Ministry of the Environment, Conservation and Parks
Eastern Region
1259 Gardiners Road, Unit 3
Kingston ON K7P 3J6
Phone: (613) 549-4000
or 1-800-267-0974

Ministère de l'Environnement, de la Protection de la nature et des Parcs
Région de l'Est
1259, rue Gardiners, unité 3
Kingston (Ontario) K7P 3J6
Tél: 613 549-4000
ou 1-800-267-0974

Ontario

January 5, 2021

Sent by Email: chris.morrison@uclg.on.ca

The Corporation of the United Counties of Leeds and Grenville
25 Central Avenue West
Suite 100
Brockville, Ontario
K6V 4N6

Attention: Mr. Chris Morrison – Housing Manager

Re: 2020-21 Inspection Report

The enclosed report documents findings of the inspection that was performed at The Maples (formerly Bennet Street) Drinking Water System on November 25, 2020.

Two sections of the report, namely "Non-compliance with Regulatory Requirements and Actions Required" and "Summary of Recommendations and Best Practice Issues", if found, may cite due dates for the submission of information or plans to my attention.

Please note that "Non-compliance with Regulatory Requirements and Actions Required" are linked to incidents of non-compliance with regulatory requirements contained within an act, a regulation, or site-specific approvals, licenses, permits, orders, or instructions. Such violations may result in the issuance of mandatory abatement instruments which could include orders, tickets, penalties, or referrals to the ministry's Environmental Enforcement and Compliance Office. ***There were no issues of "Non- compliance with Regulatory Requirements and No Actions Required" identified during the inspection.***

"Summary of Recommendations and Best Practice Issues" convey information that the owner or operating authority should consider implementing in order to advance efforts already in place to address such issues as emergency preparedness, the fulsome availability of information to consumers, and conformance with existing and emerging industry standards. Please note that items which appear as recommended actions do not, in themselves, constitute violations. ***There were no "Summary of Recommendations and Best Practice Issues" identified during the inspection.***

In order to measure individual inspection results, the ministry continues to adhere to 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), appended to the inspection report, provides the ministry, the system owner and the local Public Health Unit with a summarized quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. Please note the IRR methodology document, also appended to the inspection report, describes how the risk model was improved to better reflect any health related and administrative non-compliance issues that may be cited in our inspection reports. IRR ratings are published in the ministry's Chief Drinking Water Inspector's Annual Report. If you have any questions or concerns regarding the rating, please contact Mahmod Mahmod, Acting Water Compliance Supervisor, at 613-548-6934

Section 19 of the Safe Drinking Water Act, 2002 (Standard of Care) cites a number of obligations of individuals who exercise decision-making authority over municipal drinking water systems. The ministry encourages individuals, particularly municipal councillors, to take steps to be well 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.

Thank you for the assistance afforded to me during the conduct of the compliance assessment.

Should you have any questions regarding the content of the enclosed report, please do not hesitate to contact me at 613-540-6871.

Yours truly,

Suzanne Smith
Water Inspector/Provincial Officer, Badge # 1511
Drinking Water Compliance
Drinking Water and Environmental Compliance Division
Kingston District Office
Tel. Direct Line: 613-540-6871
SS

Enclosure

ec: Andrew Shaw, Maintenance Supervisor, United Counties of Leeds and Grenville, Email: Andrew.shaw@uclg.on.ca;
- Ms. Caroline Rigutto, Policy and Program Review Analyst – Community and Social Services Division, UCLG; Email: caroline.rigutto@uclg.on.ca;
- Curtis Whitteker, ORO/Owner Whitteker Environmental Services; Email: curtis@whitteker.ca;

- Jane Lyster, Director of Health Protection, Leeds, Grenville and Lanark District Health Unit, Email: jane.lyster@healthunit.org
- Teresa Clow, Senior Public Health Inspector, Leeds, Grenville and Lanark District Health Unit, Email: Teresa.clow@healthunit.org
- Sandra Mancini, Team Lead, Engineering, South Nation Conservation Authority, Email: smancini@nation.on.ca

c: File SI-LG-EC-BE 540 (2020-2021) DWS # 220006971

Ontario

Ministry of the Environment, Conservation and Parks

THE MAPLES DRINKING WATER SYSTEM

(formerly BENNET STREET DRINKING WATER SYSTEM)

Inspection Report

Site Number:	260006971
Inspection Number:	1-P56HF
Date of Inspection:	Nov 25, 2020
Inspected By:	Suzanne Smith

Ontario

Table of Contents:

OWNER INFORMATION:

Company Name:	LEEDS AND GRENVILLE, UNITED COUNTIES OF		
Street Number:	25	**Unit Identifier:**	SUITE 200
Street Name:	CENTRAL Ave W		
City:	BROCKVILLE		
Province:	ON	**Postal Code:**	K6V 4N6

CONTACT INFORMATION

Type:	Owner	**Name:**	Chris Morrison
Phone:	(613) 342-3840 x2328	**Fax:**	(613) 342-8908
Email:	chris.morrison@uclg.on.ca		
Title:	Housing Manager, United Counties of Leeds and Grenville		

Type:	Main Contact	**Name:**	Andrew Shaw
Phone:	(613) 342-3840 x2238	**Fax:**	(613) 342-8908
Email:	andrew.shaw@uclg.on.ca		
Title:	Maintenance Supervisor, United Counties of Leeds and Grenville		

Type:	Owner	**Name:**	Caroline Rigutto
Phone:	(613) 342-3840 x2368	**Fax:**	(613) 342-8908
Email:	caroline.rigutto@uclg.on.ca		
Title:	Policy and Program Review Analyst, United Counties of Leeds and Grenville		

Type:	Operating Authority	**Name:**	Curtis Whitteker
Phone:	(613) 648-1141	**Fax:**	(613) 652-1991
Email:	curtis@whitteker.ca		
Title:	Owner, Whitteker Environmental Services		

Type:	Public Health Unit	**Name:**	Jane Lyster
Phone:	(613) 345-5685	**Fax:**	(613) 345-2879
Email:	jane.lyster@healthunit.org		
Title:	Director, Health Protection Leeds, Grenville and Lanark District Health Unit		

Type:	Public Health Unit	**Name:**	Teresa Clow
Phone:	(613) 345-5685	**Fax:**	(613) 345-7148
Email:	teresa.clow@healthunit.org		
Title:	Senior Public Health Inspector, Leeds, Grenville & Lanark District Health Unit		

Type:	Conservation Authority	**Name:**	Sandra Mancini
Phone:	(613) 984-2948	**Fax:**	(613) 984-2872
Email:	smancini@nation.on.ca		
Title:	Team Lead, Engineering South Nation Conservation Authority		

INSPECTION DETAILS:

Site Name:	THE MAPLES DRINKING WATER SYSTEM
Site Address:	33 BENNETT Street SPENCERVILLE ON K0E 1X0
County/District:	EDWARDSBURGH/CARDINAL
MECP District/Area Office:	Kingston District
Health Unit:	LEEDS, GRENVILLE AND LANARK DISTRICT HEALTH UNIT
Conservation Authority:	South Nation Conservation Authority
MNR Office:	
Category:	Small Municipal Residential
Site Number:	260006971
Inspection Type:	Announced
Inspection Number:	1-P56HF
Date of Inspection:	Nov 25, 2020
Date of Previous Inspection:	Jul 18, 2019

COMPONENTS DESCRIPTION

Site (Name): RAW WATER
Type: Source **Sub Type:** Ground Water
Comments:
The Maples Drinking Water System (DWS), (formerly Bennet Street DWS), draws raw water from a single 150 millimeter (mm) diameter drilled production well located within the property, east of the apartment building. The Maples Apartments Engineer's Report for Water Works prepared by Eastern Engineering Group Inc. in June 2004, describes the well in the following manner:

A new water well was constructed in June 2003, to replace the original, below-grade well. The well has a depth of approximately 11 meters and is located in an aquifer in 5 to 44 metres of limestone below 5 metres of clay. The depth of well casing is 7 metres.

Raw water characterization included in the First Engineer's Report compares the source water quality to Schedule 1 Microbiological Standards and Schedule 2 Chemical Standards set out in Ontario Regulation 169/03 - Ontario Drinking Water Quality Standards, herein also referred to as "the ODWQ Standards", and aesthetic objectives and operational guidelines set out in the Ministry publication "Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines, June 2003". The characterization identifies the following:

- the source had a heterotrophic plate count of 10 CFU/mL at 3 locations on June 27, 2003;
- the source does not exceed any health-related chemical standards;
- the raw water does exceed some aesthetic parameters, exhibiting high iron (0.46 mg/L which exceeds the aesthetic objective of 0.3 mg/L); and
- the raw water has a hardness level of 255 mg/L, which is considered poor but tolerable and a pH of 7.64.

A raw water tap is located after the pressure tank and prior to the water entering the water softener.

Schedule 3 Radiological Standards were not examined by the characterization. Based on the limited characterization and the owner's sampling and testing data, the source of raw water for the drinking-water system meets the ODWQ Standards.

The March 2004 Engineer's Report for the system did not conclude whether or not the water source is "good groundwater" and/or is not under the influence of surface water. In a letter to the County dated January 11, 2008, an engineer from Kollard Associates concluded that "the well water at the site is not currently under the direct influence of surface water (South Nation River)".

The Maples DWS is registered as a Small Municipal Residential System having a secure groundwater is considered to be a "limited system". An individual holding a Certified Operator (Class 1 - 4) and / or Certified Operator (Limited

Water System) Certificates is deemed to possess the required certification to operate and maintain The Maples DWS.

Site (Name): TREATED WATER
Type: Treated Water POE **Sub Type:** Ground Water
Comments:
Raw water is delivered to the treatment process by a submersible well pump (rated at 25 US gallon per minute (gpm)) connected to the well pump header. Modifications were made to The Maples DWS in October 2020 and following a site visit by Kollaard Associates, Engineers, an updated Engineering Evaluation Report, dated December 2, 2020, was completed to confirm that the treatment system was in compliance with the applicable legislative requirements of Ontario Regulation 170/03.

The raw water passes through The Maples DWS in the following manner:

Pump and Pressure Tank:

- a pressure tank, consisting of Flexcon Flex Lite Model# FL40, 119 gallon, precharged diaphragm type with a flow restrictor installed in the supply pipe between the pump and pressure tank.

Water Softener

Twin alternating commercial water softeners with brine tank.

Filter

Two (2) Boshart Industries 14FHK-G 20" filter housings, each equipped with a 5 micron prefilter, operating in parallel.

UV Units

Two (2) Hallett 500PN UV disinfection units, equipped with audible/visual failure alarm and UV sensors (monitors UV dose, lamp intensity and water transmittance), self-cleaning, each equipped with solenoid shut-off valve. The units each come standard with a 16.5 gpm flow restrictor.

The manufacturer of the UV treatment unit ensures 99% inactivation of viruses by the time that water leaves the point of entry treatment units. The UV Pure Hallett 500PN unit is certified by NSF/ANSI Standard 55 for disinfection, Class A.

Flow meter

The flow meter is installed on the distribution line prior to exiting to other parts of the building and is placed to capture all treated water as it leaves the treatment room.

Site (Name): DISTRIBUTION SYSTEM
Type: Other **Sub Type:** Other
Comments:
The Maples drinking water system distribution system services 15 residential units, a common laundry room, public bathroom and a common room within the 2-story apartment building. The plumbing system leaves the Mechanical Room for distribution to the residential apartment units and common rooms. The distribution is above-grade, copper piping. The building is equipped with a sprinkler system in case of fire.

The required bacti samples are collected from the common laundry room.

INSPECTION SUMMARY:

Introduction

- **The primary focus of this inspection is to confirm compliance with Ministry of the Environment, Conservation and Parks (MECP) legislation as well as evaluating conformance with ministry drinking water related policies and guidelines during the inspection period. 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 practices.**

  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 report is based on a "focused" inspection of the system. Although the inspection involved fewer activities than those normally undertaken in a detailed inspection, it contained critical elements required to assess key compliance issues. This system was chosen for a focused inspection because the system's performance met the ministry's criteria, most importantly that there were no deficiencies as identified in O.Reg. 172/03 over the past 3 years. The undertaking of a focused inspection at this drinking water system does not ensure that a similar type of inspection will be conducted at any point in the future.

  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.

  On November 25, 2020, an announced focused inspection of The Maples Drinking Water System (DWS) Water Treatment Plant was conducted at this site under the authority of Section 81 of the Safe Drinking Water Act, by Suzanne Smith, Water Inspector, Provincial Officer / Inspector Badge # 1511, herein also referred to as the "Inspector".

  The Maples Drinking Water System (DWS), formerly Bennet Street DWS, has been classified as a Small Municipal Residential System. The owner of this system is the Corporation of the United Counties of Leeds and Grenville and the operating authority is Whitteker Environmental Services. The Maples Apartments were constructed in approximately 1975 having 15 residential units, a common laundry room, public bathroom and a common room within the 2-storey apartment building mostly for seniors.

  The location of this property is 33 Bennett Street, Spencerville, ON. The source water for this site is a single drilled production well located within the property and utilizes a UV System for primary disinfection. The site is serviced municipally for sewage collection.

  The inspection included a tour of the treatment room and a document review since the past inspection conducted July 18, 2019. During this inspection, the undersigned Water Inspector was accompanied by Andrew Shaw, Maintenance Supervisor, The Corporation of the United Counties of Leeds and Grenville and Curtis Whitteker, Owner of Whitteker Environmental Services, the operating authority for The Maples DWS.

  Regulations and authorizing documents against which compliance was assessed included:

  - Ontario Regulation 170/03 (Drinking Water Systems), made under the SDWA, 2002.

  - Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts), made

under the SDWA, 2002.

- Ontario Regulation 169/03 (Ontario Drinking Water Quality Standards), made under the SDWA, 2002.

- Professional Engineers Act, Ontario Regulation 260/08, Performance Standards.

- Municipal Drinking Water Licence (MDWL) Number 300-201, Issue Number 3 (issued May 13, 2016)

- Drinking Water Works Permit (DWWP) Number 300-201, Issue Number 3 (issued May 13, 2016)

The following documents were also reviewed as part of the compliance assessment: the Operations Manual and Operational Plan for The Maples Water Treatment Plant; logbooks and other record keeping mechanisms; Reports / Certificates of Analysis for drinking water samples, and other records for the period July 18, 2019 to November 25, 2020 inclusive, also herein referred to as the "inspection period".

I would like to acknowledge the cooperation and professionalism that was afforded to me during the execution of this compliance inspection.

Source

- **The owner was maintaining the production well(s) in a manner sufficient to prevent entry into the well of surface water and other foreign materials.**

  The Inspector is of the belief that the well owner is maintaining the well to prevent the entry of surface water and other foreign materials into the well as prescribed in ss. 20(1) of the Wells Regulation and paragraph 1 of subsection 1-2(1) in Schedule 1 of O. Reg. 170/03.

- **Measures were in place to protect the groundwater and/or GUDI source in accordance with any the Municipal Drinking Water Licence and Drinking Water Works Permit issued under Part V of the SDWA.**

  Municipal Drinking Water License (MDWL), Number 300-101, Issue # 3 outlines the following in Conditions 16.2.8 through 16.2.10 of Schedule B of the License for this system specify well protection measures required to be in place. These include a well inspection schedule, inspection/maintenance procedures (above and below grade), and remedial action plans if issues are identified.

  The operations and maintenance manual includes a procedure, as required by MDWL pertaining to above ground well inspections every month and below grade inspections every 10 years. The Water Inspector (WI) verified through document review that the monthly ground well inspections were conducted as required.

  United Counties of Leeds and Grenville (UCLG) contracted the services of AJ's Water Treatment who was accompanied by technicians from Reabel's Plumbing to perform an internal well inspection of the production well for The Maples Drinking Water System. The internal well inspection occurred on May 22, 2019.

  The inspection covered the following activities:

  i) a submersible camera was placed into the well and lowered to approximately 40 feet;

  ii) Andy Spooner, OIC/ORO observed video footage during the lowering of the camera and no abnormalities were noticed nor any areas of concern and believed that everything during the inspection looked satisfactory.

Capacity Assessment

- **There was sufficient monitoring of flow as required by the Municipal Drinking Water Licence or Drinking Water Works Permit issued under Part V of the SDWA.**

  The flow meter is installed on the distribution line prior to exiting to other parts of the building and is placed to capture all treated water as it leaves the treatment room. Flows are recorded on the flow monitoring log during site visits to the DWS.

- **The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Municipal Drinking Water Licence issued under Part V of the SDWA.**

  This drinking water system's Licence stipulates a maximum daily volume of 162 m^3/day from the treatment to the distribution plumbing.

  The Inspector verified through document review / records suggested that daily volume is lower than the maximum daily volume.

Treatment Processes

- **The owner had ensured that all equipment was installed in accordance with Schedule A and Schedule C of the Drinking Water Works Permit.**
  The Inspector is of the belief that the owner ensured that all equipment installed is in accordance with Schedule A of the Drinking Water Works Permit. The drinking water system consists of a drilled well, pump and two pressure tanks, a water softener, 5 micron filters and UV units with solenoid valves followed by a flow meter.

- **The owner/operating authority was in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.**
  The owner/operating authority was in compliance with the requirement to prepare a Form 2, dated October 6, 2020 – Record of Minor Modifications or Replacements to the Drinking Water System - documents as required by their Drinking Water Works Permit for:

  i) Replacement of the water softener, pressure tank and filter housings.

- **Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.**
  A review of the plant performance logs trending for the drinking water system for the inspection period confirmed that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Drinking Water Works Permit and/or Municipal Drinking Water Licence issued under Part V of the SDWA at all times that water was being supplied to consumers.

  Filtration is obtained by the water flowing through two (2) Boshart Industries 14FHK-G 20" filter housings, each equipped with a 5 micron prefilter, operating in parallel. Treatment includes two (2) Hallett 500PN UV disinfection units, equipped with audible/visual failure alarm and UV sensors (monitors UV dose, lamp intensity and water transmittance), self-cleaning, each equipped with solenoid shut-off valve. The units each come standard with a 16.5 gpm flow restrictor which were installed in October 6, 2020.

  The manufacturer of the UV treatment unit ensures 99% inactivation of viruses by the time that water leaves the point of entry treatment units. The UV Pure Hallett 500PN unit is certified by NSF/ANSI Standard 55 for disinfection, Class A. The solenoid valve and UV sensors ensure that no water is directed to users in the event of equipment malfunction, power loss or if the appropriate level of disinfection is not achieved. The raw water supply is ground water, and treatment should be capable of a 2 log (99%) removal or inactivation of viruses.

The Hallett UV 500PN system requires UVT of greater than or equal to 75%, a total dissolved solids of less than or equal to 1000 mg/l and a turbidity of less than or equal to 1 NTU. There is additional pre-treatment in the water softener and the 5-micron filter prior to the UV unit.

- **Where an activity has occurred that could introduce contamination, all parts of the drinking water system were disinfected in accordance with Schedule B, Condition 2.3 of the Drinking Water Works Permit.**

  The Inspector in conversation with the operating authority verified that the owner or operating authority has developed procedures for the disinfection of wells and treatment equipment that when taken out of service for inspection, repair or other activities that may lead to contamination that all precautions will be taken to ensure the safety of the drinking water being delivered to the residents of The Maples.

- **The primary disinfection equipment was equipped with alarms or shut-off mechanisms that satisfied the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03.**

  Treatment includes two (2) Hallett 500PN UV disinfection units, equipped with audible/visual failure alarm and UV sensors (monitors UV dose, lamp intensity and water transmittance), self-cleaning, each equipped with solenoid shut-off valve that satisfied the standards described in Section 1-6 (1) of Schedule 1 of Ontario Regulation 170/03.

Treatment Process Monitoring

- **All UV sensors were checked and calibrated as required.**

  The treatment includes two (2) Hallett 500PN UV disinfection units newly installed, October 6, 2020, and in review of maintenance logs the operations staff check the UV sensors at a minimum of monthly or at a frequency as otherwise recommended by the UV equipment manufacturer.

Operations Manuals

- **The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

- **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.**

  MDWL 300-101 Issue #3 Schedule B 16.0 Operations and Maintenance Manual 16.1 outlines that - 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 by all persons responsible for all or part of the operation or maintenance of the drinking water system. Upon review of the O&M, the Inspector is of the belief that it meets the requirements of Schedule B sections 16.2 – 16.3 of of MDWL 300-101 Issue #3 and, available to all persons responsible for all or part of the operation or maintenance of the drinking water system.

Logbooks

- **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.**

  As there are no continuous monitoring equipment in place at The Maples, performance logs confirm that the operational testing for turbidity is being done by a certified operator, or a person who meets the requirements of O. Reg. 170/03 7-5.

Security

- **The owner had provided security measures to protect components of the drinking water system.**

The Owner has ensured that security measures to protect components of the drinking water system and the treatment equipment is located within a locked room only accessible to UCLG maintenance staff and the drinking water system operator.

Certification and Training

- **The overall responsible operator had been designated for each subsystem.**

  The overall responsible operator had been designated for The Maples drinking water system and that role is fulfilled by Curtis Whitteker, who holds the appropriate certification.

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

  Water Treatment Operators currently performing operational, on-call and maintenance duties, as prescribed in Section 26 of O. Reg. 128/04, are designated as operators in charge (OIC).

  Operators-in-Training (OIT) do not hold the responsibility for and are not designated as an OIC for The Maples drinking water system

- **All operators possessed the required certification.**

  The Maples DWS is registered as a Small Municipal Residential System having a secure groundwater is considered to be a "limited system". An individual holding a Certified Operator (Class 1 - 4) and / or Certified Operator (Limited Water System) Certificate is deemed to possess the required certification to operate The Maples Drinking Water System.

  Whitteker Environmental Services staff possess the proper certification and in compliance with the legislative requirements of O. Reg. 128/04.

- **Only certified operators made adjustments to the treatment equipment.**

Water Quality Monitoring

- **All microbiological water quality monitoring requirements for distribution samples prescribed by legislation were being met.**

  MDWL Licence Number 300-101, Issue 3 Schedule D: Conditions for Relief from Regulatory Requirements section 2.1 outlines that testing of one (1) bacteriological sample from plumbing every month be collected and analyzed for Escherichia Coli, total coliforms and heterotrophic plate count. (Schedule 11-2).

  The Inspector reviewing the analytical results for the distribution samples and verified that TC and EC all results reported as 0 cfu/100 mL and HPC levels ranged from 0 – 41 cfu/100 mL.

- **All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.**

  O. Reg. 170/03 13-7. The owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every three months and tested for nitrate and nitrite. The ODWQS is 10 mg/L for nitrate and 1 mg/L for nitrite.

  Review of sampling records indicated that nitrate and nitrite were sampled quarterly as required January 3, April 22, July 14, and October 6, 2020.

  The ODWQS is 10 mg/L for nitrate and 1 mg/L for nitrite. The Maples nitrate and nitrite quarterly samples reported consistently as 0.1 mg/L.

- **All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**

  Although the Licence includes a condition that replaces chemical sampling in general, there is no difference between the Licence and the regulation in terms of frequency of water testing for sodium. O. Reg. 170/03 13-8. outlines the owner of a drinking water system and the operating authority for the system shall ensure that at least one water sample is taken every 60 months and tested for sodium.

  The last sodium sample was taken on September 29, 2016 with a result of 4 mg/L which is below the reportable limit of 20 mg/L.

Water Quality Assessment

- **Records showed 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).**

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

SIGNATURES

Inspected By: Signature: (Provincial Officer)

Suzanne Smith

Reviewed & Approved By: Signature: (Supervisor)

Mahmod Mahmod

Review & Approval Date: 05/01/2021

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.

APPENDIX A

INSPECTION RATING RECORD AND METHODOLOGY

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2020-2021)

DWS Name:	THE MAPLES DRINKING WATER SYSTEM
DWS Number:	260006971
DWS Owner:	Leeds And Grenville, United Counties Of
Municipal Location:	Edwardsburgh/Cardinal
Regulation:	O.REG 170/03
Category:	Small Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	November 25, 2020
Ministry Office:	Kingston District

Maximum Question Rating: 260

Inspection Module	Non-Compliance Rating
Source	0 / 14
Capacity Assessment	0 / 30
Treatment Processes	0 / 81
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 42
Water Quality Monitoring	0 / 37
Treatment Process Monitoring	0 / 14
TOTAL	**0 / 260**

Inspection Risk Rating	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 05-JAN-21 (Inspection ID: 1-P56HF).

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2020-2021)

DWS Name:	THE MAPLES DRINKING WATER SYSTEM
DWS Number:	260006971
DWS Owner:	Leeds And Grenville, United Counties Of
Municipal Location:	Edwardsburgh/Cardinal
Regulation:	O.REG 170/03
Category:	Small Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	November 25, 2020
Ministry Office:	Kingston District

Maximum Question Rating: 260

Inspection Risk Rating	**0.00%**

FINAL INSPECTION RATING:	**100.00%**

Inspection Rating Record Generated On 05-JAN-21 (Inspection ID: 1-P56HF).

APPENDIX B

DRINKING WATER LICENCE AND WORKS PERMIT

Ontario

MUNICIPAL DRINKING WATER LICENCE

Licence Number: 300-101
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 United Counties of Leeds and Grenville

25 Central Avenue West, Suite 200
Brockville, ON
K6V 4N6

For the following municipal residential drinking water system:

Bennett Street Drinking Water 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
Schedule E	Pathogen Log Removal/Inactivation Credits

DATED at TORONTO this 13th day of May, 2016

Signature

Indra R. Prashad, P.Eng.
Director
Part V, *Safe Drinking Water Act*, 2002

Schedule A: Drinking Water System Information

System Owner	**The United Counties of Leeds and Grenville**
Licence Number	**300-101**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule A Issue Date	**May 13th, 2016**

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

Licence

Licence Issue Date	May 13th, 2016
Licence Expiry Date	May 12th, 2021
Application for Licence Renewal Date	November 12th, 2020

Drinking Water Works Permit

Drinking Water System Name	Permit Number	Issue Date
Bennett Street Drinking Water System	300-201	May 13th, 2016

Permits to Take Water

Water Taking Location	Permit Number	Issue Date
Well # 1	Not applicable (under 50,000 L/day)	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:	300-301
Alternately, if one Financial Plan is developed for all drinking water systems owned by the owner, the Financial Plan Number shall be:	300-301A

Accredited Operating Authority

Drinking Water System or Operational Subsystems	Accredited Operating Authority	Operational Plan No.	Operating Authority No.
Bennett Street Drinking Water System	The United Counties of Leeds and Grenville	300-401	300-OA1

Schedule B: General Conditions

System Owner	**The United Counties of Leeds and Grenville**
Licence Number	**300-101**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule B Issue Date	**May 13th, 2016**

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 that, based on generally available information, may be emitted from a component of the drinking water system to the atmosphere in a quantity that is significant either in comparison to the relevant point of impingement limit or if a point of impingement limit is not available for the compound, then based on generally available toxicological information, the compound has the potential to cause an adverse effect as defined by the EPA at a point of impingement;

"**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 the table that was prepared by a Professional Engineer in accordance with O. Reg. 419/05 and the procedure document listing the appropriate point of impingement concentrations of each compound of concern emitted from a component of the drinking water system and providing comparison to the corresponding point of impingement limit;

"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;

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

"**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;

"**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**" means any point in the natural environment that is not on the same property as the source of the contaminant and as defined by section 2 of O. Reg. 419/05;

"**point of impingement limit**" means the appropriate standard from Schedule 1, 2 or 3 of O. Reg. 419/05 and if a standard is not provided for a compound of concern, the appropriate criteria listed in the Ministry of the Environment and Climate Change publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution – Local Air Quality (including Schedule 6 of O. Reg. 419 on Upper Risk Thresholds)", dated February 2008, as amended;

"**procedure document**" means the Ministry of the Environment and Climate Change procedure titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated July 2005, as amended;

"**Professional Engineer**" means a Professional Engineer who has been licenced to practice in the Province of Ontario;

"**provincial officer**" means a provincial officer appointed pursuant to section 8 of the SDWA;

"**publication NPC-300**" means the Ministry of the Environment and Climate Change publication titled "Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning" dated August 2013, as amended;

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

"**sensitive populations**" means any one or a combination of the following locations where the health effects of nitrogen oxides emissions from emergency generators shall be considered using the point of impingement limit instead of the Ministry of the Environment and Climate Change screening level for emergency generators:

(a) health care units (e.g., hospitals and nursing homes),
(b) primary/junior public schools,
(c) day-care facilities, and
(d) playgrounds;

"**subsystem**" has the same meaning as in Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts);

"**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;

2.0 Applicability

2.1 In addition to any other 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 Schedule A Issue Date.

7.2 A drinking water works permit identified in Schedule A of this licence is the applicable permit on the date identified as the Schedule A Issue Date.

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.

9.2 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 of the Environment and Climate Change 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 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.

14.1.2 The requirement for the owner to comply with NSF/372 shall come into force no later than June 15, 2018.

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; or

14.3.6 Any particular chemical or material where the owner has written documentation signed by the Director that indicates that the Ministry of the Environment and Climate Change 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 substantial completion of the alteration.

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 by 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 primary and secondary disinfection within the drinking water system, including where applicable:

a) A copy of the CT calculations that were used as the basis for primary disinfection under worst case operating conditions; and

b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;

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;

16.2.8 An inspection schedule for all wells associated with the drinking water system, including all production wells, standby wells, test wells and monitoring wells;

16.2.9 Well inspection and maintenance procedures for the entire well structure of each well including all above and below grade well components; and

16.2.10 Remedial action plans for situations where an inspection indicates non-compliance with respect to regulatory requirements and/or risk to raw well water quality.

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 The requirement for the owner to comply with condition 16.2.3 shall come into force on December 15, 2016.

Schedule C: System-Specific Conditions

System Owner	**The United Counties of Leeds and Grenville**
Licence Number	**300-101**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule C Issue Date	**May 13th, 2016**

1.0 System Performance

Rated Capacity

1.1 For each treatment subsystem listed in column 1 of Table 1, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the value identified as the rated capacity in column 2 of the same row.

Table 1: Rated Capacity

Column 1 Treatment Subsystem Name	Column 2 Rated Capacity (m^3/day)
Bennett Street Drinking Water System	162

Maximum Flow Rates

1.2 For each treatment subsystem listed in column 1 of Table 2, the maximum flow rate of water that flows into a treatment subsystem component listed in column 2 shall not exceed the value listed in column 3 of the same row.

Table 2: Maximum Flow Rates

Column 1 Treatment Subsystem Name	Column 2 Treatment Subsystem Component	Column 3 Maximum Flow Rate (L/min)
Not applicable	Not applicable	Not applicable

1.3 Despite conditions 1.1 and 1.2, a treatment subsystem may be operated temporarily at a maximum daily volume and/or a maximum flow rate above the values set out in column 2 of Table 1 and column 3 of Table 2 respectively for the purposes of fighting a large fire or for the maintenance of the drinking water system.

1.4 Condition 1.3 does not authorize the discharge into the distribution system of any water that does not meet all of the requirements of this licence and all other regulatory requirements, including compliance with the Ontario Drinking Water Quality Standards.

Residue Management

1.5 In respect of an effluent discharged into the natural environment from a treatment subsystem or treatment subsystem component listed in column 1 of Table 3:

1.5.1 The annual average concentration of a test parameter identified in column 2 shall not exceed the value in column 3 of the same row; and

1.5.2 The maximum concentration of a test parameter identified in column 2 shall not exceed the value in column 4 of the same row.

Table 3: Residue Management

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Annual Average Concentration (mg/L)	Column 4 Maximum Concentration (mg/L)
Not Applicable	Not Applicable	Not Applicable	Not Applicable

UV Disinfection Equipment Performance

1.6 For each treatment subsystem or treatment subsystem component listed in column 1 of Table 4, and while directing water to the distribution system:

1.6.1 The UV disinfection equipment shall be operated such that a continuous pass-through UV dose is maintained throughout the life time of the UV lamp(s) that is at least the minimum continuous pass-through UV dose set out in column 2 of the same row at the maximum design flow rate for the equipment;

1.6.2 In addition to any other sampling, analysis and recording that may be required, continuous monitoring and manual recording at a frequency of twice per month shall be carried out for the test parameters set out in column 4 of the same row;

1.6.3 If there is a UV disinfection equipment alarm, the water shall be shut-off and not distributed to the users until the alarm condition has been corrected and regular operation restored;

1.6.4 A monthly summary report shall be prepared at the end of each calendar month which sets out the time, date and duration of each UV equipment alarm, the volume of water treated during each alarm period and the actions taken by the operating authority to correct the alarm situation;

Table 4: UV Disinfection Equipment			
Column 1 Treatment Subsystem or Treatment Subsystem Component Name	**Column 2 Minimum Continuous Pass-Through UV Dose (mJ/cm^2)**	**Column 3 Control Strategy**	**Column 4 Test Parameter**
Bennett Street Drinking Water System	40 mJ/cm^2	UV Intensity Set Point	Flow Rate
			UV Intensity
			UV Lamp Status

2.0 Flow Measurement and Recording Requirements

2.1 For each treatment subsystem identified in column 1 of Table 1 and in addition to any other flow measurement and recording that may be required, flow measurement and manual recording at a frequency of twice per month shall be undertaken for:

2.1.1 The cumulative and average daily volume of treated water that flows from the treatment subsystem to the distribution system.

2.1.2 The cumulative and average daily volume of water that flows into the treatment subsystem.

2.2 For each treatment subsystem component identified in column 2 of Table 2 and in addition to any other flow measurement and recording that may be required, continuous flow measurement and recording shall be undertaken for the flow rate and daily volume of water that flows into the treatment subsystem component.

2.3 Where a rated capacity from Table 1 or a maximum flow rate from Table 2 is exceeded, the following shall be recorded:

2.3.1 The difference between the measured amount and the applicable rated capacity or maximum flow rate specified in Table 1 or Table 2;

2.3.2 The time and date of the measurement;

2.3.3 The reason for the exceedance; and

2.3.4 The duration of time that lapses between the applicable rated capacity or maximum flow rate first being exceeded and the next measurement where the applicable rated capacity or maximum flow rate is no longer exceeded.

3.0 Calibration of Flow Measuring Devices

3.1 All flow measuring devices that are required by regulation, by a condition in the Drinking Water Works Permit, or by a condition otherwise imposed by the Ministry of the Environment and Climate Change, shall be checked and calibrated in accordance with the manufacturer's instructions.

3.2 If the manufacturer's instructions do not indicate how often to check and calibrate a flow measuring device, the equipment shall be checked and calibrated at least once every 12 months during which the drinking water system is in operation.

3.2.1 For greater certainty, if condition 3.2 applies, the equipment shall be checked and calibrated not more than 30 days after the first anniversary of the day the equipment was checked and calibrated in the previous 12-month period.

4.0 Additional Sampling, Testing and Monitoring

Drinking Water Health and Non-Health Related Parameters

4.1 For each treatment subsystem or treatment subsystem component identified in column 1 of Tables 5 and 6 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 5: Drinking Water Health Related Parameters

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Table 6: Drinking Water Non-Health Related Parameters

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable

Environmental Discharge Parameters

4.2 For each treatment subsystem or treatment subsystem component identified in column 1 of Table 7 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 using the sample type identified in column 3 at the sampling frequency listed in column 4 and at the monitoring location listed in column 5 of the same row.

4.3 For the purposes of Table 7:

4.3.1 Manual Composite means the mean of at least three grab samples taken during a discharge event, with one sample being taken immediately following the commencement of the discharge event, one sample being taken approximately at the mid-point of the discharge event and one sample being taken immediately before the end of the discharge event; and

4.3.2 Automated Composite means samples must be taken during a discharge event by an automated sampler at a minimum sampling frequency of once per hour.

4.4 Any sampling, testing and monitoring for the test parameter Total Suspended Solids shall be performed in accordance with the requirements set out in the publication "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, or as amended from time to time by more recently published editions.

Table 7: Environmental Discharge Parameters

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Sample Type	Column 4 Sampling Frequency	Column 5 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

4.5 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:

4.5.1 The discharge of potable water from a watermain to a road or storm sewer;

4.5.2 The discharge of potable water from a water storage facility or pumping station:

4.5.2.1 To a road or storm sewer; or

4.5.2.2 To a watercourse where the discharge has been dechlorinated and if necessary, sediment and erosion control measures have been implemented.

4.5.3 The discharge of dechlorinated non-potable water from a watermain, water storage facility or pumping station to a road or storm sewer;

4.5.4 The discharge of raw water from a groundwater well to the environment where if necessary, sediment and erosion control measures have been implemented; and

4.5.5 The discharge of raw water, 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.

5.0 Studies Required

5.1 Not Applicable

6.0 Source Protection

6.1 Not Applicable

Schedule D: Conditions for Relief from Regulatory Requirements

System Owner	**The United Counties of Leeds and Grenville**
Licence Number	**300-101**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule D Issue Date	**May 13th, 2016**

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 The Microbial & Chemical Sampling and Testing requirement under Schedule 11 and 13 of O. Reg. 170/03 has been replaced with the following:

- Testing of one (1) bacteriological sample from plumbing every month for *Escherichia Coli*, total coliforms and heterotrophic plate count. (Schedule 11-2).
- Testing of raw water monthly for *Escherichia Coli* and total coliforms. (Schedule 11-3)
- Testing of treated water quarterly for nitrite + nitrate. (Schedule 13-7)
- Testing of treated water once every 60 months for sodium. (Schedule 13-8)
- Discontinue testing of treated water for O. Reg. 170/03 Schedule 23 (inorganic) and 24 (organic) parameters. (Schedule 13-2(3) & Schedule 13-4(3) respectively).
- Discontinue testing of treated water for fluoride. (Schedule 13-9).

Schedule E: Pathogen Log Removal/Inactivation Credits

System Owner	**The United Counties of Leeds and Grenville**
Licence Number	**300-101**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule E Issue Date	**May 13th, 2016**

1.0 Primary Disinfection Pathogen Log Removal/Inactivation Credits

Bennett Street Water Works

Well S1 [GROUNDWATER]

Minimum Log Removal/ Inactivation Required	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Bennett Street Water Works	0	0	2

Log Removal/Inactivation Credits Assigned [a]	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Cartridge Filtration [5 microns]	0	0	0
UV Disinfection [40 mJ/cm2]	2	3	2

[a] Log removal/inactivation credit assignment is based on each treatment process being fully operational and the applicable log removal/inactivation credit assignment criteria being met.

Treatment Component	Log Removal/Inactivation Credit Assignment Criteria
UV Disinfection	Duty UV Sensor Checks and Calibration 1. Duty UV sensors shall be checked on at least a monthly basis against a reference UV sensor or at a frequency as otherwise recommended by the UV equipment manufacturer; 2. When comparing a duty UV sensor to a reference UV sensor, the calibration ratio (intensity measured with the duty UV sensor/intensity measured with the reference UV sensor) shall be less than or equal to 1.2; 3. If the calibration ratio is greater than 1.2, the duty UV sensor shall be replaced with a calibrated UV sensor or a UV sensor correction factor shall be applied while the problem with the UV sensor is being resolved; 4. Reference UV sensors shall be checked against a Master Reference Assembly at a minimum frequency of once every three years or on a more frequent basis depending upon the recommendations of the equipment manufacturer; Operational Requirements 5. Ultraviolet light disinfection equipment shall have a feature that ensures that no water is directed to users of water treated by the equipment or that causes an alarm to sound in the event that the equipment malfunctions, loses power or ceases to provide the appropriate level of disinfection; 6. Water shall not flow through a UV reactor when the reactor's UV lights are off or not fully energized; 7. UV lamp status shall indicate whether each UV lamp is on or off; 8. All UV sensors shall operate within their calibration range or corrective measures shall be taken; and 9. Installed or replaced UV equipment components shall be equal or better than the components used during validation testing unless the UV equipment was revalidated.
Primary Disinfection Notes	

Ontario

DRINKING WATER WORKS PERMIT

Permit Number: 300-201
Issue Number: 4

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 United Counties of Leeds and Grenville

25 Central Avenue West, Suite 200
Brockville, ON
K6V 4N6

For the following municipal residential drinking water system:

Bennett Street Drinking Water 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
Schedule D	Process Flow Diagrams

DATED at TORONTO this 16th day of February, 2017

Signature

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

Schedule A: Drinking Water System Description

System Owner	**The United Counties of Leeds and Grenville**
Permit Number	**300-201**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule A Issue Date	**February 16th, 2017**

1.0 System Description

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

Overview

The **Bennett Street Drinking Water System** servicing 15 residential units in Maples Apartments consists of one (1) groundwater well, a "Point of Entry Treatment Unit" consisting of cartridge filtration and Ultra-Violet (UV) disinfection.

Bennett Drinking Water System

Well # 1

Street Address	33 Bennett Street, Village of Spencerville, Edwardsburgh/Cardinal Township, United Counties of Leeds and Greenville, ON
UTM Coordinates	NAD 83: UTM Zone 18: 456840.00 m E, 4965990.00 m N
System Type	Groundwater
Description	150 mm x 18m deep groundwater well
Pressure Tanks	Two (2) pressure tanks
Well Pump	Submersible well pump rated at 95 L/min
Notes	

Water Treatment Plant

Type of treatment	Point of Entry Treatment Unit
Street Address	33 Bennett Street, Village of Spencerville, Edwardsburgh/Cardinal Township, United Counties of Leeds and Greenville, ON
UTM Coordinates	NAD 83: UTM Zone 18: 456840.00 m E, 4965990.00 m N
Iron Removal	Two (2) particle filter units (both duty) for iron removal
Water Softener	Water softener using potassium chloride
Cartridge Filtration system	Two (2) cartridge filter units (both duty) equipped with 5 micron filter (nominal), and a flow restrictor set at 110 L/min.
Ultraviolet (UV) disinfection system	Two (2) UV reactors each rated at 113 L/min to provide a minimum dosage of 40 mJ/cm^2 UV units with associated equipment consisting of UV intensity sensor, transmittance sensor, automatic cleaning system, flow restrictor, alarm and shut-off control
Notes	Two cartridge filters and two UV units operate in parallel

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
Not applicable	Not applicable

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 United Counties of Leeds and Grenville**
Permit Number	**300-201**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule B Issue Date	**February 16th, 2017**

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 which are:

2.3.1 Added, modified, replaced, extended; or

2.3.2 Taken out of service for inspection, repair or other activities that may lead to contamination,

shall be disinfected before being put into service in accordance with a procedure approved by the Director or in accordance with the applicable provisions of the following documents:

a) The ministry's Watermain Disinfection Procedure, effective December 15, 2016;
b) AWWA C652 – Standard for Disinfection of Water-Storage Facilities;
c) AWWA C653 – Standard for Disinfection of Water Treatment Plants; and
d) AWWA C654 – Standard for Disinfection of Wells.

2.4 The owner shall notify the Director within thirty (30) days of the placing into service or the completion of any addition, modification, replacement 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 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 For greater certainty, the notification requirements set out in condition 2.4 do not apply to any addition, modification, replacement or extension in respect of the drinking water system which:

2.5.1 Is exempt from subsection 31(1) of the SDWA by subsection 9.(2) of O. Reg. 170/03;

2.5.2 Constitutes maintenance or repair of the drinking water system; or

2.5.3 Is a watermain authorized by condition 3.1 of Schedule B of this drinking water works permit.

2.6 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.

2.7 For greater certainty, any alteration to the drinking water system made in accordance with this drinking water works permit may only be carried out after other legal obligations have been complied with including those arising from the *Environmental Assessment Act*, *Niagara Escarpment Planning and Development Act***,** *Oak Ridges Moraine Conservation Act, 2001* and *Greenbelt Act, 2005*.

3.0 Watermain Additions, Modifications, Replacements and Extensions

3.1 The drinking water system may be altered 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 Professional Engineer;

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 of the Environment and Climate Change publication “Watermain Design Criteria for Future Alterations Authorized under a Drinking Water Works Permit – June 2012”, as amended from time to time; and

d) Is consistent with or otherwise addresses the design objectives contained within the Ministry of the Environment and Climate Change 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 Professional Engineer 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 of the Environment and Climate Change, 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.

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 Raw water pumps and treatment process pumps in the treatment system;

4.1.2 Coagulant feed systems in the treatment system, including the location and number of dosing points;

4.1.3 Valves;

4.1.4 Instrumentation and controls, including SCADA systems, and software associated with these devices;

4.1.5 Filter media, backwashing equipment and under-drains in the treatment system; or,

4.1.6 Spill containment works.

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 and associated equipment;

4.2.2 Re-circulation devices within distribution system storage facilities;

4.2.3 In-line mixing equipment;

4.2.4 Chemical metering pumps and chemical handling pumps;

4.2.5 Chemical storage tanks (excluding fuel storage tanks) and associated equipment; or,

4.2.6 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 of the Environment and Climate Change.

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 Fuel storage tanks and spill containment works, and associated equipment; or

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.

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 of any unit process within a treatment subsystem;

4.4.3 A deterioration in the quality of drinking water provided to consumers;

4.4.4 A reduction in the reliability or redundancy of any component of the drinking water system;

4.4.5 A negative impact on the ability to undertake compliance and other monitoring necessary for the operation of the drinking water system; or

4.4.6 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", as published by the Ministry of the Environment and Climate Change, 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.

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 atmosphere:

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 add, modify or replace a drinking water system component set out in condition 5.1 for an activity that is not directly 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 oxide 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 populations shall not exceed the applicable point of impingement limit, and at non-sensitive populations shall not exceed the Ministry of the Environment and Climate Change half-hourly screening level of 1880 ug/m^3 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 of the Environment and Climate Change, 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 Not Applicable.

8.0 Source Protection

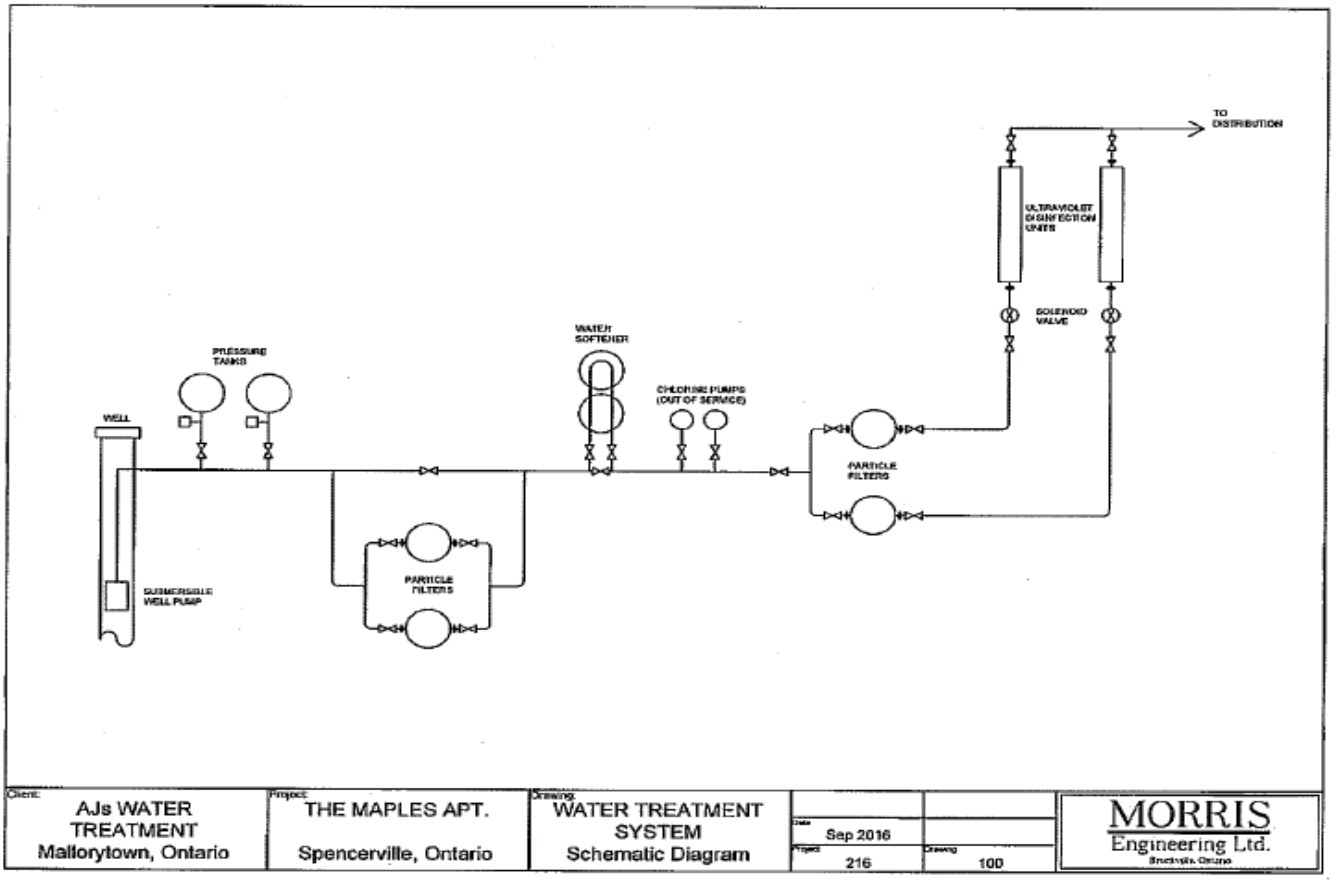
8.1 Not Applicable.

Schedule D: Process Flow Diagrams

System Owner	**The United Counties of Leeds and Grenville**
Permit Number	**300-201**
Drinking Water System Name	**Bennett Street Drinking Water System**
Schedule D Issue Date	**February 16th, 2017**

1.0 Process Flow Diagrams

Bennett Street Water Works



[Source: Supporting drawing in "Application Respecting Drinking Water Works Permit and Municipal Drinking Water Licence" dated October 24, 2016.]

APPENDIX C

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

Ontario

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 Avis de demande de services de laboratoire Avis de résultats d'analyse insatisfaisants et de règlement des problèmes	012-2149F 012-2148F 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 portable 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

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