a) Incidents of Regulatory Non-Compliance

- There were six incidents of regulatory non-compliance for 2020. These incidents are detailed in the 2020 Summary Report.
- The Water Plant Operators, Distribution Operators, and Manager of Water and Wastewater Operations (Manager of Operations) are responsible for regulatory compliance.

b) Incidents of Adverse Drinking Water tests

- There were no incidents of adverse water tests for 2020.
- The Water Plant Operators, Distribution Operators, and Manager of Operations are responsible for monitoring water quality.

c) Deviations from Critical Control Point Limits (CCL) and Response Actions

- Critical Control Point (CCP) is a point, step or procedure at which controls can be applied and a drinking water health hazard can be prevented, eliminated or reduced to acceptable (critical) levels. CCLs are limits that when reached, would require a response or corrective action.
- Detailed descriptions of CCLs are in the Risk Assessment and Outcomes Table (Element 8). CCLs include:
    1. monitoring the feed rates set on chemical feed for raw water treatment,
    2. monitoring the chlorine feed system for primary disinfection of treated water, and
    3. manually measuring free chlorine levels for secondary disinfection in the distribution system.
- The most recent risk assessment for this reporting period was conducted on June 20, 2019, by the plant operators, Chief Operator, and the Manager of Operations. Results of the assessment, which includes reviewing CCLs, are tabulated in the Risk Assessment and Outcomes Table. An assessment must be conducted every 3 years, and reviewed by the Manager of Operations for the years when an assessment is not conducted. The manager reviewed the 2019 Assessment and Outcomes Table on August 18, 2020.
- For 2020, there were no deviations from identified critical control point limits. Control measures for the critical control points appear to be adequate.
- Plant operations are responsible for setting and monitoring CCL.

d) Efficacy of the Risk Assessment Process

- Risk assessments will continue at least every three years by operating staff, and reviewed annually by the Manager of Operations. The Water Treatment Department conducted an assessment on June 20, 2019.
- The efficacy of the risk assessment process appears to be adequate as there were no adverse water quality incidents in 2020.
- The Manager of Operations and the Water Plant Chief Operator are responsible for assessing the effectiveness of the Risk Assessment Process.

e) Internal and Third Party Audit Results

- The 2020 internal audit of all elements was conducted March 5, 2020 to October 23, 2020, by Municipal staff.
- One non-conformance was cited

1. Element # 17 – Measurement and Recording Equipment Calibration and Maintenance.
    - Distribution Sub-Foreman did not have access to calibration sheets and was not aware of the requirements for calibrating and recording the readings for the hand held pocket colorimeter. These calibrations were not occurring and therefore not in conformance.
        - Distribution operators were reminded they must follow manufacturer's recommendations for calibrating portable chlorine testers.
        - The Distribution Foreman has added calibration reminder to his Outlook calendar.
        - Resolution – complete

- Six opportunities for improvement were recommended.

1. Element 4 – Quality Management System Representative
    - Consider promoting awareness of the QMS throughout the operating authority to ensure everyone is aware of the Municipal Operational Plan and its contents
        - One or two DWQMS topics will be discussed during the monthly department safety talks meeting
        - Manager communicated with the Water Plant Operators to be diligent about printing updated copies which are for reference only.

2. Element 5 – Document and Records Control
    - Language should be introduced to the Op Plan to address outdated, invalid or obsolete documents. Suggest adding language to the effect of "The QMS Rep shall perform a review of all controlled documents at least once every calendar year and revise as required
        - WTP-E05 – Document and Record Control was updated with the Chief Operator required to review annually all controlled documents are current or relevant

3. Element 7 – Risk Assessment
    - Consider adding pandemic threat to Operators (COVID-19 etc.) to the Risk Assessment
        - Action plan is already in place for the current COVID-19 pandemic, where qualified operators at the WWTP must keep distanced from the WTP operators. This will be discussed and possibly added during the next Risk Assessment Review with the operators

4. Element 8- Risk Assessment Outcomes
    - Consider adding language directing the Chief Operator to inform the QMS Rep each time there is a deviation from the CCL, or stating that "the QMS Rep will review at least once every calendar year, Operator Logbooks and sign off on deviations from the CCL
        - The language will be added to the next Risk Assessment Review, that the Chief Operator must inform the Manager of Water and Wastewater Operation when there is a deviation of a CCL, and to document a report if additional actions are needed to prevent recurrence

5. Element 12 - Communications
    - Revise the SOP for Customer Complaints since the procedure is outdated and calls for service are now being logged and tracked through the Municipal CGIS (Community-based Geographical Information System) and are no longer on recorded on paper. Instruct Operators that any call received at the WTP should be directed to the Municipal Office so that they may be included in the CGIS tracking system and dispatched accordingly
        - SOP for addressing complaints was updated

6. Element 14 – Review and Provision of Infrastructure
    - Address the Distribution Review in the Plan, detailing how the information contained in the Management Review for Distribution is obtained as well as who is involved in the process
        - Update made to WTP-E14 Infrastructure Review to include Distribution reviews

- A third party DWQMS system audit was conducted on November 23, 2020 by SAI Global. There were no non-conformities and two opportunity for improvement identified.

    1. Element 9 – Organizational Structure, Roles, Responsibility and Authorities
        - Consider identifying other members of the Operating Authority organization who undertake management review, in addition to the Top Management.
            - The recommendation is under consideration

    2. Element 18 – Emergency Management
        - Although there was a mock emergency exercise carried out on September 19, 2019 regarding a raptured flexible joint at the water tower, the management should be mindful to ensure that the seven SOP identified in WTP-E18 must also be tested.
            - The recommendation is under consideration for the next emergency test

- The Manager of Operations is responsible to address all non-conformances and consider the recommendations cited in all audits.

f) Results of Emergency Response Testing

- Element 18 – Emergency Management – an emergency simulation was conducted on August 13, 2020, simulating the pre-chlorinating analyzer failing, resulting with unchlorinated water entering the contact chamber.
- The Water Plant Chief Operator is responsible to conduct an annual emergency response test. Both the Chief Operator and Manager of Operations are responsible to review the outcome and make appropriate improvements if necessary.

g) Operational performance

- Details of operational performance are in the 2020 Summary report.
- There were no deviations from plant operating parameters. Water Plant Operators are responsible to maintain the integrity of the plant; operations remain status quo.

h) Raw water supply and drinking water quality trends

- Details of water quality trends are in the 2020 Summary report.
- There were no deviations with the raw water quality. Water Plant Operators are responsible to monitor the raw water quality and to report the Manager of Operations if there are any deviations.

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

- Two sets follow-up questions were asked for the 2019 management review, both relating to the Verner Drinking Water System.

  1. In the list of water treatment chemicals, it doesn't state any potassium permanganate, does that mean that none was applied at all last year? Obviously (as stated further in the report), we are expecting to apply some during the summer weeks that have been causing issues. Will it also be used at other points where chlorite issues arise, or will it just be during the bad summer weeks?

     - We did not use potassium permanganate in 2019. We have permission to run a 6 month trial, which we had planned to start a few weeks ago. However, because of the COVID-19 crisis, we delayed starting the trial for a few more weeks. We have the equipment and chemical in place.

  2. Chlorite issues were based on the manganese issue only, or was there other forms of contaminants that caused the chlorite issues?

     - Chlorites and chlorates are by-products created usually when excess chlorine dioxide is added to remove manganese. Because the concentration of manganese in the river water is very high in the summer, and fluctuates a lot, it is difficult to always maintain the correct amount of chlorine dioxide. Although we were cautious in making process changes, we were unsuccessful at avoiding the limits imposed.

j) The status of management action items identified between reviews

- No action items

k) Changes that could affect the QMS

- In 2017, the MOE published a revision to the DWQMS, commonly referred to as Version 2.0. The system was audited under the new standard.
- Highlights for the new standard include more flexibility with scheduling timelines, infrastructure planning activities, and both proactive and reactive approaches are to be taken to ensure continuous improvement of the system.

l) Consumer feedback

- There were 18 registered complaints, 4 for dirty water, 1 for frozen water services, 8 for low pressure, 3 for watermain breaks, one for odour, and 17 for leaks. All complaints were attended by the Municipality, however, many were non-municipal issues.

m) The resources needed to maintain the QMS

- The QMS team, includes the QMS representative (the manager of the operations) and two internal auditors (workers who have volunteered to take on the role). The team is highly motivated for doing this work, and should be given opportunities to attend formal courses to stay current and maintain interest.

n) The results of the infrastructure review

- Meetings were held with the Manager of Water and Wastewater Operations, Public Works Manager, and the Water Plant Chief Operator to recommend capital projects and purchases for the Water Treatment Plant and Distribution Systems in 2021. The recommendations for the 2021 capital plan includes:
    1. Rebuild one high lift pump. A high lift pump, pumps drinking water to the town. These pumps were installed in 1991.
    2. Continue replacing obsolete monitoring equipment
    3. Continue replacing obsolete control valves
    4. Upgrade SCADA program (iFix) to 2021
    5. Water Plant facility repairs – parge and paint walls, resealing floors and roof
    6. Verner watermain EA study completion, agreement with CPR and start designs
    7. Upgrade Belanger Street

o) Operational Plan currency, content and updates

- Updates were made to Elements 5, 9, 12, 14, 15 and 21 to address findings from the internal audit.

p) Staff suggestions

- Staff suggestions are an ongoing process. Formal suggestions are made during the risk assessment process, internal DWQMS audits, safety inspections, and management reviews. Operators are also able to contact the Manager of Operations at any time for making suggestions.
- The Manager of Operations is responsible to ensure all operators are comfortable to communicate their ideas for improvement.