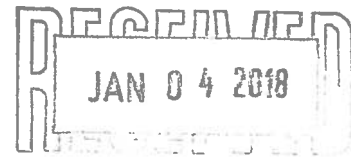


11417

**From:** Rebecca Marshall <RMarshall@ocwa.com>  
**Sent:** Thursday, January 4, 2018 3:00 PM  
**To:** Elaine Gunnell; Roxanne St. Germain  
**Cc:** Rebecca Marshall; Victor Legault; Claude Mongrain; Eric Nielson; Yvan Rondeau  
**Subject:** Temagami Management Review  
**Attachments:** Temagami DWS's - 2017 Management Review Meeting Minutes.pdf



Good Afternoon,

Please find attached for your records: Minutes for the Temagami DWS Management Review Meeting held on December 8, 2017.

The Management Review Meeting is a formal (documented) meeting conducted at least once every 12 months by OCWA's Top Management to evaluate the continuing suitability, adequacy and effectiveness of OCWA's Quality & Environmental Management System (QEMS).

Please review and let me know if you have any questions or concerns. No other actions are required at this time.

Regards,

**Rebecca Marshall** | Process and Compliance Technician | North Eastern Ontario Hub | Ontario Clean Water Agency | Tel: 705-648-4267 | Fax: 705-567-7974 | Email: [marshall@ocwa.com](mailto:marshall@ocwa.com)

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Public Wks ☒ S ☐ C  
PPP ☐  
Social Services ☐  
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**Temagami North & South Drinking Water Systems  
Management Review Meeting - Minutes**

<b>Date :</b>	December 8, 2017
<b>Time:</b>	8:00 am
<b>Location:</b>	Kirkland Lake Compliance Office
<b>Participants:</b>	Vic Legault, Senior Operations Manager; Yvan Rondeau, Safety, Process and Compliance Manager; Ed Hillman, Instrumentation Foreman; Claude Mongrain, ORO/Operator; Rebecca Marshall, Process and Compliance Technician
<b>Previous Review:</b>	December 6, 2016
<b>Review Timeframe:</b>	November 1, 2016 to October 31, 2017

**Acceptance of Agenda**

- Completed via email prior to the Management Review meeting

**Standing Review Items**

**1. Incidents of Regulatory Non-compliance** *(Discussion Lead - PCT)*

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**Temagami North MOE Inspection** - The most recent MOECC report is for the inspection conducted on December 5, 2016 by Lori Duquette. The inspection was announced and detailed and the system received a rating of 89.47%. There were 6 non-compliance items and 1 recommendation identified in the report.

*See Appendix A for report details.*

- **Item 1** has been resolved: the low lift pumps have been throttled back so that the peak flow rate is not exceeded and the Permit to Take Water now allows for exceedances on pump start up that last less than five minutes.
- **Item 2** resolved by Municipality.
- **Item 3** has been resolved: operators are documenting changes in the log book and putting a magnetic sign on the door when they make changes so that when they leave they are reminded to change the set points back if not already done.
- **Item 4, 5 and 6:** all resolved prior to the issuance of the report.
- **Recommendation 1:** a maintenance schedule will be implemented using OCWA's Workplace Management System to ensure that the tower is inspected every five years.

**Temagami South DWS Moe Inspection** - The most recent MOECC report is for the inspection conducted on December 5, 2016 by Lori Duquette. The inspection was announced and detailed and the system received a rating of 94.59%. There were 3 non-compliance items and 2 recommendations identified in the report.

*See Appendix A for report details.*

- **Item 1, 2 & 3:** all resolved prior to the issuance of the report.
- **Recommendation 1:** a maintenance schedule will be implemented using OCWA's Workplace Management System to ensure that the tower is inspected every five years.
- **Recommendation 2:** The clearwell vent screens need to be replaced with non-corrodible #24 mesh screens (0.70 mm) and a maintenance inspection schedule will be implemented using OCWA's Workplace Management System. This was noted by the inspector again during the 2017 inspection.

*Unannounced, focused MOECC inspections, of the Temagami North and South drinking water systems, were conducted on November 23, 2017 by Lori Duquette. The reports have not yet been issued.*

## **2. Incidents of Adverse Drinking Water Tests** *(Discussion Lead - PCT)*

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### **Temagami North DWS**

- **AWQI# 137330** - Sodium adverse result of 26.5 mg/L (limit = 20 mg/L) collected from a POE sample on October 10th. MOECC SAC and MOH were notified. Resample collected on October 18th (Na result = 23.7 mg/L).

### **Temagami South DWS**

- **AWQI# 137332** - Sodium adverse result of 23.1 mg/L (limit = 20 mg/L) collected from a POE sample on October 10, 2017. MOECC SAC and MOH were notified. Resample collected on October 18th (Na result = 19.4 mg/L).
- **AWQI# 137009** - On October 2, 2017 the turbidity meter for filter #2 stopped working at approximately 10:00. The analyzer was repaired and put back into service at approximately 15:00 on Oct.2/.17. The turbidity was not measured during this time. Water was directed to users from 10:04 to 11:00 and from 12:53 to 13:34 during the time frame that the turbidity analyzer was not working. The meter was not programmed to alarm if the bulb burnt out so the operator didn't discover the issue until checking the trends. The analyzer will now alarm if the bulb burns out.

## **3. Deviations from Critical Control Limits and Response Actions** *(Discussion Lead - PCT)*

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Maximo data for Temagami North and South WTP's was reviewed from November 1, 2016 to October 31, 2017

**Temagami North Drinking Water System Critical Control Limits (CCLs) include:**

1. **Filtration Process:** Turbidity off the filters – 1.0 NTU (high)
  - Turbidity off the filters deviated from the CCL throughout the year but none of these incidents resulted in an AWQI. They typically occurred momentarily after a backwash.

2. Primary Disinfection: Treated free chlorine residual -  $\geq 0.85$  mg/L (low) and 3.5 mg/L (high)
  - No deviations
3. Secondary Disinfection: Distribution free chlorine residual – 0.05 mg/L (low) and 4.0 mg/L (high)
  - No deviations

**Temagami South Drinking Water System Critical Control Limits (CCLs) include:**

1. Filtration Process: Turbidity off the filters – 1.0 NTU (high)
  - **October 2, 2017:** See AWQI# 137009 in previous section
  - There were other occasions when turbidity off the filters deviated from the CCL throughout the year but none of these incidents resulted in an AWQI. They typically occurred momentarily after a backwash.
2. Primary Disinfection: Treated free chlorine residual -  $\geq 1.0$  mg/L (low) and 3.5 mg/L (high)
  - **February 2:** Chlorine dipped to 1.0 mg/L but the plant was not running. The operator performed a CT calc and CT was met. Once the plant started running the chlorine was at 1.03 mg/L.
  - **February 27:** Chlorine dipped to 0.99 mg/L but the plant was not running. CT Calc completed and CT met
  - **June 9:** Chlorine dipped to 0.96mg/L. Operator found a small pin hole on the hypo line. Operator replaced the line and increased the hypo. Plant was not running during this time.
  - **July 17:** Chlorine dipped to 0.82 mg/L for less than 2 minutes and then was back to normal by the time the operator arrived. The operator performed a CT calc completed and CT was met. caused by analyzer blip, plant off.
  - **September 14:** Chlorine dipped to 0.94 mg/L for approximately 3 minutes and then went back up to 1.26 mg/L; caused by analyzer blip, plant off. CT met.
  - **September 16:** Chlorine dipped to 0.88 mg/L for approximately 3 minutes and then went back up to 1.38 mg/L; caused by analyzer blip, plant off. CT met.

*Note: the issue with the chlorine analyzer is being addressed*

3. Secondary Disinfection: Distribution free chlorine residual – 0.05 mg/L (low) and 4.0 mg/L (high)
  - No deviations

#### **4. Effectiveness of the Risk Assessment Process (Discussion Lead - PCT)**

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The Risk Assessment Procedure and Outcomes review was completed on October 23, 2017 during the internal audit and the information remains valid. No updates were required but the review still needs to be captured in the spreadsheet.

- The only Critical Control Points identified are the mandatory filtration process and the primary and secondary disinfection free chlorine residuals. Treated flow, clearwell level and pH will be added as CCP's during the next revision.
- The Risk Assessment Outcomes will be reviewed and redone in 2018 according to version 2 of the DWQMS

## **5. Internal Audit Results** *(Discussion Lead - PCT)*

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The most recent internal audit of the Temiskaming Shores Drinking Water Systems was conducted on October 23, 2017. Six Opportunities for Improvement (OFI) were identified during the audit which will be addressed in the next revision of the Operational Plan.

*See Appendix B for Summary of Findings for details*

## **6. Third Party Audit Results** *(Discussion Lead - PCT)*

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On August 2, 2017 SAI Global performed a surveillance audit of the Temagami Drinking Water Quality Management System; there were five Opportunities for Improvement (OFI) identified during the audit.

*See Appendix B for Summary of Findings for details*

## **7. Results of Emergency Response Testing** *(Discussion Lead - PCT)*

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The Contingency Plan for "Loss of Service" was tested and reviewed on October 11, 2017. A fictional scenario was used in which there was a power outage, the backup generator quit and no high lifts resulted in a complete loss of pressure.

- SOP's reviewed during test: Low Pressure in the Distribution System and Water Supply Shortage. No updates are currently required to the procedures.
- Loss of Pressure Incident and AWQI reports were completed by all participants.

## **8. Operational Performance** *(Discussion Lead – Senior Operations Manager)*

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Both plants generally run fairly well but equipment is getting old and there is a need for redundancy at the Temagami South water treatment plant.

The filter turbidity analyzers are an older model and in the colder weather they read higher because of the condensation. This can cause turbidity readings to be higher than 0.3 NTU which can affect the plants filter efficiency percentage and result in a non-compliance if the turbidity is not less than 0.3 NTU for 95% of the month.

The Temagami South water treatment plant only has one filter working on the new plant and the old plant is not a reliable back up; it hasn't been run in years, is difficult to start up and it must be run manually at all times. OCWA recommends that the old plant be replaced as soon as possible

## **9. Raw Water Supply and Drinking Water Quality Trends** *(Discussion Lead - PCT)*

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The raw water quality for both the Temagami North and South WTP's fluctuates seasonally, which is typical of surface water. The annual average values for operational tests (pH, alkalinity, colour, turbidity, temperature, etc) have not changed significantly over the past years.

## **10. Status of Action Items from Previous Management Reviews** *(Discussion Lead - PCT)*

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There were no action items from the previous Management Review meeting.

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**11. Status of Management Action Items Identified Between Reviews** *(Discussion Lead – PCT)*

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The only action items identified between reviews were the non-compliance items from the MOECC inspections which have all been addressed and/or resolved.

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**12. Changes that Could Affect the QEMS** *(Discussion Lead – PCT)*

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Version 2 of the DWQMS has been released and must be implemented by January 2019. OCWA's Compliance department is revising the Operational Plan template which will incorporate the new requirements.

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**13. Consumer Feedback** *(Discussion Lead - PCT)*

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There have not been any complaints for either system during the review period.

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**14. Resources Needed to Maintain QMS** *(Discussion Lead -PCT)*

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Currently no additional resources are needed.

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**15. Results of the Infrastructure Review** *(Discussion Lead – Senior Operations Manager)*

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**Temagami North DWS**

<b>Proposed Expenditure</b>	<b>Status</b>
Clearwell inspection and cleaning if required (should be done every 5 years)	Deferred to 2018
Submersible Pump – to supply flow to the plant when the high lift pumps are unavailable	Deferred to 2018
Inspection of Plant Intake Structure (CWWF)	To be done in the spring
Ultrasonic level measurement device for the chemical tanks (process optimization) (CWWF)	Ready to install
Emergency Generator – load test (prescribed in CSA guidelines)	Completed
Chlorination system at the tower (low residuals in parts of the system – MOECC concerned)	Deferred to 2018
Replace Turbidity Meters (current meters are failing: compliance issue)	Deferred to 2018
Relocation of Post pH adjustment & Installation of pH meter (improve operation monitoring)	Deferred to 2018
Chemical Pump parts (repairs and maintenance)	Deferred to 2018
Installation of a SCADA system (improve operation, control, monitoring and reporting)	On hold
Generator – Annual Service	Completed

### Temagami South DWS

Proposed Expenditure	Status
Replace Emergency Generator (CWWF)	In progress
Inspection of Plant Intake Structure (CWWF)	Completed
Ultrasonic level measurement device for the chemical tanks (process optimization)	Ready to install
Relocation of Post pH adjustment & Installation of pH meter (improve operation monitoring)	Deferred to 2018
Chemical Pump parts (repairs and maintenance)	Deferred to 2018
Installation of a SCADA system (improve operation, control, monitoring and reporting)	On hold
Generator – Annual Service	No longer needed

#### 16. Operational Plan Currency *(Discussion Lead - PCT)*

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The plan was last updated on June 19, 2017 (Revision 7) and it will be updated again in 2018 when the new corporate template is issued.

- Any issues or recommendations identified during previous audits and this Management Review meeting will also be considered in the next update.

#### 17. Staff Suggestions

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- Replace turbidity analyzers
- Replace the old plant
- Continue to improve communication between OCWA and the Municipality

#### Acceptance of Minutes of Management Review Meeting and Adjournment

## Appendix A

### MOECC Inspection Findings



## 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 was not in compliance with all conditions of the PTTW.

As part of this inspection the raw water flow data for this inspection period was reviewed to assess compliance with the Permit to Take Water (PTTW) limits. PTTW No. 7317-8PBM2Z identified a 'per minute' limit of 456 L/min (i.e. 7.6 L/s) and 'per day' limit of 460,000 L/day (460 m<sup>3</sup>/day) from Net Lake.

Based on a review of the documentation provided (i.e. trends and summary reports), for the duration of this inspection period the daily flow limit was met, however, the 'per minute' flow rate limit was exceeded on pump start up during 12 of the 14 months included in this inspection period with flow exceedances ranging from 463 L/min to 900 L/min. The average raw water flow rate ranged from 372 L/min to 420 L/min.

It should be noted that in 2011 the PTTW was amended to increase the 'per minute' limit from 315 L/min to 456 L/min. at the request of the operating authority as the instantaneous flow rate exceeded the limit on pump start up. However, it appears that over the years the raw water pumping rate has increased to just below the new limit and the instantaneous rates are once again exceeding the limit.

Failure to comply with the water taking limit in a PTTW is a violation of section 34 of the Ontario Water Resources Act (OWRA).

#### Action(s) Required:

By no later than March 20, 2017, the owner/operating authority shall provide written documentation to Lori Duquette, Water Inspector, Ministry of the Environment and Climate Change, North Bay Office identifying whether the raw water pump flow rate will be reduced to ensure compliance with the limit or if an application will be submitted to the Ministry to have the 'per minute' flow rate limit amended to permit a higher instantaneous rate.

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

At the time of the inspection, a copy of the Form 1 for the Spruce Drive reconstruction watermain replacement project completed during the summer 2016 was requested. On February 24, 2017, it was indicated that the Form 1 had not been completed prior to the watermain replacement being put into service. The Form 1 was signed off by both the Professional Engineer and the municipality on February 24, 2017.

Failure to complete the required Form 1 required for watermain additions, modifications, replacements and extensions before placing the watermain into service is a violation of condition 3.3 of the Drinking Water Works Permit (DWWP).

#### Action(s) Required:

By no later than April 7, 2017, the municipality shall create a written standard operating procedure with relation to Distribution System Projects which at a minimum includes:

- Guidance for determining when a distribution system project will require the completion of a Form 1 in accordance with the requirements of Section 3.0 of the DWWP and when a formal application would be required to be submitted to the Ministry for Approval.
- Steps to be taken by the municipality to ensure that Form 1s are completed prior to a watermain addition, modification, replacement or extension being put into service.
- A tracking number/system to track all Form 1s and a list of watermain projects describing if the project was exempt

from approval, covered under a Form 1 or covered under a Schedule C application.

- Record storage/retention system to ensure that all Form 1s are kept for the required 10 year period.

**3 Records did not 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 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.

The performance requirements for conventional filtration of item five (5) noted above was not met during the month of August 2016 as the filter effluent turbidity for filter # 2 was below 0.30 NTU for 87.43% of the month. Therefore, for the month of August only the disinfection system received full log removal credits. For this reason, at the beginning of September 2016 OCWA contacted the ministry and MOH to indicate that improperly disinfected water may have been distributed due to problems with the filter.

Failure to ensure that the treatment equipment is operated in a manner to achieve the design capabilities required under O. Reg. 170/03 is a violation of Schedule 2.

**Action(s) Required:**

By no later than April 7, 2017, the owner/operating authority shall provide written documentation to Lori Duquette, Water Inspector, Ministry of the Environment and Climate Change, North Bay Office identifying the actions that will be taken to ensure the following:

- That in all instances when an alarm or plant set point are changed temporarily for maintenance work that it will be reset prior to the operator leaving the site.
- Changes to alarms and set points be documented in an easily accessible location along with the date, reason and name of the operator who made the adjustment. Logs should also contain information on when an alarm or plant set point was returned to normal setting and what the value is as well.

**4 All operators did not possess the required certification.**

For the period of two days during this inspection period, an operator who's licenced had expired made adjustments to treatment equipment. On April 5, 2016, the operating authority notified the ministry that one of their water treatment plant operator certification had lapsed and that on April 1 and 4, 2016, he had performed operator duties at the Temagami North WTP before receiving a written notice from the Ontario Water and Wastewater Consortium indicating that his licence had not been renewed due to missing training hours. On April 5, 2016, the operating authority also indicated that until such time as his WT operator licence was renewed he would not be performing operational duties at the WTP.

Note: It should be noted that the operator also had a water distribution licence which permitted him to conduct sampling and operational duties in the distribution system.

**Action(s) Required:**

No further action is required for this non-compliance item, as the operating authority ensured that the operator did not perform any operational duties in the WTP until his licence was renewed on April 26, 2016.

**5 Adjustments to the treatment equipment were not made only by certified operators.**

As previously noted, an operator's WT certificate had expired and the operator continued to performed operational duties at the WTP for two day before realizing that his licence was not renewed.

**Action(s) Required:**

No further action is required for this non-compliance item, as the operating authority ensured that the operator did not perform any operational duties in the WTP until his licence was renewed on April 26, 2016.

**6 All changes to the system registration information were not provided within ten (10) days of the change.**

At the time of the inspection, it was noted that the operating authority contact still contained the contact information for the OCWA Operations Manager who retired at the beginning of November 2016. Therefore, the system registration information was not updated within 10 days of a change as required by O. Reg. 170/03.

**Action(s) Required:**

No further action is required for this item, since an updated profile was submitted to the Ministry on December 7, 2016.

## 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 owner did not have a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.**  
At the time of the inspection, it was indicated that the water tower had been inspected and cleaned in 2014 and that there is presently no schedule for routine cleanout and inspection of the reservoir.

### **Recommendation:**

It is recommended that a maintenance schedule which includes routine inspections of the water tower be developed and implemented to maintain the integrity of the tower and ensure it continued fit state of repair.

## 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 All operators did not possess the required certification.

For the period of one day during this inspection period, an operator who's licenced had expired made adjustments to treatment equipment. On April 5, 2016, the operating authority notified the ministry that one of their water treatment plant operator certificate had lapsed and that on April 4, 2016, he had performed operator duties at the Temagami South WTP before receiving a written notice from the Ontario Water and Wastewater Consortium indicating that his licence had not been renewed due to missing training hours. On April 5, 2016, the operating authority also indicated that until such time as his WT operator licence was renewed he would not be performing operational duties at the WTP.

Note: It should be noted that the operator also had a water distribution licence which permitted him to conduct sampling and operational duties in the distribution system.

#### Action(s) Required:

No further action is required for this non-compliance item, as the operating authority ensured that the operator did not perform any operational duties in the WTP until his licence was renewed on April 26, 2016.

### 2 Adjustments to the treatment equipment were not made only by certified operators.

As previously noted, an operator's WT certificate had expired and the operator continued to performed operational duties at the WTP for one day before realizing that his licence was not renewed.

#### Action(s) Required:

No further action is required for this non-compliance item, as the operating authority ensured that the operator did not perform any operational duties in the WTP until his licence was renewed on April 26, 2016.

### 3 All changes to the system registration information were not provided within ten (10) days of the change.

At the time of the inspection, it was noted that the DWS profile was not up-to-date as it contained the contact information for the previous OCWA Operations Manager who retired in November 2016.

#### Action(s) Required:

No further action is required for this item, since an updated profile was submitted to the Ministry on December 7, 2016.

## 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 owner did not have a program or maintained a schedule for routine cleanout, inspection and maintenance of reservoirs and elevated storage tanks within the distribution system.**

At the time of the inspection, it was indicated that the water tower had been inspected and cleaned in 2014 and that there is presently no schedule for routine cleanout and inspection of the reservoir.

**Recommendation:**

It is recommended that a maintenance schedule which includes routine inspections of the water tower be developed and implemented to maintain the integrity of the tower and ensure it continued fit state of repair.

**2. Air vents and overflows associated with reservoirs and elevated storage structures were not equipped with screens.**

At the time of the inspection, the clearwell vents were equipped with screens; however, the screens were corroded and crumbled upon examination. Additionally, the mesh size for the screens was too large, as it would still allow insects to enter the vent.

It was also noted that the operating authority did not have a maintenance/inspection schedule for examination of all vent and overflow screens.

**Recommendation:**

It is recommended that the owner/operating authority ensure that the clearwell vents are equipped with non-corrodible #24 mesh screens (0.70 mm).

Additionally, it is also recommended that an inspection/maintenance schedule be developed to ensure that screens are visually inspected on a regular basis.

## **Appendix B**

### **Internal & External Audit Summary of Findings**

### Internal Audit Summary of Findings

Operational Plan Section	Description of Findings	Type	Recommended Action
3. Commitment and Endorsement	OCWA's top management positions have changed and it has been 4 years since the plan was endorsed.	OFI	the Plan should be re-endorsed
4. QEMS Representative	There is no longer an Operations Manager.	OFI	Remove reference
8. Risk Assessment Outcomes	2017 review has not yet been captured in the spreadsheet	OFI	Add 2017 review to spreadsheet
9. Organizational Structure, Roles, Responsibilities and Authorities	Positions and responsibilities have changed and are not yet reflected in table C.	OFI	Update Table C as soon as corporate develops new template.
10. Competencies	Positions and responsibilities have been changed and are not reflected in Table D	OFI	Update Table D as soon as corporate develops new template.
11. Personnel Coverage	Cover page for procedure says Appendix K instead of E.	OFI	Correct

### External Audit Summary of Findings

Operational Plan Section	Description of Findings	Type	Recommended Action
6. Drinking Water Description	Ensure appendices are properly lettered, to ensure they are readily identifiable. For instance, the cover pages of QP-03, QP-09, and QP-10 are all identified as "Appendix K"	OFI	Fix during next revision
9. Organizational Structure, Roles, Responsibilities and Authorities	Consider identifying the Operations Manager as a "QEMS Representative" (as identified within Element 4 and Appendix D), within Element 9 Table C.	OFI	Fix during next revision
13. Essential Supplies and Services	Clarify the use of Testmark (identified as the laboratory to be used within the Temagami North and South Sampling Schedules), as an essential service (only Accuracy Environmental and Near North Laboratories have been identified).	OFI	Fix during next revision
14. Review and Provision of Infrastructure	Consider clarifying what is reviewed (e.g. maintenance / breakdown reports/trends, water quality trends, complaints, etc.) as part of the infrastructure review process.	OFI	Add during next revision
19. Internal Audits	Ensure all elements of the DWQMS are audited in their entirety (i.e. both PLAN and DO sections). It is unclear if the 'DO' sections were audited for elements 10-18 (i.e. have the procedures been implemented / are you conforming / what evidence was reviewed to confirm?)	OFI	Make the audit more clear