, TDS and to a lesser extent, hardness and potassium are expected in conjunctions with increased boron and strontium concentrations.

5. Downgradient of the landfill, the presence of leachate impacts from the closed landfill at overburden well MW-8A is indicated by the generally decreasing trends for sodium and chloride coupled with elevated concentrations of sulphate and alkalinity. However, groundwater quality at this location is also influenced by the interactions between the overburden and bedrock groundwater flow systems. In the northeast portion of the Site, in the vicinity of bedrock well MW-5, groundwater quality results suggest a minor influence from landfill leachate. In the northwest portion of the Site, in the vicinity of well couplet MW-7A/7B and bedrock well MW-3, landfill leachate derived impacts are not evident.

6. A typical leachate plume from a small municipal landfill has lower concentrations of characteristic indicator parameters than seen in the shallow bedrock unit. Given that the purpose of the RUC is to not permit further degradation of the groundwater on adjacent properties, a significant leachate plume would be required to further degrade the groundwater quality within the bedrock unit at the Site. Consequently, even a minor influence from the underlying shale unit on groundwater quality in the overburden effectively influences groundwater chemistry beyond that expected from landfill leachate.

7. Based on the natural occurrence of significantly elevated concentrations of various parameters typically relied upon to assess landfill leachate derived impacts, compliance with the RUC downgradient of the landfill and long the northern property boundary is difficult to discern. However, at this time it appears that the groundwater quality downgradient of the landfill is more significantly influenced by the native petroliferous shales than by the closed landfill site.

8. The designed pond/wetland type features from which the surface water samples are collected are intended to promote the infiltration of surface water. Therefore, SW-1 and SW-2 are representative of localized features that have no outlets or connection to other surface water bodies (e.g., streams or rivers). Based on the groundwater elevations, the locations of the surface water features, and the similarities between the surface water quality and groundwater quality measured from MW-8A, it appears that the seasonal localized ponded area (SW-1) and lower overflow pond (SW-2) may be influenced by groundwater discharge. At the surface water sampling locations, no exceedances of PWQO, related directly to stormwater run-off from the landfill, are noted. As discussed, there is a low occurrence of sufficient volumes of water present in these features that are present or eligible for sampling.

9. In September 2024, during the reporting period of this report, three monitoring wells were decommissioned in accordance with O. Reg. 903 for various reasons reinforced by a consistent lack of useful functionality. This includes MW-1 due to a lack of sufficient groundwater and inconsistent water levels reported since the 2000s, MW-2 due to its location within a wetland feature and compromised integrity, as confirmed through

MECP inspection conducted in 2016, and MW-8B due to the presence of naturally occurring bitumen and associated gases presenting potentially hazardous conditions as per O. Reg. 903/90, as amended.

12. Recommendations

1. Based on established trends and a greater understanding of the long-term geochemical characteristics caused by the presence of the landfill in accordance with the RUC, it is recommended that additional review of the sampling frequency take place in order to determine the applicability of further reduction to the monitoring program. **Based on the generally stable to decreasing concentrations trends at MW-8A since 2016 (i.e., a period of 9 years), it is recommended that the annual sampling frequency be revised to once per year, in the fall.**

2. It is recommended to continue to review the analytical results and trends from available monitoring locations to assist in the determination of ongoing compliance with the RUC along the northern property boundary.

3. It is recommended that the surface water locations SW-1 and SW-2 be removed from the summer and fall monitoring programs due to the expected nature and chemistry of the ponded water in these locations (as discussed in Section 7), the low occurrence of sufficient volumes of water present in these features for sampling, the lack of water flowing offsite from the landfill property, and the nearby monitoring wells (i.e., MW-8A and MW-3) used to monitor the shallow groundwater quality downgradient of the landfill footprint.

4. Although the addition of downgradient buffer lands or a contaminant attenuation zone (CAZ) is considered to be advantageous in reducing the potential for offsite impacts, it appears that degradation of the water quality beyond the property boundary due to the landfill is not evident or discernible at this time due to the occurrence of several parameters that are natural encountered in the petroliferous shale bedrock observed directly downgradient of the landfill, both onsite (MW-8B) and offsite (MW-4). The natural occurrence of significantly elevated concentrations of several parameters that are typically relied upon in the assessment of landfill leachate derived impacts makes it difficult to discern the relative influence of groundwater derived from the shallow bedrock and potential impacts from landfill leachate.

All of which is respectfully submitted,

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Per:

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Tables

TABLE 1
SUMMARY OF MONITORING LOCATIONS
LITTLE CURRENT WASTE DISPOSAL SITE

BOREHOLE ID [WELL ID]	LOCATION (relative to refuse pile)	DATE INSTALLED	ELEVATION		DEPTH TO UPPER MEMBER (shale)	DEPTH TO LOWER MEMBER (limestone)	DEPTH TO BOTTOM OF BOREHOLE	SCREENED INTERVAL[4] (mbgs)	LOCATION OF WELL SCREEN			
			Ground (masl)	Top of Casing* (masl)					Within Refuse	Overburden	Upper Member	Lower Member
BH3 [MW-3]	Downgradient	Sept 1991	191.74	192.58	3.45	6.48	7.2	3.45 to 7.21			X	X
BH5 [MW-5]	Downgradient	Sept 1991	192.03	192.76	1.98	3.02	3.5	1.98 to 3.51			X	X
MW-6A	Upgradient	July 2011	196.26	197.53	7.01	14.48	16.2	13.1 to 16.2			X	X
MW-6B	Upgradient	Jan 2006	196.70	197.82	8.82	NE	8.8	7.3 to 8.82		X		
MW-7A	Downgradient	July 2011	191.72	193.05	3.51	NE	3.5	1.37 to 3.5		X		
MW-7B	Downgradient	July 2011	191.73	192.98	3.67	7.21	7.9	4.8 to 7.9			X	X
MW-8A	Downgradient	Jan 2006	NA	193.01	3.04	NE	3.0	1.52 to 3.04		X		
MW-9	Within refuse pile	Jan 2006	NA	207.41	7.60	NE	7.6	6.08 to 7.60	X			

NOTES:

1. All depths measured in mbgs = approximate depth in metres below ground surface and elevations measured in masl (meters above sea level).
2. NE = Not Encountered.
3. Detailed borehole logs are provided in the Appendices.
4. Screened interval includes screen and sandpack up to the bentonite seal.
5. Elevations measured in masl = meters above sea level.
6. Depth in meters below ground surface.
7. * Top of Casing elevations confirmed through an updated topographical survey.

Sheguiandah Water Treatment

Small Municipal Residential Drinking Water System

January 1, 2024 – December 31, 2024

O.Reg 170/03 Schedule 22 Summary Report
O.Reg 170/03 Section 11 Annual Report
&
O.Reg 387/04 Annual Record of Water Taking

Prepared by the Ontario Clean Water Agency
For The Corporation of the Town of Northeastern Manitoulin and the Islands

Drinking-Water System Number: *220009112*
Drinking-Water System Name: *Sheguiandah Drinking Water System*
Drinking-Water System Owner: *The Corporation of the Town of Northeastern Manitoulin and the Islands*
Drinking-Water System Category: *Small Municipal Residential*

SECTION 1: INTRODUCTION

This document is prepared in accordance with Section 11 and Schedule 22 of O.Reg.170/03 under the Safe Drinking Water Act and with Section 9 of O.Reg.387/04 under the Ontario Water Resources Act. The reports are prepared by the Ontario Clean Water Agency. Acronyms and definitions can be found at the end of the report.

A copy of the Summary Report must be provided to the members of the municipal council by March 31, 2025.

SECTION 2: REQUIREMENTS OF THE REPORTS

Schedule 22 Report

The report must list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report. It must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.
For the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and future planned water uses, the following information is required to be included in this report:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the summary to the rated capacity and flow rates approved in the systems approval.

Section 11 Report

The annual report must contain the following:

- A brief description of the drinking water system and a list of chemicals used by the system.
- A description of any major expenses incurred during the period covered by the report to install, repair or replace required equipment.
- A summary of all adverse water quality incidents (AWQI) reported to the Ministry
- A summary of corrective actions taken in response all AWQIs
- A summary of all test results required under the regulation, under an approval, municipal drinking water licence or order, including an OWRA order.
- A statement of where a Schedule 22 report will be available for inspection.

The report must be prepared not later than February 28 of the following year.

Regulation 387 Report

On or before March 31 in every year, every holder of a permit to take water (PTTW) shall submit to a Director the data collected and recorded for the previous year.

A record of annual water taking can be found in Appendix A.

SECTION 3: SCHEDULE 22 REPORT

3.1: Flows - Treated

In accordance with the Municipal Drinking Water License (MDWL), the Sheguiandah WTP shall not be operated to exceed a maximum flow of 546 m3/d to the distribution system.

The daily treated water maximum flow was 115.3 m3 and represents 21% of capacity. In 2024, the total volume of water sent to the distribution system was 19,180m3

The quantity of treated water supplied during the reporting period **did not** exceed the rated maximum capacity.

TREATED WATER FLOW DATA					
Month	Total Monthly Flow (m3)	Average Flow (m3/d)	Maximum Flow (m3/d)	Maximum Flow Rate (L/s)	Limit Rated Capacity m^3/d
January	1,365.4	44.05	52.6	10	546
February	1,280.0	44.14	48.3	4.27	546
March	1,331.8	42.96	48.6	4.29	546
April	1,464.9	48.83	61.3	10	546
May	1,972.3	63.62	115.3	10	546
June	1,790.1	59.67	78.7	4.52	546
July	2,146.7	69.25	92.5	10	546
August	2,264.1	73.04	100.5	10	546
September	1,539.9	51.33	61.1	4.52	546
October	1,366.4	44.08	76.2	10	546
November	1,307.0	43.57	106.8	5.99	546
December	1,351.4	43.59	55.7	10	546
Total	19,180.0				
Average		52.34			
Maximum			115.3	10	546

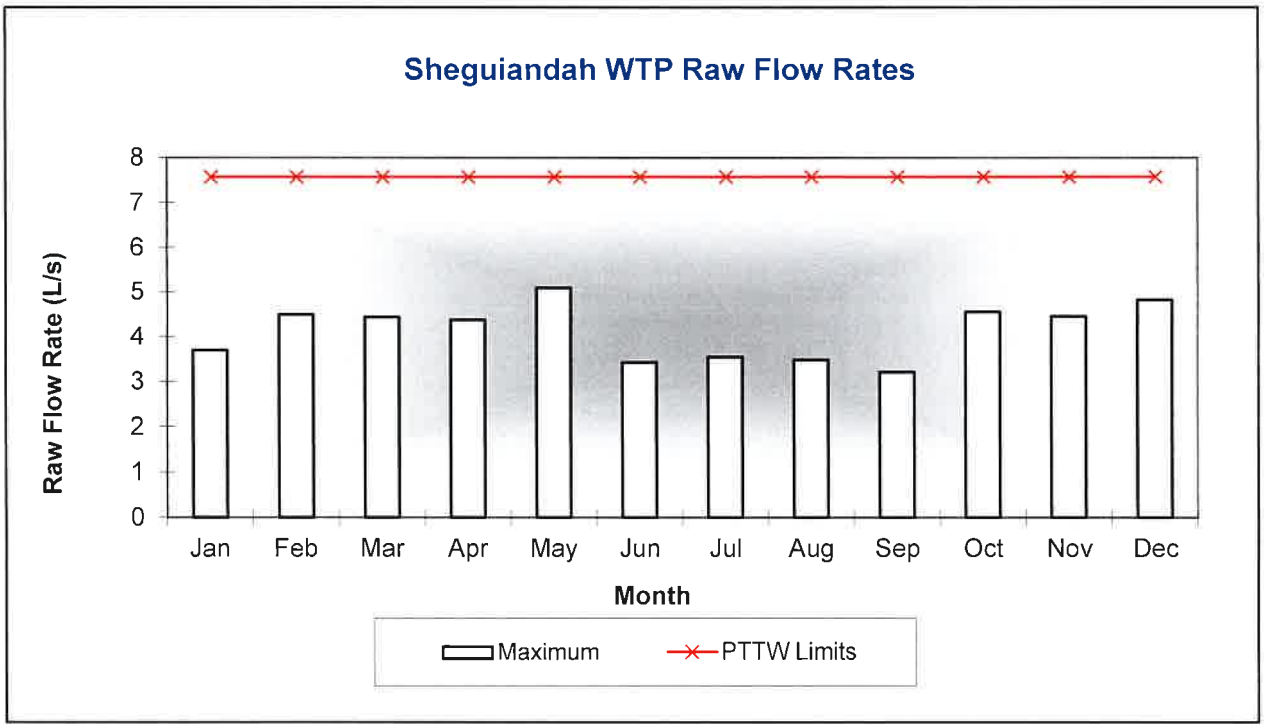
3.2: Flows - Raw

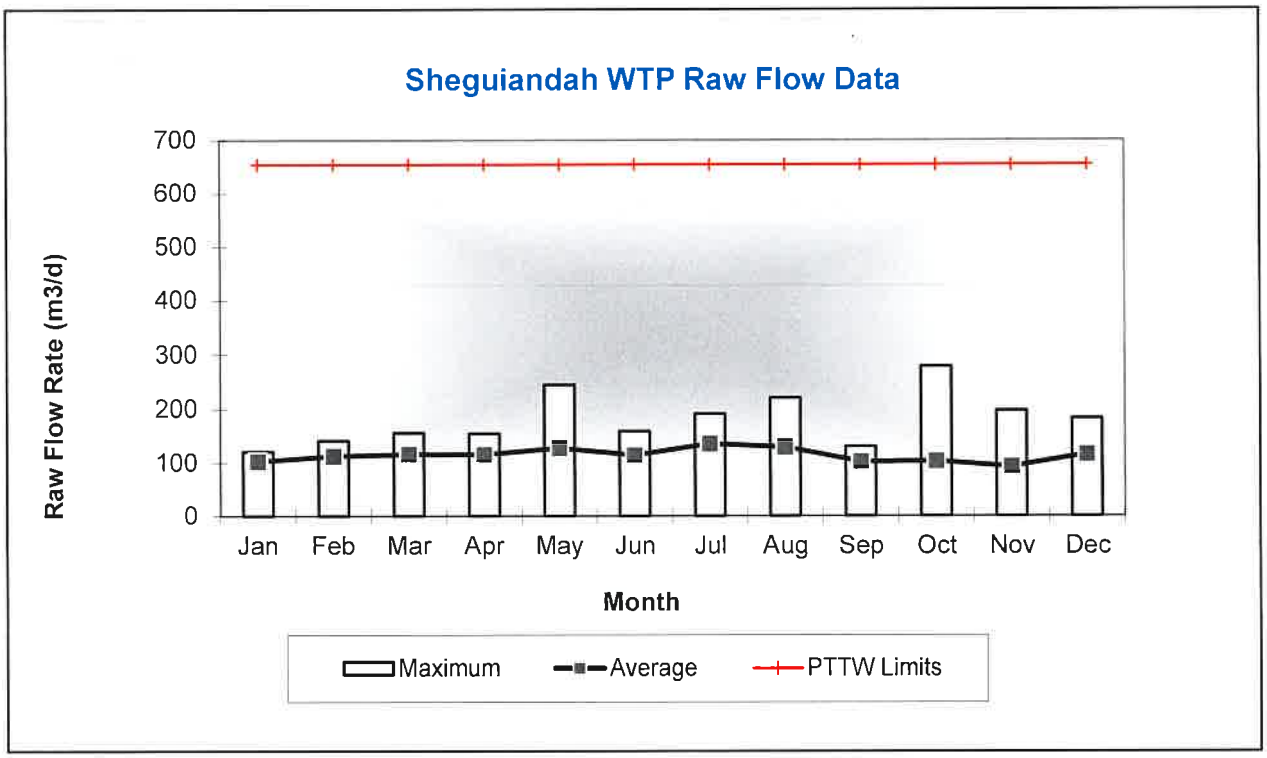
Daily raw maximum instantaneous flow is stated in the PTTW at a maximum rate of flow of 7.6 L/s and a maximum daily volume of 654.624 m^3/d.

The average monthly raw water flow for this reporting period was 114.33 m^3/d. The maximum daily flow was 278.8 m^3/d representing 43% of water taking limits. In 2024, the total volume of water sent to the distribution system was 41,878.19 m3

The quantity of raw water taken **did not** exceed limits stipulated within the PTTW.

RAW WATER FLOW DATA - TOTAL ALL SOURCES						
Month	Total Monthly Flow (m3)	Average Flow (m3/d)	Maximum Flow (m3/d)	Maximum Flow Rate (L/s)	Limits	
					L/s (PTTW)	m^3/d (PTTW)
January	3,198.0	103.16	121.3	3.69	7.58	654.6
February	3,267.3	112.67	141.5	4.49	7.58	654.6
March	3,607.2	116.36	155.8	4.43	7.58	654.6
April	3,466.6	115.55	154.6	4.37	7.58	654.6
May	3,970.4	128.08	244.7	5.09	7.58	654.6
June	3,439.4	114.65	158.9	3.42	7.58	654.6
July	4,208.69	135.76	191.1	3.54	7.58	654.6
August	4,022.9	129.77	220.7	3.48	7.58	654.6
September	3,077.2	102.57	131.1	3.21	7.58	654.6
October	3,215.0	103.71	278.8	4.55	7.58	654.6
November	2,796.7	93.22	197.4	4.45	7.58	654.6
December	3,608.8	116.41	182.9	4.82	7.58	654.6
Total	41,878.19					
Average		114.33				
Maximum			278.8	5.09	7.58	654.6





3.3: Annual Raw Water Review

Raw Water Taking	Total Taking m3/d	Average Day m3/d	Max Day m3/d	Max Day % of PTTW allowable 654.624 m3/d
2024	41,878.19	114.33	278.8	**43%**
2023	37,643.3	103.13	370.7	**57%**
2022	28,239	77.37	148.3	**23%**
2021	35,490.3	97.23	317.5	**48.5%**
2020	35,116.5	95.95	321.3	**49%**

3.4: System Failures and Corrective Actions

The latest inspection of the drinking water facility took place on July 16, 2024. The facility scored 0/482 providing a rating of 100%.

Two non-compliance were identified in the inspection report. However, risk ratings were not assigned to the non-compliances.

Question ID: DWMR 115001: The following instance of non-compliance was noted during the inspection.

The MDWL was renewed in 2021 and included a requirement for monthly UV Transmittance (UVT) sampling was added. The licence states "UV Transmittance to be tested monthly for a minimum UTV of 93%". This was missed by both the OCWA team and the drinking water inspectors and as a result of this error, monthly UVT sampling was not completed in 2021, 2022 or 2023. The sampling plan has been updated to

include monthly UVT sampling and the first sample was collected in January of 2024 and continues to be collected on a monthly basis.

Question ID: DWMR 1094001: Water quality sampling requirements imposed by the Municipal Drinking Water Licence and Drinking Water Works Permit were not met.

Quarterly composite samples at the point of discharge to the North Channel are collected and tested for total suspended solids (TSS). The annual average concentration must not exceed 25 mg/L. All required sampling was completed, and the annual average concentration was well below the 25 mg/L requirement. The October 2023 sampling was missed due to operator oversight.

3.5: AWQIs Reported to the Ministry

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
02-Dec-24	Filter Efficiency	93.87	%	AWQI#166986 – Filter 2 failed to meet its filter efficiency requirements for the month of November. Filter media changes performed in November caused some media carry over into the turbidity meters resulting in turbidity spikes on start up. The failed filter efficiency was reported. MOH did not have any required actions	02-Dec-24
30-Dec-24	Pressure	Low		AWQI#167142 – A power surge knocked out the highlift pumps and resulted to a drop in system pressure. One resident called to inform they had no pressure during the event. As a result, the incident was called into MOH and SAC. The MOH issues a DWA for the affected area. Two sets of 3 bacti samples were collected. All sample results were clear of TC and EC. The MOH then lifted the DWA for the affected area.	04-Jan-25

SECTION 4: SECTION 11 REPORT

4.1: Information to be provided

Population Served	**353**
Does your Drinking-Water System serve more than 10,000 people?	**No**
Is your annual report available to the public at no charge on a web site on the Internet?	**Yes**
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.	**Town of Little Current, Municipal Office 14 Water St E Little Current, Ontario P0P 1K0**
Number of Designated Facilities served:	**0**

Did you provide a copy of your annual report to all Designated Facilities you serve?	**NA**
Number of Interested Authorities you report to:	**0**
Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?	**NA**
List all Drinking-Water Systems (if any), and their DWS Number which receive all of their drinking water from your system:	**N/A**
Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?	**N/A**
Indicate how you notified system users that your annual report is available, and is free of charge.	**Public access/notice via the web & via Government Office**
Indicate if you notified system users that your annual report is available and is free of charge using an alternate method	**YES**

4.2: Facility Description

The Sheguiandah plant consists of a raw water pumping station equipped with a sodium hypochlorite injection system for the control of zebra mussels. The zebra mussel control system is operated seasonally from May to November inclusive when the raw temperature is above 8 Celsius. The building houses three low lift vertical turbine pumps.

The treatment consists of a direct filtration chemically assisted plant with a rated capacity of 6.3 L/s. There are two multimedia filters after the flocculator. Each filter contains anthracite, sand and gravel. There are two backwash pumps, to provide filter backwashing as required. The plant has two clearwells, with a capacity of 142 m3 and 176 m3, respectively. Following the clear well there is a high lift pump well with a volume of 119.7 m3. There are three vertical turbine high lift pumps, two located in clearwell two and one located in the high lift pump well. Each pump has a rated capacity of 9.9 L/s at a TDH of 86.75 m. Also included in the highlift well is a fire pump rated at 23L/sec which can be activated from the Sheguiandah Fire Hall. There are two hydro pneumatic tanks which provide system pressure when the high lift pumps are off.

Primary disinfection is achieved by ultraviolet disinfection and sodium hypochlorite. The process wastewater supernatant is returned back to Sheguiandah Bay. The settled solids are hauled from the plant for disposal in the municipal lagoon.

4.3: Chemicals Used

Sodium Hypochlorite 12%	Disinfection
Aluminum Sulphate (Dry)	Coagulant

4.4: Significant Expenses

Significant expenses incurred to

- **[ ]** Install required equipment
- **[X]** Repair required equipment
- **[X]** Replace required equipment

Work Order	Completion Date	Comment
3707397	31-Jan-25	New SCADA computer and filter 2 turbidity repair – $14,559.65
3952246	13-Dec-24	High lift pump replacement – $29,455
3997219	04-Dec-24	Low lift pump replacement – $13,726
	31-Dec-24	Filter media change, autodialer replacement, generator radiator flushed, SCADA computer repair & filter discharge, ACV valve repairs – $37,809.97

4.5: Adverse Water Quality Incidents

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
02-Dec-24	Filter Efficiency	93.87	%	AWQI#166986 – Filter 2 failed to meet its filter efficiency requirements for the month of November. Filter media changes performed in November caused some media carry over into the turbidity meters resulting in turbidity spikes on start up. The failed filter efficiency was reported. MOH did not have any required actions	02-Dec-24
30-Dec-24	Pressure	Low		AWQI#167142 – A power surge knocked out the highlift pumps and resulted to a drop in system pressure. One resident called to inform they had no pressure during the event. As a result, the incident was called into MOH and SAC. The MOH issues a DWA for the affected area. Two sets of 3 bacti samples were collected. All sample results were clear of TC and EC. The MOH then lifted the DWA for the affected area.	04-Jan-25

4.6: Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03

	No. of Samples	Range of E.Coli		Range of Total Coliform Results		Number of HPC	Range of HPC Results	
	Collected	**Min #**	**Max #**	**Min #**	**Max #**	**Samples**	**Min #**	**Max #**
Distribution	29	0	0	0	0	28	0	320

4.7: Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03

	No. of Samples Collected	Range of Results		Units of Measure
		Minimum	Maximum	
Turbidity, On-Line - Filter 1	8760	0	2.00	(NTU)
Turbidity, On-Line - Filter 2	8760	0	2.00	(NTU)
Free Chlorine Residual, Treated	8760	0.25	3.76	(mg/L)
Free Chlorine Residual, Distribution Location 1	104	0.56	2.20	(mg/L)

4.8: Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument

Date of legal instrument issued	Parameter and limits	Month Sampled	Day Sampled	Result	Unit of Measure
MDWL 197-101 **Issue Date: February 25, 2021** **Expiry Date: February 24, 2026**	Backwash (BW) Total Suspended Solids (TSS) Quarterly sampling 25 mg/L annual average	Jan	08	2	mg/L
		Feb			mg/L
		Mar			mg/L
		Apr	02	<2	mg/L
		May			mg/L
		Jun			mg/L
		Jul	08	<2	mg/L
		Aug			mg/L
		Sep			mg/L
		Oct	07	<2	mg/L
		Nov			mg/L
		Dec			mg/L
		Annual Average		2	**mg/L**

Date of legal instrument issued	Parameter and limits	Month Sampled	Day Sampled	Train 1	Train 2	Unit of Measure
MDWL 197-101 **Issue Date: February 25, 2021** **Expiry Date: February 24, 2026**	UV Transmittance (UVT) Minimum UVT of 93%	Jan	31	95.5	95.6	%
		Feb	22	97.2	98.1	%
		Mar	04	98.9	98.9	%
		Apr	03	95.6	97.1	%
		May	13	97.0	96.7	%
		Jun	10	97.9	97.9	%
		Jul	08	97.2	96.4	%
		Aug	07	N/A	97.9	%
		Sep	03	N/A	97.4	%
		Oct	07	95.5	94.0	%
		Nov	12	97.4	97.2	%
		Dec	09	96.0	96.0	%

4.9: Summary of Inorganic parameters tested during this reporting period or the most recent sample results

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Antimony: Sb (ug/L) - TW	2020/01/13	0.14	6	No	No
Arsenic: As (ug/L) - TW	2020/01/13	< MDL 0.2	10	No	No
Barium: Ba (ug/L) - TW	2020/01/13	12.2	1000	No	No
Boron: B (ug/L) - TW	2020/01/13	12	5000	No	No
Cadmium: Cd (ug/L) - TW	2020/01/13	0.003	5	No	No
Chromium: Cr (ug/L) - TW	2020/01/13	0.19	50	No	No
Mercury: Hg (ug/L) - TW	2020/01/13	< MDL 0.01	1	No	No
Selenium: Se (ug/L) - TW	2020/01/13	0.08	50	No	No
Uranium: U (ug/L) - TW	2020/01/13	0.01	20	No	No

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Fluoride (mg/L) - TW	2022/01/10	< MDL 0.06	1.5	No	No
Nitrate : (mg/L) - TW	2024/01/08	0.163	10	No	No
Nitrate : (mg/L) - TW	2024/04/02	0.13	10	No	No
Nitrate : (mg/L) - TW	2024/07/08	0.115	10	No	No
Nitrate : (mg/L) - TW	2024/10/07	0.071	10	No	No
Nitrite : (mg/L) - TW	2024/01/08	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/04/02	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/07/08	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/10/07	< MDL 0.003	1	No	No
Sodium / Na (mg/L) - TW	2022/01/10	6.51	20*	No	No

*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

4.10: Summary of Lead testing under Schedule 15.1 during this reporting period

Location Type	No. of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Distribution - Lead Results (ug/L)	2	0.19	0.56	10	0
Distribution - Alkalinity (mg/L)	2	57	58	N/A	N/A
Distribution - pH In-House	2	7.30	8.39	N/A	N/A

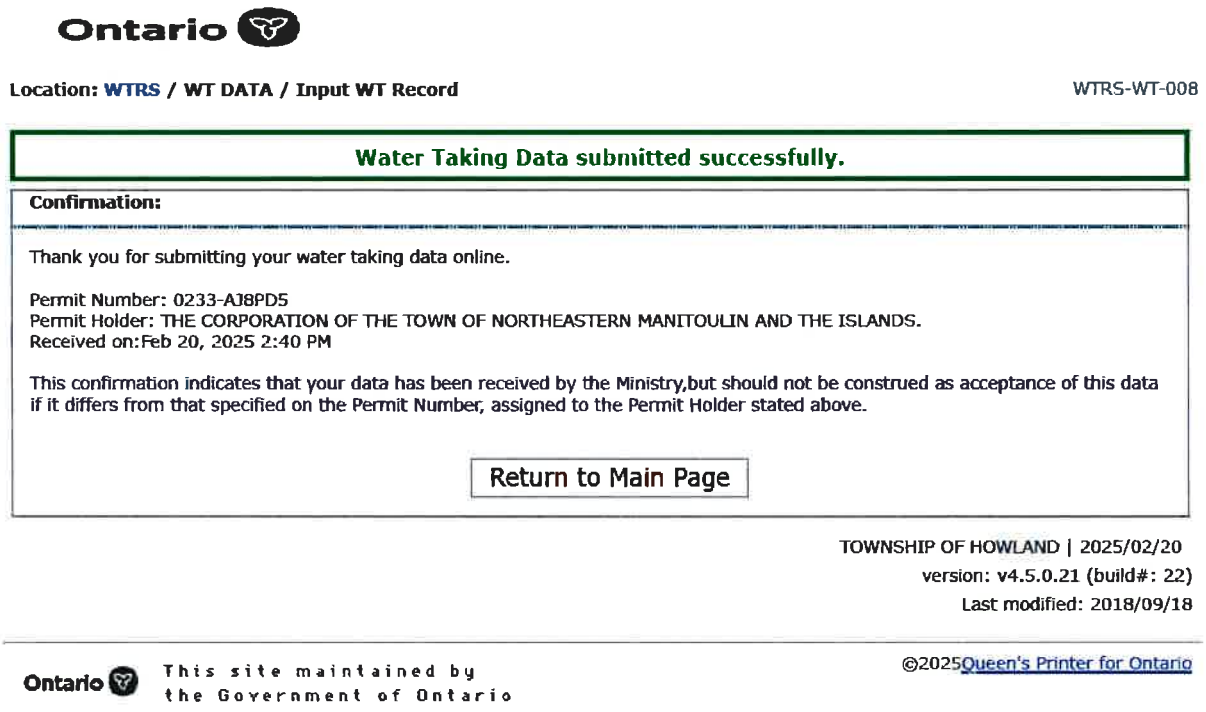
4.11: Summary of Organic parameters sampled during this reporting period or the most recent results

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Alachlor (ug/L) - TW	2020/01/13	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2020/01/13	<MDL 0.01	5.0	No	No
Azinphos-methyl (ug/L) - TW	2020/01/13	<MDL 0.05	20.0	No	No
Benzene (ug/L) - TW	2020/01/13	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (ug/L) - TW	2020/01/13	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2020/01/13	<MDL 0.33	5.0	No	No
Carbaryl (ug/L) - TW	2020/01/13	<MDL 0.05	90.0	No	No
Carbofuran (ug/L) - TW	2020/01/13	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (ug/L) - TW	2020/01/13	<MDL 0.17	2.0	No	No
Chlorpyrifos (ug/L) - TW	2020/01/13	<MDL 0.02	90.0	No	No
Diazinon (ug/L) - TW	2020/01/13	<MDL 0.02	20.0	No	No
Dicamba (ug/L) - TW	2020/01/13	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (ug/L) - TW	2020/01/13	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (ug/L) - TW	2020/01/13	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (ug/L) - TW	2020/01/13	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (ug/L) - TW	2020/01/13	<MDL 0.33	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2020/01/13	<MDL 0.35	50.0	No	No
2,4-Dichlorophenol (ug/L) - TW	2020/01/13	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2020/01/13	<MDL 0.19	100.0	No	No
Diclofop-methyl (ug/L) - TW	2020/01/13	<MDL 0.4	9.0	No	No
Dimethoate (ug/L) - TW	2020/01/13	<MDL 0.06	20.0	No	No
Diquat (ug/L) - TW	2020/01/13	<MDL 1.0	70.0	No	No
Diuron (ug/L) - TW	2020/01/13	<MDL 0.03	150.0	No	No
Glyphosate (ug/L) - TW	2020/01/13	<MDL 1.0	280.0	No	No
Malathion (ug/L) - TW	2020/01/13	<MDL 0.02	190.0	No	No
Metolachlor (ug/L) - TW	2020/01/13	<MDL 0.01	50.0	No	No
Metribuzin (ug/L) - TW	2020/01/13	<MDL 0.02	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2020/01/13	<MDL 0.3	80.0	No	No
Paraquat (ug/L) - TW	2020/01/13	<MDL 1.0	10.0	No	No
PCB (ug/L) - TW	2020/01/13	<MDL 0.04	3.0	No	No
Pentachlorophenol (ug/L) - TW	2020/01/13	<MDL 0.15	60.0	No	No
Phorate (ug/L) - TW	2020/01/13	<MDL 0.01	2.0	No	No
Picloram (ug/L) - TW	2020/01/13	<MDL 1.0	190.0	No	No
Prometryne (ug/L) - TW	2020/01/13	<MDL 0.03	1.0	No	No
Simazine (ug/L) - TW	2020/01/13	<MDL 0.01	10.0	N/A	N/A
Terbufos (ug/L) - TW	2020/01/13	<MDL 0.01	1.0	No	No
Tetrachloroethylene (ug/L) - TW	2020/01/13	<MDL 0.35	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2020/01/13	<MDL 0.2	100.0	No	No
Triallate (ug/L) - TW	2020/01/13	<MDL 0.01	230.0	No	No

Trichloroethylene (ug/L) - TW	2020/01/13	<MDL 0.44	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2020/01/13	<MDL 0.25	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW	2020/01/13	<MDL 0.12	100.0	No	No
Trifluralin (ug/L) - TW	2020/01/13	<MDL 0.02	45.0	No	No
Vinyl Chloride (ug/L) - TW	2020/01/13	<MDL 0.17	1.0	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average - DW	2024/12/31	37.8	100.00	No	No
HAA Total (ug/L) Annual Average – DW	2024/12/31	27.6	80.0	No	No

SECTION 5: RAW WATER SUBMISSIONS

Raw water flows were submitted to the MECP on February 20, 2025.



Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 0233-AJ8PD5
Permit Holder: THE CORPORATION OF THE TOWN OF NORTHEASTERN MANITOULIN AND THE ISLANDS.
Received on:Feb 20, 2025 2:40 PM

This confirmation indicates that your data has been received by the Ministry,but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

Return to Main Page

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SECTION 6: CONCLUSION

The Sheguiandah WTP delivers water that, in all its treated and distribution samples, indicates the water to be free of bacteriological contamination.

Based on information available for the 2024 operating year, the Sheguiandah WTP was able to meet the demand of water use without exceeding the PTTW or the MDWL.

List of Acronyms and Definitions

Alkalinity	The capacity of water for neutralizing an acid solution
AWQI	Adverse Water Quality Incident- when a water sample test result exceeds the Ontario Drinking Water Quality Standards
Backwash	Water pumped backwards to clean filters
BWA	Boil Water Advisory; Issued when risk of contamination is possible in drinking water
CFU	Colony Forming Units
Chlorine Residual	A low level of chlorine remaining in water after disinfection occurs
DW	Distribution Water
DWA	Drinking Water Advisory; Issued when water cannot be consumed by any means
DWWP	Drinking Water Works Permit - provides a description of the overall system
E.Coli	Bacteria used as indicators to measure the degree of pollution and sanitary quality of water
GUDI 170/03	Groundwater Under Direct Influence – Considered to be surface water under O.Reg
HPC	Heterotrophic Plant Count
L/s	Litres per Second
m3/d	Cubic Metres per Day
MAC	Maximum Acceptable Concentration
MDL	Minimum Detection Level
MDWL requirements	Municipal Drinking Water Licence - relates to the operation and performance
mg/L	Miligrams per Litre
Ministry	Ministry of the Environment, Conservation and Parks
MECP	Ministry of the Environment, Conservation and Parks
NDOGN	No Data: Overgrown with Non Target Bacteria
NDOGT	No Data: Overgrown with Target Bacteria
O.Reg	Ontario Regulation
PTTW water	Permit to Take Water – Permit which allows water taking from groundwater or surface
RW	Raw Water
TC	Total Coliforms
TSS	Total Suspended Solids
Turbidity	Cloudiness or haziness of water
TW	Treated Water

Little Current Water Treatment

Large Municipal Residential Drinking Water System

January 1, 2024 – December 31, 2024

O.Reg 170/03 Schedule 22 Summary Report
O.Reg 170/03 Section 11 Annual Report
&
O.Reg 387/04 Annual Record of Water Taking

Prepared by the Ontario Clean Water Agency
For The Corporation of the Town of Northeastern Manitoulin and the Islands

Drinking-Water System Number: *220002191*
Drinking-Water System Name: *LITTLE CURRENT DRINKING WATER SYSTEM*
Drinking-Water System Owner: *The Corporation of the Town of Northeastern Manitoulin and the Islands*
Drinking-Water System Category: *Large Municipal Residential*

SECTION 1: INTRODUCTION

This document is prepared in accordance with Section 11 and Schedule 22 of O.Reg.170/03 under the Safe Drinking Water Act and with Section 9 of O.Reg.387/04 under the Ontario Water Resources Act. The reports are prepared by the Ontario Clean Water Agency. Acronyms and definitions can be found at the end of the report.

A copy of the Summary Report must be provided to the members of the municipal council by March 31, 2025.

SECTION 2: REQUIREMENTS OF THE REPORTS

Schedule 22 Report

The report must list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report. It must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.
For the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and future planned water uses, the following information is required to be included in this report:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the summary to the rated capacity and flow rates approved in the systems approval.

Section 11 Report

The annual report must contain the following:

- A brief description of the drinking water system and a list of chemicals used by the system.
- A description of any major expenses incurred during the period covered by the report to install, repair or replace required equipment.
- A summary of all adverse water quality incidents (AWQI) reported to the Ministry
- A summary of corrective actions taken in response all AWQIs
- A summary of all test results required under the regulation, under an approval, municipal drinking water licence or order, including an OWRA order.
- A statement of where a Schedule 22 report will be available for inspection.

The report must be prepared not later than February 28 of the following year.

Regulation 387 Report

On or before March 31 in every year, every holder of a permit to take water (PTTW) shall submit to a Director the data collected and recorded for the previous year.

A record of annual water taking can be found in Appendix A.

SECTION 3: SCHEDULE 22 REPORT

3.1: Flows - Treated

In accordance with the Municipal Drinking Water License (MDWL), the Little Current WTP shall not be operated to exceed a maximum daily volume of 3100 m3/d to the distribution system.

The daily treated water maximum flow was 1,653.4 m3 in August and represents 52% of capacity. In 2024, the total volume of water sent to the distribution system was 420,389.3 m3

The quantity of treated water supplied during the reporting period **did not** exceed the rated maximum capacity.

TREATED WATER FLOW DATA					
Month	Total Monthly Flow (m3)	Average Flow (m3/d)	Maximum Flow (m3/d)	Maximum Flow Rate (L/s)	Limit Rated Capacity m^3/d
January	30,397.2	980.55	1,063.1	24.04	3,100
February	29,266.2	1,009.18	1,061.7	24.55	3,100
March	31,612.0	1,019.74	1,079.9	60.11	3,100
April	32,378.6	1,079.29	1,108.9	70.0	3,100
May	40,610.7	1,310.02	1,460.7	73.31	3,100
June	41,815.1	1,393.84	1,578.6	38.72	3,100
July	45,328.9	1,462.22	1,555.9	38.39	3,100
August	46,676.9	1,505.71	1,653.4	37.39	3,100
September	44,597.8	1,486.59	1,548.9	37.18	3,100
October	30,683.1	989.78	1,469.7	61.16	3,100
November	22,954.8	765.16	818.9	34.11	3,100
December	24,068.0	776.39	819.6	27.47	3,100
Total	420,389.3				
Average		1,148.12			
Maximum			1,653.4	73.31	3,100

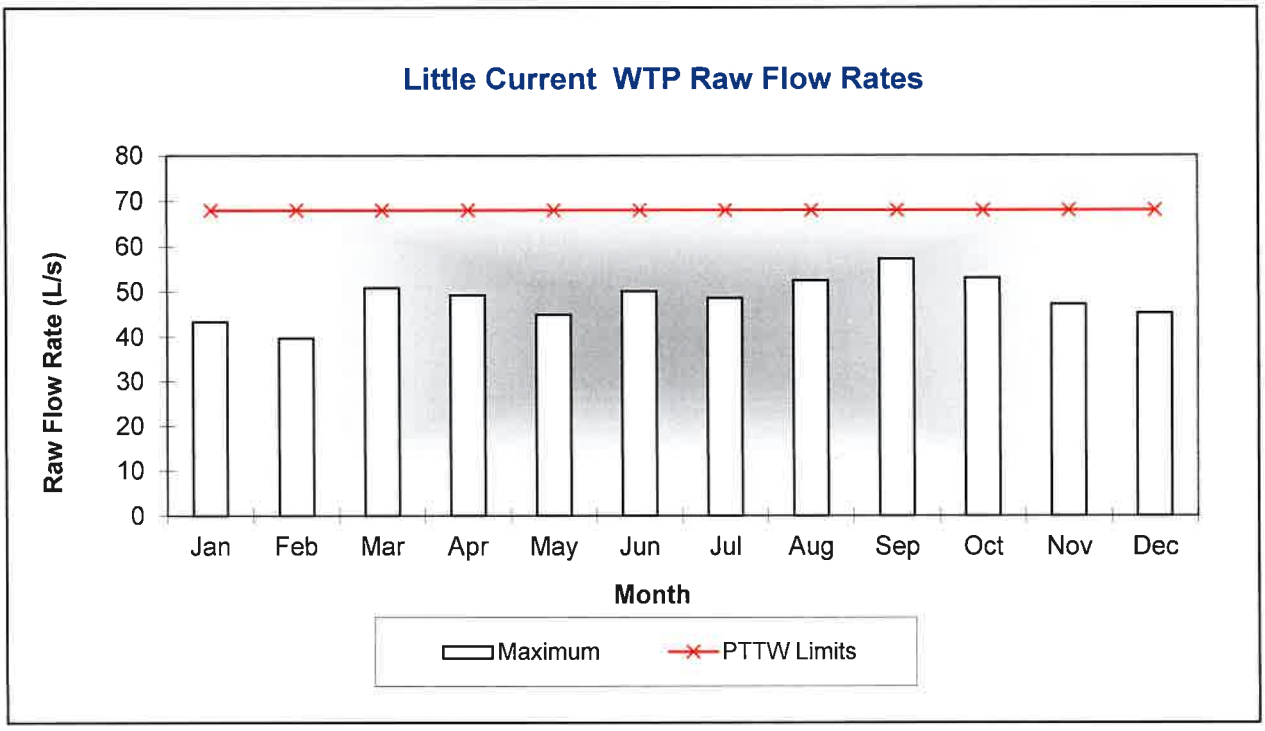
3.2: Flows - Raw

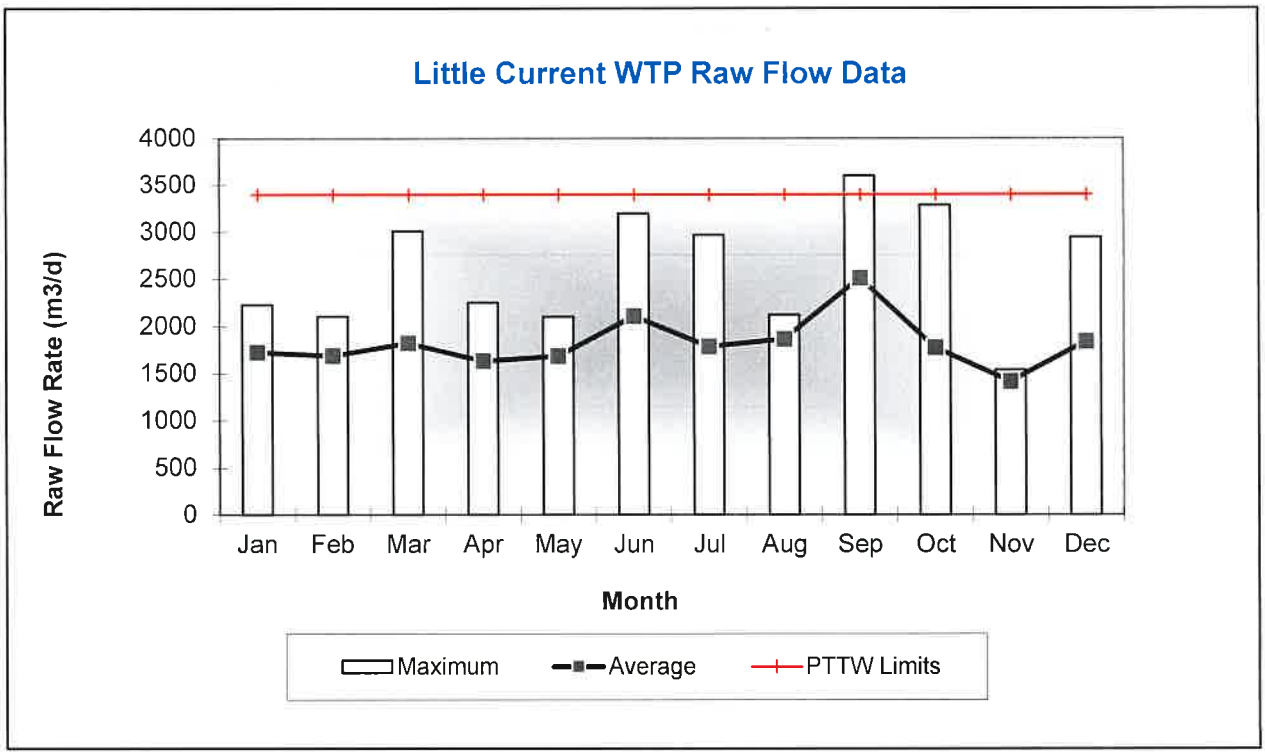
Daily raw maximum instantaneous flow is stated in the PTTW at a maximum rate of flow of 68.1 L/s and a maximum daily volume of 3400 m^3/d.

The average monthly raw water flow for this reporting period was 1,820.17m3/d. The maximum daily flow was 3,598 m^3/d representing 106% of water taking limits. In 2024, the total volume of water taken from the environment was 666,063.2 m3

The quantity of raw water taken **did** exceed the limits stipulated within the PTTW. Exceedance details can be found under section 3.4: System Failures and Corrective Actions.

RAW WATER FLOW DATA - TOTAL ALL SOURCES						
Month	Total Monthly Flow (m3)	Average Flow (m3/d)	Maximum Flow (m3/d)	Maximum Flow Rate (L/s)	Limits	
					L/s (PTTW)	m^3/d (PTTW)
January	53,379.7	1,721.93	2,229.1	43.41	68.1	3400
February	48,942.8	1,687.68	2,105.5	39.78	68.1	3400
March	56,499.1	1,822.55	3,010.0	50.82	68.1	3400
April	48,962.8	1,632.09	2,250.4	49.28	68.1	3400
May	52,171.7	1,682.96	2,101.4	44.97	68.1	3400
June	63,232.6	2,107.75	3,200.9	50.15	68.1	3400
July	55,385.7	1,786.64	2,971.5	48.67	68.1	3400
August	57,760.0	1,863.23	2,120.7	52.47	68.1	3400
September	75,337.7	2,511.26	3,598.0	57.24	68.1	3400
October	54,964.3	1,773.04	3,287.1	53.07	68.1	3400
November	42,418.2	1,413.94	1,536.2	47.21	68.1	3400
December	57,008.6	1,838.99	2,945.8	44.69	68.1	3400
Total	666,063.2					
Average		1,820.17				
Maximum			3,598.0	57.24	68.1	3400





3.3: Annual Raw Water Review

Raw Water Taking	Total Taking m3/d	Average Day m3/d	Max Day m3/d	Max Day % of PTTW allowable 3400 m3/d
2024	666,063.2	1,820.17	3,598	**106%**
2023	602,686	1,651.19	2,758.5	**81%**
2022	598,408.6	1,639.48	3,318	**97.5%**
2021	602,309.2	1,650.16	3,585.7	**105%**
2020	489,750.1	1,338.12	3,242.8	**95%**
2019	650,562.5	1,782.36	3,118.2	**91.7%**

3.4: System Failures and Corrective Actions

The latest inspection of the drinking water facility took place on February 9, 2024; the facility scored 0/635 providing a rating of 100%.

The following non-compliance occurred during the report period:

On September 5, filter issues resulted in critically low clearwell levels and a loss of pressure in the distribution system. After the issue was resolved, clearwells were replenished, pressure was restored to the distribution and flushing was completed. The PTTW limit of 3,400m3/day was exceeded on September 6 due

to the excess water required to return the system to normal operation. The total volume of water taken on September 6 was 3,598m3/day.

3.5: AWQIs Reported to the Ministry

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
05-Sept-24	Pressure	0	psi	AWQI# 166202 – On September 5, membrane filter #1 was stuck in a backpulse and clearwell levels were critically low when the Operator arrived onsite. The HLPs were shut down to allow the operator to troubleshoot; this resulted in a loss of pressure in the distribution. After the filter issue was repaired, clearwells were filled to adequate levels then HLPs were turned on to begin restoring pressure. Once pressure was restored, flushing was completed and two sets of bacti samples were collected. All results were non-detect for TC/EC. Burgess Hawkins was notified on September 7th and he then verbally lifted the DWA. The DWA rescind letter was received September 9th and dated for September 7th.	07-Sept-24

SECTION 4: SECTION 11 REPORT

4.1: Information to be provided

Population Served	*1700*
Does your Drinking-Water System serve more than 10,000 people?	*No*
Is your annual report available to the public at no charge on a web site on the Internet?	*Yes*
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.	*Town of Little Current, Municipal Office* *14 Water Street E* *Little Current, Ontario P0P 1K0*
Number of Designated Facilities served:	*0*
Did you provide a copy of your annual report to all Designated Facilities you serve?	*NA*
Number of Interested Authorities you report to:	*0*

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?	*NA*
List all Drinking-Water Systems (if any), and their DWS Number which receive all of their drinking water from your system:	*N/A*
Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?	*N/A*
Indicate how you notified system users that your annual report is available, and is free of charge.	***Public access/notice via the web - & via Government Office***
Indicate if you notified system users that your annual report is available and is free of charge using an alternate method	***Yes***

4.2: Facility Description

The Little Current Water treatment facility consists of a low lift pumping station with three submersible pumps. The low lift pumping station includes a zebra mussel control system utilizing sodium hypochlorite.

Treatment consists of membrane filtration which is comprised of two concrete tanks, each tank with six ultrafiltration units. The rated capacity is 35.9 L/s into the treatment system. Each unit contains 12 modules each module has a filtering area of 23.23 m2. There are three permeate pumps used to push the water to the chlorine contact chamber. The contact chamber maintains a constant volume of 162 m3. Following the chlorine contact chamber there are two clear wells, each having a storage volume of 749.8 m3. The high lift pumping consists of four centrifugal high lift pumps, with two pumps having a capacity of 57.87 L/s and two pumps having a capacity of 28.94 L/s. The process back pulse & reject water from the plant is de-chlorinated and discharged back to the North Channel.

Wastewater from membrane cleaning is neutralized and discharged to the sanitary sewer system.

4.3: Chemicals Used

Sodium Hypochlorite 12%	Disinfection
Calcium Thiosulphate	Dechlorination of reject water & wastewater
Caustic Soda	Neutralizing membrane wastewater
Citric Acid	Membrane cleaning

4.4: Significant Expenses

Significant expenses incurred to

- **[X]** Install required equipment
- **[X]** Repair required equipment
- **[X]** Replace required equipment

Work Order	Completion Date	Comment
3850472	21-Mar-24	Bray valve repair – $7,941.20
3851071	27-Jun-24	Filter blower air flow switch repair – $2,772.06

3899380	04-Jun-24	Air compressor repair – $2,302.07
3899582	05-Dec-24	Purchase of a new permeate flow meter – $ 4,175.33
3948082	04-Dec-24	Low lift pump troubleshooting and repair – $5,632.49
3997350	05-Jun-24	SCADA computer upgrades – $13,510.84
4143613	15-Jan-25	Air dryer repairs – $7,215.89
	30-Apr-24	Permeate header repair – $5,854.52

4.5: Adverse Water Quality Incidents

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre					
Incident Date	**Parameter**	**Result**	**Unit of Measure**	**Comment / Corrective Action**	**Corrective Action Date**
05-Sept-24	Pressure	0	psi	AWQI# 166202 – On September 5, membrane filter #1 was stuck in a backpulse and clearwell levels were critically low when the Operator arrived onsite. The HLPs were shut down to allow the operator to troubleshoot; this resulted in a loss of pressure in the distribution. After the filter issue was repaired, clearwells were filled to adequate levels then HLPs were turned on to begin restoring pressure. Once pressure was restored, flushing was completed and two sets of bacti samples were collected. All results were non-detect for TC/EC. Burgess Hawkins was notified on September 7th and he then verbally lifted the DWA. The DWA rescind letter was received September 9th and dated for September 7th.	07-Sept-24

4.6: Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03

	No. of Samples	Range of E.Coli Results		Range of Total Coliform Results		Number of HPC	Range of HPC Results	
	Collected	**Min #**	**Max #**	**Min #**	**Max #**	**Samples**	**Collected**	**Min #**
Raw Water	53	0	NDOGT	0	NDOGT	n/a	n/a	n/a
Treated Water	53	0	0	0	0	53	0	800
Distribution	166	0	0	0	0	53	0	68

4.7: Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03

	No. of Samples Collected	Range of Results		Units of Measure
		Minimum	Maximum	
Turbidity – Filter 1	8760	0.01	1	(NTU)
Turbidity – Filter 2	8760	0	1	(NTU)
Free Chlorine Residual – TW	8760	0.20	4.55	(mg/L)
Free Chlorine Residual, Distribution Location 1	97	0.60	2.20	(mg/L)
Free Chlorine Residual, Distribution Location 2	97	0.68	2.17	(mg/L)
Free Chlorine Residual, Distribution Location 3	97	0.66	2.03	(mg/L)
Free Chlorine Residual, Distribution Location 4	47	0.98	1.90	(mg/L)

4.8: Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument

Date of legal instrument issued	Parameter and limits	Month Sampled	Day Sampled	Result	Unit of Measure
197-101 **Issue Date: February 25, 2021** **Expiry Date: February 24, 2026**	Membrane Reject Water Total Suspended Solids 25 mg/L	Jan	Missed		mg/L
		Feb	05	<2	mg/L
		Mar	04	<2	mg/L
		Apr	02	<2	mg/L
		May	06	4	mg/L
		Jun	03	4	mg/L
		Jul	04	9	mg/L
		Aug	06	6	mg/L
		Sep	03	7	mg/L
		Oct	07	4	mg/L
		Nov	04	<2	mg/L
		Dec	02	<2	mg/L
		Annual Average		4	**mg/L**

4.9: Summary of Inorganic parameters tested during this reporting period or the most recent sample results

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Antimony: Sb (ug/L) - TW	2024/01/08	< MDL 0.6	6	No	No
Arsenic: As (ug/L) - TW	2024/01/08	0.3	10	No	No
Barium: Ba (ug/L) - TW	2024/01/08	12.5	1000	No	No
Boron: B (ug/L) - TW	2024/01/08	11	5000	No	No
Cadmium: Cd (ug/L) - TW	2024/01/08	< MDL 0.003	5	No	No
Chromium: Cr (ug/L) - TW	2024/01/08	0.18	50	No	No
Mercury: Hg (ug/L) - TW	2024/01/08	< MDL 0.01	1	No	No
Selenium: Se (ug/L) - TW	2024/01/08	0.09	50	No	No
Uranium: U (ug/L) - TW	2024/01/08	0.172	20	No	No

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Fluoride (mg/L) - TW	2022/01/10	< MDL 0.06	1.5	No	No
Nitrate : (mg/L) - TW	2024/01/02	0.166	10	No	No
Nitrate : (mg/L) - TW	2024/04/02	0.177	10	No	No
Nitrate : (mg/L) - TW	2024/07/04	0.134	10	No	No
Nitrate : (mg/L) - TW	2024/10/07	0.108	10	No	No
Nitrite : (mg/L) - TW	2024/01/02	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/04/02	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/07/04	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/10/07	< MDL 0.003	1	No	No
Sodium / Na (mg/L) - TW	2022/01/10	6.58	20*	No	No

4.10: Summary of Lead testing under Schedule 15.1 during this reporting period

Location Type	No. of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Distribution - Lead Results (ug/L)	4	0.08	0.57	10	0
Distribution - Alkalinity (mg/L)	4	65	71	N/A	N/A
Distribution - pH In-House	4	7.31	7.93	N/A	N/A

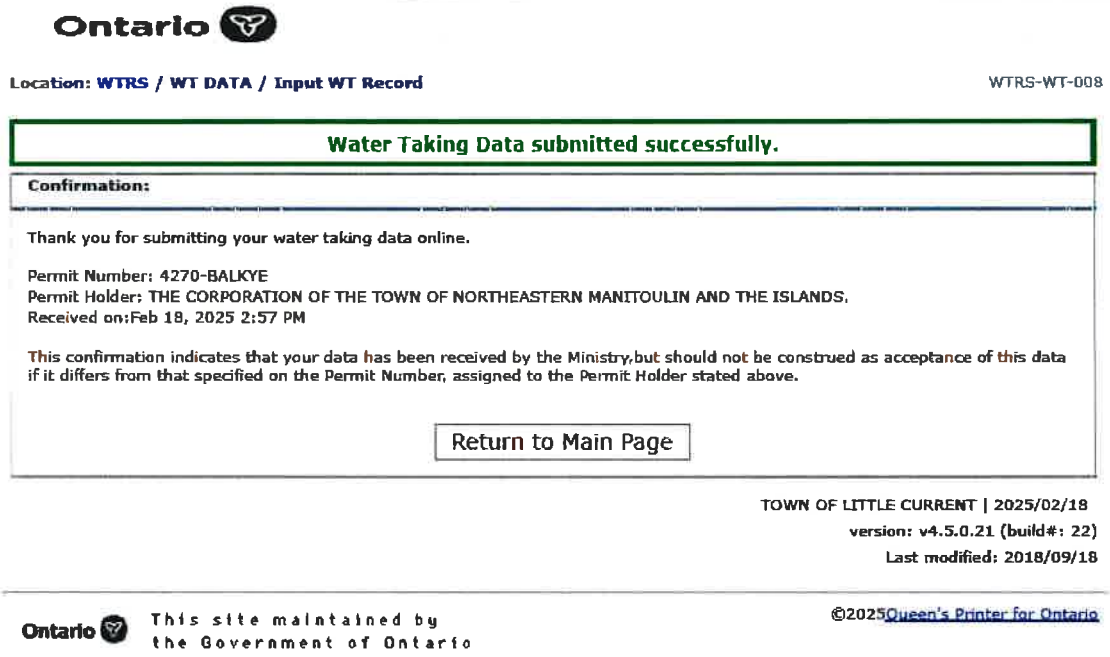
4.11: Summary of Organic parameters sampled during this reporting period or the most recent results

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
1,1-Dichloroethylene (ug/L)-TW	2024/01/08	< MDL 0.33	14	No	No
1,2-Dichlorobenzene (ug/L)-TW	2024/01/08	< MDL 0.41	200	No	No
1,2-Dichloroethane (ug/L)-TW	2024/01/08	< MDL 0.35	5	No	No
1,4-Dichlorobenzene (ug/L)-TW	2024/01/08	< MDL 0.36	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW	2024/01/08	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW	2024/01/08	< MDL 0.25	5	No	No
2,4-Dichlorophenol (ug/L)-TW	2024/01/08	< MDL 0.15	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW	2024/01/08	< MDL 0.19	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW	2024/01/08	< MDL 0.12	100	No	No
Alachlor (ug/L) -TW	2024/01/08	< MDL 0.02	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW	2024/01/08	0.01	5	No	No
Azinphos-methyl (ug/L)-TW	2024/01/08	< MDL 0.05	20	No	No
Benzene (ug/L)-TW	2024/01/08	< MDL 0.32	1	No	No
Benzo(a)pyrene (ug/L)-TW	2024/01/08	< MDL 0.004	0.01	No	No
Bromoxynil (ug/L)-TW	2024/01/08	< MDL 0.33	5	No	No
Carbaryl (ug/L)-TW	2024/01/08	< MDL 0.05	90	No	No
Carbofuran (ug/L) -TW	2024/01/08	< MDL 0.01	90	No	No

Carbon Tetrachloride (ug/L) -TW	2024/01/08	< MDL 0.17	2	No	No
Chlorpyrifos (ug/L) -TW	2024/01/08	< MDL 0.02	90	No	No
Diazinon (ug/L)-TW	2024/01/08	< MDL 0.02	20	No	No
Dicamba (ug/L)-TW	2024/01/08	< MDL 0.2	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW	2024/01/08	< MDL 0.35	50	No	No
Diclofop-methyl (ug/L)-TW	2024/01/08	< MDL 0.4	9	No	No
Dimethoate (ug/L)-TW	2024/01/08	< MDL 0.06	20	No	No
Diquat (ug/L)-TW	2024/01/08	< MDL 1	70	No	No
Diuron (ug/L)-TW	2024/01/08	< MDL 0.03	150	No	No
Glyphosate (ug/L)-TW	2024/01/08	< MDL 1	280	No	No
Malathion (ug/L)-TW	2024/01/08	< MDL 0.02	190	No	No
Metolachlor (ug/L)-TW	2024/01/08	< MDL 0.01	50	No	No
Metribuzin (ug/L)-TW	2024/01/08	< MDL 0.02	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW	2024/01/08	< MDL 0.3	80	No	No
Paraquat (ug/L)-TW	2024/01/08	< MDL 1	10	No	No
PCB (ug/L)-TW	2024/01/08	< MDL 0.04	3	No	No
Pentachlorophenol (ug/L)-TW	2024/01/08	< MDL 0.15	60	No	No
Phorate (ug/L)-TW	2024/01/08	< MDL 0.01	2	No	No
Picloram (ug/L)-TW	2024/01/08	< MDL 1	190	No	No
Prometryne (ug/L)-TW	2024/01/08	< MDL 0.03	1	No	No
Simazine (ug/L)-TW	2024/01/08	< MDL 0.01	10	No	No
Terbufos (ug/L)-TW	2024/01/08	< MDL 0.01	1	No	No
Tetrachloroethylene (ug/L)-TW	2024/01/08	< MDL 0.35	10	No	No
Triallate (ug/L) -TW	2024/01/08	< MDL 0.01	230	No	No
Trichloroethylene (ug/L)-TW	2024/01/08	< MDL 0.44	5	No	No
Trifluralin (ug/L)-TW	2024/01/08	< MDL 0.02	45	No	No
Vinyl Chloride (ug/L)-TW	2024/01/08	< MDL 0.17	1	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average - DW	2024/12/31	39.5	100.00	No	Yes
HAA Total (ug/L) Annual Average - DW	2024/12/31	26.3	80.0	No	No

SECTION 5: RAW WATER SUBMISSIONS

Raw water flows were submitted to the Ministry on February 18, 2025.



Ontario

Location: **WTRS / WT DATA / Input WT Record** WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 4270-BALKYE
Permit Holder: THE CORPORATION OF THE TOWN OF NORTHEASTERN MANITOULIN AND THE ISLANDS.
Received on:Feb 18, 2025 2:57 PM

This confirmation indicates that your data has been received by the Ministry,but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

Return to Main Page

TOWN OF LITTLE CURRENT | 2025/02/18
version: v4.5.0.21 (build#: 22)
Last modified: 2018/09/18

Ontario This site maintained by the Government of Ontario

SECTION 6: CONCLUSION

The Little Current WTP delivers water that, in all its treated and distribution samples, indicates the water to be free of bacteriological contamination.

Based on information available for the 2024 operating year, the Little Current was able to meet the demand of water use without exceeding the PTTW or the MDWL.

List of Acronyms and Definitions

Alkalinity	The capacity of water for neutralizing an acid solution
AWQI	Adverse Water Quality Incident- when a water sample test result exceeds the Ontario Drinking Water Quality Standards
Backwash	Water pumped backwards to clean filters
BWA	Boil Water Advisory; Issued when risk of contamination is possible in drinking water
CFU	Colony Forming Units
Chlorine Residual	A low level of chlorine remaining in water after disinfection occurs
DW	Distribution Water
DWA	Drinking Water Advisory; Issued when water cannot be consumed by any means
DWWP	Drinking Water Works Permit - provides a description of the overall system
E.Coli	Bacteria used as indicators to measure the degree of pollution and sanitary quality of water
GUDI	Groundwater Under Direct Influence – Considered to be surface water under O.Reg 170/03
HPC	Heterotrophic Plant Count
L/s	Litres per Second
m3/d	Cubic Metres per Day
MAC	Maximum Acceptable Concentration
MDL	Minimum Detection Level
MDWL	Municipal Drinking Water Licence - relates to the operation and performance requirements
mg/L	Miligrams per Litre
Ministry	Ministry of the Environment, Conservation and Parks
MECP	Ministry of the Environment, Conservation and Parks
NDOGN	No Data: Overgrown with Non Target Bacteria
NDOGT	No Data: Overgrown with Target Bacteria
O.Reg	Ontario Regulation
PTTW	Permit to Take Water – Permit which allows water taking from groundwater or surface water
RW	Raw Water
TC	Total Coliforms
TSS	Total Suspended Solids
Turbidity	Cloudiness or haziness of water
TW	Treated Water

Manitoulin Centennial Manor
Board of Management Meeting
Jan 23, 2025
(unapproved)

Present:

Pat MacDonald, Mary Jane Lenihan, Art Hayden, Ian Anderson, Dawn Orr
By Phone
Don Cook (Administrator), Sandie Dubreuil (DOC)
Colleen Pittam (Extendicare)
By Phone: Mandeep Dhindsa, (Extendicare)
By Phone: Mike Erskine (Expositor)
With regrets, Brenda Reid
Meeting held in Manor boardroom.

Call to order

1.1 Meeting called to order at 10:10 by Pat MacDonald chair of the meeting.

2.0 Approval of Agenda

Amend agenda to include elections for Chair and Vise Chair.

1.2 Motion to approve agenda as amended
Moved by Ian Anderson Seconded by Dawn Orr .... carried

3.0 Approval of Minutes

3.1 Motion to approve Dec 2024 minutes.
Moved by Ian Anderson Seconded by MJ Lenihan .... carried

4.0 New Business

4.1 Elections
Chair:
Dawn Orr nominates Pat Macdonald for chair
Ian Anderson seconds the nomination
Pat MacDonald nominates Art MacDonald for chair
MJ Lenihan seconds nomination
Art Hayden declines the nomination
Pat MacDonald accepts the nomination
Unanimous vote Pat MacDonald is the Board Chair for 2025
Vise Chair:
Ian Anderson nominates Art Hayden for Vise Chair
Dawn Orr seconds the nomination.
Art Hayden accepts the nomination.
Unanimous vote Art Hayden is the board Vise Chair for 2025

4.2 Insurance
The Manor insurance policy renews on February 15.
The new policy quote is $62,735 compared to $59,166 last year, with the broker still working on trying to reduce the quote.

The insurance was changed last year from Marsh Insurance to Northbridge as Marsh's quote for last year was over $90,000

Motion to accept the quote to renew the insurance with
Moved by Ian Anderson Seconded by MJ Lenihan .... carried

5.0 Business Arising from Minutes

None

6.0 Fundraising Update

6.1 Tree of Lights Campaign
The Tree of Lights Campaign for 2024 was extended to Jan 17, 2025, due to the interruption from the postal strike.
The total raised for the campaign this year (Oct to Jan 17) is $28,454, there also is $14,019 in donations from earlier in the year for a total of $42, 473 raised in 2024 towards the purchase of the new beds for the residents.
Another successful fundraising year, supported by a very generous community.

7.0 Correspondence

7.1 Letter from Insurance lawyers regarding class action lawsuits against Ontario Nursing Homes.
Manitoulin Centennial Manor is excluded from the suit and the the plaintiffs' lawyers petition to the court to require us to provide a large amount of data from Jan 2020 to May 2023 was denied.

8.0 Administrator's Report –

8.1 Attached Report
Motion to accept
Moved by Ian Anderson Seconded by Art Hayden .... carried

9.0 Extendicare Report

9.1 Financial Statement for Dec 2024
presented by Mandeep Dhindsa
With the significant reduction in agency spending, again in Dec 2024 finishes with an under spent to the budget of $164,000
Motion to accept.
Moved by Dawn Orr Seconded by MJ Lenihan .... carried

10.0 In Camera

Motion to go In Camera
Moved by Ian Anderson Seconded by MJ Lenihan ..... carried

Decision on in camera discussions deferred to February meeting

Motion to come Out of Camera
Moved by MJ Lenihan Seconded by Art Hayden .... carried

10.0 Date of Next Meeting: - Feb 27, 2025. At 10:00 a.m.
In the Manor Board Room.

12.0 Adjournment
Motion to adjourn. At 11:20
Moved by Ian Anderson

Manitoulin East Municipal Airport Commission Inc.

Commission Meeting Minutes

Meeting of February 19, 2025

Present, B. Koehler, B. Wood, G. Williamson, D. Elliott, R. Maguire

M. Whatling

Meeting call to order by G. Williamson at 7:00 PM

Motion 2025 02-01
Resolved that the Commission approves the agenda for the meeting of February 9, 2025.
Moved by B. Koehler
Second by D. Elliott
Carried – Yes

Motion 2025 02-02
Resolved that the Commission approves the minutes of the meeting of December 9 , 2024.
Moved by B. Wood
Second by R. Maguire
Carried – Yes

Declaration of pecuniary interest-

Motion 2025 02-03
Resolved that the Commission accept the managers' report for the months of December 2024 / January 2025
Moved by: D. Elliott
Second by: B. Koehler
Carried – Yes

Motion 2025 02-04
Resolved that the Commission accept the treasurers report for January 2025.
Moved by: D. Elliott
Second by: B. Wood
Carried - Yes

Motion 2025 02-05
Resolved that the Manitoulin East Municipal Airport Commission authorize a one dollar per hour ($1/hr) increase to the hourly rate for the Staff and Management of the airport effective January 1st 2025.
Moved by: R. Maguire
Second by: B. Koehler
Carried - Yes

Motion 2025 02-06
Resolved that the Commission meeting of February 19, 2025 does now adjourn at 7:40 pm
Next meeting – April 14 via Zoom.
Moved by: B. Koehler
Second by: B. Wood
Carried - Yes

Conseil des Services du District de
Manitoulin-Sudbury
District Services Board

210 boul Mead Blvd
Espanola, ON P5E 1R9
Telephone/Téléphone: (705) 862-7850
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http://www.msdsb.net

2024 Fourth Quarter Activity Report
February 20, 2025

The following is the most recent consolidated Quarterly Report that the DSB will be sending to member municipalities and posting on the public website. Expect Quarterly Reports in February, May, September, and November of each year.

The program statistics are provided separately and updated monthly. They are available on the website by clicking the following link: Monthly Program Statistics

CAO Overview

The DSB 2024 Fourth Quarter (Unaudited) Financial Report was presented to the Board and projects a year-end municipal **surplus of $742,804.** Ontario Works, Children's Services, are forecasted to be on budget. Community Housing is forecasted to be under budget by $510,159. Non-Urgent Patient Transfer Service is forecasted to be under budget by $624. Paramedic Services is forecasted to be over budget by $523,468. Interest revenue on non-reserve accounts is forecasted to be $755,489 more than budgeted.

The DSB quarterly financial reports are available on the DSB website by clicking the following link: Quarterly Financial Reports

Paramedic Services

Paramedic Services Recruitment

Paramedic Services continues efforts to improve recruitment of personnel. The actions implemented in 2024 have proven to be positive in that this last quarter has allowed for the hiring of 6 new paramedics.

Staff have met with students in the local colleges to advocate for interest in a career with MSDSB. There will be an estimated 7 students enrolled for their final residency and conditional employment for Q1 2025.

Funding Opportunities

In the fall of 2024, the province of Ontario announced that they were planning to invest more than $32 million dollars into mental health support for first responders. While this investment I obviously welcomed, there are more than 70,000 first response personnel in Ontario. Staff are preparing submissions for access to this investment and expect that the project requests will be released in early 2025.

Correspondence was received from Ontario Health on October 7, 2024 notifying the DSB of both one-time and annualized funding increases to be used for provision of the Community Paramedic program. Increases for one-time funding in the amount of $3,719 and base funding of $21,073 have been allocated for use during 2024-25. Staff will continue to work with Ontario Health and all other funding partners to improve program evolution.

Paramedic Services Response time Standards Planning Report

Paramedic Services staff presented the 2025 Response Time Standard (RTS) Plan to the Board in October 2024. This plan was accepted by the Board and subsequently submitted to the Ministry of Health. Given the significant effort underway to evolve Paramedic Services in 2025, staff maintained the RTS Plan at the 2024 levels, with an option to amend the plan in-year. The RTS Plan is felt to be achievable and sound.

Contract Negotiations

Manitoulin-Sudbury DSB successfully negotiated a 4-year collective agreement with OPSEU in the fourth quarter of 2024. The contract has included significant changes to the operation of the service and will help the evolution of service delivery and scope of practice within the system. The new Collective Agreement now permits the expansion of Advanced Care Paramedics and Float positions in the DSB.

Community Paramedicine (CP)

Recruitment of a Commander of Community Paramedicine Programs was posted in the fourth quarter with an anticipated onboarding in early 2025. Staff continue to work with partner agencies to expand the program success. Work continues to introduce increased CP scope of practice.

Non-Urgent Patient Transportation Service (NUPTS)

The nonurgent patent transfer service continues to grow despite challenges with staffing. Work is being done with partners and the Ministry of Health to refocus funding models to better reflect the community needs and realities of regional health care.

Children's Services

The Manitoulin-Sudbury District has 20 licensed child care locations, including 14 center-based sites within schools, one community-based center, and five licensed home child care sites. During the fourth quarter, 552 children were enrolled in child care services, with 457 paying full fees and 95 receiving subsidies. This represents a 3% increase from the previous quarter and a 1% decrease compared to the same period last year, likely due to home child care closures and staffing challenges. Special Needs Resourcing supported an average of 56 children, from infants to school-age, during the fourth quarter, showing a 4% increase compared to the same quarter last year.

In the fourth quarter, EarlyON programs welcomed 3065 visits from parents/caregivers and children. These services are provided through various means including mobile, virtual, and outdoor programs. This represents a 33% increase from the previous quarter.

Child Care Worker and Early Childhood Educator Appreciation Day

October 24th, 2024 marked the celebration of the 24th annual Child Care Worker and Early Childhood Educator Appreciation Day. This day served as an opportunity to honor and acknowledge the exceptional dedication, hard work, and commitment of those who work with young children. The theme for this year, "Worth More," underscored the profound impact these professionals have on our communities.

This day is annually proclaimed by the Ontario Coalition for Better Child Care (OCBCC), the Canadian Union of Public Employees (CUPE), municipalities and school boards across Ontario. It is widely observed by child care centres, unions, and community allies throughout the province.

Ontario Child Care and Early Years Funding Guidelines

The Ontario Child Care and Early Years Funding Guidelines for 2025 have been shared with staff, with the final release of the Local Priorities and EarlyON Child and Family Centre Guidelines in November. These updates will guide planning and service delivery.

Ontario Works

In the fourth quarter, the Ontario Works/Temporary Care Caseload average was 462. Compared to last year at this time, the caseload has increased by 0.9%.

Centralized Intake

The Manitoulin-Sudbury District Services Board (DSB) received 104 applications in the fourth quarter. Of the 104 applications received, 35 were auto-granted by the Intake and Benefits Administration Unit (IBAU), 26 were referred by the IBAU to the Manitoulin-Sudbury DSB for processing, 14 were transfers from another Ontario Works office, 22 were for Emergency Assistance which is completed online and sent to the local office for processing, and 7 applications were processed at the local office rather than being referred to Centralized Intake as certain applications are not yet being processed by the IBAU.

The initial goal of Centralized Intake was to have 70% of applications completed by the IBAU. During the fourth quarter, 34% of applications were completed by the IBAU.

Policy Changes to Support Centralized Intake

On December 20th, the Ministry of Children, Community and Social Services (MCCSS) advised that the Manitoulin-Sudbury District Services Board had been selected, along with 9 other sites, for implementation into the expanded Centralized Intake model effective January 27th, 2025.

In these 10 areas, the ministry will be responsible for initial eligibility decisions, including authorization of initial payments, and notifying applicants. Full implementation across the province will be completed in 2025.

Employment Ontario

The Employment Services (ES), Youth Job Connect (YJC), and Youth Job Connect Summer (YJCS) programs continue to be advertised and delivered from the Chapleau office. From October to December 2024 there were 10 new intakes for Employment Services.

Quality Assurance

During the fourth quarter, the Quality Assurance Coordinator for the Child Care and Ontario Works programs supported local service provider networks, professional development initiatives, and continued active community engagement. These efforts have directly contributed to the ongoing development of the Child Care and Ontario Works programs.

The Quality Assurance Coordinator served as the primary contact for the Child Care and Early Years IT Modernization project, which began in October 2024. The project initially focused on improving the child care search and application process, with later phases addressing fee subsidies, financial management, and EarlyON services.

Continued support was provided to Pedagogical Leads, Childcare Supervisors, and Local Service Provider Networks, helping set goals and initiatives to support children, families, and educators ensuring the ongoing development and delivery of quality services.

In alignment with organizational goals, the Quality Assurance Coordinator facilitated internal professional development sessions focusing on Employment Services Transformation (EST) topics. The sessions included an overview of key concepts such as the Common Assessment, Action Plan, and a recap of EST, preparing staff for the rollout of these initiatives in 2025.

The Quality Assurance Coordinator joined the Indigenous Service Provider Network supporting the ability to meet the needs of Indigenous communities, ensuring culturally sensitive approaches and the integration of Indigenous perspectives in service provision.

In collaboration with the Integrated Human Services Manager and Administrative Assistant, the Quality Assurance Coordinator contributed to planning and executing the delivery of food hampers and holiday gifts to over 150 households on Manitoulin Island. This initiative, supported by community donations to Manitoulin Family Resources, ensured that families in the community had access to essential resources and children's gifts during the 2024 holiday season.

During this last quarter, the Quality Assurance Coordinator for housing and homelessness continued to focus on streamlining internal processes and on collaboration with Paramedic services to ensure more effective workorder processes.

In November the Quality Assurance Coordinator was a panellist at the National Addiction Awareness Conference (NAAW) hosted on Manitoulin Island to present information on the By Name List and how it correlates with addiction using local data.

The DSB continues to prioritize participation from all the communities within our catchment area to support the By Name List. As of December 31, 2024, there were a total of 28 households/32 individuals on the By Name List. Lower numbers are not an indication of a decrease of homeless individuals in our communities, rather a result of limited participation by community partners in the By Name List to identify, refer and track individuals in their communities without permanent housing.

It is important to stress as we enter the winter season that of these 32 actively homeless individuals, 3 of them identified as being unsheltered with no emergency shelter services available in our district.

Community Housing

There were 697 applications at the end of the 4th quarter. The applicant breakdown is as follows:

1 Bedroom	517	2 Bedroom	81
3 Bedroom	54	4 bedroom	45

Staff continue to identify and complete the application process with eligible applicants for the Direct Shelter Subsidy (DSS) program. All applicants receiving the benefit are deemed housed. As of the end of this quarter there were 212 active DSS recipients. At the end of Q3 of this year there were 225 recipients and at this time last year there were 203.

Per DSB Policy, every effort is being made where the waitlist allows us to mix the Community Housing Buildings with RGI, Affordable and Market Rent Tenants. As of Dec 31, 2024, we have successfully housed 28 market rent tenants and 137 affordable rent tenants. This represents 9% and 46% of our portfolio respectively and shows an increase of 1 Market rent and a decrease of 3 affordable rent from last quarter. Comparably, at this time last year, we reported 23 market rent tenants (8%) and 122 affordable (41%)

As of the end of the 4th quarter of 2024, 226/295 of the portfolio's units are designated as Smoke-free. This represents 76% of the full portfolio currently. Units are designated as turnover occurs or should the current resident choose.

Canada-Ontario Housing Benefit (COHB)

On September 26, 2024, the Ministry of Municipal Affairs and Housing provided communication confirming our allocation for the COHB program for the 2024-25 year.

The Manitoulin-Sudbury DSB's allocation for this year is $74,200 or approx. 18 new households. Currently approximately 55 households in the DSB area are already receiving the COHB benefit.

This year, Ontario is waiving this requirement for households that hold a Special Priority status under the Housing Services Act. This means verified Special Priority households can remain on a social housing waitlist even if they accept a COHB benefit.

This approach aligns with the intent of the Special Priority Policy, which is to help ensure that housing is not a barrier to an individual leaving a situation of abuse for trafficking.

Ministry of Municipal Affairs and Housing – Investment to Support Homelessness

On December 13th the Ministry of Municipal Affairs and Housing issued a memo providing more details regarding protecting community safety and making additional investments to further support homelessness prevention and provide people living in encampments with access to alternative accommodation.

The investments included a $5.5 million top-up to the Canada Ontario Housing Benefit to immediately free up shelter spaces for those living in encampments to move people from shelters to longer term housing. A $20 million investment to expand shelter capacity and create additional temporary housing to provide people living in encampments with accessible alternative living options and $50 million in last-mile funding for ready to build long term affordable housing projects across the province.

The minister stressed that the expectation is that the funding be tied to clearing out encampments. The funding is being provided to municipalities that demonstrate their commitment to and show results in winding down encampment sites.

The focus of the funding is to support the urgent expansion of shelter capacity by providing funding to support the creation of additional alternative emergency accommodation.

The last mile funding which is intended to speed up supportive housing projects that are in advanced stages of construction where additional funds would lead to faster completion. Business cases for this funding opportunity are due January 10th, 2025.

The intention of the funding is to end visible encampments, Manitoulin-Sudbury DSB staff met with the Board and shared that they are not aware of visible encampments but do recognize that there are many individuals living in precarious, unsafe and unsuitable situations.

The board directed staff to write a letter to Minister Paul Calandra expressing concern about the eligibility criteria of this funding and communicated that the funding was

targeted to large urban areas and does not consider what homelessness looks like in rural communities.

Capital Projects with Housing Services Corporation

The Chapleau landscaping project is now complete. In the spring of 2025 roof replacements will be done in Webbwood, Massey and 1 of the Marguerite Street units, the request for quotes has been released for engineers to bid. We will be completing structural upgrades to 60 Barber in the spring, engineer assessments have been completed.

The 70 Barber Street Make Up Air unit replacement project has been postponed until mid-March due to the contractor experiencing shipping delays on the unit.

The abatement testing portion of the Mindemoya window replacement project has been completed with negative results and the windows have been ordered.

Work Orders

During the fourth quarter a total of 214 Work Orders were generated: 175 for Community Housing; 5 for Administration Offices, and 34 for Paramedic Services. 128 Work Orders were closed or resolved during that time. (Work orders are closed if the work is done in-house, or when the invoice is paid from an outside source). There were also 4 work orders for unit turnovers, all for apartments.

Canada-Ontario Community Housing Initiative (COCHI)/Ontario Priorities Housing Initiative (OPHI)

Out of the 12 projects that were planned for 2023/2024 funding, all but 1 have been completed, this is due mainly to project changes and shipping timeline for parts. An extension was requested for this project as it will not be completed by the March 2025 deadline.

There are 3 projects planned for 2024/2025 funding, 1 of which is already completed.

Upgrades

All buildings have been inspected for energy efficiency by CLEAResult and have been approved for various upgrades, such as insulation, window/door caulking, and/or new fridges. The 210 Mead Blvd and 347 Second Ave administration buildings have had their rooftop units and new air conditioning units replaced. The St. Charles entrance and hallway flooring has been upgraded with new tile and carpet on both floors and the Gore Bay common room is undergoing a full upgrade with expected completion by early February.

Years of Service

The DSB would like to acknowledge the following staff persons for their years of service with the organization:

5 years of service
Case Managers: Andrea Bernier and Jenna Bourcier
Community Paramedic: Ashleigh Desormeaux
Paramedics: Travis Clelland, Devan Deschamps and James Stefanko

10 years of service
Director of Integrated Human Services: Lori Clark
Paramedics: Travis Allen-Lamothe and Scott Burns

15 years of service
Paramedics: Jeffery Hinschberger, Jarret Maltby, Shawn Marcoux, Davide Perrotta, and Gary Welch

20 years of service
Deputy Chief of Paramedic Services: Jennifer Tasse
Community Programs Supervisor: François Seguin
Community Paramedic: Sherri Chopra
Paramedics: Darren Assiniwe, Tiffany Brault, Scott Cameron, Keith Crockford, Dwayne Elliott, Jeanette Fox, Audrey Jones, Gaetan Lagrandeur, Melanie Laramee, Ron Mailloux, Todd McKenzie, Patrick McKinnon, Ray Patrie, Blair Peltier, Theresa Peltier, James Robinson, Monic Rochon-Shaw, Denis Seguin, Michael St.Amour, Rod Steele, Andre Therrien, and Aaron Wright

25 years of service
Director of Finance and Administration: Connie Morphet
Information Systems Manager: Iain Stephens
Executive Assistant: Melody Ouellette
Case Manager: Jim Putman
Employment Consultant: Tara O'Hearn
Finance Assistant: Leslie Giroux

Thank you all for your commitment to the organization!

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Manitoulin-Sudbury DSB
4th Quarter Report (Unaudited)
AS AT 12/31/2024

	Total Gross Budget			Municipal Share Budget		
	YTD ACTUAL	OVER(UNDER) BUDGET	ANNUAL BUDGET	YTD MUNICIPAL	MUNICIPAL SHARE BUDGET	Over(Under) Budget Forecast
Ontario Works	$ 2,327,365	$ 0	$ 2,327,365	$ 1,043,031	$ 1,043,031	$ -
100% Funded	$ 8,171,313	$ 198,225	$ 7,973,088			
Child Care	$ 11,873,973	$ (689,659)	$ 12,563,632	$ 668,038	$ 668,038	$ -
Community Housing	$ 2,271,400	$ (512,295)	$ 2,783,695	$ 2,273,535	$ 2,783,695	$ (510,159)
100% Funded	$ 460,586	$ (14,367)	$ 474,953			
Paramedic Services	$ 17,303,038	$ 59,467	$ 17,243,571	$ 7,898,115	$ 7,374,647	$ 523,468
Wiikwemikong, PTS, CP	$ 5,420,278	$ 144,162	$ 5,276,116	$ 126,721	$ 127,345	$ (624)
TOTAL EXPENSES	$ 47,827,953	$ (814,467)	$ 48,642,420	$ 12,009,440	$ 11,996,756	$ 12,685
Interest Revenue	$ (854,652)	$ (755,489)	$ (99,163)	$ (854,652)	$ (99,163)	$ (755,489)
TOTAL EXPENSES	$ 46,973,301	$ (1,569,956)	$ 48,543,257	$ 11,154,788	$ 11,897,593	$ (742,804)

	NET Municipal Variance	Explanation of Unaudited Municipal Share- AS OF December 31, 2024
Ontario Works	$ -	Municipal share of administration expenses is on budget.
Child Care	$ -	Municipal share of Child Care expenses are on budget.
Community Housing	$ (510,159)	**(0) + ($289,785) + ($107,206) + ($113,168) = ($510,159) surplus** Federal Funding is on budget. Direct operated rev & exp and program support allocation is forecasted to be (**$289,785)** under budget - Rental Revenues are ($128,018) more than budgeted. - Direct operating expenses are ($161,767) under budget due to: utilities ($24,765) under budget, salaries & benefits ($84,005) under budget, maintenance expenses over budget $58,981, other admin expenses under budget ($16,619); bad debt expense under budget by ($22,983) - Program Support Allocation is forecasted to be ($72,376) under budget. Rent Supplement program is **($107,206)** under budget. Non-Profit, Rent Supp, and Urban Native expenses are forecasted to be **($113,168)** under budget.
Paramedic Services	$ 523,468	Paramedic Services municipal share is forecasted to be **$523,468** over budget. The MOHLTC funding is on budget with all MOH funding allocation for 2024 received and agrees to budgeted. Medic Staffing and Benefits is over budget by **$264,517** Admin Staffing and Benefits is over budget by **$9,024** Non Wages are forecasted to be over budget by **$249,927** - Other Transportation & Communication is ($31,252) under budget - Operational Staffing Travel and meals are over budget by $56,327 - Software costs are forecasted to be under budget by ($22,356) - Legal and Arbitration Costs are over budget by $65,365 - Program Support is ($81,125) under budget - Vehicle repairs and maintenance are over budget by $104,032. - Building repairs and maintenance, grounds and utilities are forecasted to be $118,479 over budget - Mal Practice Liability Insurance is $9,080 over budget - Supplies are $31,377 over budget.
Patient Transfer Service	$ (624)	Patient Transfer Service Municipal share is ($624) under budget
Interest Revenue	$ (755,489)	Interest Revenue is ($755,489) more than budgeted which results in a municipal surplus.
	$ (742,804)	