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Town of Aurora Information Report No. 0PS22-009

Subject:	Drinking Water Quality Management System – Management Review
Prepared by:	lustina Voinea, Program Coordinator, Water/Wastewater/ Stormwater
Department:	Operational Services
Date:	May 17, 2022

In accordance with the Procedure By-law, any Member of Council may request that this Information Report be placed on an upcoming General Committee or Council meeting agenda for discussion.

Executive Summary

The purpose of this report is to provide updates on the activities performed by the Water Division in 2021 and to present the Minutes of the Annual Management Review as required by the Safe Drinking Water Act, 2002 and related regulations. The 2021 information audits and inspections highlights are:

- The operation and management of the water system achieved full compliance for 2021.
- Municipal Drinking Water Licenses expires June 15, 2026.
- The Operational Plan is a document that outlines all 21 elements of the Drinking Water Quality Management Standard.
- Internal Audit, System Audit, Inspections and Management Review are completed annually.

Background

The Town of Aurora is the Owner and the Operating Authority of the municipal drinking water distribution system within the geographical boundaries of the Town.

York Region supplies the Town with drinking water that is a blended combination of surface water and ground water. Water treatment, transmission and storage are the exclusive jurisdiction of the Region.

The Town is responsible for the operation and maintenance of the drinking water distribution system, to maintain drinking water quality and ensure water remains safe for human consumption.

The Ontario Government implemented the Municipal Drinking Water Licensing Program in 2007 as recommended by Justice O'Conner as a result of the Walkerton Inquiry. In response to this recommendation, the Ministry of the Environment, Conservation and Parks (MECP) developed the Drinking Water Quality Management Standard ("DWQMS") that applies to owners and operating authorities of municipal drinking water systems. The DWQMS sets out the framework for the development of a Quality Management System (QMS). The implementation of the DWQMS is mandated by the provincial government through the Safe Drinking Water Act.

The QMS is based on a "Plan", "Do", "Check", "Improve" principle. The Operational Plan provides an understanding of the drinking water system, the roles and responsibilities of the owner (Council) and operational staff and is based on procedures to operate and maintain the drinking water system, and a commitment and endorsement by the owner to provide safe drinking water.

In order for the Owner to show their support of the drinking water system QMS, it is required that they provide their endorsement of the Operational Plan.

Analysis

The operation and management of the water system achieved full compliance for 2021.

Requirements of the QMS outlined in this report are critical components of the Management Framework under which staff and senior management are required to operate.

Staff is pleased to report that based on the results of internal and external audits, 2021 was a successful year in fulfilling legislative requirements, resulting in confidence that the Town's water system is safe, and both operated and maintained to a very high standard.

Municipal Drinking Water Licenses expires June 15, 2026.

The Town of Aurora Drinking Water System Operational Plan was prepared to meet legislative requirements and was initially submitted to the Ministry on August 1, 2009. A Municipal Drinking Water Licence (MDWL) and a Municipal Drinking Water Permit May 17, 2022

(DWMP) were obtained and they need to be renewed every five (5) years. The Town applied for DWS licence renewal before the due-date December 29, 2020. The new licence was obtained in June 2021 and expires on June 15, 2026.

To obtain a MDWL the Operating Authority must be accredited by a third-party accreditation body. A critical step in the accreditation process is the confirmation of an understanding and acceptance of the plan by Council and Top Management. The following sections provide a summary of the document purpose and key roles and responsibilities.

The Drinking Water System has been re-accredited for three years in 2020. After the recertification audit in 2020, surveillance audits are conducted annually by the accreditation body to support the maintenance of the accreditation for the following two years. 2022 is the last surveillance year in the three-year accreditation cycle.

The Operational Plan is a document that outlines all 21 elements of the DWQMS.

Some of the key elements include:

- Commitment and Endorsement
- Organizational Structure, Roles, Responsibilities and Authorities
- Risk Assessment
- Emergency Management

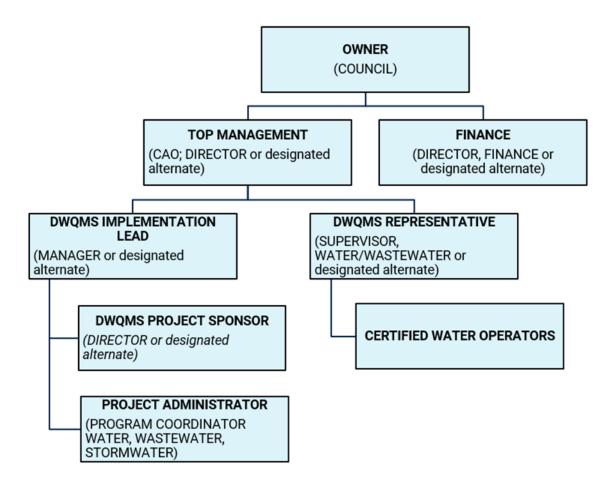
The elements for the commitment, endorsement and organization structure outlining the Corporation's roles and authorities must be endorsed by Council as the owner of Aurora's drinking water system.

DWQMS Management Structure

The legislation requires that proper authorities are established to ensure that the water system has qualified oversight, management support, identified ownership and financial resources.

For the Town of Aurora, this structure is presented in the below organizational chart. An important aspect of this structure is the identification of Council as the Owner, the body with overall responsibility for providing the necessary resources to deliver safe and reliable drinking water to the community.

ORGANIZATIONAL CHART:



Role of Owner - Council:

One critical element of the DWQMS is that the Operational Plan is endorsed in writing by Top Management and the Owner, which in this case, are senior staff and Town Council. This element requires that Top Management demonstrates its commitment to the DWQMS by being aware of the requirements and providing direction and resources as required. The element further describes that Top Management and Council shall provide evidence of its commitment to an effective quality management system by:

- Ensuring that a Quality Management System (QMS) is in place, maintained and meets the requirements of the DWQMS;
- Ensuring that the Operating Authority is aware of all applicable legislation and regulatory requirements; and
- Determining, obtaining or providing the resources necessary to maintain and continually improve the Quality Management System.

Council and Top Management's commitment is a crucial part of the successful DWQMS implementation and must clearly be recognized in terms of acknowledgment of ownership and providing resources.

Role of Drinking Water System Owner (Council)

- Complete accountability for provision of providing safe drinking water
- Ensure compliance with all applicable legislation, regulations
- Ensure Drinking Water Quality Management Standard (DWQMS) is implemented and maintained
- Provide resources for infrastructure as necessary
- Endorse Quality Management System (QMS)

Role of Top Management (CAO and Director)

- Ensure QMS is in place and operational
- Appoints and authorizes a Quality Management System Representative
- Endorse and lead the development and implementation and maintenance of the Quality Management System
- Identify and obtain necessary resources to support the QMS and for the complete operation and maintenance of the drinking water system
- Ensure the system is operating in accordance with all applicable legislation and regulations
- Management review of the QMS
- Communicate with Council about the QMS and the water distribution system
- Communications lead during emergencies

Role of Finance (Director, Finance)

- Ensure appropriate funding is available for the QMS to deliver safe drinking water
- Incorporate water delivery components of the budget within the overall budget presentation
- Conduct financial audits on the QMS and the water delivery program

Role of Project Sponsor (Director)

- Help orchestrate project team direction
- Assuring the systematic progression through the program's action and implementation plans
- Ensures adequate funds are available

- Communicate with the CAO, Mayor and Council about the QMS and the drinking water distribution system
- Is authorized to designate Water Wastewater Crew Leaders as Overall Responsible Operator required in the absence of the Water Wastewater Supervisors
- Management review of the QMS

Role of QMS Implementation Lead (Manager)

- Carry out the activities and manage programs related to the water distribution system as outlined by approved policies, procedures and legislative requirements
- Preparation of budgets and programs
- Ensures adequate staffing is available at all times
- Reports on Public Works and the QMS to Top Management through multiple communications means, including reports, emails, meetings, Management review meeting, to evaluate the continuing suitability, adequacy, effectiveness and compliance of the DWQMS
- Is the system Overall Responsible Operator when W/WW Supervisor is away
- Management review of the QMS
- Approves QMS Policies and Procedures

Role of QMS Representative (Supervisor, Water/Wastewater)

- Carry out the activities and manage programs related to the water distribution system as outlined by approved policies, procedures and legislative requirements
- Assist with developing procedures and processes for assuring water quality
- Approves QMS Policies and Procedures
- Communication/liaison for York Region Water Wastewater Operations group
- Act on and report incidents of non-compliance
- Assessment of operators personnel performance (annual)
- Reporting of distribution system performance to the Manager
- Maintains regulatory compliance
- Management review of the QMS
- Is the system Overall Responsible Operator
- Schedules work assignments
- Monitors water quality and demand
- Supervises operations and maintenance staff
- Maintains provincial operator licensing at system certification level
- Organizes work-safety program
- Assists in the development of the department budget

- Maintain and update QMS as required
- Identifies, co-ordinates and communicates staff training programs to comply with appropriate legislation
- Recommendation of system improvements
- Emergency response planning and training
- Reports on water, wastewater and the QMS to Top Management through multiple communications means, including reports, emails, meetings, Management review meeting, to evaluate the continuing suitability, adequacy, effectiveness and compliance of the DWQMS

Role of Certified Water Operators

- Monitor, maintain and operate the distribution system in accordance with approved policies, procedures and legislative requirements
- Document all operating activities in accordance with provincial legislation and established operating procedures and files records
- Report on and act on incidents of non-compliance
- Report any abnormal conditions to the Supervisor
- Carry-out duties and tasks as assigned by the Supervisor and as per established water distribution policies and procedures
- Is the designated Operator-in-Charge (operator Class1 and Class 2)
- Attends training
- Receives and communicates external complaints
- Regularly communicates to the QMS Representative
- Maintains operator's license

Role of Project Administrator (Program Coordinator Water, Wastewater, Stormwater)

- Compiling and building program structure in a centralized file
- Develops, maintains and updates QMS policies and procedures as required
- Identifies, co-ordinates, manages and communicates staff training programs to comply with appropriate legislation
- Manages operators' certificate/licence renewal/upgrade process

Internal Audit, System Audit, Inspections and Management Review are conducted annually

As part of the supervising responsibilities, the management team is required to ensure that internal audits, external third-party system audits as well as an annual management review are conducted. In 2021, Aurora's annual internal audit was performed by Acclaims Environmental on December 1, 2021. All 21 Elements of Aurora's Operational Plan were audited to ensure "we do what we say".

The external accreditation audit is required to be performed annually by a MECP - approved registrars. NSF conducted a surveillance system audit on July 27, 2021.

Ministry of the Environment, Conservation and Parks did not conduct an inspection on Aurora's Drinking Water Distribution System in 2021. The primary focus of any inspection is to confirm compliance with applicable acts and regulations, as well as evaluate conformance with MECP drinking water policies and guidelines during the inspection period.

The DWQMS also requires that a Management Review meeting be held annually to review the drinking water system performance and identify necessary actions to ensure compliance with the regulations. The Management Review meeting was held on March 28, 2022, in which the audits and inspection results were reviewed. During the meeting it was discussed incidents of adverse drinking water testing, operational performance, changes that could affect the QMS, resources needed to maintain the QMS and results of the infrastructure review. The Management Review Meeting minutes, Attachment "1" are attached.

Advisory Committee Review

Not applicable

Legal Considerations

Council and the Town staff referenced in this report have a duty to exercise the level of care, diligence and skill of a reasonably prudent person and a duty to act honestly, competently and with integrity to ensure the protection and safety of the users of the drinking water system. Failure to do so is an offence under the Act.

Financial Implications

A budget of \$35,000 is requested annually through the water operating budget to support the Drinking Water Quality Management System, external audit costs and training and development costs for staff. This amount will be carried into future budgets as a requirement for demonstrating financial support to the ongoing maintenance of the DWQMS and will be adjusted as required to ensure adequate funding is in place.

Communications Considerations

The high quality and safety of Aurora's drinking water is a good news story. Results of water testing are shared with the Town via News and Notices on the website, social media and Council Highlights.

Climate Change Considerations

The recommendations from this report does not impact greenhouse gas emissions or impact climate change adaptation.

Link to Strategic Plan

This process supports the Strategic Plan goal of Supporting an Exceptional Quality of Life for All through its accomplishment in satisfying requirements in the following key objective within this goal statement:

Invest in sustainable infrastructure. Maintain and expand infrastructure to support forecasted population growth through technology, waste management, roads, emergency services and accessibility.

Alternative(s) to the Recommendation

Not applicable.

Conclusions

The Town has completed all the requirements to maintain its accreditation under the DWQMS for 2021. As the owner of the system, Council will receive periodic reports on the performance and financial aspects of the Town's water distribution system.

It can also be concluded that the continued investment by Council in the renewal and maintenance of the drinking water distribution system is a major contributing factor in the excellent performance and design of our infrastructure.

Aurora continues to lead many of the Region of York municipalities in experiencing the fewest water main breaks, service interruptions or adverse water testing sample in the Region.

Attachments

Attachment #1 - Minutes of Management Review Meeting (March 28, 2022)

Previous Reports

OPS22-002 2021 Summary Drinking Water, February 15, 2022

Pre-submission Review

Agenda Management Team review on April 28, 2022

Approvals

Approved by Allan Downey, Director, Operational Services

Approved by Doug Nadorozny, Chief Administrative Officer



100 John West Way Aurora, Ontario L4G 6J1 (905) 727-3123 aurora.ca Town of Aurora DWQMS Management Review -Meeting Minutes Operational Services

JOC, Teams Meeting	Prepared by: Iustina Voinea
Date: March 28, 2022	Reviewer: Lindsay Hayworth, Luigi Colangelo
Time: 10:00 am – 12:00 pr	n

Attendees:

Doug Nadorozny: CAO / Top Management

Allan Downey: Director of Operations / DWQMS Project Sponsor

Luigi Colangelo: Manager, Public Works/ DWQMS Implementation Lead

Lindsay Hayworth: Water/Waste Supervisor / DWQMS Representative

Iustina Voinea: Program Coordinator Water/Wastewater/Stormwater/ DWQMS Project Administrator

Introduction to DWQMS Management Review

Top Management reviewed all DWQMS data presented as summarized below. All deficiencies identified by Top Management have been documented on the NCR/OFI tracking form.

Agenda Items Reviewed

(Please do not delete any headings and document each item discussed)

1. Review of action items from previous meeting.

a) Obtain a quote for annual inspection maintenance of the 299 of - private hydrants within the Town. Prepare a report to council to approve the inspection and maintenance of private hydrants to be done by the Town.

A letter was sent to the Fire Department on July 6, 2021, inquiring about their programs for private hydrants testing.

Jan 20, 2022: the fire department responded that they do not have a program in place for the private hydrants. The following programs are in place:

- 'Ontario Fire Code inspection programs are based on the following;
- Multi-unit residential buildings every two years
- Schools every two years

- Vulnerable Occupancies every year
- All other occupancies request and complaint

Ontario Building Code inspection program are based on the following;

- CYFS inspects all new Industrial, Commercial and Institutional buildings at the time of construction prior to occupancy.'

Discussion:

The cost for hydrant maintenance through Town's contractor is \$23 per unit.

The risk for the Town to undertake the maintenance of the private hydrant is high.

The Fire department does not use private hydrants when responding to fire incidents, they use municipal hydrants.

It was decided that the Town will not take up the private hydrants maintenance work. This item can be closed.

b) It was suggested the Town to establish target values for Water Audit KPIs, that are aligned with industry standards.

- The AWWA Water Audit form was set-up, all questions were answered and data for 2020 was inputted.
- Nov 4, 2021 AWWA Water Audit Software Training provided by York Region to all Local Municipalities.

Discussion:

The Water Audit for 2021 will be completed in April 2022. The results for 2021 will be compared with 2020 water audit.

Sources of non-revenue water such as meter inaccuracy and new development water usage were discussed.

The Town does not have a program for Water meters calibration checks, as required by AWWA.

The Town owns big water meters older than 15-18 years that have never been checked, they could be a source of reading inaccuracies. These meters are to the end of their life cycle and will need to be replaced.

The amount of water used for each unit in a new development and corresponding charged fees may not be a true representation of the actual water used.

The Town is working on eliminating the by-pass on the water meters for all ICI and multi-residential. The standard drawings have been updated.

Action Item:

Town's water bylaw to be updated to further develop the water meter section to support enforcement.

Town is working on developing a program for water meter bypass removal.

c) Supervisor, W/WW to look at the timeline for the project on Heathwood Heights.

• The road resurfacing is a capital project scheduled for 2024.

Discussion:

Engineering is aware of the multiple breaks on Heatwood Heights. Usual the design is done the year before.

Action Item: LC to talk to Engineering and about this project and confirm if the lining/replacement of this watermain will be done in 2024.

2. Incidents of Adverse Drinking Water Tests

There were seven (7) adverse drinking water tests results in 2021. The adverse results are compiled in the Annual Drinking Water Report, as per legislative requirements.

There were multiple adverse water sample tests at one sampling station, while the water samples taken from upstream and downstream hydrants passed. This indicated good quality water in the distribution and issues at the sampling station. The sampling station was replaced on August 3, 2021 and the source of contamination was identified. The plumbing at the bottom of the sampling station was split allowing contaminated water to enter the sampling station. After replacing the water sampling station the necessary re-sampling protocols were completed. All samples collected had passing test results.

The chlorine residual values were good in all instances. The adverse results were reported to Ministry of the Environment, Conservation and Parks (MECP) and the York Region Medical of Health as per legislative requirements.

Action Item: No Action Items.

3. Incidents of Regulatory Non-Compliance

There were no incidents of regulatory non-compliance in 2021.

The Ministry of the Environment did not conduct an inspection of Town's Drinking Water System in 2021.

Action Item: No Action Items.

4. The Efficiency of the Risk assessment, Deviations from Critical Control Points_Limits and Response Actions

As part of Element 7 & 8, Risk Assessment and Risk Assessment Outcomes, the currency of the information and the validity of the information used are verified once a year. The risk assessment is redone every three years at a minimum.

The three year full risk assessment was conducted on Sept 16, 2021.

Multiple sections were updated to better reflect the policies and measures to be followed for each type of hazard.

In 2021 there were no deviations from the critical control points reported or changes recommended.

Also, there were no recommended pressure district changes.

Action Item: No Action Items.

5. Internal and Third Party Audit Results and: System Audits, Internal Audit and MECP Inspection.

• The Internal Audit was conducted on December 1, 2021 by Acclaims Environmental, an external accredited auditor. Three opportunities for improvement were identified during the audit.

ELEMENT #	NCR/OFI Details	Action Details
E8 Risk Assessment Outcomes	For items that are ranked highest in the risk assessment, but not controllable (e.g. vandalism, terrorism, theft) – the Critical Control Point determination should state "No" as a critical control limit cannot be set to prevent or monitor the problem (and only rely on the emergency response procedure in those cases).	E8 Risk Assessment Outcomes was updated corresponding.

Internal Audit – NCR and OFI

ELEMENT #	NCR/OFI Details	Action Details
E8 Risk Assessment Outcomes	Consider setting Critical Control Limit's related to residuals in the distribution system at levels better than regulatory minimums and maximums. For example, the Ministry's updated Watermain Disinfection Procedure has defined an "Acceptable Disinfectant Concentration" – for which 1.0 mg/L is combined chlorine residual (and 0.2 mg/L free chlorine residual).	E8 Risk Assessment Outcomes was updated corresponding.
E 10 – Competencies E 11 - Personnel Coverage	Consider updating E10 Competencies regarding the required annual training hours for Certified Operators. All Operators must meet the training requirements for the highest class of system they operate (i.e. Class II) – which stipulates for all Operators: min. 1.2 Continuing education units (CEU) and 23 hrs On the Job (OTJ) per year.	E 10 - Competencies, E 11 - Personnel Coverage were update corresponding.

• NSF an external Accreditation Body conducted the DWQM System third party audit on July 27, 2021. There were six Opportunities for Improvement (OFI) identified during the audit.

ELEMENT #	NCR/OFI Details	Action Details
E 2 - Quality Management System Policy	Since top management comprises of the CAO and Director of Operations, it will be more appropriate for both to sign on the QMS policy.	The new policy is signed by the Director and the CAO.

ELEMENT #	NCR/OFI	Action Details	
E 3 - Commitment and Endorsement	Details Reviewed endorsement by the Top Management represented by the CAO and Director of Operations dated Sept 2018. Reviewed endorsement by the Owner represented by the Mayor and six Councillors dated May 2019. Although the above are conforming, it will be more practical for the Owner to be represented by just the Mayor alone, as any of the six councillors may be replaced during the term and require new endorsement.	It was decided by the Director to keep the current practices.	
E 9 - Organizational Structure, Roles, Responsibilities and Authorities	The Supervisor, Water/Wastewater is the QMS Rep. Although one of the responsibilities of the QMS Rep is to develop procedures and processes for assuring water quality, the relevant sections of the Operational Plan were instead prepared by the Program Administrator. The management concerned is to review the current situation and adjust accordingly.	E9 was updated: The Program Administrator to develop policies and procedures as required. Overall Responsible Operator assists with developing procedures.	

ELEMENT #	NCR/OFI Details	Action Details
	As seen in the Risk Assessment procedure, the position of Manager of Operations has not been updated to Manager, Public Works. The management responsible for keeping the Operational Plan current should review the whole document to ensure its currency.	E9 Organizational Roles and Responsibilities – updated to include the following definitions:
E 5 - Document and Records Control		"Director" means the director assigned responsibility for water services for the Town or any person authorized to act in his/her place, regardless the position's title. "Manager" means the manager assigned responsibility for water services for the Town or any person authorized to act in his/her place, regardless the position's title.
E 9 - Organizational Structure, Roles, Responsibilities and Authorities	Although DWQMS E9 was reviewed to be generally conforming, it is preferred that positions not be indicated with designated alternatives. As and when required, when the positions vacant or on vacation, another person may be formally appointed to act for the position.	This OFI was reviewed during August 5, 2021 meeting and was decided that the positions will be indicated with designated alternates. No changes to the current element.

ELEMENT #	NCR/OFI	Action Details	
	Details	Action Details	
E 21 - Continual Improvement	Reviewed NCR OFI Tracking record; although generally conforming, a possible improvement is to add Best Management Practice and Preventive Action as possible sources for improvement. When the severity rating for New Construction Commissioning was increased from 2 to 3 in response to an internal audit OFI in Q4 of 2020, the management could have activated the preventive action process for this matter. The management may consider this as a possibility for similar future event. The existing CAR form was intended for recording both corrective action and preventive action. It is considered not appropriate for preventive action and the management is to consider generating a separate PAR form.	Best Management Practice and Preventive Action were added as possible sources for improvement on the NCR OFI tracking form for future use. Separate CAR and PAR forms were prepared.	

• MECP Inspection – no inspection conducted in 2021.

Action Item: No Action Items.

6. Status of management action items identified between reviews

No items were identified between management reviews.

Action Item: No action items.

7. Results of Emergency Response Testing

 The Emergency Preparedness Training – Table Top Exercise was conducted on December 7, 2021.

The emergency preparedness training was provided by Acclaims Environmental. Items presented:

- Review of Drinking Water Quality Standard
- MECP Watermain Disinfection Procedure
- Scenario low pressure/no water
- There were no action items identified during this meeting.
- Town staff has conformed to the requirements of Element # 18 of the Ontario Ministry of the Environment, Conservation and Parks' Drinking Water Quality Management Standard (DWQMS).

Action Item: No Action Items.

8. Operational Plan Currency, Content and Updates

- As part of the DWQMS, Policies and Procedures are reviewed annually to reflect current practices. Some Operational Plan Policies and Procedures were reviewed and updated as part of responding to non-conformances and OFIs from audits.
- Staff is trained on all updates via tailgate meetings or by getting the electronic version to read.

• All Operational Plan policies and procedures are available to staff online only. *Action Item:* No Action Items.

9. Review of the Quality Management System Policy, Element # 2

• Management Team reviewed Element # 2. The Quality Management System Policy statement was re-affirmed.

Action Item: No Action Items.

10. Drinking Water Quality Trends

- York Region provides a blend of surface and ground water. Surface to groundwater average split remains the same. Aurora's water consist of 80% surface water and 20% underground aquifer water.
- York Region stated a project to improve water quality by removing iron and manganese from the ground water at the wells site, using oxidation/adsorption filtration. The pilot program applies to YR wells, started in 2021 and should be completed in 18 months.
- A desk water audit is conducted annually to provide information on water loss and reporting to the region. For 2020 the reporting template and indicators for tracking water loss have been changed. The past years, the water loss was

reported as percentage of total volume of water. Starting 2021, the KPI are reported as gal/connection/day or gal/mile/day.

Action Item: LH to confirm if the new construction at Machell Ave. is related to YR iron and manganese water treatment project.

11. Changes That Could Affect the QMS

- The Town applied for and obtained regulatory relief for lead sampling in 2021. The relief covers the period December 15, 2021- to October 15, 2024, with two sampling periods each year. During each sampling period the Town is required to take eight (8) samples from the distribution system for lead testing.
- MECP Watermain Disinfection Procedure 2020 Town to start the implementation in August 2021.
- DWS licence was renewed in June 2021. New licence expiry date is June 15, 2026.
- AODA requirements for documents available to public apply to all DW Operational Plan policies, procedures and reports. The Operational Policies and Procedure have been updated to an AODA format.

Existing and proposed Health Canada Guidelines for contaminants impacting drinking water:

Parameter/ Year	Health Canada	Drinking water standard in Ontario	Operational Guideline
real			
	Maximum Acceptable Concentration (mg/L)	Maximum Acceptable Concentration (mg/L)	mg/L
Temperature (Dec 24, 2021)		-	
Dimethoate (proposed)	0.02	0.02	
Dicamba (Jan 14, 2022)	0.11	0.12	
Metribuzin	0.08	0.08	
4-chloro-2- methylphenoxyacetic acid (MCPA)	0.4	0.01	
Bromoxynil	0.03	0.005	
Aluminium (March 6, 2021)	2.9	-	0.1

Discussion:

It was an inquiry why the Temperature is listed as a parameter impacting the drinking water. Water temperature is forecast to increase as a result of climate change. This will impact the source water quality, treatment processes and disinfectant residuals in the distribution systems.

Action Item: No Action Items.

12. The Resources Needed to Maintain the QMS

- The requested budget to maintain is QMS, \$20,000.00.
- 2020 Annual water quality report was completed, presented to Council on February 16 as an attachment to the Summary Drinking Water Report. The

Annual Drinking Water Report was posted on Town's website before Feb 28, 2021, as per legislative requirements.

- Backflow prevention program
 - April 26, 2021, the Administrator, Backflow/Water Meter position was filled
 - July 22, 2021, Third notices began to be sent to severe hazards who had not responded to the first two notices
 - On September, 2021, Final notices began to be sent to severe hazards who had not responded to the third notices
 - On September, 2021, Copies of the final notices and third notices were hand delivered to the severe hazards who had not responded to the final notices
 - On September, 2021, water began to be disconnected at properties who had not responded to the hand delivered notices. The disconnection lasted less than an hour in all cases except for one.
 - There are 633 sites logged in the database
 - \circ 304 sites have surveys submitted
 - o 328 devices have been registered
 - 273 devices are compliant
 - 45 devices are overdue for testing
 - 7 devices have failed and we are waiting for updates on their repairs
 - There are approximately 100 sites that are fully compliant
 - Three are approximately 150 severe hazard sites
 - 10 of those were exempted for various reasons (land is expropriated/closing/empty/re-zoned for development/fire)
 - 34 are fully compliant
 - 54 have responded and are working towards compliance
 - 4 of those have been confirmed to be moderate hazard sites
 - \circ 1 is out of compliance and further enforcement action is required
 - 9 are out of compliance and further action may be required should they stop responding to inquiries
 - Remaining sites have submitted some of the reports/need to be contacted

Action Item: No Action Items.

13. The Results of the Infrastructure Review

Action items from the Infrastructure Review Meeting, July 28, 2021:

 To report watermain breaks due to construction activities separate from the emergency watermain breaks.
Discussion:

The form used to record the watermain breaks was updated to include one worksheet for private watermain breaks.

 Highland Gate Phase 3 – the section of the 1958 watermain that runs between Golf Links and Kennedy and the section south of Golf Links to be considered for abandoning. This watermain line is on an easement, that makes very difficult to access pipe the in the event of a main break. The South watermain can be removed by the builder. The watermain on the North side needs hydraulic modeling prior decommissioning.

Discussion:

Engineering hired a consultant to conduct hydraulic modeling in the area.

Action Item: No Action Items.

14. Operational Performance

- Last year 565 out of 2157 valves were exercised. The target 25% was met.
- It was reported eight (8) watermain breaks for last year, all of them were fixed by the Town's contractor.
- Zero frozen services.
- The fire hydrants maintenance work is contracted out. Three (3) hydrants were repaired last year.
- 84 water boxes were repaired last year.
- 4 water sample stations repaired, one sampling station was replaced.
- 1 valves replaced, 49 valves sleeves were repaired.
- 1 water service repairs.

Discussion:

It was an inquiry if the valve and the valve sleeves repaired were identified during the valve exercising. LH confirmed.

Another inquiry was re to the valve at Wellington and John West Way, if it was exercised? LH confirmed.

Action Item: No Action Items.

15. Review of Best Management Practices

- York Region and the 9 comprising municipalities are working on developing a region wide testing criteria and limits for new watermain commissioning.
- Activities undertaken by staff:
 - Water Quality Committee meetings
 - Municipal Water / Wastewater Regulatory Committee discussion forum
 - Regularly checking MECP website

Action Item: No Action Items.

16. Consumer Feedback

- Complaints are received by Access Aurora, most of them are resolved by phone by their staff and/or water division staff.
- Water quality records are kept for instances where it can not be confirmed that the issue is due to internal plumbing.
- There were no calls re to low water pressure due to operations of the drinking water system.

Discussion:

Records of complaints re internal plumbing, water softener or water tank are not maintained.

Records of complaints made on social media are kept.

Some water quality complaints re to treatment and pressure are forwarded to the Region.

Action Item: No action items.

17. Staff Suggestions

• Town of Aurora Policy is used as template for Operational Plan documents (policies and procedures). The current template (Feb 02, 2022) does not meet the requirements for DWQMS.

Action Item: AD will look into who leads on the format of the Town's policy.

Summary

All action Items are identified on the NCR/OFI tracking form. All records are maintained and stored electronically in the Town's record management system filing location:

Next Meeting TBD