

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

Drinking Water and Environmental  
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**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  
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January 24, 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 South Drinking Water System - Inspection #1-L0AMI

On December 17, 2019, I conducted the annual inspection of the Temagami South 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 December 1, 2018 to December 17, 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](http://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 cursive script, reading "Lori Duquette". The signature is written in black ink and is positioned above the printed name.

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, Water Compliance Supervisor – Timmins/North Bay, MECP



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

**TEMAGAMI SOUTH DRINKING WATER SYSTEM  
Inspection Report**

<b>Site Number:</b>	220000424
<b>Inspection Number:</b>	1-L0AMI
<b>Date of Inspection:</b>	Dec 17, 2019
<b>Inspected By:</b>	Lori Duquette

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

## OWNER INFORMATION:

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

## CONTACT INFORMATION

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

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

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

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

<b>Type:</b>	OCWA	<b>Name:</b>	Rebecca Marshall
<b>Phone:</b>	(705) 648-4267	<b>Fax:</b>	(705) 567-7974
<b>Email:</b>	rmarshall@ocwa.com		
<b>Title:</b>	Process & Compliance Technician		

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

<b>Type:</b>	Timiskaming Health Unit	<b>Name:</b>	Ryan Peters
<b>Phone:</b>	(705) 647-4305 x2250	<b>Fax:</b>	(705) 647-5779
<b>Email:</b>	petersr@timiskaminghu.com		
<b>Title:</b>	Program Manager, Timiskaming Health Unit		

<b>Type:</b>	MNRF North Bay District	<b>Name:</b>	Mitch Baldwin
<b>Phone:</b>	(705) 475-5550	<b>Fax:</b>	(705) 475-5500
<b>Email:</b>	mitch.baldwin@ontario.ca		

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

## INSPECTION DETAILS:

**Site Name:** TEMAGAMI SOUTH DRINKING WATER SYSTEM  
**Site Address:** 39 LAKESHORE Drive East 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:** 220000424  
**Inspection Type:** Announced  
**Inspection Number:** 1-L0AMI  
**Date of Inspection:** Dec 17, 2019  
**Date of Previous Inspection:** Dec 06, 2018

## COMPONENTS DESCRIPTION

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

**Site (Name):** Lake Temagami  
**Type:** Source  
**Sub Type:** Surface Water

**Comments:**  
 The Temagami South Water Treatment Plant (WTP) draws its raw water from Lake Temagami through a 1524 mm diameter by 1220 mm high intake structure located on the lake bottom at a depth of 5.7 m. The intake pipe is 200 mm in diameter, 20 m long and directs water by gravity to a low lift pumping station consisting of a wet well and two submersible low lift pumps, each rated at 11 L/s (950 m<sup>3</sup>/day). These pumps are controlled by the treatments system PLC and discharge to the two package plants located within the WTP.

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

**Comments:**  
 The upgrade design of the Temagami South WTP consists of two (2) pre-fabricated treatment trains. The treatment is centred on a BCA Pre-Fabricated package treatment plant and upgrades to the already existing Neptune Microfloc "Trident" package treatment plant, along with their associated treatment and process control components. The plants and their respective control and chemical dosing equipment, direct filtered water to two (2) clear wells having a combined working volume of 280.68 m<sup>3</sup>. Further chemical treatment for disinfection and pH adjustment is undertaken as the filtered water enters the clear wells and as it 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 flow rates and chemical treatment dosages. The plants operate on a distribution demand basis controlled by water level signals fed back from the storage standpipe. All process and floor drain wastes are directed to waste sumps for pumping to the municipal sanitary collection system.

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

**Comments:**  
 The drinking water system (DWS) supplying water to Temagami South is classified as a large municipal residential

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DWS and has 182 service connections serving an estimated population of 350 residents. The distribution system is equipped with an elevated storage reservoir known as the "South Tower" which has a working storage capacity of 570 m<sup>3</sup> and assists with maintaining water pressure in the system.

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## 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 Rebecca Marshall, Process and Compliance Technician and Bryce Logan, Senior Operator and Overall Responsible Operator (ORO) for the Temagami South Drinking Water System (DWS) accompanied Lori Duquette, Water Inspector/Provincial Officer with the Ministry of the Environment, Conservation and Parks during the inspection of the Temagami North DWS on December 17, 2019. OCWA operates the Temagami South DWS on behalf of the municipality.

The drinking-water system inspection included a physical assessment of the treatment works on December 17, 2019 and a document review for the period from December 1, 2018 until December 17, 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 South DWS as 950 m<sup>3</sup>/day of total flow into the distribution system on any given calendar day.



### Capacity Assessment

A review of plant records for this inspection period indicated that the rated capacity noted above was complied with. The maximum daily flow into the distribution system was 302 m<sup>3</sup>/day in July 2019.

### 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 # 201-201 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 11 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 South 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 = 11 L/s
- Clear well level = 1.5 m
- Water temperature = 0.5 °C
- pH of water = 8.0
- minimum free chlorine residual after contact time of 0.90 mg/L

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 = 20 L/s
- Clear well level = 2.2 m
- Water temperature = 3.0 °C

### Treatment Processes

- pH of water = 7.8
- minimum free chlorine residual after contact time of 1.0 mg/L

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 was met for the duration of this inspection period.

#### 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 filter effluent turbidity trends and operational information provided, for the duration of this inspection period, the above noted conventional filtration criteria were met.

- **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.**

It is recommended that the operating authority keep a copy of the ministry's procedure "Water Disinfection Procedure, effective January 25, 2017" on-site at the WTP to ensure the operators have access to it if needed.

### 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 measured as required for the distribution system.**
- **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.**

Subsection 6-5(1)5 of Schedule 6 to O. Reg. 170/03 requires continuous monitoring equipment to be designed and operated such that either an alarm must sound immediately at the location where the equipment conducts tests and

### Treatment Process Monitoring

at a location where a person is present, if a person is not always present at the location where the equipment conducts tests or ensure that no water is directed to users, if the equipment malfunctions or loses power or a test result for a parameter is above or below the alarm standard.

The free chlorine residual low level alarm after primary disinfection was set at 1.0 mg/L. This alarm set point immediately shutdown the plant and called the on-call staff.

Additionally, the filter effluent turbidity alarm set point was set at 1.0 NTU and triggers an automatic BCA plant shutdown and call the on-call staff. The filter is also set to filter to waste if filter effluent turbidity goes above 0.70 NTU and continue until the value goes below 0.30 NTU .

- **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 South 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
- 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 South 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.**

## Certification and Training

### 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 requires the owner and operating authority for the system to ensure that at least eight water samples were collected monthly from distribution system sites (based on estimated population of 350). 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 the operating authority for 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. During this inspection period, samples were collected on 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 the operating authority for 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 24. During this inspection period, samples were collected on 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.**

Section 13-6.1 of Schedule 13 to O. Reg. 170/03 requires the owner and operating authority for the system to ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of haloacetic acids (HAA), and have them tested for HAA.

During this inspection period samples for HAA were collected by the operating authority on January 8, April 8, July 8 and October 7, 2019.

- **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 (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 January 8, April 8, July 8 and October 7, 2019. The running annual average (RAA) for THM as of October 2018 was 48.7 µg/L.

### Water Quality Monitoring

- **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 authority on 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 sample was collected on October 10, 2017 with a sample result of 23.1 mg/L. A resample was collected on October 18, 2017 19.4 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 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).**

### 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.**

### Other Inspection Findings

- **The following issues were also noted during the inspection:**

At the time of the inspection, it was noted that when dealing with a problem with the chlorination system, the operators have lowered the free chlorine residual alarm set point after completing a CT calculation to ensure CT was met to allow water to be distributed.

Please refer to the section entitled "Summary of Recommendations and Best Practice Issues" located on page 12 of this report.

## 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 # 201-201 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. 201-201.

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

## 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.

**1. The following issues were also noted during the inspection:**

At the time of the inspection, it was noted that when dealing with a problem with the chlorination system, the operators have lowered the free chlorine residual alarm set point after completing a CT calculation to ensure CT was met to allow water to be distributed.

**Recommendation:**

It is recommended that if the operator plans to lower the free chlorine alarm set point that they first complete a second CT calculation verifying that CT would continue to be met if the flow rate, pH and clearwell level were to reach their alarm set point. Additionally, the logbook should contain not only information on when the alarm set point was lowered but also when it was restored (i.e. date/time and set point value) and a copy of the CT verification using alarm set points for flow, pH, clearwell level with the temporary lower free chlorine residual alarm value.

It is also recommended that a standard operating procedure be developed relating to adjusting the free chlorine residual alarm to ensure that the action and records noted above are taken in the future.

## SIGNATURES

Inspected By:

Lori Duquette

Signature: (Provincial Officer)



Reviewed & Approved By:

Sherry Ilersich

Signature: (Supervisor)



Review & Approval Date:

January 24, 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 SOUTH DRINKING WATER SYSTEM  
**DWS Number:** 220000424  
**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 17, 2019  
**Ministry Office:** North Bay Area Office

**Maximum Question Rating:** 461

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 / 21
Treatment Process Monitoring	0 / 133
<b>TOTAL</b>	<b>4 / 461</b>

**Inspection Risk Rating** 0.87%

**FINAL INSPECTION RATING:** 99.13%

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

<b>DWS Name:</b>	TEMAGAMI SOUTH DRINKING WATER SYSTEM
<b>DWS Number:</b>	220000424
<b>DWS Owner:</b>	Temagami, The Corporation Of The Municipality Of
<b>Municipal Location:</b>	Temagami
<b>Regulation:</b>	O.REG 170/03
<b>Category:</b>	Large Municipal Residential System
<b>Type Of Inspection:</b>	Focused
<b>Inspection Date:</b>	December 17, 2019
<b>Ministry Office:</b>	North Bay Area Office

Non-compliant Question(s)	Question Rating
<b>Treatment Processes</b>	
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
<b>TOTAL QUESTION RATING</b>	4

Maximum Question Rating: 461

Inspection Risk Rating	0.87%
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<b>FINAL INSPECTION RATING:</b>	<b>99.13%</b>
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## **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](mailto:waterforms@ontario.ca).

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)



PUBLICATION TITLE	PUBLICATION NUMBER
<b>FORMS:</b> 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](mailto: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](http://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