



***Public Works – Environmental Services,
Water Services Billing Audit Report***

September 2022

Authored by Antonio Bianchi

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1.0 Management Summary

Audit Services has completed an audit of the Region's Water Billing Services, as listed in the 2022 Audit Services Risk Based Work Plan under Sustainable Environment Area of Focus.

Our audit was conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing*.

The main objectives of this engagement were:

- To determine if water services billed to the local municipalities are accurate and timely.
- To determine the effectiveness of the billing dispute resolution process to achieve mutually agreeable outcomes between the Region and the local municipalities.
- To determine the process by which the Region monitors and tracks non-revenue water.
- To determine the costs associated with late water billing payments.

Based on the work performed, we noted that a well-defined process has been developed for the collection of non-revenue water consumption data to help create accurate water billings for the local municipalities. There are several check points during the collection, reconciliation and review of water consumption amounts from various sources (meters, watermain break estimates, scheduled watermain flushing etc.) to maintain accuracy.

For non-revenue water usage within the capital delivery and operations areas in Public Works, contractors are required to open an account with the local municipality and pay for any water taken during their work.

There are opportunities for improvement which include:

1. Charging of late payments fees as per the Water and Wastewater Bylaws when payment is rendered to the Region beyond the allowable 15 days.
2. Establishing a service level agreement and dispute resolution process with all local municipalities to better formalize the Region's role in water distribution and wastewater collection.
3. Minimizing the opportunity cost associated with the lengthy period taken to create and issue invoices to local municipalities.
4. Updating the Collection of Accounts Policy and associated Guidelines.

Details of the above observations are noted under Section 4.0.

Should the reader have any questions or require a more detailed understanding of the risk assessment and sampling decisions made during this audit, please contact the Director, Audit Services.

Audit Services would like to thank Public Works – Environment Services and Finance staff and management for their co-operation and assistance provided during the audit.

2.0 Introduction

The Region's Public Works - Environmental Services is responsible for supplying local municipalities clean drinking water for everyday use and collecting wastewater from the local municipalities for treatment at sewage treatment plants.

York Region is wholesale provider of drinking water, responsible for the water production, treatment, storage and bulk supply to its cities and towns. Regional transmission mains transfer water to infrastructure owned and operated by the local cities and towns, which in turn distribute it directly to residents and businesses. The lack of direct access to Lake Ontario has required the Region to form strong partnerships with neighboring Region of Peel and City of Toronto which provide drinking water from Lake Ontario that together meet 90% of the needs of York Region's residents and businesses. Groundwater drawn from municipal wells supply close to 7% of supply and remaining water supply from Lake Simcoe.

York Region's water infrastructure is made up of:

- The York water system, which is the Region's largest drinking water treatment and supply system; it services the towns of Newmarket and Aurora, parts of the Town of East Gwillimbury (Holland Landing, Queensville and Sharon), King City, the community of Stouffville in the Town of Whitchurch-Stouffville and the cities of Markham, Richmond Hill and Vaughan; this system distributes Lake Ontario water. In the Towns of Aurora, Newmarket and East Gwillimbury, Lake Ontario supply is blended with ground water from the Yonge Street aquifer, and in the community of Stouffville it is supplemented with local groundwater.
- The Georgina water system, which draws on water from Lake Simcoe to serve residents of the Town of Georgina.
- Five stand-alone groundwater supply systems, which service communities in the Greenbelt Plan area where regulation prevents lake-based supply. These groundwater systems are in the communities of Ansnorveldt, Nobleton and Schomberg in Township of King; Ballantrae-Musselman's Lake in the Town of Whitchurch-Stouffville; and Mount Albert in the Town of East Gwillimbury.

Bylaws for the uniform service rates charged for water delivery to the local municipality and wastewater collection from the municipality are developed annually by Public Works - Environmental Services and approved by Regional Council. These rates are used by the Region when billing the local municipalities for water and wastewater services.

The Region generally bills water and wastewater on a 1:1 ratio where one unit of water equals one unit of wastewater. Discounts are given to municipalities where municipal wastewater servicing does not exist e.g., private systems, septic tanks.

The two bylaws (one for water and one for wastewater) stipulate:

1. The period for which the developed rates will be applicable.
2. The billing rate that will be charged.
3. Billing period duration - there are six billing periods made of up two months services starting April. Payment to be rendered to the Region 15 days after the invoice is submitted.
4. Interest charges to be applied to any outstanding billing in default, that is, outstanding for more than 15 days from submission.

3.0 Objectives, Scope and Methodology

AUDIT OBJECTIVES

The main objectives of this engagement were:

- To determine if water services billed to the local municipalities are accurate and timely.
- To determine the effectiveness of the billing dispute resolution process to achieve mutually agreeable outcomes between the Region and the local municipalities.
- To determine the process by which the Region monitors and tracks non-revenue water.
- To determine the costs associated with late water billing payments.

AUDIT SCOPE

The audit included:

1. A review of the process from meter reading to invoice creation for accuracy and completion of the billing for water services.
2. A review of the current informal dispute methodology and application.
3. A review of the non-revenue water tracking process as it relates to the water services billing.
4. A review of late payments for 2021 to determine the borrowing costs to the Region for 2021.
5. Interviews with relevant staff.

AUDIT METHODOLOGY

The audit objectives were accomplished through:

1. A detailed review of the water billing cycle map prepared by Environmental Services. We note the current process is undergoing an extensive internal process review with one of the goals being the reduction on the reliance on manual efforts to produce water billings. Management indicated that digitization of some of the current manual tasks may result in shortening the time for the invoice billing process.
2. Detailed testing of a sample of water billing invoices to the local municipalities. The judgmentally selected sample of nine invoices included one invoice per local municipality between the billing periods Nov-Dec 2020 to Nov-Dec 2021. The total amount for these billings was \$61.7 million.
3. A review of the process to track and report non-revenue water for operational and capital programs.
4. Review of other related documentation.

4.0 Detailed Observations

4.1 *Late payment fees*

Interest charges are not being applied to water billing payments received past 15 days

Through discussion with management and review of invoice payments, we noted that interest is not being calculated and charged back to municipalities on water services invoices paid after 15 days. This delay in payment results in opportunity costs to the Region.

As per the bylaws adopted by Regional Council in 2020, 2021 and 2022, that established the charges for the uniform water and wastewater services rates, accounts “shall be payable to the Region at its office in the Town of Newmarket within fifteen (15) days after the date on which the account was submitted.” The bylaws further state that in the event of default of payment of any account submitted pursuant to these bylaws, interest shall be payable on the account in default at the rate of fifteen percent (15%) per annum for each month or fraction thereof while such default continues.

A review of one invoice from each municipality between billing period 6 in 2020 to period 6 in 2021 found that the average days to payment was almost 39 days. The total amount of the billings was \$61.8 million. One municipality paid within the 15 days. Removing that municipality from the calculation increased the average number of days to payment to almost 43 days for the \$60 million in billings for the eight remaining municipalities.

We calculated on average that the cost to the Region to borrow \$60 million @ 1.3% for 24 days (average of 39 days outstanding minus 15 before payment is due) is calculated to be approximately \$50,050. The annual cost to the Region for a full year (6 billing periods paid 24 days after the due date) would be approximately \$300,300 in opportunity costs. As such, the Region should exercise its option to charge interest on late payments as noted in the bylaws to minimize the opportunity costs associated with late payments.

Recommendation

4.1 The Region applies late payment interest charges as allowed by the water services bylaws to recover opportunity costs associated with the late payments.

Management Response

- 4.1.1** We have a strong partnership with local municipalities to deliver water and wastewater services. Majority of the municipalities make payment in a timely manner. Many of the local municipalities have their own internal processes that mandate individual processing times. Feasibility of 15-day payment period may not be reasonable and would propose a 30-day payment period and interest charged after the 30 days.
- 4.1.2** Staff will work with Corporate Finance to evaluate the feasibility of current financial systems to support the issuance, tracking and collections of interest by Q4 2023.
- 4.1.3** Staff will work with local municipalities to finalize service level agreements which will cover interest payments within the agreements by Q4 2024.
- 4.1.4** Depending on the outcome of item 4.2, staff will revise the current bylaw to reflect the collection period Q1 2024.

4.2 Service level agreements and dispute resolution process

Service level agreements and dispute resolution processes should be formalized with the local municipalities

The Region currently has one service level agreement and dispute resolution process with one municipality. There are no formal service level agreements or dispute resolution processes with the remaining eight municipalities.

Our review of Aging Reports for water services invoices noted that one invoice has been partially paid and has an outstanding balance amount of \$350K since February 2020. The outstanding balance is not a late payment for water services, rather it is a holdback for which the Region has not received any supporting documentation for the amount being withheld.

The Region has hired a consultant to review the matter and a report is expected in the fall of 2022.

Without a service level agreement and dispute resolution process, there is an increased risk that:

- Payments can be held back unilaterally and without adequate documentation.
- The delineation of the responsibilities associated with the distribution of water and handling of wastewater can become unclear over time as the responsibilities are not formally defined.
- Planning and construction of infrastructure is not communicated to affected parties in a timely manner. As a result, input from affected parties may not be solicited in a timely manner.
- When a dispute arises, there is no formal resolution process to bring disputes forward and have it reviewed by an agreed upon outside party, if necessary. Likewise, there is no formal process to require adjudication of the dispute and binding arbitration.

The need for a service level agreement and dispute resolution process development was also identified in the Corporate Water Audit (2014) project.

Recommendation

4.2 The Region establish a service level agreement and dispute resolution process with all local municipalities to better formalize roles and responsibilities of the Region and the local municipalities in water distribution and wastewater collection as part of integrated service delivery. This will help to ensure that:

- All disputes are appropriately documented.
- With periodic reviews, responsibilities can be revisited and reaffirmed. New responsibilities are clarified and agreed upon.
- As part of the service level agreement, planning and construction projects can be communicated in a timely manner to ascertain any effects on service level requirements.
- When disputes arise, there is an intake process that requires a formal tabling of any issue(s) and avoids any unilateral action by either party. Once in process, the dispute can be adjudicated and arbitrated by an outside party.

Management Response

4.2 Agreed – staff will complete by Q4 2024.

4.3 Bill Preparation Timelines

Minimizing opportunity costs incurred during the invoicing preparation cycle

Audit Services compared York Region, Region of Peel and the City of Toronto water services billing and invoice payment timelines.

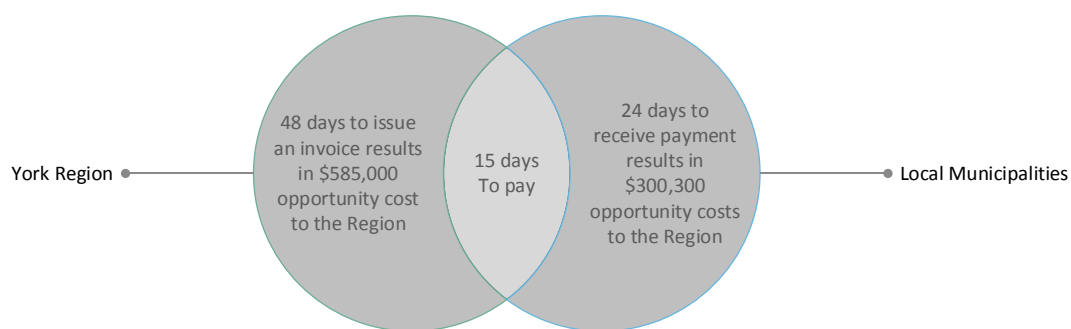
The Region's total billing cycle is the longest among Peel, Toronto, and York Region at almost 87 days (Column C). Comparing time to issue invoices, York Region also has the longest invoicing cycle (Column A). It should be noted that Toronto and Peel is a single tier water and wastewater service delivery process – direct billing to residence and businesses. York Region is a two-tier service. York delivers to and bills the local municipalities. The local municipalities deliver and bill residences and business.

Table 1

	Column A	Column B	Column C
Municipality	Average # of days to issue invoices	Average # of days to receive payment	Total # of days in the billing payment cycle
Peel	17.6	27.6	45.2
Toronto	20.2	51.3	71.5
York	48.2	38.6	86.8

Having the longest invoice preparation cycle results in further opportunity costs for the Region, in addition to the opportunity costs associated with the late payments as mentioned in Observation 4.1.

Figure 1 below indicates the total timelines in our current billing cycle and the opportunity costs.



Assuming the same cost to borrow as in Observation 4.1 and 24 days to issue an invoice, which represents 50% of the time it currently takes, the opportunity cost to the Region is approximately \$300,300 annually.

Management has confirmed that the Water & Wastewater Billing Improvement Project has established high level goals to reduce time spent on manual tasks, enhance analysis capabilities, and improve customer experience. However, there is no current roadmap to potentially reduce the time to issue an invoice and associated opportunity costs.

Recommendation

4.3 Management consider the upcoming digital enhancements to set goals for reducing the time and resources needed to create water services billings to local municipalities.

Management Response

4.3 As noted, York Region has longer processing times, given water is purchased from neighbouring Toronto and Peel, requiring time to acquire data from our service providers, which is then billed to the local municipalities. Work is already underway to digitize the process and anticipate improvements by Q4 2024.

4.4 Policy and Guideline updates

Updating the Collection of Accounts Policy and the associated Guidelines

The Collections of Accounts Policy, last updated in June 2018, contains links to outdated and draft documents that may supply inaccurate and / or outdated information.

Specifically, the link to the Delegation Bylaw refers to the 2016 Council approved bylaw. The current Council approved Delegation Bylaw was approved June 2018.

The Collections of Accounts Policy also refers to a Guide to the Collection of Accounts Policy that has been in draft since 2018.

Recommendation

4.4 To help ensure accurate and up-to-date information is provided to users of the policy, Finance should:

- a) Review and update the Policy where updates are required.
- b) Update the link to the most current Delegation Bylaw.
- c) Finalize the Guidelines, taking into consideration any changes made to the Policy.

Management Response

4.4 Corporate Finance will work to update the Collection of Accounts Policy and related Guideline by Q4 2023.

End of Observations

Management has received a copy of this report and included a response.

Original signed

Erin Mahoney
Commissioner, Public Works

Original signed

Wendy Kemp
Acting Director, Infrastructure
Asset Management

Original signed

Laura Mirabella
Commissioner, Finance &
Regional Treasurer

Original signed

Michelle Morris
Director, Audit Services

Original signed

Laura McDowell
General Manager (Interim),
Environment, Public Works

Original signed

Michelle Swan
Director, Business Planning &
Operations Support

Original signed

Michelle Grover
Director, Strategy &
Transformation

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