

## INTERNAL AUDIT REPORT

### General Elements

# Niagara Region All Wastewater Systems

## Internal Audit

October 29 – November 9, 2020

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## **1.0 INTRODUCTION**

### **1.1 Purpose**

The 2020 internal audit was undertaken:

- To verify that the Wastewater QMS conforms to the requirements of the DWQMS<sup>1</sup> and the requirements of the Wastewater QMS Operational Plan; and
- To verify the effective implementation and maintenance of the Wastewater QMS for all Niagara Region's wastewater systems.

Audits were completed between November 2 and November 9, 2020. Due to the emergence of COVID-19, a decision was made to perform the 2020 internal audit as a remote desktop audit. This decision came from evaluating current working arrangements and the protocols that are currently in place in visiting Regional sites, limiting the unnecessary risk to wastewater staff in visiting remote sites and continuing to uphold our responsibility in providing effective wastewater treatment for the community. Wastewater internal audits are not a legislative requirement, but are performed annually out of due diligence and best practice. Internal audits were conducted remotely with Operating Authority personnel, as required.

### **1.2 Scope**

The wastewater internal audit for 2020 was conducted as a desktop elemental audit, with the auditors focusing on specific elements of the standard that could be audited remotely. The following elements were examined as part of this internal audit:

- Element 1 – Quality Management System
- Element 3 – Commitment and Endorsement
- Element 7 – Risk Assessment
- Element 9 – Organizational Structure, Roles, Responsibilities and Authorities
- Element 10 – Competencies
- Element 17 – Instrument Calibration
- Element 18 – Emergency Management
- Element 19 – Internal Audit
- Element 20 – Management Review

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<sup>1</sup> As modified by Niagara Region to suit our wastewater services.

### 1.3 Selection of Internal Audit Team

Internal auditors for the 2020 audit were:

- Element 1 – Quality Management System: Michelle Max
- Element 3 – Commitment & Endorsement: Michelle Max
- Element 7 – Risk Assessment: Rachel Whyte
- Element 9 – Organizational Structure, Roles, Responsibilities and Authorities: Michelle Max
- Element 10 – Competencies: Dawn MacArthur
- Element 17 – Instrument Calibration: Rachel Whyte
- Element 18 – Emergency Management: Michelle Max
- Element 19 – Internal Audit: Dawn MacArthur
- Element 20 – Management Review: Dawn MacArthur

All internal auditors have completed Internal Auditor Training as required by the **Internal Auditing** (QMS-WW-ALL-P-190, rev1, effective 30Sep2019).

### 1.4 Criteria and Methodology

Audit criteria included the following:

- **Internal Auditing** (QMS-WW-ALL-P-190, rev1, effective 30Sep2019);
- **Niagara Region Wastewater Operational Plan** (QMS-WW-ALL-MAN-010, rev3, effective 12Dec2019) and supporting procedures; and
- Internal audit training materials (various auditor training courses).

Audits were conducted by assigned auditors as noted in Section 1.3 of this report. Operating Authority personnel were also interviewed by assigned auditors. Auditor checklists were completed and reviewed with the Lead Auditor; the checklists are not attached, but are filed as per the **Document & Records Control Procedure** (QMS-WW-ALL-P-050, rev1, effective 30Sep2019).

### 1.5 Summary of New Internal Audit Findings

Findings are categorized as follows and are summarized in Table 1 below.

- **C – Conformance:** Audit interviews and sampled records indicate that QMS requirements are met and applicable procedures are implemented as written.

- **NC – Non-conformance:** Audit interviews and sampled records indicate that a requirement of the QMS Standard was not met or a documented procedure was not implemented as written. These findings require **corrective action**.
- **OFI – Opportunity for Improvement:** Conformance was generally observed, but there may be an opportunity to enhance existing processes.

**Table 1: Summary of Internal Audit Findings – Number and Type**

Element	NC	OFI	Total
Quality Management System (Element 1)	-	-	-
Commitment and Endorsement (Element 3)	-	-	-
Document and Records Control (Element 5)	2	-	2
Risk Assessment (Element 7)	1	-	1
Organizational Structure, Roles, Responsibilities and Authorities (Element 9)	-	-	-
Competencies (Element 10)	1	1	2
Instrument Calibration (Element 17)	-	4	4
Emergency Management (Element 18)	2	3	5
Internal Audits (Element 19)	2	1	3
Management Review (Element 20)	1	-	1
<b>Total</b>	<b>9</b>	<b>9</b>	<b>18</b>

Details of all findings are provided in Table 2 (see Section 2.1 of this Audit Report).

## 1.6 Review of Previous Internal Audit Findings

No previous audit findings were reviewed during this internal audit, as much work was done in advance of the internal audits to address and close open corrective actions from the previous internal audit in 2019. These efforts were summarized in a memo to Public Works Committee ([PWC-C 8-2020, 10March2020](#)).

## 1.7 Review of Previous External Audit Findings

Not applicable. The Wastewater QMS is not subject to external auditing at this time.

## 2.0 INTERNAL AUDIT RESULTS

### 2.1 Summary of QMS Internal Audit Findings

Table 2 provides a summary of findings from the QMS Internal Audit. In reviewing Table 2, the following acronyms should be noted:

Acronym	Definition
<b>C</b>	Conformance
<b>NC</b>	Non-Conformance
<b>OFI</b>	Opportunity for Improvement
<b>N/A</b>	Not applicable – did not audit this element

Table 2 is provided below.

**NOTE:** Recurring findings are not noted in the list below, as corrective action activities are already in progress and the required records have already been opened in EtQ.

**Table 2: Summary of Findings – 2020 Internal Audit**

Element #	Type	Details	Number
1	C	QMS conforms to the requirements of this element.	
2	N/A	<i>Not reviewed during this internal audit.</i>	
3	C	QMS conforms to the requirements of this element.	
4	N/A	<i>Not reviewed during this internal audit.</i>	
5	NC	<b>Document and Records Control (QMS-WW-ALL-P-050, rev1, 30-Sept-2019)</b> , Section 5.3.1 states both a table of revision and footer statement “printed documents are uncontrolled” be included in internally-controlled QMS documentation. The <b>Niagara-on-the-Lake WWTP System Schematic (OP-WW-NL-V-061, rev5, 29-Aug-2016)</b> is not on the proper document template and did not include the proper document header and relevant information required, nor does the schematic include a footer statement “printed documents are uncontrolled” or a table of revisions.	<a href="#">WWCAR-20-001</a>

Element #	Type	Details	Number
5	NC	<b>Document Records Control (QMS-WW-ALL-P-050, rev1, 30-Sep-2019)</b> , Section 5.2.3 indicates that other documents, including procedures, tables, forms and guidance documents, are typically identified by a document header, including specific details of what should be included in the header. The header of the <b>Emergency Contact List (ERP-ALL-ALL-T-002, rev21, 30-Sep-2020)</b> does not contain the revision number, effective date or document ID.	<a href="#">WWCAR-20-002</a>
6	N/A	<i>Not reviewed during this internal audit.</i>	
7	NC	<b>Wastewater System Risk Assessment (QMS-WW-ALL-P-070, rev3, 6Feb2020)</b> , Section 5.4.1 specifies that action plans are developed for “high-scoring risks (greater than 10)”. In a sampling of 9 high-scoring risks recorded/updated during the 2020 review, the auditor had identified that 4 of the 9 records were found to have no associated risk action item.	<a href="#">WWCAR-20-003</a>
8	N/A	<i>Not applicable to the Wastewater QMS.</i>	
9	C	QMS conforms to the requirements of this element.	
10	NC	Section 5.4.1 of <b>Competencies procedure (QMS-WW-ALL-P-100, Rev1, 22-Sept-2020)</b> states records of training attendance are stored in PeopleSoft. <b>Document and Records Control (QMS-WW-ALL-P-050, Rev1, 30-Sept-2019)</b> , Section 5.7 – Table 2 states training attendance records are stored in MyLearning. These are two separate software programs.	<a href="#">WWCAR-20-004</a>
10	OFI	In reviewing <b>Competencies (QMS-WW-ALL-100, rev1, 22-Sep-2020)</b> the auditor noted a gap in defining who is responsible to ensure staff enroll in and complete mandatory training. <b>Training &amp; Professional Development (ADM-ALL-ALL-P-017, Rev1, 29-Jul-2020)</b> identifies the positions that are responsible for ensuring staff are enrolled in various types of training (Health and Safety, Mandatory and Other). It would be beneficial to include a reference in <b>Competencies</b> to <b>Training &amp; Professional Development</b> .	<a href="#">2020-022-Audit Internal</a>

Element #	Type	Details	Number
11	N/A	<i>Not reviewed during this internal audit.</i>	
12	N/A	<i>Not reviewed during this internal audit.</i>	
13	N/A	<i>Not reviewed during this internal audit.</i>	
14	N/A	<i>Not reviewed during this internal audit.</i>	
15	N/A	<i>Not reviewed during this internal audit.</i>	
16	N/A	<i>Not reviewed during this internal audit.</i>	
17	OFI	It is strongly recommended that the <b>Wastewater Calibration Procedure (QMS-WW-ALL-170, rev0, 16Jun2014)</b> be updated to align with the current organizational structure and available tools. The procedure references Sherpa, the previous version of Regional intranet that no longer exists; it also references the CMMS scheduler position that was eliminated in 2016. Additionally, the procedure does not clearly define the instrument types to be calibrated under the “process equipment” category.	<a href="#">2020-023-Internal Audit</a>
17	OFI	It may be beneficial to identify meters that are used for billing vs. compliance vs. process control in the Asset Management Software. While these meters are somewhat identifiable by virtue of their inclusion under associated preventative maintenance’s (PM), there is no means of ensuring that the asset list for each PM is complete. Furthermore, some meters that are used for both billing and compliance will fall under only the billing PM, not the compliance PM, essentially losing their identification as a compliance meter.	<a href="#">2020-024-Internal Audit</a>
17	OFI	It may be helpful to identify on each of the wastewater facilities billing schematic, which flows are calculated (e.g., hauled waste, trucked solids, etc.) vs. which flows are metered.	<a href="#">2020-025-Internal Audit</a>
17	OFI	It may be beneficial to open up access to data fields, views, and prepared reports in the Enterprise Asset Management (EAM) software to ensure that all users have access to the same information. During the audit, it was identified that the auditor and auditee have access to different data fields under the same asset.	<a href="#">2020-026-Internal Audit</a>



Element #	Type	Details	Number
18	NC	<b>Water and Wastewater Emergency Response Plan – Front End (ERP-ALL-ALL-P-001, rev7, 22-Oct-2019)</b> , Section 6.1 states that new staff are introduced to the Emergency Response Plan (ERP) through Water and Wastewater New Employee Orientation and quality management e-learning modules. Evidence indicates that W-WW orientation has been deferred due to the pandemic; thus, new staff starting between March and October 2020 have not been introduced to the Emergency Response Plan through orientation. An auditee communicated to the auditor that a Water-Wastewater orientation e-learning module has been developed and will include information on the ERP program. The module is scheduled to be rolled out to new W-WW staff in December 2020. The auditor did observe that several Emergency Response Plan e-learning modules have been assigned to wastewater staff over the course of the year.	<a href="#">WWCAR-20-005</a>
18	NC	The <b>Spill of Sewage (ERP-WW-ALL-P-001, rev2, 22-Oct-2019)</b> and <b>Spill or Chemical Leak On-Site (ERP-ALL-ALL-P-005, rev2, 22-Oct-2019)</b> emergency response procedures reference a requirement to “review the Spill Contingency Plan to determine if a spill is reportable”. The auditor could not find any wastewater-related Ministry of the Environment, Conservation and Parks (MECP) Spill Contingency Plans.	<a href="#">WWCAR-20-006</a>
18	OFI	The <b>Complaints-Wastewater (OP-WW-ALL-P-005, rev5, 17-Apr-2020)</b> procedure does not mention a timeframe for an assignee to complete the incident investigation and does not include details on what is required if an investigation is deemed ongoing. Consider modifying <b>Complaints-Wastewater</b> to discuss assignment via task profile, the timeframe to complete investigations, and what is required if an investigation is deemed ongoing.	<a href="#">2020-027-Internal Audit</a>



Element #	Type	Details	Number
18	OFI	Section 5.3.1 of the <b>Post-Event Debriefing (ADM-ALL-ALL-P-009, rev4, 1-Apr-2020)</b> identifies that a debrief meeting should be completed no later than five (5) calendar days following resolution of the unusual event. The auditor reviewed a wastewater debriefing record REC-00154 from 2019; the event occurred on 21-May-2018 and the debrief meeting was held 12-Jun-2019. It was not clearly indicated on the Emergency Debrief & Reporting form what day the event was resolved. Consider including a date of resolution field on the <b>Emergency &amp; Debrief Reporting Form (ERP-ALL-ALL-F-001)</b> .	<a href="#">2020-028-Internal Audit</a>
18	OFI	The <b>Water &amp; Wastewater Emergency Response Plan – Front End (ERP-ALL-ALL-P-001, rev7, 22-Oct-2019)</b> , “Section 7.0 – Emergency Management”, outlines requirements for emergency drills. In reviewing historical records of mock emergency drills, the auditor observed that these records reside on the L: drive. Consider storing mock emergency records in EtQ’s Records module to ensure protection from tampering, damage, or deterioration and ease of record retrieval. <b>Document &amp; Records Control (QMS-WW-ALL-P-050)</b> may require updating to reflect updates of the storage of records, if considered.	<a href="#">2020-029-Internal Audit</a>
19	NC	According to the <b>Internal Audit (QMS-WW-ALL-P-190, rev1, 30-Sept-2019)</b> procedure, Section 5.1.3, the Lead Auditor is responsible for ensuring timely and effective corrective action follow-up from the internal audit. The auditor selected five (5) random corrective actions from the 2019 internal audit for review: <ul style="list-style-type: none"> <li>– WWCAR-19-001, WWCAR-19-006, 2019-034-Audit Internal, WWCAR-19-009, WW-CAR-010, were reviewed</li> <li>– In general, of the 5 records reviewed, all 5 had been closed (&lt; one year)</li> </ul> While reviewing WWCAR-19-009, it was noted that it was closed as it was a duplicate to WWCAR-17-005 already existing in the system. WWCAR-17-005 was reviewed. The CAR was created November 20, 2017 and currently sits in the	<a href="#">WWCAR-20-007</a>

Element #	Type	Details	Number
		“Investigation and Root Cause” phase. Nothing has been added to the action except the initial findings, nor has it been assigned to anyone for action. It is in the opinion of the auditor that this corrective action follow-up is not being completed in timely manner.	
19	NC	<p><b>Corrective Action, Preventative Action &amp; Best Practices (QMS-WW-ALL-P-210, Rev1, 1-Apr-2020)</b>, Section 5.1.7 states “The QMS Representative monitors the effectiveness of the corrective action by assigning a date for follow-up and verifying the effectiveness of the corrective action on or immediately before that date.”</p> <p>All four (4) of the corrective action records reviewed by the auditor did not have the “Approval and Closure” section completed under the Corrective Action form in EtQ despite the corrective actions being closed. In reviewing the records, it was unclear to the auditor if the corrective actions were implemented effectively. The Corrective Action procedure also states that if the corrective action is found to be ineffective, the corrective action report (CAR) is closed and a new corrective action report is initiated. It would be difficult to determine if these corrective action records were closed because they were deemed satisfactory or if another corrective action was opened to further address any outstanding issues.</p>	<a href="#">WWCAR-20-008</a>
19	OFI	<p><b>Internal Auditing (QMS-WW-ALL-P-190, Rev1, 30-Sept-2019)</b>, Section 5.6.1 states “audit notes should include the date of the audit, the name of the auditors, and the location(s) of the audit”. The auditor reviewed the Area 1 auditor checklist stored as record # REC-00163 in EtQ. The auditor name, audit location, and audit date of the audit were not entered at the top of the checklist in the provided cells. It was also noted that selected cells have drop downs where an SOP can be selected. Without unlocking the sheet, an auditor would be unable to change the value of these cells. If using this checklist in the future, consider reformatting these cells to easily capture this information.</p>	<a href="#">2020-030-Internal Audit</a>

Element #	Type	Details	Number
20	NC	<p><b>Management Review SOP (QMS-WW-ALL-P-200, Rev1, 26-Mar-2019)</b>, Section 5.2.1 states “The QMS Rep or delegate provides a summary presentation of the listed items to management review meeting attendees at least seven (7) days prior to the meeting”.</p> <ul style="list-style-type: none"> <li>– A review of Outlook provided evidence that the meeting package for Part 2 Management Review 2019 was provided to attendees via email on November 7, 2019. The meeting was held November 12, 2019. This does not meet the documented requirement.</li> </ul> <p>The meeting package for Part 1 Management Review 2020 was provided to attendees via email on June 4, 2020. Although the review meeting was held on June 22, 2020, the meeting package was sent out for the original meeting request of June 9, 2020. This did not meet the documented timeline for the originally scheduled meeting date.</p>	<a href="#">WWCAR-20-009</a>

**Prepared by:** Michelle Max

**Date:** November 9, 2020 (rev0)