

**Ministry of the
Environment,
Conservation and Parks**

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**Ministère de l'Environnement,
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February 20, 2024

Sent by Email: dsauriol@lvtownship.ca

Dean Sauriol
Chief Administrative Officer
The Corporation of the Township of Laurentian Valley
460 Witt Rd
Laurentian Valley, Ontario
K8A 6W5

Dear: Dean Sauriol

Re: 2023-24 Inspection Report

The enclosed report documents findings of the inspection that was performed at the Laurentian Valley Distribution System on January 11, 2024.

Section 19 of the Safe Drinking Water Act (Standard of Care) creates a number of obligations for individuals who exercise decision-making authority over municipal drinking water systems. Please be aware that the Ministry has encouraged such individuals, particularly municipal councilors, to take steps to be better informed about the drinking water systems over which they have decision-making authority. These steps could include asking for a copy of this inspection report and a review of its findings. Further information about Section 19 can be found in "Taking Care of Your Drinking Water: A guide for members of Municipal Council" found under on the Ontario website at [Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils | ontario .ca](#)

The format of the enclosed report has been updated, and you will note that the non-compliance and/or non-conformance items are now detailed at the beginning of the report and if found, will cite due dates for the submission

of information or plans to my attention. All questions that were assessed are included in the Inspection Details Section.

In order to measure individual inspection results, the Ministry has established an inspection compliance risk framework based on the principles of the Inspection,

Investigation & Enforcement (II&E) Secretariat and advice of internal/external risk experts. The Inspection Rating Record (IRR) provides the Ministry, the system owner and the local Public Health Units with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. IRR ratings are published (for the previous year) in the ministry's Chief Drinking Water Inspector's Annual Report.

Please note that due to a change in IT systems, the IRR cannot be generated at the same time as the inspection report. The IRR will be sent separately and prior to any public release (typically within one to two months of the completion of the inspection).

If you have any questions or concerns regarding the rating, please contact Shannon Hamilton-Brown, Acting Water Compliance Supervisor, at (613) 808-4255.

Thank you for the assistance afforded to me during the conduct of the compliance assessment. If you have any questions regarding the content of the enclosed report, please do not hesitate to contact me.

Yours truly,

Karine Bourgon
Water Inspector
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
Ottawa District Office
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Enclosure

- ec: Mark Behm, Public Works Manager, Township of Laurentian Valley,
mbehm@lvtownship.ca
- Brad Faught, Operations Supervisor, Township of Laurentian Valley,
bfaught@lvtownship.ca
 - Randy McLaren, Pembroke District Manager, Ministry of Natural
Resources and Forestry, randy.mclaren@ontario.ca
 - David Tantalo, Manager, Environmental Health, Renfrew County & District
Health Unit, dtantalo@rcdhu.com
- c: File SI-RE-LV-WI-540 (2023-24)



LAURENTIAN VALLEY DISTRIBUTION SYSTEM
460 WITT RD, LAURENTIAN VALLEY, ON, K8A 6W5
INSPECTION REPORT

System Number: 260007465

Entity: THE CORPORATION OF THE
TOWNSHIP OF LAURENTIAN
VALLEY

Inspection Start Date: January 10, 2024

Inspection End Date: January 30, 2024

Inspected By: Karine Bourgon

Badge #: 2003



(signature)

INTRODUCTION

Purpose

This unannounced, detailed inspection was conducted to confirm compliance with Ministry of the Environment, Conservation and Parks' (MECP) legislation and conformance with ministry drinking water policies and guidelines.

Scope

The ministry utilizes a comprehensive, multi-barrier approach in the inspection of water systems that focuses on the source, treatment, and distribution components as well as management and the operation of the system.

The inspection of the drinking water system included both the physical inspection of the component parts of the system listed in section 4 "Systems Components" of the report and the review of data and documents associated with the operation of the drinking water system during the review period.

This drinking water system is subject to the legislative requirements of the Safe Drinking Water Act, 2002 (SDWA) and regulations made therein, including Ontario Regulation 170/03, "Drinking Water Systems" (O. Reg. 170/03). This inspection has been conducted pursuant to Section 81 of the SDWA.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

Facility Contacts and Dates

The drinking water system is owned by the Corporation of the Township of Laurentian Valley and operated by the township itself.

The system serves an estimated population of 1,655 and is categorized as a Large Municipal Residential drinking water system. Information reviewed for this inspection covered the time period of February 16, 2023 to December 31, 2023.

The water inspector met with Brad Faught, Operations Supervisor, as part of the inspection process.

Systems/Components

The Laurentian Valley Distribution System (DS) only provides distribution of treated water to

their distribution system. Primary disinfection is undertaken by another regulated drinking water system which provides treated water to this drinking water system.

Treated water is received from the Pembroke Drinking Water System and Laurentian Valley DS directs the treated water to their distribution system.

The Pembroke drinking water system is inspected separately from this drinking water system.

Permissions/Approvals

This drinking water system was subject to specific conditions contained within the following permissions and/or approvals (please note this list is not exhaustive) at the time of the inspection in addition to the requirements of the SDWA and its regulations:

- Drinking Water Works Permit 192-201 Issue 3
- Municipal Drinking Water License 192-101 Issue 3

NON-COMPLIANCE

The following item(s) have been identified as non-compliance, based on a "No" response captured for a legislative question(s). For additional information on each question see the Inspection Details section of the report.

Ministry Program: DRINKING WATER | **Regulated Activity:** DW Municipal Residential

Item	Question	Compliance Response/Corrective Action(s)
NC-1	<p>Question ID: DWMR1081000</p> <p>For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met?</p>	<p>All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a large municipal residential system were not being met.</p> <p>A review of samples taken at the Laurentian Valley Distribution System found that for the months of September, October, November and December 2023, distribution system HPC sampling requirements were not met. Operational staff reported that when there was a change in staff with the operations supervisor position in September 2023, the HPC sampling requirements were overlooked.</p> <p>The new operations supervisor provided the Inspector, a sampling schedule that will capture all microbiological sampling requirements for the year 2024. This schedule was satisfactory. No further actions are required.</p>
NC-2	<p>Question ID: DWMR1087000</p> <p>Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?</p>	<p>All trihalomethane water quality monitoring requirements prescribed by legislation were not conducted within the required frequency and/or at the required location.</p> <p>Trihalomethane (THM) sampling is required every three (3) months under Schedule 13-6, taken from a point in the distribution system that is likely to have elevated THM levels. Section 6-1.1 (4) requires samples to be taken at least 60 days and not more than 120 days after the last sample was taken.</p> <p>Records reviewed for the inspection period indicate that distribution samples were taken on:</p>

- March 13, 2023;
- May 8, 2023;
- August 21, 2023; and,
- November 6, 2023.

The number of days between the March and May sampling dates is 56 days which is not in compliance with Section 6-1.1 (4).

The operating authority shall develop a sampling schedule that complies with Section 6-1.1 (4) of Schedule 6 for the THM chemical parameter. This sampling schedule shall be submitted to the inspector for her review by no later than March 29th, 2024.

RECOMMENDATIONS

This should not be construed as a confirmation of full conformance with all potential applicable BMPs. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the signed Provincial Officer.

INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

Ministry Program: DRINKING WATER | **Regulated Activity:** DW Municipal Residential

Question ID	DWMR1000000	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Does this drinking water system provide primary disinfection?			
Compliance Response(s)/Corrective Action(s)/Observation(s): This drinking water system provides for only secondary disinfection and distribution of water. Primary disinfection is undertaken by another regulated drinking water system which provides treated water to this drinking water system.			

Question ID	DWMR1114000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Does the owner have evidence that, when required, all legal owners associated with the DWS were notified of the requirements of the Licence & Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had evidence that required notifications to all legal owners associated with the Drinking Water System had been made during the inspection period.			

Question ID	DWMR1025000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Were all parts of the drinking water system that came in contact with drinking water (added, modified, replaced or extended) disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All parts of the drinking water system were disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit. The Procedure for Disinfection of Drinking Water in Ontario and DWWP Schedule B require that the provisions of a document listed in the DWWP (or an approved procedure) be followed when a Drinking Water System is added to, modified, replaced, extended or where an activity has			

occurred that could introduce contamination (e.g. repair/maintenance activities).

A review of the daily logs confirms that the operators have developed procedures for the disinfection of watermains after repair or maintenance activity. The inspector observed that most of the information that is required to be recorded was found in the log book notes. On the other hand, the operators are not using a "Watermain Repair" worksheet hence, the information recorded is inconsistent and sometimes lacks certain details.

The operations supervisor, Brad Faught, promptly developed a "Watermain Maintenance and Repair" document and submitted it to the inspector for her review. The document appears to contain all the necessary fields to adequately capture all necessary information when performing maintenance and/or repairs on watermains in accordance with the Procedure for Disinfection of Drinking Water in Ontario and DWWP Schedule B. No further actions are required.

Question ID	DWMR1027000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Does the owner have evidence indicating that all chemicals and materials which come in contact with water within the drinking water system have met all applicable AWWA and ANSI standards in accordance with the DWWP and MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had evidence indicating that all chemicals and materials that come in contact with water within the drinking water system met the AWWA and ANSI standards in accordance with the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA. The Laurentian Valley DS only uses sodium hypochlorite solution for disinfecting watermains that are added, modified, replaced, extended or where an activity has occurred that could introduce contamination (e.g. repair/maintenance activities). The inspector reviewed the product and confirmed that it was NSF certified.			

Question ID	DWMR1024000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 1-2 (2);			
Question: Do records confirm that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated as required?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all			

locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.

The requirements to maintain a free chlorine residual of 0.05 mg/L or a combined chlorine residual of 0.25 mg/L are prescribed under "General obligations" in Schedule 1 to O. Reg. 170/03.

The Inspector reviewed free chlorine residual test results for distribution samples, taken at the same time and locations as samples taken for microbiological testing and results from grab samples tested during operational checks. This review found the minimum free chlorine residual measured in the distribution system during the inspection period was 0.05 mg/L on July 24, 2023.

This result was obtained at the Home Depot, one of the extremities of the the distribution system. It was reported that the auto-flusher at this location was defective and failed to circulate the water. Operational staff worked with the owner of the establishment to fix the issue. Since the auto-flusher is back on-line, the chlorine residuals were observed to be much higher. No further actions are required.

Question ID	DWMR1033000	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 170/03 7-2 (3); SDWA O. Reg. 170/03 7-2 (4);</p>			
<p>Question: Is the secondary disinfectant residual measured as required for the large municipal residential distribution system?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): The secondary disinfectant residual was measured as required for the large municipal residential distribution system.</p> <p>Subsection 7-2 (3) of Schedule 7 to O. Reg. 170/03 states that the owner and the operating authority for the system are required to take at least seven (7) distribution samples each week and test immediately for free chlorine residual. At least four of the samples must be taken on one day of the week, at least 48 hours after the last sample was taken in the previous week and at least three of the samples must be taken on a second day of the week, at least 48 hours after the last sample was taken. Unless at least one sample is taken on each day of the week.</p> <p>Free chlorine residual is monitored in the Laurentian Valley distribution system utilizing the 4/3 model as permitted under section 7-2(4) of O. Reg. 170/03. Four samples are collected from separate locations within the system on a single day, usually on Mondays, and three samples are collected from separate locations at least 48 hours later, usually on Fridays.</p> <p>Secondary disinfection residual monitoring is habitually performed by two operators, one responsible for the four location date and the second responsible for the three location date.</p> <p>An examination of the logs completed during the inspection period found that grab distribution</p>			

samples were all taken in accordance with the regulatory requirements mentioned above.

Question ID	DWMMR1049000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Do records confirm that disinfectant residuals are routinely checked at the extremities and dead ends of the distribution system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that disinfectant residuals were routinely checked at the extremities and dead ends of the distribution system. The optimal dispersion of sample locations is representative of the entire system and should include many extremities and dead-ends. As a best management practice, a program of disinfectant residual measurement in the distribution system should be undertaken to ensure that areas of low chlorine residual are identified and dealt with in a manner to ensure the effectiveness of the residual throughout the entire system. It was reported that operational staff are regularly conducting chlorine residual tests in distribution samples collected from dead ends and extremities of the distribution system, such as Home Depot and the Fire Hall. Lower chlorine residuals were being observed at Home Depot hence, the operations manager, Brad Faught, requested that their auto-flusher device be serviced and maintained in order to refresh the water at this location. The inspector observed that chlorine residuals at this location have since increased.			

Question ID	DWMMR1036000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-7 (1);			
Question: Where continuous monitoring equipment is not used for chlorine residual analysis, are samples tested using an acceptable portable device?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Samples for chlorine residual analysis were tested using an acceptable portable device. The owner and operating authority for the system must ensure that chlorine residual testing of secondary disinfection chlorine residuals is carried out by an appropriate hand held analyzer. Calibration of a hand held instrument should be carried out in accordance with manufacturer specifications. Operational staff at the Laurentian Valley DS utilize two handheld HACH Pocket Colorimeter to perform chlorine residual testing in the distribution system. These devices are calibrated by a third party company, SCG Flowmetrix, annually. The last calibration date was September 5, 2023.			

Question ID	DWMR1099000	Question Type	Information
<p>Legislative Requirement(s): Not Applicable</p>			
<p>Question: Do records show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03)?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): Records did not show that all water sample results taken during the inspection review period did not exceed the values of tables 1, 2 and 3 of the Ontario Drinking Water Quality Standards (O. Reg. 169/03).</p> <p>There was one water sample result taken during the inspection review period that exceeded the values of table 1 of the Ontario Drinking Water Quality Standards.</p> <p>The water sample was collected on February 27, 2023, tested for total coliforms (TC) and returned a result of 3 cfu/100 mL. Two resamples were collected on March 2 2023, and March 6, 2023. Both resamples were clear of EC and TC.</p> <p>The Notice of Adverse Test Results and Issue Resolution were received on March 9, 2023. The Public Health Unit was contacted and had no further actions to recommend. All reporting requirements and corrective actions were met.</p>			

Question ID	DWMR1081000	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 170/03 10-2 (1); SDWA O. Reg. 170/03 10-2 (2); SDWA O. Reg. 170/03 10-2 (3);</p>			
<p>Question: For LMR systems, are all microbiological water quality monitoring requirements for distribution samples being met?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): All microbiological water quality monitoring requirements prescribed by legislation for distribution samples in a large municipal residential system were not being met.</p> <p>A review of samples taken at the Laurentian Valley Distribution System found that for the months of September, October, November and December 2023, distribution system HPC sampling requirements were not met. Operational staff reported that when there was a change in staff with the operations supervisor position in September 2023, the HPC sampling requirements were overlooked.</p> <p>The new operations supervisor provided the Inspector, a sampling schedule that will capture all microbiological sampling requirements for the year 2024. This schedule was satisfactory. No</p>			

further actions are required.

The number of distribution samples required each month is determined by the population of the system under Schedule 10-2 - a minimum of eight (8) distribution samples per month with an additional sample for every 1000 people served by the system with at least one (1) sample taken per week.

Laurentian Valley Distribution System serves a population of approximately 1,655 people, requiring nine (9) distribution samples each month, tested for E.coli, total coliform and 25% of samples tested for Heterotrophic Plate Count (HPC).

Question ID	DWMR1096000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-3 (1);			
Question: Do records confirm that chlorine residual tests are being conducted at the same time and at the same location that microbiological samples are obtained?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.			

Question ID	DWMR1086000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13-6.1 (1); SDWA O. Reg. 170/03 13-6.1 (2); SDWA O. Reg. 170/03 13-6.1 (3); SDWA O. Reg. 170/03 13-6.1 (4); SDWA O. Reg. 170/03 13-6.1 (5); SDWA O. Reg. 170/03 13-6.1 (6);			
Question: Are all haloacetic acid water quality monitoring requirements prescribed by legislation conducted within the required frequency and at the required location?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All haloacetic acid water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location. The water quality monitoring requirements for haloacetic acid (HAA) are prescribed in Schedules 6 and 13 to O. Reg. 170/03. The requirements state that the operating authority for the system shall ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water systems distribution system, or plumbing, that is likely to have an elevated potential for the formation of haloacetic acids. The standard for HAAs is 80 ug/L and is expressed as a Running Annual Average (RAA). Records reviewed for the inspection period indicate that distribution samples were taken on:			

- February 13, 2023;
- May 1, 2023;
- August 21, 2023; and,
- November 13, 2023

Samples were collected within the required frequency and at the required location. The RAA for the inspections period was 35.9 ug/L.

Question ID	DWMR1087000	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 170/03 13-6 (1); SDWA O. Reg. 170/03 13-6 (2); SDWA O. Reg. 170/03 13-6 (3); SDWA O. Reg. 170/03 13-6 (4); SDWA O. Reg. 170/03 13-6 (5); SDWA O. Reg. 170/03 13-6 (6);</p>			
<p>Question: Have all trihalomethane water quality monitoring requirements prescribed by legislation been conducted within the required frequency and at the required location?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): All trihalomethane water quality monitoring requirements prescribed by legislation were not conducted within the required frequency and/or at the required location.</p> <p>Trihalomethane (THM) sampling is required every three (3) months under Schedule 13-6, taken from a point in the distribution system that is likely to have elevated THM levels. Section 6-1.1 (4) requires samples to be taken at least 60 days and not more than 120 days after the last sample was taken.</p> <p>Records reviewed for the inspection period indicate that distribution samples were taken on:</p> <ul style="list-style-type: none"> - March 13, 2023; - May 8, 2023; - August 21, 2023; and, - November 6, 2023. <p>The number of days between the March and May sampling dates is 56 days which is not in compliance with Section 6-1.1 (4).</p> <p>The operating authority shall develop a sampling schedule that complies with Section 6-1.1 (4) of Schedule 6 for the THM chemical parameter. This sampling schedule shall be submitted to the inspector for her review by no later than March 29th, 2024.</p> <p>The standard for THMs is 100 ug/L and is expressed as a Running Annual Average (RAA).</p> <p>Samples were collected at the required location. These samples were submitted to a licensed laboratory for THM testing; the RAA for the inspection period was 91.25 ug/L.</p>			

Question ID	DWMR1092000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-2;			
Question: Has the owner ensured that water samples are taken at the prescribed location?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner ensured that water samples were taken at the prescribed location.			

Question ID	DWMR1095000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 15.1-10; SDWA O. Reg. 170/03 15.1-4 (1); SDWA O. Reg. 170/03 15.1-5 (1); SDWA O. Reg. 170/03 15.1-5 (10); SDWA O. Reg. 170/03 15.1-5 (11); SDWA O. Reg. 170/03 15.1-5 (12); SDWA O. Reg. 170/03 15.1-5 (2); SDWA O. Reg. 170/03 15.1-5 (3); SDWA O. Reg. 170/03 15.1-5 (4); SDWA O. Reg. 170/03 15.1-5 (5); SDWA O. Reg. 170/03 15.1-5 (6); SDWA O. Reg. 170/03 15.1-5 (7); SDWA O. Reg. 170/03 15.1-5 (8); SDWA O. Reg. 170/03 15.1-5 (9); SDWA O. Reg. 170/03 15.1-7 (1); SDWA O. Reg. 170/03 15.1-7 (2); SDWA O. Reg. 170/03 15.1-7 (3); SDWA O. Reg. 170/03 15.1-7 (4); SDWA O. Reg. 170/03 15.1-9 (1); SDWA O. Reg. 170/03 15.1-9 (2); SDWA O. Reg. 170/03 15.1-9 (3); SDWA O. Reg. 170/03 15.1-9 (4); SDWA O. Reg. 170/03 15.1-9 (5); SDWA O. Reg. 170/03 15.1-9 (6); SDWA O. Reg. 170/03 15.1-9 (7); SDWA O. Reg. 170/03 15.1-9 (8); SDWA O. Reg. 170/03 15.1-9 (9);			
Question: Have all lead sampling requirements prescribed by Schedule 15.1 of O. Reg. 170/03 been met?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met. Lead samples must be taken in accordance with the direction provided in Sch. 15.1 of O. Reg. 170/03, including time periods/sampling windows, methodology, frequency and location. Drinking Water Systems should be in one of the following three sampling categories: 1) Standard Sampling 2) Reduced Sampling 3) Plumbing Exemption as per subsection 15.1-5. (9). In the case of the Laurentian Valley DS, the system qualifies for plumbing exemption hence, the owner and/or the operating authority shall ensure that samples are taken and tested for: - total alkalinity and for pH during the 2 periods in every 12 -month period; and, - lead during each of the periods in every third 12-month period. The last lead samples were collected on August 29, 2022 and March 27, 2023, from 2 distribution locations. All results were below the lead standard. All pH and alkalinity testing requirements were also met.			

Question ID	DWMR1098000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 13 (1); SDWA O. Reg. 170/03 13 (2); SDWA O. Reg. 170/03 13 (3);			
Question: Has the owner indicated that the required records are kept and will be kept for the required time period?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner indicated that the required records are kept and will be kept for the required time period.			

Question ID	DWMR1101000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 17-1; SDWA O. Reg. 170/03 17-10 (1); SDWA O. Reg. 170/03 17-11; SDWA O. Reg. 170/03 17-12; SDWA O. Reg. 170/03 17-13; SDWA O. Reg. 170/03 17-14; SDWA O. Reg. 170/03 17-2; SDWA O. Reg. 170/03 17-3; SDWA O. Reg. 170/03 17-4; SDWA O. Reg. 170/03 17-5; SDWA O. Reg. 170/03 17-6; SDWA O. Reg. 170/03 17-9;			
Question: For LMR Systems, have corrective actions (as per Schedule 17 of O. Reg. 170/03) been taken to address adverse conditions, including any other steps as directed by the Medical Officer of Health?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Corrective actions (as per Schedule 17), including any other steps that were directed by the Medical Officer of Health, had been taken to address adverse conditions. Microbiological distribution sample collected on February 27, 2023, showed a TC result of 3 count/100 mL. Public Health Unit was contacted and Water Quality Analyst, Claus Trost, resampled. Resamples were collected on March 2 2023, and March 6, 2023. All resamples were clear of EC and TC. The Notice of Adverse Test Results and Issue Resolution was received on March 9, 2023. The reporting requirements and corrective actions have been met.			

Question ID	DWMR1104000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 16-6 (1); SDWA O. Reg. 170/03 16-6 (2); SDWA O. Reg. 170/03 16-6 (3); SDWA O. Reg. 170/03 16-6 (3.1); SDWA O. Reg. 170/03 16-6 (3.2); SDWA			

O. Reg. 170/03 | 16-6 | (4); SDWA | O. Reg. 170/03 | 16-6 | (5); SDWA | O. Reg. 170/03 | 16-6 | (6);

Question:

Were all required verbal notifications of adverse water quality incidents immediately provided as per O. Reg. 170/03 16-6?

Compliance Response(s)/Corrective Action(s)/Observation(s):

All required notifications of adverse water quality incidents were immediately provided as per O. Reg. 170/03 16-6.

Question ID	DWMR1105000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 16-7 (1); SDWA O. Reg. 170/03 16-7 (2); SDWA O. Reg. 170/03 16-7 (3); SDWA O. Reg. 170/03 16-7 (4); SDWA O. Reg. 170/03 16-7 (5);			
Question: Were all required written notices of adverse water quality incidents provided as per O. Reg. 170/03 16-7?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All required written notices of adverse water quality incidents were provided as per O. Reg. 170/03 16-7.			

Question ID	DWMR1106000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 16-9 (1); SDWA O. Reg. 170/03 16-9 (2);			
Question: Were all required written notices of issue resolution provided as per O. Reg. 170/03 16-9?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All required written notices of issue resolution were provided as per O. Reg. 170/03 16-9.			

Question ID	DWMR1110000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 11 (6);			
Question: Was an Annual Report containing the required information prepared by February 28 of the following year?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The Annual Report containing the required information was prepared by February 28th of the following year.			

Question ID	DWMR1056000	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Has the donor provided an Annual Report to the owner of this receiver drinking water system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The donor provided an Annual Report to the owner of this receiver drinking water system.			

Question ID	DWMR1111000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 22-2 (1); SDWA O. Reg. 170/03 22-2 (2); SDWA O. Reg. 170/03 22-2 (3); SDWA O. Reg. 170/03 22-2 (4);			
Question: Have Summary Reports for municipal council been completed on time, include the required content, and distributed in accordance with the regulatory requirements?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Summary Reports for municipal council were completed on time, included the required content, and were distributed in accordance with the regulatory requirements.			

Question ID	DWMR1113000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 10.1 (3);			
Question: Have all changes to the system registration information been provided to the Ministry within ten (10) days of the change?			
Compliance Response(s)/Corrective Action(s)/Observation(s): All changes to the system registration information were provided within ten (10) days of the change.			

Question ID	DWMR1046000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a backflow prevention program, policy and/or bylaw in place that addresses cross connections and connections to high hazard facilities?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			

There was a backflow prevention program, policy and/or bylaw in place.

By-law number 2022-11-056, was put into force and took effect on November 1, 2022. Paragraph 1 to section C. System Connection of this by-law requires all new system connections to be equipped with an approved back flow prevention device.

Question ID	DWMMR1053000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is the Owner able to maintain proper pressures in the distribution system and is pressure monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner was able to maintain proper pressures in the distribution system and pressure was monitored to alert the operator of conditions which may lead to loss of pressure below the value under which the system is designed to operate. While monitoring of distribution system pressure is not a legal requirement, operators are expected to monitor distribution system pressure and take action when the pressure drops below the value under which the system is designed to operate. The Ten State Standards specifies that a system should be designed so that system pressure never drops below 20 psi. Pressure issues at the Laurentian Valley Distribution System are investigated based on complaints and observations reported by the users. It was reported that there were no complaint records related to pressure in the distribution system during the inspection period. It appears that the pressure was maintained and monitored properly during the inspection period.			

Question ID	DWMMR1048000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Has the owner implemented a program for the flushing of watermains as per industry standards?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The owner had implemented a program for the flushing of watermains as per industry standards. The owner should have a program which requires that hydrants or blow-offs be flushed with any regularity in order to: 1) Remove accumulated sediments or other impurities which have been deposited in the pipe, improve the flow of water, and reduce chlorine demand. 2) Refresh water and maintain free chlorine in low demand areas such as dead-end mains. 3) Address aesthetic water quality complaints.			

It was reported that the Township has a program in place for flushing of watermains biannually, every spring and fall season.

Question ID	DWMR1050000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a program in place for inspecting and exercising valves?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a program in place for inspecting and exercising valves. AWWA Standard G200-15 Distribution System Operation and Management establishes the requirements to initiate a formal program for inspecting and exercising valves in the distribution system. This standard identifies the following minimum requirements for a valve exercising program: <ol style="list-style-type: none"> 1) A goal for the number of transmission valves to be exercised annually based on the percentage of the total valves in the system. 2) A goal for the number of distribution valves to be exercised annually. 3) Measures to verify that the goals are met and written procedures for action if the goals are not attained. 4) Identification of critical valves in the distribution system exercising on a regular basis. 5) Recognition of potential quality and isolation concerns. 6) Tracking of annual results and set goals to reduce the percent of inoperable valves. It was determined that the Township has a program in place for inspecting and exercising valves every spring and fall seasons in conjunction with the biannual flushing program.			

Question ID	DWMR1051000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a program in place for inspecting and operating hydrants?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a program in place for inspecting and operating hydrants. AWWA Standard G200-15 Distribution System Operation and Management establishes the requirements to initiate a formal program for inspecting and operating hydrants in the distribution system. This standard identifies the following minimum requirements for a hydrant maintenance and fire flow testing program: <ol style="list-style-type: none"> 1) A goal for the number of hydrants to be inspected and tested based on a percentage of the 			

total hydrants in the system.

- 2) Procedures for opening and closing hydrants to minimize potential damage to the distribution system.
- 3) Fire flow-testing requirements.

It was determined that the Township has a program in place for inspecting and operating hydrants every spring and fall seasons in conjunction with the biannual flushing program.

Question ID	DWMMR1052000	Question Type	BMP
Legislative Requirement(s): Not Applicable			
Question: Is there a by-law or policy in place limiting access to hydrants?			
Compliance Response(s)/Corrective Action(s)/Observation(s): There was a by-law or policy in place limiting access to hydrants. In some municipalities, permission may be given to water haulers, contractors, farmers, and/or private users to use hydrants for filling potable water tanks, construction tankers, pesticides tanks, swimming pools, etc. If such activities are permitted, certain measures should be in place to protect the water supply against backflow / back-siphoning from potentially contaminated tanks or hoses. Protective measures may include: <ol style="list-style-type: none"> 1) Installation of backflow protection or ensuring an air gap 2) Flow control port valves on hydrants so the main valve is not used by uncertified persons to control or throttle flow (for hydrants equipped with open bottom-drain ports, this is important to protect against back-siphoning dangers due to saturating the ground around the hydrant) 3) Direct operator supervision and/or actual operation. 4) Written agreement/approval/restrictions governing use 5) Designating only certain hydrants for access. The Township By-Law number 2022-11-056, Paragraph 3 to section B. Regulatory Compliance, is an agreement between the Corporation of the Township of Laurentian Valley and the City of Pembroke. The Township agrees to adopt the City's relevant by-laws, policies and SOPs. The City of Pembroke by-law number 2007-25, Hydrant Bylaw, paragraph 13. states that the use of fire hydrants or other fire protection systems for purposes other than fire related services and training is prohibited unless authorized by the City.			

Question ID	DWMMR1058000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 28;			
Question: Do operators and maintenance personnel have ready access to operations and maintenance			

manuals?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Operators and maintenance personnel had ready access to operations and maintenance manuals.

Current Policies and Procedures Manual and process and system diagrams/drawings are available onsite at the Township building where operators have an office space.

Question ID	DWMR1059000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 28;			
Question: Do the operations and maintenance manuals contain plans, drawings and process descriptions sufficient for the safe and efficient operation of the system?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.			

Question ID	DWMR1060000	Question Type	Legislative
Legislative Requirement(s): SDWA 31 (1);			
Question: Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): The operations and maintenance manuals met the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.			

Question ID	DWMR1061000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 27 (1); SDWA O. Reg. 128/04 27 (2); SDWA O. Reg. 128/04 27 (3); SDWA O. Reg. 128/04 27 (4); SDWA O. Reg. 128/04 27 (5); SDWA O. Reg. 128/04 27 (6); SDWA O. Reg. 128/04 27 (7);			
Question: Are logbooks properly maintained and contain the required information?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Logbooks were properly maintained and contained the required information.			

Question ID	DWMMR1062000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 7-5;			
Question: Do records or other record keeping mechanisms confirm that operational testing not performed by continuous monitoring equipment is being done by a certified operator, water quality analyst, or person who meets the requirements of O. Reg. 170/03 7-5?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5. A review of the Laurentian Valley Water Works Staffing Log sheets used for recording daily observations and operational activities; sample submission and chain of custody forms for samples submitted to the licensed laboratory used to provide drinking water testing services; and, results of field testing for chlorine residual and pH, found that operational testing and other regulatory field testing was conducted by certified operators.			

Question ID	DWMMR1063000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 170/03 6-10 (1);			
Question: For every required operational test and for every required sample, is a record made of the date, time, location, name of the person conducting the test and result of the test?			
Compliance Response(s)/Corrective Action(s)/Observation(s): For every required operational test and every required sample, a record was made of the date, time, location, name of the person conducting the test and result of the test.			

Question ID	DWMMR1065000	Question Type	Legislative
Legislative Requirement(s): SDWA O. Reg. 128/04 27 (6);			
Question: Are logs and other record keeping mechanisms available for at least five (5) years?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Logs or other record keeping mechanisms were available for at least five (5) years.			

Question ID	DWMMR1072000	Question Type	BMP
Legislative Requirement(s): Not Applicable			

Question:

Has the owner and/or operating authority undertaken efforts to promote water conservation and reduce water losses in their system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The owner and/or operating authority undertook efforts to promote water conservation and reduce water losses in their system.

The Corporation of The Township of Laurentian Valley By-Law number 2023-04-025, includes restriction on watering based on an even/odd system, and residents are permitted to water between 6:00 am to 10:00 am and 6:00 pm to 10:00 pm on their allotted days.

The by-law also provides for the declaration of a total ban on watering, for use if deemed necessary, and does not permit any willful waste of municipal water.

Question ID	DWMR1073000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 23 | (1);

Question:

Has the overall responsible operator been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

The overall responsible operator had been designated for each subsystem.

The Laurentian Valley DS is a Class 1 Water Distribution System.

The current overall responsible operators (ORO), Shane Hebert and Cole Hawkins, hold valid Class 1 Water Distribution Subsystem Operator Certificates.

Question ID	DWMR1078000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 23 | (1); SDWA | O. Reg. 128/04 | 23 | (2); SDWA | O. Reg. 128/04 | 23 | (4); SDWA | O. Reg. 128/04 | 23 | (6); SDWA | O. Reg. 128/04 | 23 | (7);

Question:

In instances where the overall responsible operator was unable to act, was an adequately certified operator designated to act in place of the overall responsible operator?

Compliance Response(s)/Corrective Action(s)/Observation(s):

An adequately licenced operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.

Question ID	DWMR1074000	Question Type	Legislative
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Legislative Requirement(s):

SDWA | O. Reg. 128/04 | 25 | (1);

Question:

Have operators-in-charge been designated for all subsystems which comprise the drinking water system?

Compliance Response(s)/Corrective Action(s)/Observation(s):

Operators-in-charge had been designated for all subsystems which comprise the drinking water system.

The Township identifies/designates several operators as operators in charge (OIC) for the Laurentian Valley DS. All OICs hold valid operator certificates and clearly identify themselves in the log book.

Question ID	DWMR1075000	Question Type	Legislative
<p>Legislative Requirement(s): SDWA O. Reg. 128/04 22;</p>			
<p>Question: Do all operators possess the required certification?</p>			
<p>Compliance Response(s)/Corrective Action(s)/Observation(s): All operators possessed the required certification.</p>			

APPENDIX 5

**DRINKING WATER LICENCE AND
WORKS PERMIT**

MUNICIPAL DRINKING WATER LICENCE

Licence Number: 192-101
Issue Number: 3

Pursuant to the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, this municipal drinking water licence is issued under Part V of the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32 to:

The Corporation of the Township of Laurentian Valley

460 Witt Road
Laurentian Valley
ON

For the following municipal residential drinking water system:

Laurentian Valley Distribution System

This municipal drinking water licence includes the following:

Schedule	Description
Schedule A	Drinking Water System Information
Schedule B	General Conditions
Schedule C	System-Specific Conditions
Schedule D	Conditions for Relief from Regulatory Requirements

Upon the effective date of this drinking water licence, all previously issued versions are revoked and replaced by this licence.

DATED at TORONTO this 8th day of February, 2021

Signature



Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act, 2002*

Schedule A: Drinking Water System Information

System Owner	The Corporation of the Township of Laurentian Valley
Licence Number	192-101
Drinking Water System Name	Laurentian Valley Distribution System
Schedule A Issue Date	February 8, 2021

The following information is applicable to the above drinking water system and forms part of this licence:

Licence

Licence Issue Date	February 8, 2021
Licence Expiry Date	February 7, 2026
Application for Licence Renewal Date	August 7, 2025

Drinking Water Works Permit

Drinking Water System Name	Permit Number	Issue Date
The Corporation of the Township of Laurentian Valley	192-201	February 8, 2021

Permit To Take Water

Water Taking Locations	Permit Number	Issue Date
Not Applicable	Not Applicable	Not Applicable

Financial Plans

The Financial Plan Number for the Financial Plan required to be developed for this drinking water system in accordance with O. Reg. 453/07 shall be:	192-301
Alternately, if one Financial Plan is developed for all drinking water systems owned by the owner, the Financial Plan Number shall be:	192-301A

Accredited Operating Authority

Drinking Water System or Operational Subsystems	Accredited Operating Authority	Operational Plan No.	Operating Authority No.
Laurentian Valley Distribution System	Laurentian Valley Township	192-401	192-OA1

Schedule B: General Conditions

System Owner	The Corporation of the Township of Laurentian Valley
Licence Number	192-101
Drinking Water System Name	Laurentian Valley Distribution System
Schedule B Issue Date	February 8, 2021

1.0 Definitions

1.1 Words and phrases not defined in this licence and the associated drinking water works permit shall be given the same meaning as those set out in the SDWA and any regulations made in accordance with that act, unless the context requires otherwise.

1.2 In this licence and the associated drinking water works permit:

“**adverse effect**”, “**contaminant**” and “**natural environment**” shall have the same meanings as in the EPA;

“**alteration**” may include the following in respect of this drinking water system:

- (a) An addition to the system,
- (b) A modification of the system,
- (c) A replacement of part of the system, and
- (d) An extension of the system;

“**compound of concern**” means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged to the air from a component of the drinking water system in an amount that is not negligible;

“**CT**” means the CT Disinfection Concept, as described in subsection 3.1.1 of the Ministry’s Procedure for Disinfection of Drinking Water in Ontario, dated July 29 2016.

“**Director**” means a Director appointed pursuant to section 6 of the SDWA for the purposes of Part V of the SDWA;

“**drinking water works permit**” means the drinking water works permit for the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

“**emission summary table**” means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;

“**EPA**” means the *Environmental Protection Act*, R.S.O. 1990, c. E.19;

“**financial plan**” means the financial plan required by O. Reg. 453/07;

“**Harmful Algal Bloom (HAB)**” means an overgrowth of aquatic algal bacteria that produce or have the potential to produce toxins in the surrounding water, when the algal

cells are damaged or die. Such bacteria are harmful to people and animals and include microcystins produced by cyanobacterial blooms.

“**licence**” means this municipal drinking water licence for the municipal drinking water system identified in Schedule A of this licence;

“**Ministry**” means the Ontario Ministry of the Environment, Conservation and Parks;

“**operational plan**” means an operational plan developed in accordance with the Director’s Directions – Minimum Requirements for Operational Plans made under the authority of subsection 15(1) of the SDWA;

“**owner**” means the owner of the drinking water system as identified in Schedule A of this licence;

“**OWRA**” means the *Ontario Water Resources Act*, R.S.O. 1990, c. 0.40;

“**permit to take water**” means the permit to take water that is associated with the taking of water for purposes of the operation of the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

“**point of impingement**” has the same meaning as in section 2 of O. Reg. 419/05 under the EPA;

“**point of impingement limit**” means the appropriate standard from Schedule 2 or 3 of O. Reg. 419/05 under the EPA and if a standard is not provided for a compound of concern, the concentration set out for the compound of concern in the document titled “Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, as amended from time to time and published by the Ministry and available on a government of Ontario website;

“**licensed engineering practitioner**” means a person who holds a licence, limited licence or temporary licence under the Professional Engineers Act;

“**provincial officer**” means a provincial officer designated pursuant to section 8 of the SDWA;

“**publication NPC-300**” means the Ministry publication titled “Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning” dated August 2013, as amended;

“**SCADA system**” means a supervisory control and data acquisition system used for process monitoring, automation, recording and/or reporting within the drinking water system;

“**SDWA**” means the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32;

“sensitive receptor” means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from a discharge to air from an emergency generator that is a component of the drinking water system, including one or a combination of:

- (a) private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),
- (b) institutional facilities (e.g.: schools, churches, community centres, day care centres, recreational centres, etc.),
- (c) outdoor public recreational areas (e.g.: trailer parks, play grounds, picnic areas, etc.), and
- (d) other outdoor public areas where there are continuous human activities (e.g.: commercial plazas and office buildings).

“sub-system” has the same meaning as in Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts) under the SDWA;

“surface water” means water bodies (lakes, wetlands, ponds - including dug-outs), water courses (rivers, streams, water-filled drainage ditches), infiltration trenches, and areas of seasonal wetlands;

“UV” means ultraviolet, as in ultraviolet light produced from an ultraviolet reactor.

2.0 Applicability

- 2.1 In addition to any other applicable legal requirements, the drinking water system identified above shall be established, altered and operated in accordance with the conditions of the drinking water works permit and this licence.

3.0 Licence Expiry

- 3.1 This licence expires on the date identified as the licence expiry date in Schedule A of this licence.

4.0 Licence Renewal

- 4.1 Any application to renew this licence shall be made on or before the date identified as the application for licence renewal date set out in Schedule A of this licence.

5.0 Compliance

- 5.1 The owner and operating authority shall ensure that any person authorized to carry out work on or to operate any aspect of the drinking water system has been informed of the SDWA, all applicable regulations made in accordance with that act, the drinking water works permit and this licence and shall take all reasonable measures to ensure any such person complies with the same.

6.0 Licence and Drinking Water Works Permit Availability

- 6.1 At least one copy of this licence and the drinking water works permit shall be stored in such a manner that they are readily viewable by all persons involved in the operation of the drinking water system.

7.0 Permit to Take Water and Drinking Water Works Permit

- 7.1 A permit to take water identified in Schedule A of this licence is the applicable permit on the date identified as the Effective Date of this licence.
- 7.2 A drinking water works permit identified in Schedule A of this licence is the applicable permit on the date identified as the Effective Date of this licence.

8.0 Financial Plan

- 8.1 For every financial plan prepared in accordance with subsections 2(1) and 3(1) of O. Reg. 453/07, the owner of the drinking water system shall:
- 8.1.1 Ensure that the financial plan contains on the front page of the financial plan, the appropriate financial plan number as set out in Schedule A of this licence; and
- 8.1.2 Submit a copy of the financial plan to the Ministry of Municipal Affairs and Housing within three (3) months of receiving approval by a resolution of municipal council or the governing body of the owner.

9.0 Interpretation

- 9.1 Where there is a conflict between the provisions of this licence and any other document, the following hierarchy shall be used to determine the provision that takes precedence:
- 9.1.1 The SDWA;
- 9.1.2 A condition imposed in this licence that explicitly overrides a prescribed regulatory requirement;
- 9.1.3 A condition imposed in the drinking water works permit that explicitly overrides a prescribed regulatory requirement;
- 9.1.4 Any regulation made under the SDWA;
- 9.1.5 Any provision of this licence that does not explicitly override a prescribed regulatory requirement;
- 9.1.6 Any provision of the drinking water works permit that does not explicitly override a prescribed regulatory requirement;
- 9.1.7 Any application documents listed in this licence, or the drinking water works permit from the most recent to the earliest; and

- 9.1.8 All other documents listed in this licence, or the drinking water works permit from the most recent to the earliest.
- 9.1.9 Any other technical bulletin or procedure issued by the Ministry from the most recent to the earliest.
- 9.2** If any requirement of this licence or the drinking water works permit is found to be invalid by a court of competent jurisdiction, the remaining requirements of this licence and the drinking water works permit shall continue to apply.
- 9.3** The issuance of and compliance with the conditions of this licence and the drinking water works permit does not:
- 9.3.1 Relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including the *Environmental Assessment Act*, R.S.O. 1990, c. E.18; and
- 9.3.2 Limit in any way the authority of the appointed Directors and provincial officers of the Ministry to require certain steps be taken or to require the owner to furnish any further information related to compliance with the conditions of this licence or the drinking water works permit.
- 9.4** For greater certainty, nothing in this licence or the drinking water works permit shall be read to provide relief from regulatory requirements in accordance with section 46 of the SDWA, except as expressly provided in the licence or the drinking water works permit.

10.0 Adverse Effects

- 10.1** Nothing in this licence or the drinking water works permit shall be read as to permit:
- 10.1.1 The discharge of a contaminant into the natural environment that causes or is likely to cause an adverse effect; or
- 10.1.2 The discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters.
- 10.2** All reasonable steps shall be taken to minimize and ameliorate any adverse effect on the natural environment or impairment of the quality of water of any waters resulting from the operation of the drinking water system including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
- 10.3** Fulfillment of one or more conditions imposed by this licence or the drinking water works permit does not eliminate the requirement to fulfill any other condition of this licence or the drinking water works permit.

11.0 Change of Owner or Operating Authority

- 11.1 This licence is not transferable without the prior written consent of the Director.
- 11.2 The owner shall notify the Director in writing at least 30 days prior to a change of any operating authority identified in Schedule A of this licence.
- 11.2.1 Where the change of operating authority is the result of an emergency situation, the owner shall notify the Director in writing of the change as soon as practicable.

12.0 Information to be Provided

- 12.1 Any information requested by a Director or a provincial officer concerning the drinking water system and its operation, including but not limited to any records required to be kept by this licence or the drinking water works permit, shall be provided upon request.

13.0 Records Retention

- 13.1 Except as otherwise required in this licence or the drinking water works permit, any records required by or created in accordance with this licence or the drinking water works permit, other than the records specifically referenced in section 12 or section 13 of O. Reg. 170/03, shall be retained for at least 5 years and made available for inspection by a provincial officer, upon request.

14.0 Chemicals and Materials

- 14.1 All chemicals and materials used in the alteration or operation of the drinking water system that come into contact with water within the system shall meet all applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety criteria standards NSF/60, NSF/61 and NSF/372.
- 14.1.1 In the event that the standards are updated, the owner may request authorization from the Director to use any on hand chemicals and materials that previously met the applicable standards.
- 14.2 The most current chemical and material product registration documentation from a testing institution accredited by either the Standards Council of Canada or by the American National Standards Institution ("ANSI") shall be available at all times for each chemical and material used in the operation of the drinking water system that comes into contact with water within the system.
- 14.3 Conditions 14.1 and 14.2 do not apply in the case of the following:
- 14.3.1 Water pipe and pipe fittings meeting AWWA specifications made from ductile iron, cast iron, PVC, fibre and/or steel wire reinforced cement pipe or high density polyethylene (HDPE);
- 14.3.2 Articles made from stainless steel, glass, HDPE or Teflon®;

- 14.3.3 Cement mortar for watermain lining and for water contacting surfaces of concrete structures made from washed aggregates and Portland cement;
- 14.3.4 Gaskets that are made from NSF approved materials;
- 14.3.5 Food grade oils and lubricants, food grade anti-freeze, and other food grade chemicals and materials that are compatible for drinking water use that may come into contact with drinking water, but are not added directly to the drinking water; or
- 14.3.6 Any particular chemical or material where the owner has written documentation signed by the Director that indicates that the Ministry is satisfied that the chemical or material is acceptable for use within the drinking water system and the chemical or material is only used as permitted by the documentation.

15.0 Drawings

- 15.1 All drawings and diagrams in the possession of the owner that show any treatment subsystem as constructed shall be retained by the owner unless the drawings and diagrams are replaced by a revised or updated version showing the subsystem as constructed subsequent to the alteration.
- 15.2 Any alteration to any treatment subsystem shall be incorporated into process flow diagrams, process and instrumentation diagrams, and record drawings and diagrams within one year of the alteration being completed or placed into service.
- 15.3 Process flow diagrams and process and instrumentation diagrams for any treatment subsystem shall be kept in a place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system.

16.0 Operations and Maintenance Manual

- 16.1 An up-to-date operations and maintenance manual or manuals shall be maintained and applicable parts of the manual or manuals shall be made available for reference to all persons responsible for all or part of the operation or maintenance of the drinking water system.
- 16.2 The operations and maintenance manual or manuals, shall include at a minimum:
 - 16.2.1 The requirements of this licence and associated procedures;
 - 16.2.2 The requirements of the drinking water works permit for the drinking water system;
 - 16.2.3 A description of the processes used to achieve secondary disinfection within the drinking water system;
 - 16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;

- 16.2.5 Procedures for the operation and maintenance of monitoring equipment;
 - 16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;
 - 16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;
- 16.3** Procedures necessary for the operation and maintenance of any alterations to the drinking water system shall be incorporated into the operations and maintenance manual or manuals prior to those alterations coming into operation.
- 16.4** All of the procedures included or referenced within the operations and maintenance manual must be implemented.

Schedule C: System-Specific Conditions

System Owner	The Corporation of the Township of Laurentian Valley
Licence Number	192-101
Drinking Water System Name	Laurentian Valley Distribution System
Schedule C Issue Date	February 8, 2021

1.0 Additional Sampling, Testing and Monitoring

Drinking Water Health and Non-Health Related Parameters

- 1.1 For a drinking water system or drinking water subsystem identified in column 1 of Tables 1 and 2 and in addition to any other sampling, testing and monitoring that may be required, sampling, testing and monitoring shall be undertaken for a test parameter listed in column 2 at the sampling frequency listed in column 3 and at the monitoring location listed in column 4 of the same row.

Table 1: Drinking Water Health Related Parameters

Column 1 Drinking Water System or Drinking Water Subsystem Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Table 2: Drinking Water Non-Health Related Parameters

Column 1 Drinking Water System or Drinking Water Subsystem Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Environmental Discharge Parameters

- 1.2 Pursuant to Condition 10 of Schedule B of this licence, the owner may undertake the following environmental discharges associated with the maintenance and/or repair of the drinking water system:
- 1.2.1 The discharge of potable water from a watermain to a road or storm sewer;
 - 1.2.2 The discharge of potable water from a water storage facility or pumping station:
 - 1.2.2.1 To a road or storm sewer; or

- 1.2.2.2 To a watercourse where the discharge has been dechlorinated and if necessary, sediment and erosion control measures have been implemented.
- 1.2.3 The discharge of dechlorinated non-potable water from a watermain, water storage facility or pumping station to a road or storm sewer;
- 1.2.4 The discharge of potable water or non-potable water from a treatment subsystem to the environment where if necessary, the discharge has been dechlorinated and sediment and erosion control measures have been implemented.
- 1.2.5 The discharge of any excess water to a road, storm sewer or the environment, associated with the management of materials excavated as part of watermain construction or repair, where necessary sediment, erosion and environmental control measures have been implemented.

2.0 Studies Required

- 2.1 Not applicable

3.0 Source Protection

- 3.1 The owner of the drinking water system shall implement risk management measures, as appropriate, to manage any potential threat to drinking water that results from the operation of the drinking water system.
- 3.2 The owner of the system shall notify the Director in writing within thirty (30) days of any approved changes to an applicable source protection plan that impact the assessed threat level of a fuel oil system identified in Schedule A of drinking water works permit.
- 3.3 The notification required in condition 3.2 shall include:
 - 3.3.1 A description of the changes and their impact on the assessed threat level of the fuel oil system(s); and,
 - 3.3.2 A timeline for re-assessing the threat level and providing the results of the assessment to the Director.

Schedule D: Conditions for Relief from Regulatory Requirements

System Owner	Laurentian Valley, The Corporation of the Township of
Licence Number	192-101
Drinking Water System Name	Laurentian Valley Distribution System
Schedule D Issue Date	February 8, 2021

1.0 Lead Regulatory Relief

- 1.1** Any relief from regulatory requirements previously authorized by the Director in respect of the drinking water system under section 38 of the SDWA in relation to the sampling, testing or monitoring requirements contained in Schedule 15.1 of O. Reg. 170/03 shall remain in force until such time as Schedule 15.1 of O. Reg. 170/03 is amended after June 1, 2009.

2.0 Other Regulatory Relief

- 2.1** Not Applicable

DRINKING WATER WORKS PERMIT

Permit Number: 192-201

Issue Number: 3

Pursuant to the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, this drinking water works permit is issued under Part V of the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32 to:

The Corporation of the Township of Laurentian Valley

**460 Witt Road
Laurentian Valley
ON**

For the following municipal residential drinking water system:

Laurentian Valley Distribution System

This drinking water works permit includes the following:

Schedule	Description
Schedule A	Drinking Water System Description
Schedule B	General
Schedule C	All documents issued as Schedule C to this drinking water works permit which authorize alterations to the drinking water system

Upon the effective date of this drinking water works permit, all previously issued versions are revoked and replaced by this permit.

DATED at TORONTO this 8th day of February, 2021

Signature



Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act, 2002*

Schedule A: Drinking Water System Description

System Owner	Laurentian Valley, The Corporation of the Township of
Permit Number	192-201
Drinking Water System Name	Laurentian Valley Distribution System
Schedule A Issue Date	February 8, 2021

1.0 System Description

- 1.1 The following is a summary description of the works comprising the above drinking water system:

Overview

The **Laurentian Valley Distribution System** receives water from the Pembroke Water Purification Plant and serves connections to over 600 residential and business consumers. There are no storage, booster pumping or re-chlorination facilities operating on the distribution system.

Watermains

- 1.2 Watermains within the distribution system comprise:

- 1.2.1 Watermains that have been set out in each document or file identified in column 1 of Table 1.

Table 1: Watermains	
Column 1 Document or File Name	Column 2 Date
Laurentian Valley W-1 - PIPE SIZE	April 2, 2019
Laurentian Valley W-2 - PIPE SIZE	April 2, 2019

- 1.2.2 Watermains that have been added, modified, replaced or extended further to the provisions of Schedule C of this drinking water works permit on or after the date identified in column 2 of Table 1 for each document or file identified in column 1.
- 1.2.3 Watermains that have been added, modified, replaced or extended further to an authorization by the Director on or after the date identified in column 2 of Table 1 for each document or file identified in column 1.

Schedule B: General

System Owner	The Corporation of the Township of Laurentian Valley
Permit Number	192-201
Drinking Water System Name	Laurentian Valley Distribution System
Schedule B Issue Date	February 8, 2021

1.0 Applicability

- 1.1 In addition to any other requirements, the drinking water system identified above shall be altered and operated in accordance with the conditions of this drinking water works permit and the licence.
- 1.2 The definitions and conditions of the licence shall also apply to this drinking water works permit.

2.0 Alterations to the Drinking Water System

- 2.1 Any document issued by the Director as a Schedule C to this drinking water works permit shall provide authority to alter the drinking water system in accordance, where applicable, with the conditions of this drinking water works permit and the licence.
- 2.2 All Schedule C documents issued by the Director for the drinking water system shall form part of this drinking water works permit.
- 2.3 All parts of the drinking water system in contact with drinking water that are added, modified, replaced, extended shall be disinfected in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:
 - a) Until 6 months from the date of issue of this permit, the ministry's Watermain Disinfection Procedure, dated November 2015. Thereafter, the ministry's Watermain Disinfection Procedure, dated August 1, 2020;
 - b) Subject to condition 2.3.2, any updated version of the ministry's Watermain Disinfection Procedure;
 - c) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;
 - d) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and
 - e) AWWA C654 – Standard for Disinfection of Wells.
- 2.3.1 For greater clarity, where an activity has occurred that could introduce contamination, including but not limited to repair, maintenance, or physical / video inspection, all equipment that may come in contact with the drinking water system shall be disinfected in accordance with the requirements of condition 2.3. above.
- 2.3.2 Updated requirements described in condition 2.3 b) are effective six months from the date of publication of the updated Watermain Disinfection Procedure.

- 2.4** The owner shall notify the Director in writing within thirty (30) days of the placing into service or the completion of any addition, modification, replacement, removal or extension of the drinking water system which had been authorized through:
- 2.4.1 Schedule B to this drinking water works permit which would require an alteration of the description of a drinking water system component described in Schedule A of this drinking water works permit;
 - 2.4.2 Any document to be incorporated in Schedule C to this drinking water works permit respecting works other than watermains; or
 - 2.4.3 Any approval issued prior to the issue date of the first drinking water works permit respecting works other than watermains which were not in service at the time of the issuance of the first drinking water works permit.
- 2.5** The notification required in condition 2.4 shall be submitted using the “Director Notification Form” published by the Ministry.
- 2.6** For greater certainty, the notification requirements set out in condition 2.4 do not apply to any addition, modification, replacement, removal or extension in respect of the drinking water system which:
- 2.6.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03;
 - 2.6.2 Constitutes maintenance or repair of the drinking water system; or
 - 2.6.3 Is a watermain authorized by condition 3.1 of Schedule B of this drinking water works permit.
- 2.7** The owner shall notify the legal owner of any part of the drinking water system that is prescribed as a municipal drinking water system by section 2 of O. Reg. 172/03 of the requirements of the licence and this drinking water works permit as applicable to the prescribed system.

3.0 Watermain Additions, Modifications, Replacements and Extensions

- 3.1** The owner may alter the drinking water system, or permit it to be altered by a person acting on the owner’s behalf, by adding, modifying, replacing or extending a watermain within the distribution system subject to the following conditions:
- 3.1.1 The design of the watermain addition, modification, replacement or extension:
 - a) Has been prepared by a licensed engineering practitioner;
 - b) Has been designed only to transmit water and has not been designed to treat water;
 - c) Satisfies the design criteria set out in the Ministry publication “Watermain Design Criteria for Future Alterations Authorized under a Drinking Water Works Permit – June 2012”, as amended from time to time; and

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- d) Is consistent with or otherwise addresses the design objectives contained within the Ministry publication “Design Guidelines for Drinking Water Systems, 2008”, as amended from time to time.
- 3.1.2 The maximum demand for water exerted by consumers who are serviced by the addition, modification, replacement or extension of the watermain will not result in an exceedance of the rated capacity of a treatment subsystem or the maximum flow rate for a treatment subsystem component as specified in the licence, or the creation of adverse conditions within the drinking water system.
- 3.1.3 The watermain addition, modification, replacement or extension will not adversely affect the distribution system’s ability to maintain a minimum pressure of 140 kPa at ground level at all points in the distribution system under maximum day demand plus fire flow conditions.
- 3.1.4 Secondary disinfection will be provided to water within the added, modified, replaced or extended watermain to meet the requirements of O. Reg. 170/03.
- 3.1.5 The watermain addition, modification, replacement or extension is wholly located within the municipal boundary over which the owner has jurisdiction.
- 3.1.6 The owner of the drinking water system consents in writing to the watermain addition, modification, replacement or extension.
- 3.1.7 A licensed engineering practitioner has verified in writing that the watermain addition, modification, replacement or extension meets the requirements of condition 3.1.1.
- 3.1.8 The owner of the drinking water system has verified in writing that the watermain addition, modification, replacement or extension meets the requirements of conditions 3.1.2 to 3.1.6.
- 3.2** The authorization for the addition, modification, replacement or extension of a watermain provided for in condition 3.1 does not include the addition, modification, replacement or extension of a watermain that:
- 3.2.1 Passes under or through a body of surface water, unless trenchless construction methods are used;
- 3.2.2 Has a nominal diameter greater than 750 mm;
- 3.2.3 Results in the fragmentation of the drinking water system; or
- 3.2.4 Connects to another drinking water system, unless:
- a) Prior to construction, the owner of the drinking water system seeking the connection obtains written consent from the owner or owner’s delegate of the drinking water system being connected to; and
- b) The owner of the drinking water system seeking the connection retains a copy of the written consent from the owner or owner’s delegate of the drinking water system being connected to as part of the record that is recorded and retained under condition 3.3.

- 3.3** The verifications required in conditions 3.1.7 and 3.1.8 shall be:
- 3.3.1 Recorded on “Form 1 – Record of Watermains Authorized as a Future Alteration”, as published by the Ministry, prior to the watermain addition, modification, replacement or extension being placed into service; and
 - 3.3.2 Retained for a period of ten (10) years by the owner.
- 3.4** For greater certainty, the verification requirements set out in condition 3.3 do not apply to any addition, modification, replacement or extension in respect of the drinking water system which:
- 3.4.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03; or
 - 3.4.2 Constitutes maintenance or repair of the drinking water system.
- 3.5** The document or file referenced in Column 1 of Table 1 of Schedule A of this drinking water works permit that sets out watermains shall be retained by the owner and shall be updated to include watermain additions, modifications, replacements and extensions within 12 months of the addition, modification, replacement or extension.
- 3.6** The updates required by condition 3.5 shall include watermain location relative to named streets or easements and watermain diameter.
- 3.7** Despite clause (a) of condition 3.1.1 and condition 3.1.7, with respect to the replacement of an existing watermain or section of watermain that is 6.1 meters in length or less, if a licensed engineering practitioner has:
- 3.7.1 inspected the replacement prior to it being put into service;
 - 3.7.2 prepared a report confirming that the replacement satisfies clauses (b), (c) and (d) of condition 3.1.1 (i.e. “Form 1 – Record of Watermains Authorized by a Future Alteration” (Form 1), Part 3, items No. 2, 3 and 4); and
 - 3.7.3 appended the report referred to in condition 3.7.2 to the completed Form 1,
- the replacement is exempt from the requirements that the design of the replacement be prepared by a licensed engineering practitioner and that a licensed engineering practitioner verify on Form 1, Part 3, item No. 1 that a licensed engineering practitioner prepared the design of the replacement.
- 3.8** For greater certainty, the exemption in condition 3.7 does not apply to the replacement of an existing watermain or section of watermain if two or more sections of pipe, each of which is 6.1 meters in length or less, are joined together, if the total length of replacement pipes joined together is greater than 6.1 meters.

4.0 Minor Modifications to the Drinking Water System

- 4.1** The drinking water system may be altered by adding, modifying or replacing the following components in the drinking water system:
- 4.1.1 Coagulant feed systems in the treatment system, including the location and number of dosing points:

- 4.1.1.1 Prior to making any alteration to the drinking water system under condition 4.1.1, the owner shall undertake a review of the impacts that the alteration might have on corrosion control or other treatment processes; and
 - 4.1.1.2 The owner shall notify the Director in writing within thirty (30) days of any alteration made under condition 4.1.1 and shall provide the Director with a copy of the review.
 - 4.1.1.3 The notification required in condition 4.1.1 b) shall be submitted using the "Director Notification Form" published by the Ministry
 - 4.1.2 Instrumentation and controls, including new SCADA systems and upgrades to SCADA system hardware;
 - 4.1.3 SCADA system software or programming that:
 - 4.1.3.1 Measures, monitors or reports on a regulated parameter;
 - 4.1.3.2 Measures, monitor or reports on a parameter that is used to calculate CT; or,
 - 4.1.3.3 Calculates CT for the system or is part of the process algorithm that calculates log removal, where the impacts of addition, modification or replacement have been reviewed by a licensed engineering practitioner;
 - 4.1.4 Filter media, backwashing equipment, filter troughs, and under-drains and associated equipment in the treatment system;
 - 4.1.5 Spill containment works; or,
 - 4.1.6 Coarse screens and fine screens.
- 4.2** The drinking water system may be altered by adding, modifying, replacing or removing the following components in the drinking water system:
- 4.2.1 Treated water pumps, pressure tanks, and associated equipment;
 - 4.2.2 Raw water pumps and process pumps in the treatment system;
 - 4.2.3 Inline booster pumping stations that are not associated with distribution system storage facilities and are on a watermain with a nominal diameter not exceeding 200 mm;
 - 4.2.4 Re-circulation devices within distribution system storage facilities;
 - 4.2.5 In-line mixing equipment;
 - 4.2.6 Chemical metering pumps and chemical handling pumps;
 - 4.2.7 Chemical storage tanks (excluding fuel storage tanks) and associated equipment; or,

- 4.2.8 Measuring and monitoring devices that are not required by regulation, by a condition in the Drinking Water Works Permit, or by a condition otherwise imposed by the Ministry.
 - 4.2.9 Chemical injection points;
 - 4.2.10 Valves.
- 4.3** The drinking water system may be altered by replacing the following:
- 4.3.1 Raw water piping, treatment process piping or treated water piping within the treatment subsystem;
 - 4.3.2 Measuring and monitoring devices that are required by regulation, by a condition in the Drinking Water Works Permit or by a condition otherwise imposed by the Ministry.
 - 4.3.3 Coagulants and pH adjustment chemicals, where the replacement chemicals perform the same function;
 - a) Prior to making any alteration to the drinking water system under condition 4.3.3, the owner shall undertake a review of the impacts that the alteration might have on corrosion control or other treatment processes; and
 - b) The owner shall notify the Director in writing within thirty (30) days of any alteration made under condition 4.3.3 and shall provide the Director with a copy of the review.
 - c) The notification required in condition 4.3.3 b) shall be submitted using the "Director Notification Form" published by the Ministry
- 4.4** Any alteration of the drinking water system made under conditions 4.1, 4.2 or 4.3 shall not result in:
- 4.4.1 An exceedance of a treatment subsystem rated capacity or a treatment subsystem component maximum flow rate as specified in the licence;
 - 4.4.2 The bypassing or removal of any unit process within a treatment subsystem;
 - 4.4.3 The addition of any new unit process other than coagulation within a treatment subsystem;
 - 4.4.4 A deterioration in the quality of drinking water provided to consumers;
 - 4.4.5 A reduction in the reliability or redundancy of any component of the drinking water system;
 - 4.4.6 A negative impact on the ability to undertake compliance and other monitoring necessary for the operation of the drinking water system; or
 - 4.4.7 An adverse effect on the environment.

- 4.5** The owner shall verify in writing that any addition, modification, replacement or removal of drinking water system components in accordance with conditions 4.1, 4.2 or 4.3 has met the requirements of the conditions listed in condition 4.4.
- 4.6** The verifications and documentation required in condition 4.5 shall be:
- 4.6.1 Recorded on “Form 2 – Record of Minor Modifications or Replacements to the Drinking Water System” published by the Ministry, prior to the modified or replaced components being placed into service; and
- 4.6.2 Retained for a period of ten (10) years by the owner.
- 4.7** For greater certainty, the verification requirements set out in conditions 4.5 and 4.6 do not apply to any addition, modification, replacement or removal in respect of the drinking water system which:
- 4.7.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03; or
- 4.7.2 Constitutes maintenance or repair of the drinking water system, including software changes to a SCADA system that are not listed in condition 4.1.3
- 4.8** The owner shall update any drawings maintained for the drinking water system to reflect the modification or replacement of the works, where applicable.

5.0 Equipment with Emissions to the Air

- 5.1** The drinking water system may be altered by adding, modifying or replacing any of the following drinking water system components that may discharge or alter the rate or manner of a discharge of a compound of concern to the air:
- 5.1.1 Any equipment, apparatus, mechanism or thing that is used for the transfer of outdoor air into a building or structure that is not a cooling tower;
- 5.1.2 Any equipment, apparatus, mechanism or thing that is used for the transfer of indoor air out of a space used for the production, processing, repair, maintenance or storage of goods or materials, including chemical storage;
- 5.1.3 Laboratory fume hoods used for drinking water testing, quality control and quality assurance purposes;
- 5.1.4 Low temperature handling of compounds with a vapor pressure of less than 1 kilopascal;
- 5.1.5 Maintenance welding stations;
- 5.1.6 Minor painting operations used for maintenance purposes;
- 5.1.7 Parts washers for maintenance shops;
- 5.1.8 Emergency chlorine and ammonia gas scrubbers and absorbers;

- 5.1.9 Venting for activated carbon units for drinking water taste and odour control;
 - 5.1.10 Venting for a stripping unit for methane removal from a groundwater supply;
 - 5.1.11 Venting for an ozone treatment unit;
 - 5.1.12 Natural gas or propane fired boilers, water heaters, space heaters and make-up air units with a total facility-wide heat input rating of less than 20 million kilojoules per hour, and with an individual fuel energy input of less than or equal to 10.5 gigajoules per hour; or
 - 5.1.13 Emergency generators that fire No. 2 fuel oil (diesel fuel) with a sulphur content of 0.5 per cent or less measured by weight, natural gas, propane, gasoline or biofuel, and that are used for emergency duty only with periodic testing.
- 5.2** The owner shall not make an addition, modification, or replacement described in condition 5.1 in relation to an activity that is not related to the treatment and/or distribution of drinking water.
- 5.3** The emergency generators identified in condition 5.1.13 shall not be used for non-emergency purposes including the generation of electricity for sale or for peak shaving purposes.
- 5.4** The owner shall prepare an emission summary table for nitrogen oxides emissions only, for each addition, modification or replacement of emergency generators identified in condition 5.1.13.

Performance Limits

- 5.5** The owner shall ensure that a drinking water system component identified in conditions 5.1.1 to 5.1.13 is operated at all times to comply with the following limits:
- 5.5.1 For equipment other than emergency generators, the maximum concentration of any compound of concern at a point of impingement shall not exceed the corresponding point of impingement limit;
 - 5.5.2 For emergency generators, the maximum concentration of nitrogen oxides at sensitive receptors shall not exceed the applicable point of impingement limit, and at non-sensitive receptors shall not exceed the Ministry half-hourly screening level of 1880 ug/m³ as amended; and
 - 5.5.3 The noise emissions comply at all times with the limits set out in publication NPC-300, as applicable.
- 5.6** The owner shall verify in writing that any addition, modification or replacement of works in accordance with condition 5.1 has met the requirements of the conditions listed in condition 5.5.
- 5.7** The owner shall document how compliance with the performance limits outlined in condition 5.5.3 is being achieved, through noise abatement equipment and/or operational procedures.

- 5.8** The verifications and documentation required in conditions 5.6 and 5.7 shall be:
- 5.8.1 Recorded on “Form 3 – Record of Addition, Modification or Replacement of Equipment Discharging a Contaminant of Concern to the Atmosphere”, as published by the Ministry, prior to the additional, modified or replacement equipment being placed into service; and
 - 5.8.2 Retained for a period of ten (10) years by the owner.
- 5.9** For greater certainty, the verification and documentation requirements set out in conditions 5.6 and 5.8 do not apply to any addition, modification or replacement in respect of the drinking water system which:
- 5.9.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03; or
 - 5.9.2 Constitutes maintenance or repair of the drinking water system.
- 5.10** The owner shall update any drawings maintained for the works to reflect the addition, modification or replacement of the works, where applicable.

6.0 Previously Approved Works

- 6.1** The owner may add, modify, replace or extend, and operate part of a municipal drinking water system if:
- 6.1.1 An approval was issued after January 1, 2004 under section 36 of the SDWA in respect of the addition, modification, replacement or extension and operation of that part of the municipal drinking water system;
 - 6.1.2 The approval expired by virtue of subsection 36(4) of the SDWA; and
 - 6.1.3 The addition, modification, replacement or extension commenced within five years of the date that activity was approved by the expired approval.

7.0 System-Specific Conditions

- 7.1** The following are authorized under this permit:

Not applicable

8.0 Source Protection

- 8.1** Not applicable

Schedule C: Authorization to Alter the Drinking Water System

System Owner	The Corporation of the Township of Laurentian Valley
Permit Number	192-201
Drinking Water System Name	Laurentian Valley Distribution System
Permit Effective Date	February 8, 2021

1.0 General

1.1 Table 2 provides a reference list of all documents to be incorporated into Schedule C that have been issued as of the date that this permit was issued.

1.1.1 Table 2 is not intended to be a comprehensive list of all documents that are part of Schedule C. For clarity, any document issued by the Director to be incorporated into Schedule C after this permit has been issued is considered part of this drinking water works permit.

Table 2: Schedule C Documents				
Column 1 Issue #	Column 2 Issued Date	Column 3 Description	Column 4 Status	Column 5 DN#
n/a				

1.2 For each document described in columns 1, 2 and 3 of Table 2, the status of the document is indicated in column 4. Where this status is listed as 'Archived', the approved alterations have been completed and relevant portions of this permit have been updated to reflect the altered works. These 'Archived' Schedule C documents remain as a record of the alterations.

APPENDIX 6
STAKEHOLDER SUPPORT

Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Ministry if you need assistance or have questions at 1-866-793-2588 or waterforms@ontario.ca.

For more information on Ontario's drinking water visit www.ontario.ca/drinkingwater



PUBLICATION TITLE	PUBLICATION NUMBER
FORMS: Drinking Water System Profile Information Laboratory Services Notification Adverse Test Result Notification	012-2149E 012-2148E 012-4444E
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	Website
Procedure for Disinfection of Drinking Water in Ontario	Website
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	Website
Filtration Processes Technical Bulletin	Website
Ultraviolet Disinfection Technical Bulletin	Website
Guide for Applying for Drinking Water Works Permit Amendments, & License Amendments	Website
Certification Guide for Operators and Water Quality Analysts	Website
Guide to Drinking Water Operator Training Requirements	9802E
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	Website
Drinking Water System Contact List	7128E01
Ontario's Drinking Water Quality Management Standard - Pocket Guide	Website
Watermain Disinfection Procedure	Website
List of Licensed Laboratories	Website

Principaux guides et documents de référence sur les réseaux résidentiels municipaux d'eau potable

De nombreux documents utiles peuvent vous aider à exploiter votre réseau d'eau potable. Vous trouverez ci-après une liste de documents que les propriétaires et exploitants de réseaux résidentiels municipaux d'eau potable utilisent fréquemment. Pour accéder à ces documents en ligne, cliquez sur leur titre dans le tableau ci-dessous ou faites une recherche à l'aide de votre navigateur Web. Communiquez avec le ministère au 1-866-793-2588, ou encore à waterforms@ontario.ca si vous avez des questions ou besoin d'aide.



Pour plus de renseignements sur l'eau potable en Ontario, consultez le site www.ontario.ca/eaupotable

TITRE DE LA PUBLICATION	NUMÉRO DE PUBLICATION
Renseignements sur le profil du réseau d'eau potable	012-2149F
Avis de demande de services de laboratoire	012-2148F
Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-4444F
Prendre soin de votre eau potable - Un guide destiné aux membres des conseils municipaux	Site Web
Marche à suivre pour désinfecter l'eau potable en Ontario	Site Web
Stratégies pour minimiser les trihalométhanes et les acides haloacétiques de sous-produits de désinfection	Site Web
Filtration Processes Technical Bulletin (en anglais seulement)	Site Web
Ultraviolet Disinfection Technical Bulletin (en anglais seulement)	Site Web
Guide de présentation d'une demande de modification du permis d'aménagement de station de production d'eau potable	Site Web
Guide sur l'accréditation des exploitants de réseaux d'eau potable et des analystes de la qualité de l'eau de réseaux d'eau potable	Site Web
Guide sur les exigences relatives à la formation des exploitants de réseaux d'eau potable	9802F
Échantillonnage et analyse du plomb dans les collectivités : échantillonnage normalisé ou réduit et admissibilité à l'exemption	Site Web
Liste des personnes-ressources du réseau d'eau potable	Site Web
L'eau potable en Ontario - Norme de gestion de la qualité - Guide de poche	Site Web
Procédure de désinfection des conduites principales	Site Web
Laboratoires autorisés	Site Web