

Drinking Water Quality Management System
Annual Management Review Meeting –Minutes
December 12, 2022, Hopeville Meeting Room at 2:00 pm

Attendees: Mayor Brian Milne, CAO Dave Milliner, Public Works Manager Jim Ellis, DWQMS Representative Cory Henry and Public Works Admin Lisa Wilson.

Meeting start: December 12, 2022, at 2:10 pm.

a) Incidents of Regulatory Non-Compliance & Compliance Inspections

A Ministry of Environment Conservation and Parks (MECP) inspection was conducted on October 12, 2021. The Township received the 2021 Inspection Report for the Dundalk Drinking Water System on December 8, 2021. We received 100% on the risk rating for 2021. The MECP conducted the 2022 inspection on September 19, 2022. The Township received the 2022 Inspection Report on November 3, 2022. We have not yet received our final inspection rating or risk rating.

Decision- The MECP has not yet sent our final inspection or risk rating. When they are received it will be reported to Council.

Action Required (who/when): Jim, report to council when risk rating is received

Completed- Jim will take to Council when results are received.

b) Incidents of Adverse Drinking Water

There were 0 incidents of Adverse Drinking Water:

There were 4 exceedances for sodium including:

	03/08/2022	07/19/2022
D3	29.9 mg/L	30.2 mg/L
D4	27.5 mg/L	27.6 mg/L

Decision- Previously reported as adverse sodium in 2018, reportable in 2023

Action Required (who/when): no action required

Completed- nothing to complete

c) Deviations from Critical Control Limits & Response Actions

There are several deviations from the critical control limits. Every time there is a deviation of a critical control limit there is an investigation to determine the cause and if there is a response required. This does not mean that the water is adverse. Most deviations are from operators performing maintenance duties and pumps turning on and off.

Decision-no decision required

Action Required (who/when):no action required

Completed-nothing to complete

d) Efficacy of Risk Assessment Process

On November 22, 2022, the DWQMS team performed a risk assessment for DWQMS Appendix A: Risk Assessment Outcomes. The Risk Assessment was not performed from scratch as that is the requirement every three years and was done in 2021. The new water tower was discussed for risk assessment and will be completed after training and commissioning of the tower later in 2023.

Decision-no decision required

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Action Required (who/when):no action required
Completed-nothing to complete

e) Results of Internal & Third-Party Audits

Internal Audits Results:

SOP – 21 Water Sampling and Testing was audited on October 5, 2022. 5 OFI (Opportunities for Improvement) were found during the audit.

- Missing Well 5 on page 1
- Add HAA's to "Distribution System Monitoring" and "Quarterly and Annual Sampling"
- Remove step #14 on page 7 and step 15 on page 8, regarding Purolator pickups.
- Add sampling locations, Ridley Crescent Sampling Station, Seeley Avenue Sampling Station,
- Remove dead end locations, Ida St N, Glenelg St

Decision-Complete OFI's

Action Required (who/when): Cory Henry

Completed- October 5, 2022

Third Party Audits Results: NSF-ISR completed an on-site audit September 1 and 2, 2022.

There was 1 non-conformity and 1 corrective action requests.

1. Reviewed calibration certs of 4 portable colorimeters, 2 portable turbidimeters, 2, online chlorine analyzers at each of the three well stations. Reviewed daily verification and calibration of handheld colorimeters for accuracy, from March 7 to August 29, 2022. The Standard used for this purpose was expired since February 2022.

There were 4 OFI's (Opportunity for Improvement) offered by auditor James Pang. The OFI's were:

1. Reviewed a list found in section 13 of the OP. Consider highlighting the supplies and services that are indispensable for the production and delivery of safe drinking water. Reviewed records of quality verification of sodium hypo from Anchem, BOL (bill of lading) dated July 25, 2022, Aug 15, 2022, Aug 22, 2022. Consider the following: 1. Receiver to tick off against each quality parameter verified, such as NSF certification, product %, date of manufacture 2. Request for the certificate of analysis (COA) of the product delivered and verify that their batch or lot number, as well as the product quality test result.
2. Reviewed infrastructure review notes dated Aug 25, 2022, to be in conformance. However, as an improvement, the management may consider including the author of the notes and or the participants involved in generating the notes.
3. 1. To identify and record the handheld colorimeter used in verifying and calibrating the chlorine analyzer. 2. Consider flagging the situation whenever the grab sample reading for free Cl is more than 0.05 different from the online Cl analyser reading, then to adjust the analyser of the deviation if it persists the following day.
4. 1. Consider looking into ways to ensure its working condition. 2. Ensure to record the ability of the power transfer from the gen set to the well house.

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Decision- Submit a CAR (Corrective Action Request) for the nonconformity. Review and discuss the OFI's and implement the ones chosen. Reference attached Management Review Checklist for detail.

Action Required (who/when): Cory Henry/Lisa Wilson

Completed- CAR was submitted and accepted by NSF. The remaining to be completed as referenced in checklist.

f) Results of Emergency Response testing

The EOP exercise that was completed in 2022 was for EOP 05 – OnWARN Activation. This was a tabletop exercise with a scenario of a tornado hitting Dundalk in late October at 5pm. It lasted 10 minutes and hit areas including the Arena, well 4 and the Works Garage. The town is without power, and many roads are blocked with downed trees.

Decision- no decision required

Action Required (who/when): no action required

Completed- 5/Oct/2022

g) Operational performance

Regular well maintenance has been performed every month at all three wells, Well D5 was commissioned and online in October 2019.

A valve exercising trailer was purchased and used for the valve exercising program in 2018. We exercised the whole town the last four years, compared to doing the north side one year and the south the following year. After a brief training we were sending one operator with the trailer as opposed to two the previous years. If there was a valve box full of mud or sand the operator was able to vac it out in minutes and continue with the exercising. All the valves are now GPS'd, next year when we get set up the hand-held device will recognize the valve and we will not have to enter the valve information.

For some comparison,

	2015	2018	2019	2020	2021	2022
Number of valves in Dundalk	100	142	165	177	180	222
Number of valves exercised	48	122	145	151	151	196
Hours of labour	45	80	68.5	49.5	91.5	122.5
Time per valve	56 mins	39 mins	28 mins	20 mins	36 mins	37 mins
Number of Fire Hydrants		95	101	116	133	146
Km of water main (km)		18.9	18.9	18.9	21.9	27.7
Water main replaced (m)	271	0	1705	241	80	0
Average Daily Flow (m3/day)		458	557	632	640	777

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Note: The time for valve for 2018, 2019, 2020, 2021, 2022 would include time for cleaning out the valves, were in 2015 we would have had to hire a vac truck to come and do that work. In 2021 and 2022 two operators were sent to provide training for new staff member. This training not only includes the operation of the machine, much knowledge of valve locations and sizes. With the town continuing to grow rapidly, this vac trailer has been great.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

h) Raw water supply & drinking water quality trends

Sodium has been above Maximum Allowable Concentration (MAC) as historically trending at both wells 3 and 4. It will be reportable in 2023, every 57 months. Fluoride is above the MAC at Well 5 and is naturally occurring. Not reportable until 2025, every 57 months.

Decision- no decision required

Action Required (who/when): Jim/Cory report if adverse results are received in 2023 for sodium

Completed- March 2023

i) Follow-up on action items from previous management reviews

Attached is the Management Review Checklist. All items but two have been completed. Element 18, OFI, clearly define contacts in the event of a spill, the spills action plan needs updated. The clerks department has overhanded the Spills Action Plan to Public Works to manage updates in the future. Put Southgate logo on staff work clothes, Lisa has been working on this.

Decision- work together with clerk's department to update the spills action plan

Action Required (who/when): Cory Henry, Lisa Wilson, Jim Ellis, Lindsey Green

Completed – to be completed by December 16, 2022

j) Status of management action items identified between review

On January 28, 2021, a new Municipal Drinking Water Licence (MDWL) 110-101 Issue 5 was issued, as well as a new Drinking Water Works Permit (DWWP) 110-201 Issue 5 was issued by the Ministry.

A Drinking Water Works Permit application has been submitted for Ministry approval for the water tower, tendering to follow.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete

k) Changes that could affect the QMS

There are no changes identified that could affect the QMS.

Decision- no decision required

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Action Required (who/when): no action required
Completed- nothing to complete.

l) Consumer Feedback / Complaints

Since the last DWQMS Management in 2021 there has been 4 resident complaints reported. 2 odour complaints, 2 low pressure complaints.

- February 4, 2022 – 71 Young St. Complaint of low pressure, troubleshooting over the phone it was determined to be the water softener.
- February 14, 2022 – 561 Ida St N. Complaint of intermittent low pressure. No resolution found.
- June 11, 2022 – 311 Hagan St E, water softener installed, complaint of taste and odour issue. Tested NTU – 0.11. Could not test chlorine as there was no bypass to softener, flushed hydrant, CL2 was 1.09. Samples were taken from Moody St SS on May 24, 2022, 0 – TC, 0-EC, 10-HPC. Typical results of safe drinking water.
- July 18, 2022 – 305 Hagan St E, complaint of taste and odour. Visited residence, no issue found. A script for staff was completed to use when complaints come in to help diagnose possible problems.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

m) Resources needed to maintain the QMS

The proposed budget for 2023 is \$5,453.00.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

n) Results of Infrastructure Review

Buildings:

- Buildings and fences are in good shape.
- Generators at the wells had annual maintenance performed

Storage:

- Well D4 Reservoir was drained, cleaned, disinfected, sampled and put back into service in August 2021, this cleaning happens every 3-5 years.
- The water tower is currently being constructed. Expected commissioning is August 2023

Distribution:

- There have been 5 water main break since the last management review.
 - February 16, 2022 @ 304 Victoria St E. 6" water main
 - March 4, 2022 @ Holland St/Credit Union. 6" water main
 - April 7, 2022 @ 30 Victoria St W. 6" water main

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- April 10, 2022 @ 160 Grey St E. 6" water main
- November 5, 2022 @ 20 Grey St E. 6" water main
- All fire hydrants were operated and maintained for 2022, there are approximately 146 hydrants in 2022 compared to 95 in 2018.
- 1, 6" water main valve was replaced. 39 Braemore St E. The valve was missing the operating nut and leaking.

Machinery, Equipment and Software:

- Well 5, installed new auto dialer. Original was damaged when rechlor injection point broke and sprayed water onto the auto dialer.
- Well 3, new dosimeter installed in UV #1.
- Well 3, second chlorine pump installation. Now waiting on a pump to be repaired.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

o) Review of Operational Plan currency, content, and updates

There was 1 CAR and 27 DCR's for 2022.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

p) Staff Suggestions

There are no staff suggestions at this time.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

q) Recommendations for improvement of the QMS

We have implemented a CAPA (Corrective Action Preventative Action) system to track and measure our corrective actions, preventative actions and continual improvement. Try delegating some action items to other members of staff to increase involvement in the CAPA system.

Decision- no decision required

Action Required (who/when): no action required

Completed- nothing to complete.

r) Deficiencies

There are no deficiencies to report at this time.

Decision- no decision required

Action Required (who/when): no action required

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Completed- nothing to complete.

s) Continual Improvement

Staff noticed that some residents are hesitant to allow Southgate staff to enter their homes and properties due to scams. It was suggested that we have the Township of Southgate logo put on work clothing to identify our staff and give residents peace of mind.

Decision- acquire clothing with the Southgate logo for staff

Action Required (who/when): Lisa Wilson, 2023

Completed- December 7, 2022

DO – Top Management shall implement and conform to the procedure and shall:

- a) Ensure that a management review is conducted at least once every calendar year.** The last DWQMS Management Review was held on December 16, 2021.
- b) Consider the results of the management review and identify deficiencies and actions items to address the deficiencies**
- c) Provide a record of any decisions and action items related to the management review including the personnel responsible for delivering the action items and the proposed timelines for their implementation and**
- d) Report the results of the management review, the identified deficiencies, decisions and action items to the Owner**

Meeting Close: December 12, 2022, at 2:45pm