

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

Drinking Water and Environmental
Compliance Division, Northern Region
Timmins District, North Bay Office
191 Booth Road, unit 16-17
North Bay ON P1A 4K3
Tel.: 705 497-6865
Fax: 705 497-6866

**Ministère de l'Environnement, de la Protection de
la nature et des Parcs**

Division de la conformité en matière d'eau potable
et d'environnement, Direction régionale du Nord
District de Timmins, Bureau de North Bay
191, rue Booth, Unité 16-17
North Bay ON P1A 4K3
Tél. : 705 497-6865
Téléc. : 705 497-6866

January 23, 2020

Mr. Craig Davidson
Treasurer/ Administrator
The Corporation of the Municipality of Temagami
P.O. Box 220
Temagami, Ontario
P0H 2H0

Dear Mr. Davidson:

Re: Inspection Report for the Temagami North Drinking Water System - Inspection #1-L0ALQ

On December 3, 2019, I conducted the annual inspection of the Temagami North Drinking Water System. The focused inspection included a physical assessment of the water treatment plant as well as a document review for the period of August 1, 2018 to December 3, 2019. The resulting inspection report is attached.

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 councillors, 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 "Resources" on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

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 Summary Rating Record (IRR), included as Appendix A of the inspection report, provides a summarized, quantitative measure of the drinking water system's annual inspection and regulated water quality testing performance. Please review the attached IRR methodology memo describing how the risk rating model has improved to better reflect the health related and administrative non-compliance found in the inspection report.

In accordance with the Ministry's Drinking Water Inspection Protocol, electronic copies of this report have been forwarded to the Timiskaming Health Unit and the Ministry of Natural Resources North Bay Office.

If you have any questions or comments regarding this inspection, please feel free to contact me at (705) 845-1917.

Yours truly,

A handwritten signature in black ink, reading "Lori Duquette". The signature is fluid and cursive, with a small dot at the end.

Lori Duquette
Water Inspector/Provincial Officer
Ministry of the Environment, Conservation and Parks
Drinking Water and Environmental Compliance Division
North Bay Area Office

Cc: Barry Turcotte, Municipality of Temagami, Public Works Superintendent
Victor Legault, OCWA Northeastern Region, Operations Manager
Bryce Logan, OCWA Northeastern Region, ORO Temagami North and South WTP
Rebecca Marshall, OCWA Northeastern Region, Process & Compliance Technician (PCT)
Yvan Rondeau, OCWA Northeastern Region, PCT Manager
Ryan Peters, Timiskaming Health Unit, Program Manager
Mitch Baldwin, Ministry of Natural Resources, District Manager of North Bay District Office
Sherry Ilersich, Supervisor, Safe Drinking Water Branch – Timmins/North Bay, MECP



Ministry of the Environment, Conservation and Parks

**TEMAGAMI NORTH DRINKING WATER SYSTEM
Inspection Report**

Site Number:	220000433
Inspection Number:	1-L0ALQ
Date of Inspection:	Dec 03, 2019
Inspected By:	Lori Duquette

Table of Contents

Owner & Contact Information	2
Inspection Details & Drinking Water System Components Description	3
Inspection Summary	5
▪ Introduction	5
▪ Source	5
▪ Capacity Assessment	5
▪ Treatment Processes	6
▪ Treatment Process Monitoring	7
▪ Operations Manuals	8
▪ Logbooks	8
▪ Security	8
▪ Certificate and Training	9
▪ Water Quality Monitoring	9
▪ Water Quality Assessment	10
▪ Reporting and Corrective Actions	10
Non-Compliance with Regulatory Requirements and Actions Required	12
Summary of Best Practice Issues and Recommendations	13
Signatures	14

Appendices

- A. Ministry Inspection Rating Record (IRR)
- B. Key Reference and Guidance Material for Municipal Residential DWS

OWNER INFORMATION:

Company Name:	TEMAGAMI, THE CORPORATION OF THE MUNICIPALITY OF	Unit Identifier:	P.O. Box 220
Street Number:	7		
Street Name:	LAKESHORE Dr		
City:	TEMAGAMI		
Province:	ON	Postal Code:	P0H 2H0

CONTACT INFORMATION

Type:	Owner	Name:	Craig Davidson
Phone:	(705) 569-3421	Fax:	
Email:	craig.d@temagami.ca		
Title:	Treasurer/Administrator for the Municipality of Temagami		

Type:	Owner	Name:	Barry Turcotte
Phone:	(705) 569-3272	Fax:	(705) 569-2834
Email:	publicworks@temagami.ca		
Title:	Superintendent, Public Works, Municipality of Temagami		

Type:	Operating Authority	Name:	Victor Legault
Phone:	(705) 672-5549	Fax:	(705) 672-2534
Email:	vlegault@ocwa.com		
Title:	Senior Operations Manager, OCWA		

Type:	OCWA	Name:	Bryce Logan
Phone:	(705) 648-4082	Fax:	
Email:	blogan@ocwa.com		
Title:	Overall Responsible Operator Temagami North and South, OCWA		

Type:	Operating Authority	Name:	Rebecca Marshall
Phone:	(705) 672-5549	Fax:	(705) 672-2534
Email:	rmarshall@ocwa.com		
Title:	Process and Compliance Technician - OCWA		

Type:	Health Unit	Name:	Ryan Peters
Phone:	(705) 647-4305	Fax:	(705) 647-5779
Email:	petersr@timiskaminghu.com		
Title:	Program Manager, Timiskaming Health Unit		

Type:	MECP	Name:	Sherry Ilersich
Phone:	(705) 845-1544	Fax:	(705) 497-6866
Email:	sherry.ilersich@ontario.ca		
Title:	Water Compliance Supervisor, Timmins/North Bay - Ministry of the Environment, Conservation and Parks (MECP)		

Type:	MNR North Bay District	Name:	Mitch Baldwin
Phone:	(705) 475-5550	Fax:	(705) 475-5550
Email:	mitch.baldwin@ontario.ca		

Title: District Manager, Ministry of Natural Resources and Forestry - North Bay District

INSPECTION DETAILS:

Site Name: TEMAGAMI NORTH DRINKING WATER SYSTEM
Site Address: 5 CEDAR Avenue South TEMAGAMI ON P0H 2H0
County/District: TEMAGAMI
MECP District/Area Office: North Bay Area Office
Health Unit: TIMISKAMING HEALTH UNIT
Conservation Authority:
MNR Office: North Bay Regional Office
Category: Large Municipal Residential
Site Number: 220000433
Inspection Type: Announced
Inspection Number: 1-L0ALQ
Date of Inspection: Dec 03, 2019
Date of Previous Inspection: Aug 01, 2018

COMPONENTS DESCRIPTION

Site (Name): MOE DWS Mapping
Type: DWS Mapping Point
Sub Type:

Site (Name): Net Lake
Type: Source
Sub Type: Surface Water

Comments:
 The intake facility for the Temagami North Water Treatment Plant (WTP) is located approximately 165 m off the west shore of Net Lake at 10 m below the low water level of the lake. The raw water is directed by gravity via a 222 metre 250 mm diameter intake pipe to a low lift pumping station consisting of a wet well and two submersible low lift pumps, each rated at 3.8 L/second (328 m³/day). These pumps are controlled by the system PLC (Programmable Logic Controller) and discharge to the two "BCA" water treatment package plants located within the WTP.

Site (Name): Treatment Plant
Type: Treated Water POE
Sub Type: Treatment Facility

Comments:
 The system is centred on two "BCA" Pre-Fabricated Water Treatment Plants and their associated treatment and process control components. These treatment trains, their controls and chemical dosing equipment produce filtered water which is directed to three clear wells which have a combined working volume of 259.6 m³. Further chemical treatment for disinfection and pH adjustment is undertaken as the filtered water enters the clear wells and is pumped by the high lift pumps to the distribution subsystem. The plant is equipped with an automated monitoring system which records various component operations, system flows and chemical treatment dosages. The plant operates on a distribution demand basis controlled by water level signals fed back from the water tower. All process and floor drain wastes are directed to waste sumps for pumping to the municipal sewage collection system.

Site (Name): Distribution
Type: Other
Sub Type: Other

Comments:
 Temagami North is classified as a Large Municipal Residential Drinking Water System and has 218 service connections serving an estimated population of 300 residents. The distribution system is equipped with a standpipe known as the "North Tower" which has a storage capacity of 732 m³ and assists with maintaining water pressure in

the system.

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.

Ontario Clean Water Agency (OCWA) personnel Josh Dubois, Operator accompanied Lori Duquette, Water Inspector/Provincial Officer with the Ministry of the Environment, Conservation and Parks during the inspection of the Temagami North Drinking Water System (DWS) on December 3, 2019. OCWA operates the Temagami North DWS on behalf of the municipality.

The drinking-water system inspection included a physical assessment of the treatment works on December 3, 2019 and a document review for the period from August 1, 2018 until December 3, 2019. This period is referred to as the "inspection period" in this report.

Source

- **The owner had a harmful algal bloom monitoring plan in place.**

The operating authority have a standard operating procedure relating to harmful algal bloom entitled "Responding to a Blue Green Algae Bloom" dated May 23, 2016.

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 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.**

The Licence identifies the rated capacity for the Temagami North DWS as 328 m³/day of total flow into the distribution system on any given calendar day.

A review of plant records for this inspection period indicated that the rated capacity noted above was complied with

Capacity Assessment

as the maximum flow was only exceeded during distribution flushing in July with a maximum flow rate of 332 m³/day. The next highest maximum flow rate was 308 m³/day in December 2018.

Note: Condition 1.3 of the Drinking Water Licence allows a treatment subsystem may be operated temporarily at a maximum daily volume and/or a maximum flow rate for the purposes of fighting a large fire or for the maintenance of the drinking water system.

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 owner/operating authority was not in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.**

At the time of the inspection, it was noted that the Form 2 for the upgrade to the PLC was not created until the requirement for documentation for such work identified as part of the inspection. Condition 4.0 of Drinking Water Works Permit # 201-202 identifies replacement of instrumentation and controls as a minor modification requiring the completion of a Form 2.

Failure to ensure that the required verifications and documentation is completed prior to the completion of a minor modification of the drinking water system is a violation of the Municipal Drinking Water Works Permit.

Please refer to the section entitled "Non-Compliance with Regulatory Requirements and Actions Required" located on page 12 for further information.

- **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.**

In accordance with O. Reg. 170/03, Schedule 1-2(2)3, surface water systems must consist of chemically assisted filtration and disinfection and achieve an overall performance of at least a 2-log 99% removal/inactivation of *Cryptosporidium* oocysts, a 3-log 99.9% removal/inactivation of *Giardia* cysts, and a 4-log 99.99% removal/inactivation of viruses by the time the water is delivered to the first consumer.

The Temagami North WTP is designed to achieve the above performance criteria using conventional filtration followed by chlorination for primary disinfection. The municipal drinking water licence (MDWL) identifies log removal/inactivation credits assigned to the two processes as the following:

- Conventional Filtration receives 2- log for *Cryptosporidium* oocysts, 2.5- log for *Giardia* cysts and 2- log for viruses;
- Chlorination receives 0.5+ log *Giardia* cysts and 2+ log viruses.

Note: In order to receive full log credits the treatment process must be fully operational and the credit assignment criteria met.

Chlorination

The CT calculation verified by the Ministry included the following worst-case operating conditions

- Treated water flow rate = 9.58 L/s
- Clear well level = 1.4 m
- Water temperature = 0.5 °C
- pH of water = 8.5
- minimum free chlorine residual after contact time of 0.82 mg/L

Treatment Processes

However, at the time of the inspection the following operational CT parameter values were being used to set alarms to ensure CT was met at all times:

Treated water flow rate = 19 L/s

- Clear well level = 1.75 m
- Water temperature = 0.5 °C
- pH of water = 8.0
- minimum free chlorine residual after contact time of 0.85 mg/L.

Conventional Filtration

In order to receive the full log removal credits assigned to conventional filtration the filtration process must meet the following criteria which are listed in the Municipal Drinking Water Licence No. 201-102, Issue No. 2, in Schedule E;

1. A chemical coagulant shall be used at all times when the treatment plant is in operation,
2. Chemical dosages shall be monitored and adjusted in response to variation in raw water quality,
3. Effective backwash procedures shall be maintained including filter to waste or an equivalent procedure during filter ripening to ensure that the effluent turbidity requirements are met all times,
4. Filtrate turbidity is continuously monitored from each filter, and
5. The plant is operated to meet the performance criterion for filtered water turbidity of less than or equal to 0.3 NTU in 95% of the measurements each month for each filter.

Based on a review of the continuous trends for the above noted parameters and a review of the alarm logs and CT calculations performed when operating outside of the above range, CT and the conventional filtration log removal credit requirements were met for the duration of this inspection period.

- **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.**
- **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.**

Treatment Process Monitoring

- **Primary disinfection chlorine monitoring was conducted at a location approved by Municipal Drinking Water Licence and/or Drinking Water Works Permit issued under Part V of the SDWA, or at/near a location where the intended CT has just been achieved.**
- **Continuous monitoring of each filter effluent line was being performed for turbidity.**
- **The secondary disinfectant residual was not measured as required for the distribution system.**

Subsection 7-2(3) of Schedule 7 to O. Reg. 170/03 required the owner and operating authority for the system to ensure at least seven (7) water samples were collected weekly from locations in the distribution system and tested for free chlorine residual. Additionally, the required sampling must be conducted in accordance with the rules prescribed by subsection 7-2(4) of Schedule 7 of O. Reg. 170/03. The rules stipulate the following:

- At least four (4) 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.
- At least three (3) of the samples must be taken on a second day of the week, at least 48 hours after the last sample taken on the day noted above.
- When more than one sample is taken on the same day of the week under the paragraphs noted above, each

Treatment Process Monitoring

sample must be taken from a different location.

The above noted sampling requirements were complied with during this inspection period except for one week in November 2018. During the week of November 18th to 24, 2018, four (4) samples were collected on one day (i.e. November 19), however, only two (2) sample was collected on the second day (i.e. November 21) with the last sample collected on a third day (i.e. November 23). This is a violation of subsection 7-2(3) as three (3) samples were not collected on the same day at least 48 hours after the last sample.

Please refer to the section entitled "Non-Compliance with Regulatory Requirements and Actions Required" located on page 12 for further information.

- **Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.**
- **All continuous monitoring equipment utilized for sampling and testing required by O. Reg.170/03, or Municipal Drinking Water Licence or Drinking Water Works Permit or order, were equipped with alarms or shut-off mechanisms that satisfy the standards described in Schedule 6.**

The free chlorine residual low level alarm after primary disinfection was set at 0.85 mg/L. This alarm set point immediately shutdown the plant and called the on-call staff.

The filter effluent turbidity alarm set point was set at 1.0 NTU and triggered an on-site audible alarm, filter shutdown and calls the on-call staff.

- **Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and recording data with the prescribed format.**
- **All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.**

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.**

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.**

Security

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

Current security measures provided for the Temagami North DWS include the following:

- Locked doors on all buildings (i.e. water treatment plant and water tower);
- An intruder alarm system at the water treatment plant; and

Security

- Frequent visits by operational staff.

Certification and Training

- **The overall responsible operator had been designated for each subsystem.**
Bryce Logan was the Overall Responsible Operator (ORO) for the Temagami North DWS.
- **Operators-in-charge had been designated for all subsystems which comprised the drinking water system.**
- **All operators possessed the required certification.**
- **Only certified operators made adjustments to the treatment equipment.**

Water Quality Monitoring

- **All microbiological water quality monitoring requirements for distribution samples were being met.**
Section 10-2 of Schedule 10 of O. Reg. 170/03 required the owner and operating authority for the system to ensure that at least eight (8) water samples were collected monthly from the distribution system sites (based on estimated population of 300). Samples must be tested for E.coli, total coliforms and 25% of those samples tested for general background population expressed as colony counts on a heterotrophic plate count.

Based on a review of the documentation provided during this inspection period, a minimum of two (2) samples were collected weekly from the distribution system. Of the eight to ten samples collected monthly over 25% of them were tested for HPC as required by section 10-2 of O. Reg. 170/03.
- **All microbiological water quality monitoring requirements for treated samples were being met.**
Section 10-3 of Schedule 10 of O. Reg. 170/03 required the owner and the operating authority for the system to ensure that at least one sample of treated water was collected weekly and tested for E.coli, total coliforms and general background population expressed as colony counts on a heterotrophic plate count.
- **All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**
Section 13-2 of Schedule 13 of O. Reg. 170/03 requires the owner and operating authority of the system to ensure that at least one sample of treated water was collected every 12 months and tested for every parameter set out in Schedule 23. The most recent samples were collected on October 9, 2018 and October 7, 2019.
- **All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.**
Section 13-4 of Schedule 13 of O. Reg. 170/03 requires the owner and operating authority of the system to ensure that at least one sample of treated water is collected every 12 months and tested for every parameter set out in Schedule 24. The most recent samples were collected on October 9, 2018 and October 7, 2019.
- **All haloacetic acid water quality monitoring requirements prescribed by legislation are being conducted within the required frequency and at the required location.**
- **All trihalomethane water quality monitoring requirements prescribed by legislation were conducted within the required frequency and at the required location.**
Section 13-6 of Schedule 13 of O. Reg. 170/03 requires the owner and the operating authority for the system to ensure that at least one water sample was collected every calendar quarter from points in the distribution system

Water Quality Monitoring

(including connected plumbing) likely to have an elevated potential for the formation of trihalomethanes (THM). The operating authority completed the sampling in accordance with the regulatory requirements.

During this inspection period samples for THM were collected by the operating authority on October 9, 2018, January 8, April 8, July 8 and October 7, 2019. The running annual average (RAA) for THM as of October 2019 was 47.50 µg/L.

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

Section 13-7 of Schedule 13 of O. Reg. 170/03 requires the owner and the operating authority for the system to ensure that at least one treated water sample was collected every three months and tested for nitrate and nitrite.

During this inspection period samples were collected on October 9, 2018, January 8, April 8, July 8 and October 7, 2019.

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

Section 13-8 of Schedule 13 of O. Reg. 170/03 requires the owner and the operating authority for the system to ensure that at least one treated water sample was collected every 60 months and tested for sodium. The most recent samples were collected in October 2017. Two samples were collected, the first exceeded the maximum acceptable concentration (MAC) of 20 mg/L with a result of 26.5 mg/L, and the resample was 23.7 mg/L.

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

Section 13-9 of Schedule 13 of O. Reg. 170/03 requires the owner and the operating authority for the system to ensure that at least one treated water sample was collected every 60 months and tested for fluoride. The most recent sample was collected on October 10, 2017.

- **Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.**

Water Quality Assessment

- **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).**

During this inspection period, the Temagami North DWS had one exceedance of the total coliform (TC of 1) in a treated water sample collected on November 12, 2019. The maximum acceptable concentration for total coliforms is zero. Corrective action was taken and resamples came back with no total coliforms present.

Reporting & Corrective Actions

- **Corrective actions (as per Schedule 17) had been taken to address adverse conditions, including any other steps that were directed by the Medical Officer of Health.**

During this inspection period, the operating authority of the system reported one (1) adverse water quality incident (AWQI) to the Medical Officer of Health (MOH) and the Ministry. A total coliform count of one (1) was detected in the treated water sample collected at the Temagami North WTP on November 12, 2019. The appropriate number of resamples were collected and all requirements of the health unit were followed. All of the resamples came back with no total coliforms present.

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

Reporting & Corrective Actions

- Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.

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.

1. The owner/operating authority was not in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.

At the time of the inspection, it was noted that the Form 2 for the upgrade to the PLC was not created until the requirement for a documentation for such work identified as part of the inspection. Condition 4.0 of Drinking Water Works Permit # 201-202 identifies replacement of instrumentation and controls as a minor modification requiring the completion of a Form 2.

Action(s) Required:

The owner and operating authority must ensure that minor modifications to the drinking water system are verified and documented in accordance with condition 4.0 of Schedule B of Drinking Water Works Permit No. 201-202.

No further action is required at this time as the operating authority created a Form 2 for the PLC upgrade on December 18, 2019.

2. The secondary disinfectant residual was not measured as required for the distribution system.

Subsection 7-2(3) of Schedule 7 to O. Reg. 170/03 required the owner and operating authority for the system to ensure at least seven (7) water samples were collected weekly from locations in the distribution system and tested for free chlorine residual. Additionally, the required sampling must be conducted in accordance with the rules prescribed by subsection 7-2(4) of Schedule 7 of O. Reg. 170/03. The rules stipulate the following:

- At least four (4) 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.
- At least three (3) of the samples must be taken on a second day of the week, at least 48 hours after the last sample taken on the day noted above.
- When more than one sample is taken on the same day of the week under the paragraphs noted above, each sample must be taken from a different location.

The above noted sampling requirements were complied with during this inspection period except for one week in November 2018. During the week of November 18th to 24, 2018, four (4) samples were collected on one day (i.e. November 19), however, only two (2) sample was collected on the second day (i.e. November 21) with the last sample collected on a third day (i.e. November 23).

Action(s) Required:

No further action is required for this non-compliance item since on December 17, 2019, the operating authority provided training to all operational staff working at the Temagami North DWS on the secondary disinfection monitoring requirements identified in subsection 7-2(3) of schedule 7 to O. Reg. 170/03.

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:

Lori Duquette

Signature: (Provincial Officer)

Lori Duquette

Reviewed & Approved By:

Sherry Ilersich

Signature: (Supervisor)

Sherry A Ilersich

Review & Approval Date:

January 23, 2020

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 (IRR)

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2019-2020)

DWS Name: TEMAGAMI NORTH DRINKING WATER SYSTEM
DWS Number: 220000433
DWS Owner: Temagami, The Corporation Of The Municipality Of
Municipal Location: Temagami

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Focused
Inspection Date: December 3, 2019
Ministry Office: North Bay Area Office

Maximum Question Rating: 506

Inspection Module	Non-Compliance Rating
Capacity Assessment	0 / 30
Treatment Processes	4 / 81
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 42
Water Quality Monitoring	0 / 112
Reporting & Corrective Actions	0 / 66
Treatment Process Monitoring	21 / 133
TOTAL	25 / 506

Inspection Risk Rating 4.94%

FINAL INSPECTION RATING: 95.06%

Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2019-2020)

DWS Name:	TEMAGAMI NORTH DRINKING WATER SYSTEM
DWS Number:	220000433
DWS Owner:	Temagami, The Corporation Of The Municipality Of
Municipal Location:	Temagami
Regulation:	O.REG 170/03
Category:	Large Municipal Residential System
Type Of Inspection:	Focused
Inspection Date:	December 3, 2019
Ministry Office:	North Bay Area Office

Non-compliant Question(s)	Question Rating
Treatment Process Monitoring	
Is the secondary disinfectant residual measured as required for the distribution system?	21
Treatment Processes	
Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 2 documents were prepared in accordance with their Drinking Water Works Permit?	4
TOTAL QUESTION RATING	25

Maximum Question Rating: 506

Inspection Risk Rating	4.94%
-------------------------------	--------------

FINAL INSPECTION RATING:	95.06%
---------------------------------	---------------

APPENDIX B

KEY REFERENCE AND GUIDANCE MATERIAL FOR STAKEHOLDERS

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