## REPORT TO:
Chair and Members  
Audit and Administration Committee

## SUBMITTED BY:
Ann Pekaruk  
Director, Audit Services  
City Manager's Office

## DATE:
April 10, 2007

## PREPARED BY:
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### SUBJECT:
Audit Report 2006-06 – Metered Water Billings and Revenue (CM07015) (City Wide)

### RECOMMENDATION:

(a) That Report CM07015 respecting Audit Report 2006-06, Metered Water Billings and Revenue, be received; and

(b) That the management actions plans as detailed in Appendix “A” of Report CM07015 be approved and the General Manager of Finance and Corporate Services direct the appropriate staff to have the plans implemented.

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Ann Pekaruk  
Director, Audit Services  
City Manager's Office

### EXECUTIVE SUMMARY:

The 2006 Internal Audit work plan approved a review of the Metered Water Billings and Revenue. The results of the audit are included in a formal audit report containing observations, recommendations and management responses, attached as Appendix “A” of Report CM07015.
BACKGROUND:

In 2006, approximately $135 million was budgeted for metered water and sewer revenues, providing a sizeable source of City funds. Metered properties, both residential and commercial/industrial have their meters read and accounts billed and collected by way of a third party service agreement with Horizon Utilities Corporation (HUC). City staff manage the terms of the contract and account for amounts remitted to the City.

The audit work commenced in the fall and was completed in January, 2007. The audit determined whether management controls were in place to ensure billings were accurate, complete and timely. The procedures in place to ensure the timely collection of water receivable amounts were also reviewed.

The Audit and Administration Committee receives and approves final audit reports and reviews as part of its responsibilities for the oversight of governance and control.

ANALYSIS/RATIONALE:

The audit resulted in the issuance of a formal audit report containing observations, recommendations and management responses, attached as Appendix “A” of Report CM07015.

The main areas for improvement noted in the audit report include:

- Closer monitoring of estimated monthly metered accounts, of accounts unpaid for more than 90 days transferred to City taxes and of consumption patterns in various customer classes;
- Notification to the City of customer deferred payment agreements negotiated by the billing agent; and
- Prioritization of repairs and replacement of faulty or inoperative meters.

Management and staff have already taken action or have agreed to take measures in the near future in order to implement all of the six (6) recommendations. Specific action plans can be found in the attached audit report.

ALTERNATIVES FOR CONSIDERATION:

Not applicable.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Financial

Closer monitoring of the use of estimates for billing, repair or replacement of faulty, old or broken meters and approval of significant deferred payment plans may provide additional revenues on a more timely basis.

Staffing

None.

Legal

Any changes to the Service Agreement with HUC warranted by the implementation of the recommendations in the audit report will have to be addressed. In addition, any implications to By-law R84-026, section 13(6)(a) regarding the turning off of services to abandoned properties will also have to be reviewed.
POLICIES AFFECTING PROPOSAL:
By-law R84-206, section 13(6)(a) concerning the City’s option to turn off water service.

RELEVANT CONSULTATION:
The attached report includes management action plans which reflect the responses of staff in the Budgets & Finance Division in the Corporate Services Department responsible for the administration and monitoring of the City’s service agreement for metered water billings and collections.

CITY STRATEGIC COMMITMENT:
By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No
The provision of an efficient and economical water and sewer system including billing and collection for resources used is important to the businesses and residents of the community.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
A system that bills and collects funds for resources used by residents and businesses is important to the environmental well being of the City.

Economic Well-Being is enhanced. ☑ Yes ☐ No
City Council’s strategic commitment to “Best Practices – Best Value” under “A City That Spends Wisely and Invests Strategically” is addressed through audits and reviews and their subsequent follow up to ensure controls are in place to protect the assets of the City and promote efficient, effective and economic services and programs.

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☐ Yes ☑ No

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Attachment
### Observations of Existing System

1. During the course of the audit, it was noted that consumption in some accounts had been estimated for prolonged periods of time – in one case, the account had been estimated consistently every other month for almost five years. This occurred even though Horizon Utilities Corporation (HUC) had fulfilled its part of the Service Agreement by informing the City that it could not read the meter for three consecutive billing periods.

   The more consecutive times an account is estimated, the more likely that a customer will be over/under-billed as the variances between each estimate and the actual consumption contribute to the accumulation of the over/under-billed accounts. Discovered over-billing usually results in customer refunds. Under-billing that has accumulated to a large amount may not be immediately payable by the customer resulting in requests for deferrals or adjustments (and thus, write offs) under the City’s relief program.

   Sometimes estimations are necessary due to faulty or inoperative meters or outside remotes, the repair of which is requested from the City by HUC. In the audit, it was noted that such repairs may take an inordinate amount of time (in one case, it was 18 months), thus causing continued estimation.

### Recommendation for Strengthening System

- That staff in the City’s Budget and Finance section responsible for this contract administration monitor and investigate more closely accounts that have been estimated excessively and take more timely action.

- That City staff prioritize requested repairs to meters and outside remotes in order to reduce the number and frequency of estimated accounts.

### Management Action Plan

Agreed. While the Billing Agent (HUC) on the City’s behalf takes proactive measures to minimize the number of estimated accounts through such measures as leaving read cards with the ratepayer when a meter read is not possible, as well as sending out a letter of notice to the ratepayer after 3 estimates, there continues to be a number of accounts that will continue to be estimated for extended periods. Effective 2nd quarter 2007, Water & Wastewater, Finance & Administration staff will log estimated accounts when they exceed 3 billing periods, based on the monthly Estimate Report provided by the Billing Agent. They will work along with the Billing Agent and Water and Wastewater Division to remedy, in a timely manner, any problems that may contribute to estimates in a timely manner.

Agreed. Effective March 1, 2007, the City will be undertaking a 5-year operation and maintenance contract for water meter services in the City of Hamilton. All meters will be operating within American Water and Wastewater Association (AWWA) specifications by the end of this contract and will be subject to AWWA specified maintenance and service programs.

During the course of this contract, City staff will also be embarking on a Data Integration project which will allow for ease of information sharing within City Departments and outside contractors such as HUC.

With the integrated data management and the computerized maintenance management systems operating to specifications, City staff will be able to prioritize water meter repairs and upgrades much more efficiently and effectively. The data integration project will also establish measurement points to track progress of all parties involved in the contracts.
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<th>OBSERVATIONS OF EXISTING SYSTEM</th>
<th>RECOMMENDATION FOR STRENGTHENING SYSTEM</th>
<th>MANAGEMENT ACTION PLAN</th>
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<td>2.</td>
<td>As noted in point 1 above, customers who cannot meet their payment obligations may enter into</td>
<td>That HUC notify the City’s appropriate contact in the Budget and Finance section of proposed deferred</td>
<td>Agreed. Effective 2007, the City’s Billing Agent has provided staff with a monthly report of all deferrals and has requested approval from City staff for financially material deferrals. Going forward, the Billing Agent will require the City’s approval through the Water and Wastewater Finance and Administration staff of the GM of Finance and Corporate Services or his/her designee of all deferrals greater than $100,000, combined water and wastewater.</td>
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<td>a deferred payment agreement with HUC. However, there is no provision in the Service Agreement</td>
<td>payment agreements made with water and wastewater customers whenever the amount owing exceeds a set</td>
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<td>for HUC to notify the City when it enters into such an agreement with the City’s water and</td>
<td>threshold level agreed to by both the City and HUC. The Service Agreement between the City and</td>
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<td>wastewater customers. The majority of such deferred payment agreements are for minor amounts</td>
<td>HUC should be modified to reflect the above requirement.</td>
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<td>that do not present a concern when compared to the total water and wastewater revenue generated</td>
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<td>monthly. However, in a recent situation, a deferred payment agreement was entered into by HUC</td>
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<td>with a customer that owed the City approximately $0.5 million. In addition, the customer was</td>
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<td>known to be in a precarious financial condition. The City’s Manager of Policies and Projects</td>
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<td>(contract administrator) inadvertently learned about the agreement when inquiring about another</td>
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<td>matter. Arrangements concerning such sizeable amounts expose the City to the risk of potential</td>
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<td>losses or write offs without any input into the original agreements.</td>
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<td>3.</td>
<td>As part of the Service Agreement, HUC is to notify the City of any customer account that</td>
<td>That the City’s management in the Budget and Finance section periodically monitors the accounts</td>
<td>Agreed. The current practice is for the Billing Agent to transfer all water and wastewater unpaid accounts of more than 90 days to the City weekly. Therefore, theoretically, unpaid accounts can be in a state of arrears for up to 96 days.</td>
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<td>remains unpaid for more than 90 days for transfer to taxes. In the accounts sampled, it was</td>
<td>transferred to taxes to ensure that the terms of the Service Agreement are met. Any non-compliance</td>
<td>Effective the last quarter 2006, the Billing Agent revised their billing system with respect to final billings, thereby rectifying some instances where transfers exceeded 90 days.</td>
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<td>noted that the City was notified well past the 90 days, with one occasion of the transfer to</td>
<td>should be promptly reported back to HUC.</td>
<td>The City will request that effective the 2nd quarter of 2007, the weekly transfer of accounts report identify the number of days that the unpaid account has been in a state of arrears at the time of transfer. Also, Water and Wastewater, Finance &amp; Administration staff will periodically sample the information in the report for accuracy.</td>
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<td>taxes not occurring for 113 days past due.</td>
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# OBSERVATIONS OF EXISTING SYSTEM | RECOMMENDATION FOR STRENGTHENING SYSTEM | MANAGEMENT ACTION PLAN
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4. The restructuring of some of the reading routes in April, 2006 caused a delay of the reading and billing of several water customers until May. This delay, carried over throughout the year, would result in some accounts (including several of the top 100 water customers) being billed for one less cycle in 2006. | That changes to the reading or billing schedules that affect a large number of accounts or accounts with large consumptions be communicated by HUC to the City's management in the Budget and Finance section at the time that they are implemented. The Service Agreement should be changed to reflect the requirement. | Agreed. Due to the nature of scheduling on a yearly basis, the Billing Agent’s read schedule dates moved ahead by one day each year. The Billing Agent has indicated to City staff a concerted effort in reading and billing financially material accounts in a timely manner will be made, even to the point of accelerating a reading cycle and subsequent billing. The Billing Agent has indicated the willingness to work with the City to ensure the bills will get processed in the month the city is expecting the revenue. |

As City water revenues are budgeted based on the standard expected number of readings and billings in a given year, budgeted versus actual differences are difficult to explain when such large scale reading schedule changes are made and not communicated to the City on a timely basis.

Note that, overall, there would be no loss in income over the long run, only timing differences in the billing and collection.
ADDENDUM

The following items were noted during the course of the audit. Although they do not present internal control deficiencies, they are indicated in this Addendum so management is aware of the issues and can address them.

1. Water and wastewater consumption data is based on the accuracy of the meters used. During this audit, it was noted that more than 24,000 meters of the approximately 130,000 meters in use are 15 years or older. Once meters have been in use for 15 years, they approach the end of their useful service life.

   As meters age, they usually begin to under-register. Therefore, customers can be under-billed for water and wastewater consumption. Although the majority of these older meters are used in residential and small commercial properties where water consumption is generally less than industrial customers, nonetheless, consumption and thus, revenue, would be under-recorded. The fact that there are so many older meters would impact on the total under-registered consumption and by extension, the revenue due.

   It is recommended:
   That the City’s Water and Wastewater section of Public Works escalate a program to replace older meters so as to minimize the risk of potential revenue loss.

   Management Response:
   Agreed. Effective March 1, 2007, the City will be undertaking a 5-year operation and maintenance contract for water meter services in the City of Hamilton (estimated at 20,000 meters in years 1 to 3). All meters will be operating within American Water and Wastewater Association (AWWA) specification by the end of this contract and will be subject to AWWA specified maintenance and service programs.

   During the course of this contract, City staff will also be embarking on a Data Integration project which will allow for ease of information sharing within City departments and outside contractors such as HUC. With the integrated data management and the computerized maintenance management systems operating to specifications, City staff will be able to prioritize water meter repairs and upgrades much more efficiently and effectively. The data integration project will also establish measurement points to track progress of all parties involved in the contracts.

2. All properties serviced by the City’s water are charged a flat minimum fee even when there is no consumption during the billing period. In cases where the properties have been abandoned, this can be problematic. Even though HUC has already cut off hydro service, it continues to read the water meter and bill the customer the minimum fee for water service. Usually, the owner does not pay the bills and they continue to accumulate until the outstanding amount reaches the threshold for transferring to the tax roll. Once on the tax roll, the amount continues to draw interest charges, now as part of the tax billings. In most instances, tax billings also remain unpaid. This process is an inefficient use of resources due to the costs associated with reading, billing and administering such accounts when the amounts billed may never be recovered.

   It is recommended:
   That the City co-ordinate with HUC to identify properties that are abandoned. When charges for water/wastewater services continue to be unpaid over an extended period, the City should exercise its option to turn off the water service to such properties under the provision of By-law R84-026, section 13(6)(a).

   Management Response:
   Agreed. Water and wastewater staff will determine the extent of abandoned properties. With the assistance of Finance staff and HUC, the extent of the problem of arrears with respect to these particular cases will be determined. Following this review, staff will evaluate any impacts of the above recommendation. As well, any impact that policy changes may have on properties and their allocated capacity at the water and wastewater plants will be considered.
3. The terms of the service agreement between the City and HUC specifies that the City authority and contact is the General Manager of Finance and Corporate Services. However, in practice, much of the responsibility for the contract administration, negotiation and plumbing relief approvals lies with the Senior Policy and Projects Manager. There is no written document acknowledging this delegation of authority.

It is recommended:
That written documentation be retained acknowledging the delegation of particular responsibilities regarding the City’s service agreement with HUC to the Senior Policy and Projects Manager.

Management Response:
Agreed. The General Manager of Finance and Corporate Services has acknowledged, through documentation, delegation of authority and financial limits to the Senior Policy and Projects Manager (Budgets and Finance) and the Business Administrator (Water and Wastewater Division).

4. The number of customers and the dollar value of payments for hydro and water bills made in cash at the Municipal Service Centres (MSC) are very small. However, the processing of such payment by staff is cumbersome as it involves informing HUC of the paying customers three different times and producing a cheque to HUC for as little as $25 with HUC returning the City’s water portion in a subsequent period. Putting so much effort into a process that yields minimal return is inefficient.

It is recommended:
That the acceptance of cash payments for water billings at the Municipal Service Centres be reconsidered. At the very least, the current process should be streamlined to eliminate triplication of notification of payments and cheque generation for nominal amounts.

Management Response:
Agreed. Staff will review the degree of water and wastewater billing activity at the Municipal Service Centres and consider the continuation of this service, as well as reviewing the current process in an effort to identify efficiencies.