

Water Meter Program Audit and Water Billing Service Transition Project

Audit Recommendations

Update November 2024

Recommendation 1

The City should perform a job evaluation review of the key administrative and supervisory roles within the Program to validate the appropriateness of competency requirements, job descriptions and compensation level within the organization structure of the program.

Management Response

Agree - Hamilton Water will leverage a consultant to complete a municipal comparison of the Meter Operations organizational structure, job duties, responsibilities and associated compensation. With the results of the municipal comparison City staff will work with Human Resources and Labour Relations specialists in order to make any necessary updates to the organizational structure of the Meter Operations Business Unit which will include, but is not limited to, a review of job titles, responsibilities, duties and compensation. - Responsibility – Hamilton Water

Status - Complete

Hamilton Water hired consultant Ernst and Young to compare the Meter Operations business unit with other municipalities. Based on their findings, updated Water Operations Clerk (WOC) and Superintendent of Service Coordination job evaluations were submitted to Human Resources (HR). The WOC job evaluation was evaluated, resulting in a change in salary grade from F to G. The Superintendent of Service Coordination job evaluation is under review by an HR Compensation Specialist, with results expected before the end of 2024. This evaluation has been delayed due to the cyber incident.

Recommendation 2

The City should review its program policy and procedures framework to address identified gaps, as well as identify opportunities to strengthen the framework and enhance authorities to better meet the needs of the City and support appropriate enforcement action.

Management Response

Agree

- 1. Consecutive Estimates Policy and other Corporate Finance Billing Policies – review and update as necessary. - Responsibility – Corporate Finance*
- 2. Waterworks By-law – Review opportunity to enforce private property repairs required for meter-related repairs, installations and maintenance activities. - Responsibility – Hamilton Water*
- 3. Master/Satellite Program – review program process and evaluate if a new and dedicated procedure is required for this program. If required, create new procedure. - Responsibility – Hamilton Water*
- 4. All program policies and procedure will be updated for accuracy upon completion of the Alectra billing contract. - Responsibility – Corporate Finance and Hamilton Water*

Status – 1, 2, 3 Complete – 4 In Progress

1. Utility billing policies have been reviewed, and no amendments were identified. A consolidated Utility Billing and Collection Policy will be considered by Council in November 2024.
2. Bylaw 23-235 To Regulate the Management, Distribution and Maintenance of the Water Works Systems was passed in November 2023 and replaced Bylaw R84-026 Regional Waterworks By-law. This new bylaw includes enforcement for private property repairs required for meter work and the Primary/Submeter program, formerly known as the Mater/Satellite program.
3. The Primary/Submeter program was reviewed, and a specific procedure was established (Sub Water Meter Investigation and Installation PW-WW-CS-P-011-050).
4. Hamilton Water, Corporate Finance and third-party stakeholders are participating in ongoing workshops where needs are being identified in preparation for the end of the Alectra contract. After completing the transition to in-house water, wastewater, and stormwater utility billing, all program policies and procedures will be updated for accuracy.

Recommendation 3

The City should develop and implement their program performance management regime by ensuring that each key metric has documented baselines, targets, timeframes for measurement and an outline of how/when the metric would be measured, including the applicable data source and accountabilities.

Management Response

Agree - We are in the process of creating automated metrics in a dashboard environment to generate the operational metrics that have been developed and refined over the past 8 months. Now that Meter Operations has 8 months of data to track the operations we are focusing on staffing and training and will then establish meaningful KPIs, including targets and baselines, based on approved and sustainable service levels.

Status – In Progress

The cyber incident has delayed the completion of this recommendation, causing the creation of the automated dashboard to be put on hold. While monthly metrics and KPIs were previously reported through reports and stakeholder meetings, the data required from the information management system, Infor Public Sector (formerly Hansen), for this reporting is currently unavailable. Baselines and targets have been set to maintain excellent service levels and ensure business health. Regular reporting and KPI refinement will resume once data becomes available after the cyber incident recovery.

Recommendation 4

The City should ensure that all vendor contracts establish performance management frameworks, including minimum standards, KPIs and performance reporting; and have sufficient contract mechanisms, including corrective actions clauses where performance does not meet minimum standards, to oversee vendor performance. This includes establishing a dedicated and experienced contract manager tasked with the responsibility of managing and overseeing contract and vendor performance.

Management Response

Agree

Alectra Contract (Corporate Finance)

With the support of Kaihen, Corporate Finance is working through procurement and contract negotiations for the vendors that will be providing services when the future billing solution is implemented. The vendor contracts are to include the recommended clauses re minimum standards, KPIs and performance reporting; and ensure there are corrective contract mechanisms where performance does not meet minimum standards. Additionally, Kaihen will be supporting the City as it adopts a Target Operating Model (TOM) for a utility billing organization structure. This will include a dedicated vendor management to oversee vendors' performance. - Responsibility – Corporate Finance

Meter Maintenance Contract (Hamilton Water)

The current contract will be reviewed to ensure that appropriate language is in place to manage performance standards, including minimum reporting standards, KPIs and performance reporting and corrective action clauses. Gaps will be identified and the updated in the next iteration of the contractual documents.

Hamilton Water will also review the contract management responsibilities, identifying who is responsible for these tasks, and evaluate if a dedicated and experienced contract manager is required for improved management of this contract. - Responsibility – Hamilton Water

Status – Complete

Alectra Contract - Procurement related to various vendor functions to support in-house utility billing (billing system, customer portal, bill print and contact centre services) was completed in June 2024. All contracts included KPIs, reporting and vendor management terms. A Business Support Coordinator (BSC) FTE role has been approved within the Utility Billing organizational structure that will have vendor management as a primary function. The BSC role has successfully been filled as of August 2024.

Meter Maintenance Contract - The existing Meter Maintenance contract is up for renewal as of October 31, 2025. Hamilton Water is in the process of hiring a consultant to review the existing contract, conduct a municipal review and assist Hamilton Water in developing the terms of reference for the future RFP which will include more fulsome vendor management. A second Project Manager of Service Coordination position was approved under the billing transition project. This role will oversee the upcoming meter reading contract, manage other meter-related contractors, and administer and supervise the Meter Maintenance contract. The second Project Manager of Service Coordination position is expected to be filled before the end of the year.

Recommendation 5

The City should implement a regular operational meeting attended by all relevant program stakeholders to ensure consistency and alignment of information and progress to support program oversight and delivery.

Management Response

Agree - Staff will hold at least 2 meetings/year with all stakeholders

Status – Complete

A regular semi-annual water meter and billing stakeholders meeting, including Hamilton Water, Corporate Finance, Alectra Utilities Corporation and Neptune Technology Group, has been implemented. To date, three stakeholder meetings have been completed on March 28, 2023, October 30, 2023, and April 25, 2024. The next meeting is scheduled for October 17, 2024.

Recommendation 6

The City should develop a Program KPI to track City inspections of Contractor (Neptune) activities.

Management Response

Agree - KPIs will be developed and tracked to track City inspection of contractor (Neptune) activities. - Responsibility – Hamilton Water

Status – Complete

Pre cyber incident, Hamilton Water created an automatic inspection work order feature within Infor Public Sector to prompt City meter inspections for work completed by Neptune, ensuring timely completion. Due to the cyber incident in February 2024, Hamilton Water lost the Infor Public Sector system and the meter inspection work order automation and KPI reporting functionality. The replacement Enterprise Asset Management (Hexagon EAM) system is expected to include similar functionality. Hamilton Water is scheduled to be up and running with the new EAM system in Q1 2025.

Since the cyber incident, Water Operations Clerks (WOCs) have manually created and tracked meter inspections. An internal audit for February - August 2024 showed that 91-meter inspections were either missed or not documented. Immediate actions were implemented to resolve the missing meter inspections. As of September 9, all the meter inspections from August 17 and earlier have been completed, and all required pending meter inspections have been scheduled with an expected completion date of September 16. Moving forward, Hamilton Water has implemented several corrective actions, including:

1. Upon processing of a 38mm and larger meter change/installation, the WOC will immediately create and schedule the meter inspection on the Meter Technician/Investigator's calendar and,
2. To flag any missing inspections, The WOC will complete a daily audit using a programmed comparison worksheet that links the inspection work orders to the meter changeouts/installations.

On average (post cyber incident), it takes approximately 4 -6 weeks to complete the meter inspection from when Neptune completed the work. This is longer than our previous turnaround time as the work is manual due to the loss of automation.

Recommendation 7

The City should develop a report of all intermediate and large meter assets that are currently being estimated at zero consumption to identify, prioritize, and investigate any accounts that

are at risk of being improperly billed.

Management Response

Agree - Hamilton Water has created a monthly QA report to identify zero consumption estimates. This monthly report will be shared with Alectra through Corporate Finance for action on the zero consumption estimates until such time that Alectra can recreate their own zero consumption estimates report through CC&B (Alectra reporting estimated for Q2 2023). Alectra will action this report and provide an update on this metric at the monthly operational meeting with Hamilton Water and Corporate Finance. Priority will be given to large and intermediate water meters (greater than 38mm). - Responsibility – Corporate Finance

Status – Complete

Hamilton Water and Alectra have created monthly reports to track meter assets with estimated readings or zeros. These include a zero-consumption report for all meters and a separate report for compound meters. Hamilton Water prioritizes the compound meter report first, followed by intermediate and large meters, and finally, small meters, based on how long they have been billed as zero or estimated. Many issues have been uncovered and resolved. From October 2023 - May 2024, over \$100,000 in back bills were recovered.

Recommendation 8

The City should perform follow-up assessments of the effectiveness of implemented corrective and preventative actions on at least an annual basis to ensure they are effectively addressing identified root causes of 2021-22 large billing issues.

Management Response

Agree - The root cause of the 2021-2022 large billing issues has been addressed by updating Meter Operations process and procedures as outlined in the self-declared non-conformance. These procedures have been set for annual review. - Responsibility – Hamilton Water

Status – Complete

Hamilton Water has established an annual schedule for updating meter operations processes, procedures, and training. Additionally, topics like water meter dial and programming require semi-annual refresher training for relevant staff. The Hamilton Water Quality Analyst monitors the completion of these requirements using Hamilton Water's well-established quality management system.

Recommendation 9

Where possible, the City should examine opportunities to automate the processing and transfer of key data and information from program reporting into the City's asset management system, which is currently being manually performed by WOCs. Further, the implementation of formalized data validation tools would support accuracy of data and reporting. Opportunities to automate the processing, transfer, and validation of Water Meter Program data into the City's asset management system should be evaluated as a part of requirements for the procurement of a new billing solution/service provider.

Management Response

Agree - Upon design and implementation of the new CIS billing system (Corporate Finance) and PW EAM (Public Works, Hamilton Water), the City of Hamilton will be prioritizing system integrations and process automations with the intent to automate data transfers, reporting and analytics for both the billing and meter operations programs. - Responsibility – Corporate Finance and Hamilton Water

Status – In Progress

Hamilton Water had implemented some minor automation, including automatically creating inspection work orders, automated metrics, and reports within the Infor Public Sector system. Due to the cyber incident in February 2024, Hamilton Water lost the Infor Public Sector system and the automation functionality. The replacement EAM system is expected to include similar functionality. Hamilton Water is scheduled to be up and running with the new EAM system in Q1 2025. In preparation for the upcoming EAM implementation, Hamilton Water has completed a workshop to identify eighteen manual processes that would be candidates for automation.