

**CITY OF HAMILTON
INTERNAL AUDIT REPORT 2014-17
PUBLIC WORKS – WATER BILLINGS PROCESS
FOLLOW UP**

OBSERVATIONS OF EXISTING SYSTEM	RECOMMENDATION FOR STRENGTHENING SYSTEM	MANAGEMENT ACTION PLAN	FOLLOW UP (AUGUST 2017)
<p><u>Water Meter Testing and Replacement</u> The water and wastewater billings process is dependent on the accuracy of water meters used to measure the amount of water consumption. Meters that under-register consumption result in lost revenue to the City.</p> <p>The Hamilton Water Division does not have a program in place to regularly test and monitor the accuracy of the City's small (residential) water meters. Per the American Water Works Association (AWWA), the optimal number of years that meters should remain in service can only be assessed by testing a sample of the meters.</p> <p>Without a testing and monitoring program in place, a portion of the City's potential water and wastewater revenues are not able to be realized.</p>	<p>1. That the Hamilton Water Division implement a program to test the City's small water meters.</p> <p>2. That the Hamilton Water Division continue to test and maintain large meters on a regular basis, repairing or replacing any inaccurate meters as needed.</p>	<p>Agreed. Hamilton Water (HW) is moving forward in developing a formal meter change out program for residential (small) water meters. 5,000 meters have already been purchased and will be installed at an expected rate of 150-200 meters per week during 2015 and early 2016, replacing some of the oldest meters. During this time, a number of older meters will also be tested for accuracy to determine the appropriate change out age and assess potential revenue risks. Expected completion: April 2016.</p> <p>A large meter testing and maintenance program was previously implemented and in 2014 approximately 20% of our large meters were attended to for maintenance and testing.</p>	<p>Alternative Implemented. Hamilton Water is replacing all small water meters in service for more than 25 years.</p> <p>Completed. Hamilton Water tests and maintains at least 20% of its large water meters each year. Meters that fail are repaired or replaced as needed.</p>

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<p><u>Water Meter Testing and Replacement – (Cont'd.)</u></p>		<p>It is HW's goal to visit each large meter at least every five years. While this standard is below that which is recommended by AWWA Hamilton Water does not currently have the staff resources to implement such a program however, we are confident that the program that is now in place is sufficient at this time.</p>	

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<p><u>Consecutive Estimated Consumptions</u> When it is not possible to obtain a water meter reading for billing purposes, the water and wastewater bill is produced using estimated consumption based on a standard flat rate of billing (1m³ per day) or prior historical averages.</p> <p>When consumption is estimated on continuous and consecutive bills, the estimated usage and billing amounts become inaccurate as the historic consumptions are estimates themselves. To minimize the number of continuous estimated readings, Corporate Services has developed the Water and Wastewater Consecutive Estimates Policy (Policy).</p> <p>Under this Policy, residential account holders who have 4-5 consecutive estimated billings are to be billed 2m³ per day, and those that have at least six consecutive estimates are to be billed 3m³ per day. These amounts represent 2x and 3x the standard flat rate of billing.</p>	<p>3. That the Hamilton Water Division regularly request and receive a listing of accounts from Horizon Utilities for accounts that have four or more consecutive estimated billings for each billing cycle.</p> <p>4. That the Hamilton Water and Financial Policy and Planning Divisions direct Horizon Utilities to bill eligible accounts at the increased rates listed in the Water and Wastewater Consecutive Estimates Policy for each billing cycle.</p>	<p>Agreed. Hamilton Water currently runs a regular report using Hansen to determine what accounts are being estimated on a regular basis. This information is ultimately based on information provided by Horizon on a monthly basis. We will continue to use Hansen as our source of data.</p> <p>Agreed. Hamilton Water is responsible for initiating the policy mechanism that moves accounts to double and triple flat rate. This occurs only when significant outreach is unsuccessful. HW makes at least three different attempts to get an appointment with the homeowner prior to moving to flat rate billing, with additional notice given before moving the account to 2x and 3x the flat rate billing.</p>	<p>Alternative Implemented. Hamilton Water receives a listing of accounts from Alectra (formerly Horizon) that have had two consecutive estimated readings. This is consistent with the updated Water and Wastewater Consecutive Estimated Accounts Policy.</p> <p>Not Completed. Accounts with four or more consecutive estimated readings are not being charged at the higher rate set by the updated Water and Wastewater Consecutive Estimated Accounts Policy. Alectra Management indicated that billing at the higher rates will commence by the end of September.</p> <p>Expected Implementation: Q4 2017.</p>

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<p><u>Consecutive Estimated Consumptions (Cont'd.)</u> This increased billing amount is designed to provide incentive for account holders to provide an accurate reading.</p> <p>Of the residential account holders billed between May 13 to July 15, 2014, 784 residential accounts had been estimated at least four or more consecutive times. None of these accounts were billed at the increased levels as required per the Policy.</p> <p>Per the Policy, multi-residential (MR), institutional, commercial and industrial (ICI) customers with 4-6 estimated readings are to be billed double actual historical billings and ICI customers with seven or more estimated readings are to be billed triple actual historical billings.</p> <p>Of the MR and ICI account holders billed between May 13 to July 15, 2014, 255 MR and ICI customers had been estimated at least four or more consecutive times.</p>		<p>HW does not have the staff resources to stay ahead of this issue and as such will secure the services of our contractor (Neptune) to undertake this work to be more proactive in this regard. While HW will never have zero estimated accounts, a plan to catch up on existing accounts is in place and will be executed in 2015 with the backlog being caught up so that only newly estimated accounts (those with 3-6 estimates) will need to be handled. Expected Completion: August 2016.</p>	

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<p><u>Consecutive Estimated Consumptions (Cont'd.)</u> None of these properties were billed at the increased levels required per the Policy.</p> <p>By not enforcing the Policy, the public may perceive that providing actual water meter readings is not important and potential revenues are being foregone by the City.</p>			